



QUICK CONNECT

DUCTLESS MINI-SPLIT SYSTEM

INSTALLATION MANUAL

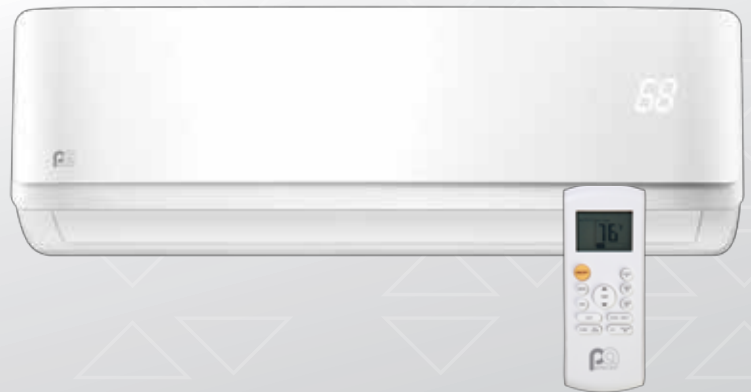
FOR MODELS:

2PAMSHQC12

2PAMSHQC18

2PAMSHQC24

2PAMSHQC36



Before using your air conditioner, please read this manual carefully and keep it for future reference, along with your receipt.

MUST READ

- ! A SURGE PROTECTOR IS HIGHLY RECOMMENDED ON THE DISCONNECT BOX TO PREVENT ELECTRICAL FAILURE.
- ! CHECK THAT ALL CONNECTIONS ARE SECURE AND PERFORM A LEAK TEST WITH SOAPY WATER.

CONSUMER PRODUCT INFORMATION

For your own records, please attach a copy of your sales receipt to this manual and complete the information below:

Model Number: _____ Serial Number: _____

Purchase Date: _____ Store Purchased: _____

Installation Date: _____ Installation Co.: _____

Installer Name: _____ Installer Phone No.: _____

CONTENTS

SAFETY PRECAUTIONS	1
ACCESSORIES.....	3
UNIT DIAGRAM.....	4
INDOOR UNIT INSTALLATION	5
1. Select Installation Location	5
2. Place the Mounting Plate	6
3. Prepare the Line Set	8
4. Wrap Piping and Cables.....	8
5. Mount Indoor Unit.....	9
6. Connect Drain Hose	9
OUTDOOR UNIT INSTALLATION	11
1. Select Installation Location	11
2. Install Drain Joint	12
3. Anchor Outdoor Unit	13
4. Main Electrical Connection.....	15
5. Connect the Indoor and Outdoor Units	16
REFRIGERANT PIPING CONNECTION.....	17
ELECTRICAL AND GAS LEAK CHECKS	19
TEST RUN.....	20

SAFETY PRECAUTIONS

READ SAFETY PRECAUTIONS BEFORE INSTALLATION

Incorrect installation due to ignoring instructions can cause serious damage or injury. The seriousness of potential damage or injuries is classified as either a **WARNING** or **CAUTION**.



WARNING

THIS SYMBOL INDICATES THAT IGNORING INSTRUCTIONS MAY CAUSE DEATH OR SERIOUS INJURY.



CAUTION

THIS SYMBOL INDICATES THAT IGNORING INSTRUCTIONS MAY CAUSE MODERATE INJURY TO YOUR PERSON, OR DAMAGE TO YOUR UNIT OR OTHER PROPERTY.



THIS SYMBOL INDICATES THAT YOU MUST NEVER PERFORM THE ACTION INDICATED.

WARNING

- ⊙ **DO NOT** modify the length of the power supply cord or use an extension cord to power the unit. **DO NOT** share the electrical outlet with other appliances. Improper or insufficient power supply can cause fire or electrical shock.
 - ⊙ When connecting refrigerant piping, **DO NOT** let substances or gases other than the specified refrigerant enter the unit. The presence of other gases or substances will lower the unit's capacity and can cause abnormally high pressure in the refrigeration cycle. This can cause explosion and injury.
 - ⊙ **DO NOT** allow children to play with the air conditioner. Children must be supervised around the unit at all times.
1. Installation must be performed by an authorized dealer or specialist. Defective installation can cause water leakage, electrical shock, or fire.
 2. Installation must be performed according to the installation instructions. Improper installation can cause water leakage, electrical shock, or fire.
 3. Contact an authorized service technician for repair or maintenance of this unit.
 4. Only use the included accessories, parts, and specified parts for installation. Using non-standard parts can cause water leakage, electrical shock, fire, and can cause the unit to fail.
 5. Install the unit in a firm location that can support the unit's weight. If the chosen location cannot support the unit's weight or the installation is not done properly, the unit may drop and cause serious injury and damage.
 6. For all electrical work, follow all local and national wiring standards, regulations, and the Installation Manual. You must use an independent circuit and single outlet to supply power. Do not connect other appliances to the same outlet. Insufficient electrical capacity or defects in electrical work can cause electrical shock or fire.
 7. For all electrical work, use the specified cables. Connect cables tightly, and clamp them securely to prevent external forces from damaging the terminal. Improper electrical connections can overheat and cause fire, and may also cause shock.

8. All wiring must be properly arranged to ensure that the control board cover can close properly. If the control board cover is not closed properly, it can lead to corrosion and cause the connection points on the terminal to heat up, catch fire, or cause electrical shock.
9. In certain functional environments, such as kitchens, server rooms, etc., the use of specially designed air-conditioning units is highly recommended.

CAUTION

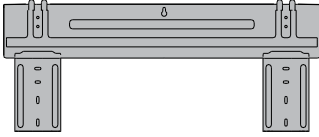
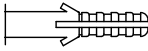


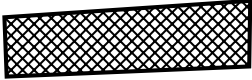

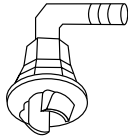
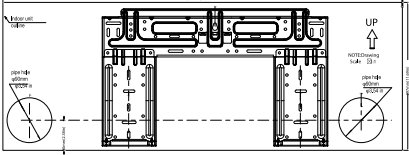
- ⊗ For units that have an auxiliary electric heater, do not install the unit within 3 feet (1 meter) of any combustible materials.
 - ⊗ **DO NOT** install the unit in a location that may be exposed to combustible gas leaks. If combustible gas accumulates around the unit, it may cause fire.
 - ⊗ **DO NOT** operate your air conditioner in a wet room such as a bathroom or laundry room. Too much exposure to water can cause electrical components to short circuit.
1. The product must be properly grounded at the time of installation, or electrical shock may occur.
 2. Install drainage piping according to the instructions in this manual. Improper drainage may cause water damage to your home and property.

NOTE ABOUT FLUORINATED GASES

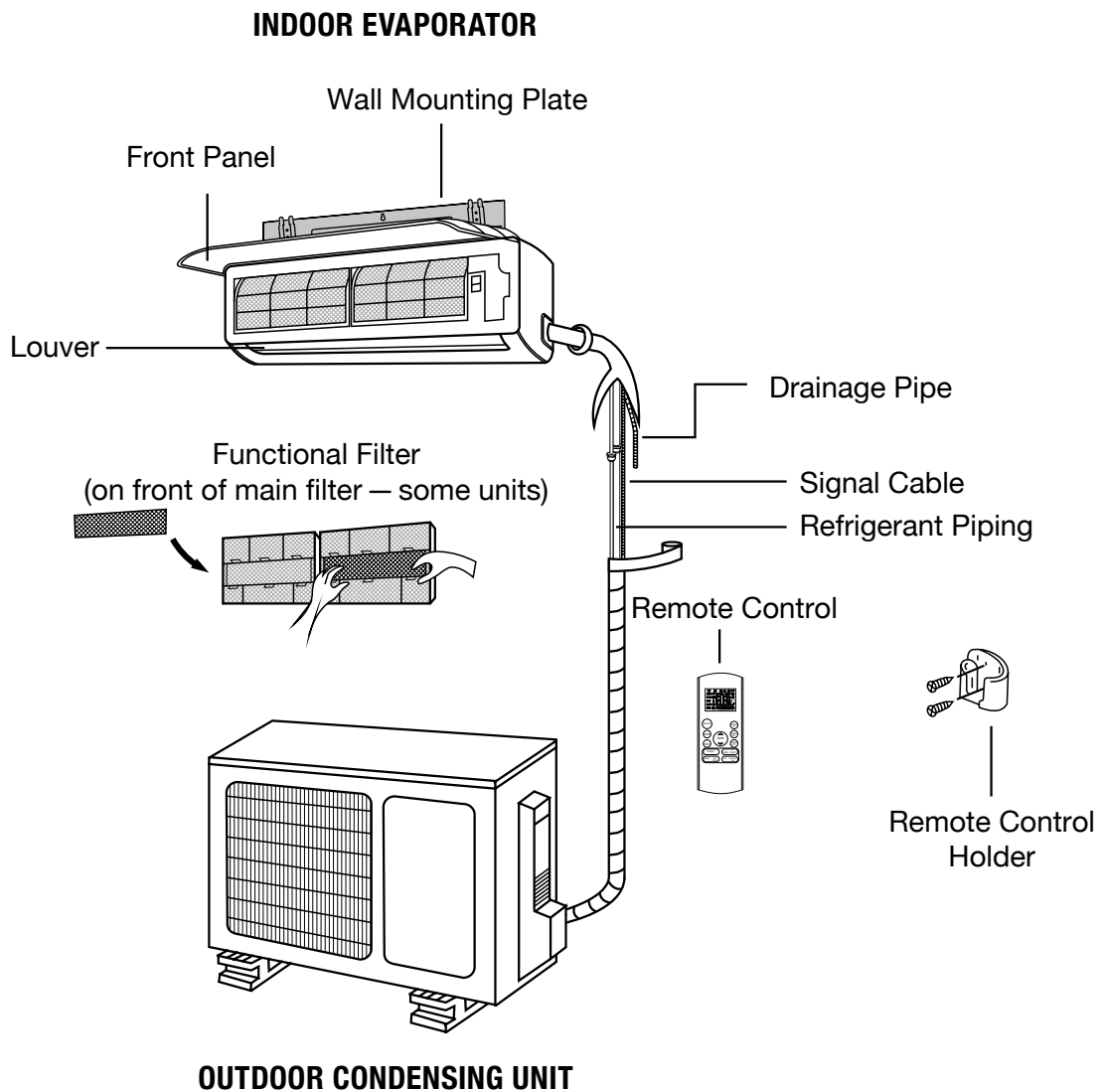
1. This air-conditioning unit contains fluorinated gases. For specific information on the type of gas and the amount, please refer to the relevant label on the unit itself.
2. Installation, service, maintenance and repair of this unit must be performed by a certified technician.
3. Product uninstallation and recycling must be performed by a certified technician.
4. If the system has a leak-detection system installed, it must be checked for leaks at least every 12 months.
5. When the unit is checked for leaks, proper record-keeping of all checks is strongly recommended.

ACCESSORIES

The air conditioning system comes with the following accessories. Use all of the installation parts and accessories to install the air conditioner. Improper installation may result in water leakage, electrical shock and fire, or cause the equipment to fail.

NAME	IMAGE	QUANTITY
Mounting Plate		1
Clip Anchor		5
Mounting plate fixing screw ST3.9x25		5
Remote control		1
Air freshening filter		1 (used to install on the back of air filter)
Seal		1 (for cooling & heating models only)
Drain Joint		
Wall Template		1
User Manual	—	1
Installation Manual	—	1
Remote Control Manual	—	1

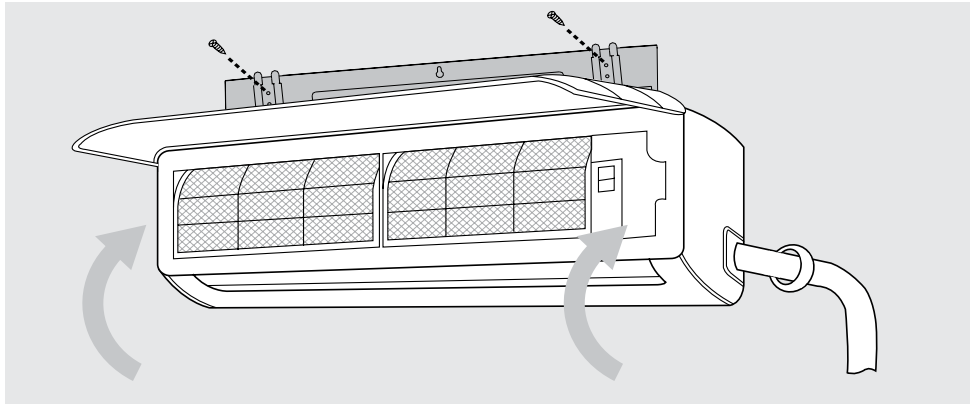
UNIT DIAGRAM



NOTE ON ILLUSTRATIONS

Illustrations in this manual are for explanatory purposes. The actual shape of your indoor unit may be slightly different. The actual shape shall prevail.

INDOOR UNIT INSTALLATION



INSTALLATION INSTRUCTIONS – INDOOR UNIT

PRIOR TO INSTALLATION

Before installing the indoor unit, refer to the label on the product box to make sure that the model number of the indoor unit matches the model number of the outdoor unit.

► STEP 1: Select installation Location

Before installing the indoor unit, you must choose an appropriate location. The following are standards that will help you choose an appropriate location for the unit.

Proper installation locations must meet the following standards:

- ☑ Good air circulation
- ☑ Convenient drainage
- ☑ Noise from the unit will not disturb other people
- ☑ Firm and solid-the location will not vibrate
- ☑ Strong enough to support the weight of the unit
- ☑ A location at least one meter from all other electrical devices (e.g., TV, radio, computer)

DO NOT install unit in the following locations:

- ⊗ Near any source of heat, steam or combustible gas
- ⊗ Near flammable items such as curtains or clothing
- ⊗ Near any obstacle that might block air circulation
- ⊗ Near the doorway
- ⊗ In a location subject to direct sunlight

NOTE ABOUT WALL HOLE:

If there is no fixed refrigerant piping:

While choosing a location, be aware that you should leave ample room for a wall hole (see Drill Wall Hole for Connective Piping step) for the signal cable and refrigerant piping that connect the indoor and outdoor units. The default position for all piping is the right side of the indoor unit (while facing the unit). However, the unit can accommodate piping to both the left and right.

Refer to the diagram to the right (Fig. 4.1) to ensure proper distance from walls and ceiling:

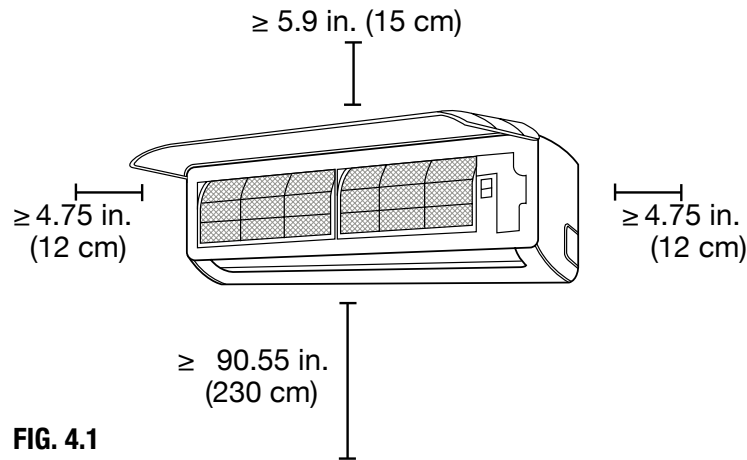


FIG. 4.1

► STEP 2: Place the Mounting Plate

! CAUTION

When drilling the wall hole, make sure to avoid wires, plumbing, and other sensitive components.

The mounting plate is the device on which you will mount the indoor unit. A mounting plate template has been provided to assist you with proper hole placement.

1. Take out the mounting plate template included with the unit.
2. Place the mounting plate template against the wall in a location that meets the standards in the Select Installation Location step. (See Mounting Plate Dimensions on the next page for detailed information on mounting plate sizes.)

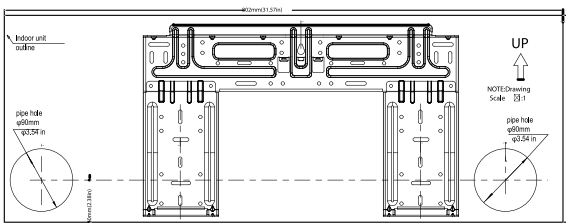
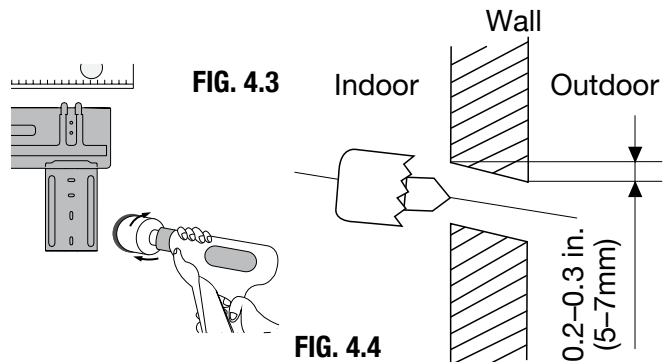


FIG. 4.2

3. Use a level to properly place the template on the wall. Drill holes for mounting screws in places that:
 - a. Have studs and can support the weight of the unit.
 - b. Correspond to screw holes in the mounting plate template
4. Locate the pipe hole for the line set and drain hose on the mounting template; choose the left side or right side. Drill at the center of the circle for placement.

5. Remove mounting plate template from the wall.

6. Using a 3.54 in. (90mm) core drill, drill a hole in the wall (Fig 4.3). Make sure that the hole is drilled at a slight downward angle (Fig 4.4) so that the outdoor end of the hole is lower than the indoor end by about 0.2–0.275 in. (5–7mm). This will ensure proper water drainage.



7. Place the protective wall cuff in the hole. This protects the edges of the hole and will help seal it when you finish the installation process.
8. Make sure that the mounting plate is flat against the wall that the holes line up.
9. Secure the mounting plate to the wall with the screws provided.

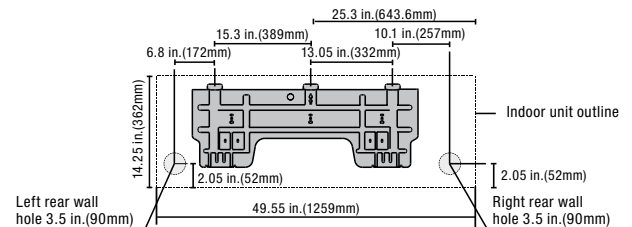
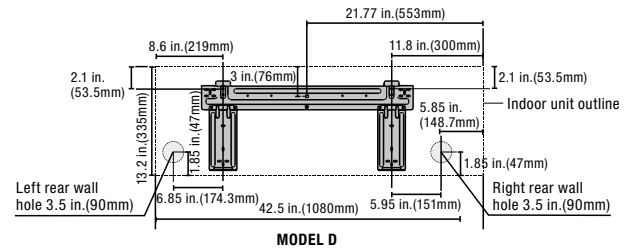
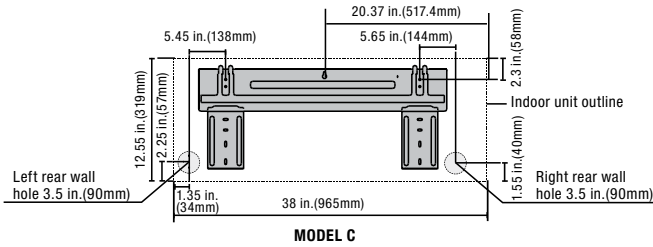
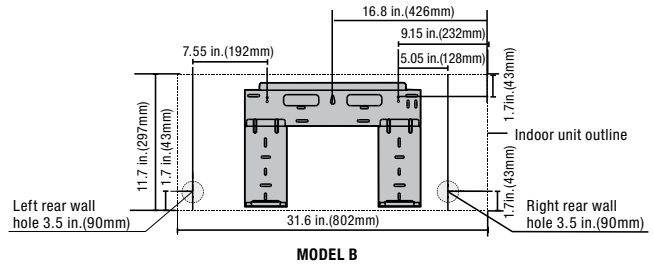
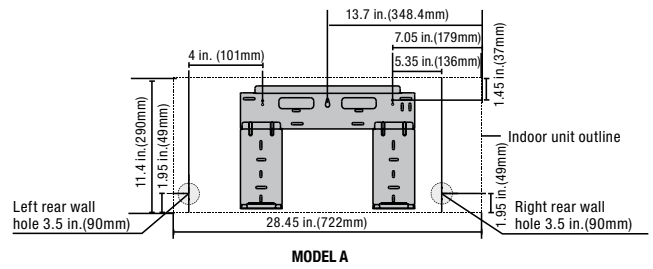
NOTE FOR CONCRETE OR BRICK WALLS:

If the wall is made of brick, concrete, or similar material, drill 0.2 in. diameter (5mm diameter) holes in the wall and insert the sleeve anchors provided. Then secure the mounting plate to the wall by tightening the screws directly into the clip anchors.

MOUNTING PLATE DIMENSIONS

Different models have different mounting plates. In order to ensure that you have ample room to mount the indoor unit, the diagrams to the right show different types of mounting plates along with the following dimensions:

- Width of mounting plate
- Height of mounting plate
- Width of indoor unit relative to plate
- Height of indoor unit relative to plate
- Recommended position of wall hole (both to the left and right of mounting plate)
- Relative distances between screw holes



CORRECT ORIENTATION OF MOUNTING PLATE

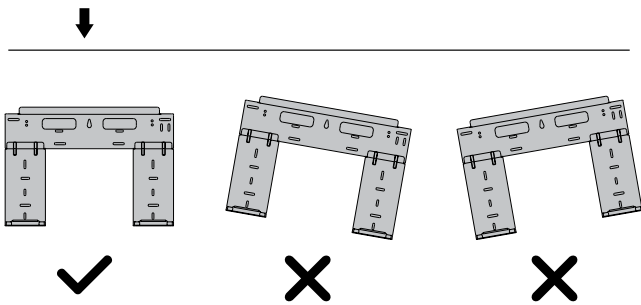


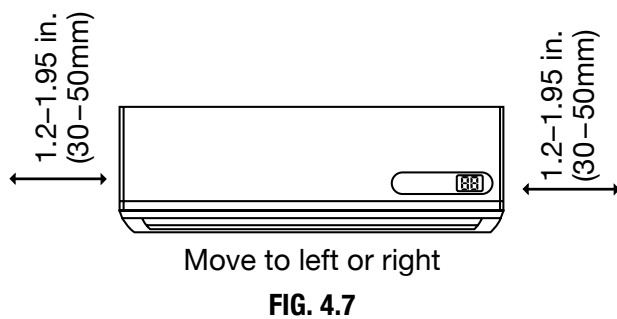
FIG. 4.5

FIG. 4.6

▶ STEP 3: Prepare the Line Set

The line set is inside an insulating sleeve attached to the back of the unit. You must prepare the piping before passing it through the hole in the wall.

1. Based on the position of the wall hole relative to the mounting plate, choose the side from which the piping will exit the unit.
2. Grip the refrigerant piping at the base of the bend.
3. Slowly, with even pressure, bend the piping towards the hole. Do not kink or damage the piping during the process.



UNIT IS ADJUSTABLE

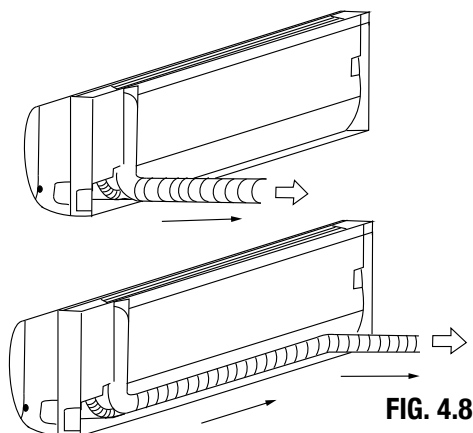
Keep in mind that the hooks on the mounting plate are smaller than the holes on the back of the unit. The unit can be adjusted left or right by about 1.25–1.95 in. (30–50mm), depending on the model.

NOTE ON PIPING ANGLE

The line set can exit the indoor unit from two different sides:

- Right-hand side
- Left-hand side

Refer to Fig. 4.8 for details.



! CAUTION

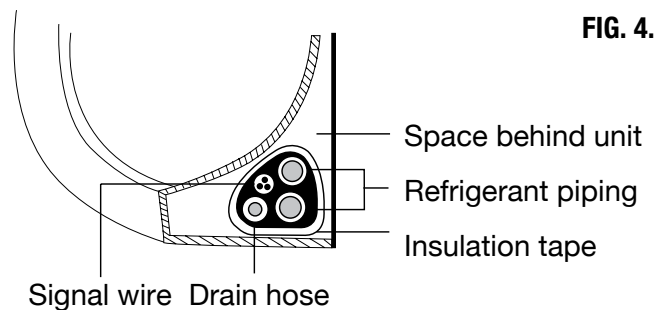
Be extremely careful not to kink or damage the piping while bending them away from the unit. Any kinks in the piping will affect the unit's performance.

▶ STEP 4: Wrap Piping and Cables

Before passing the piping, drain hose, and the signal cable through the wall hole, you must bundle them together to save space, protect them, and insulate them while in the wall.

1. Bundle the drain hose, refrigerant pipes, and signal cable according to Fig 4.9.

INDOOR UNIT



2. Using adhesive vinyl tape, attach the drain hose to the underside of the refrigerant pipes.
3. Using insulation tape, wrap the signal wire, refrigerant pipes, and drain hose tightly together. Double-check that all items are bundled in accordance with Fig. 4.9.

PLUG THE UNUSED DRAIN HOLE

To prevent unwanted leaks you must plug the unused drain hole with the rubber plug provided.

DRAIN HOSE MUST BE ON BOTTOM

Make sure that the drain hose is at the bottom of the bundle. Putting the drain hose at the top of the bundle can cause the drain pan to overflow, which can lead to fire or water damage.

► STEP 5: Mount Indoor Unit

1. Double-check that the ends of the refrigerant pipes are sealed to prevent dirt or foreign materials from entering the pipes.
2. Slowly pass the wrapped bundle of refrigerant pipes, drain hose, and signal wire through the hole in the wall.
3. Hook the top of the indoor unit on the upper hook of the mounting plate.
4. Check that unit is hooked firmly on mounting plate by applying slight pressure to the left and right-hand sides of the unit. The unit should not jiggle or shift.
5. Using even pressure, push down on the bottom half of the unit. Keep pushing down until the unit snaps onto the hooks along the bottom of the mounting plate.
6. Again, check that the unit is firmly mounted by applying slight pressure to the left and the right-hand sides of the unit.

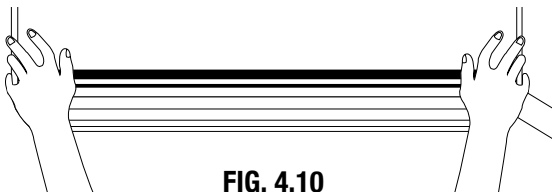


FIG. 4.10

► STEP 6: Connect Drain Hose

By default, the drain hose is attached to the left-hand side of unit (when you're facing the back of the unit).

1. To ensure proper drainage, attach the drain hose on the same side that your refrigerant piping exits the unit.
2. Attach drain hose extension (purchased separately) to the end of drain hose.
3. Wrap the connection point firmly with tape to ensure a good seal and to prevent leaks. (See Fig. 4.11)

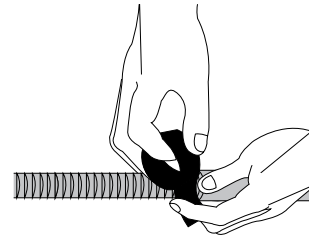


FIG. 4.11

4. Remove the air filter and pour a small amount of water into the drain pan to make sure that water flows from the unit smoothly.

NOTE ON DRAIN HOSE PLACEMENT

Make sure to arrange the drain hose according to Fig. 4.12.

- ⊗ **DO NOT** kink the drain hose.
- ⊗ **DO NOT** create a water trap.
- ⊗ **DO NOT** put the end of drain hose in water or a container that will collect water

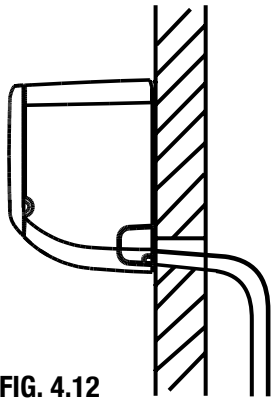


FIG. 4.12

CORRECT
 Make sure there are no kinks or dent in drain hose to ensure proper drainage.

NOT CORRECT
 Kinks in the drain hose will create water traps.

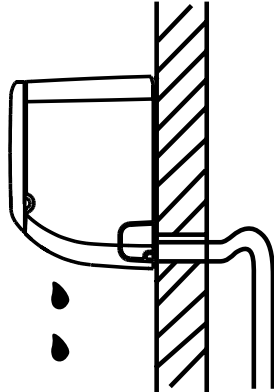


FIG. 4.13

NOT CORRECT
 Kinks in the drain hose will create water traps.

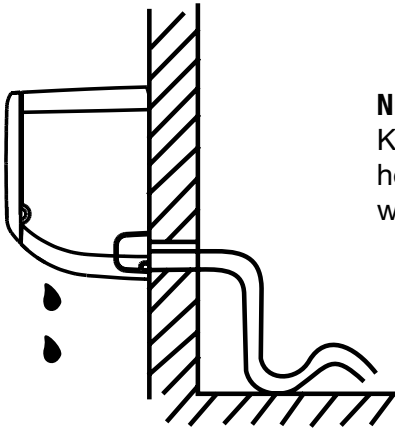


FIG. 4.14

NOT CORRECT
 Do not place the end of the drain hose in water or containers that collect water. This will prevent proper drainage.

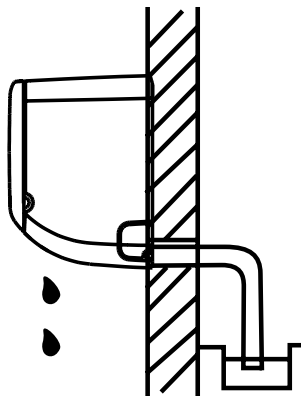
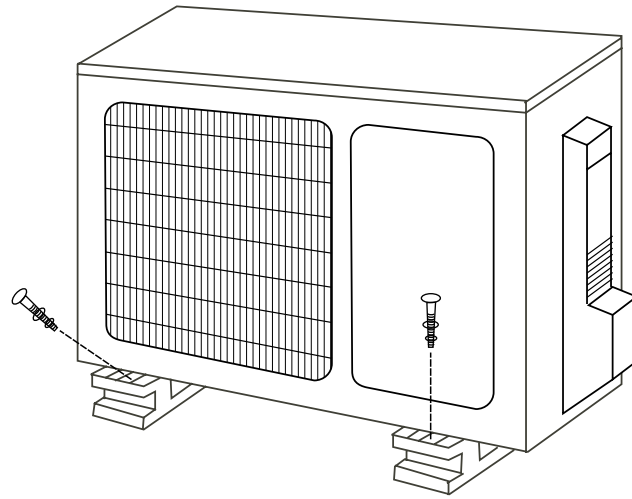


FIG. 4.15

OUTDOOR UNIT INSTALLATION



INSTALLATION INSTRUCTIONS – OUTDOOR UNIT

► STEP 1: Select installation Location

Before installing the outdoor unit, you must choose an appropriate location. The following are standards that will help you choose an appropriate location for the unit.

Proper installation locations meet the following standards:

- ☑ Meets all spatial requirements shown in Installation Space Requirements (Fig. 5.1)
- ☑ Good air circulation and ventilation
- ☑ Firm and solid -the location can support the unit and will not vibrate
- ☑ Noise from the unit will not disturb others
- ☑ Protected from prolonged periods of direct sunlight or rain

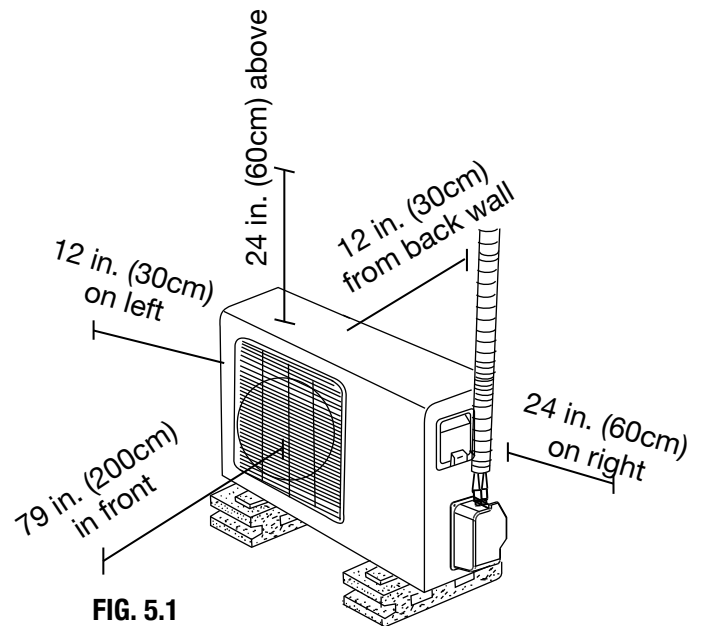


FIG. 5.1

DO NOT install unit in the following locations:

- ⊗ Near an obstacle that will block air inlets and outlets
- ⊗ Near a public street, crowded areas, or where noise from the unit will disturb others
- ⊗ Near animals or plants that will be harmed by hot air discharge
- ⊗ Near any source of combustible gas
- ⊗ In a location that is exposed to large amounts of dust
- ⊗ In a location exposed to a excessive amounts of salty air

SPECIAL CONSIDERATION FOR EXTREME WEATHER

If the unit is exposed to heavy wind:

Install unit so that air outlet fan is at 90° angle to the direction of the wind. If needed, build a barrier in front of the unit to protect it from extremely heavy winds.

See Fig. 5.2 and Fig. 5.3 below.

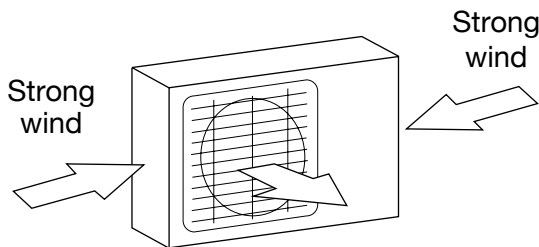


FIG. 5.2

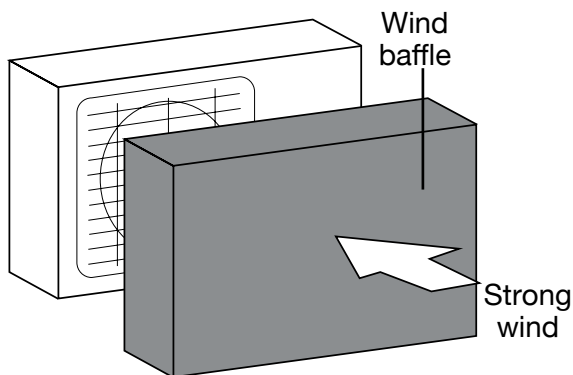


FIG. 5.3

If the unit is frequently exposed to heavy rain or snow:

Build a shelter above the unit to protect it from the rain or snow. Be careful not to obstruct air flow around the unit.

If the unit is frequently exposed to salty air (seaside):

Use outdoor unit that is specially designed to resist corrosion.

► STEP 2: Install Drain Joint

Heat pump units require a drain joint. Before bolting the outdoor unit in place, you must install the drain joint at the bottom of the unit. Note that there are two different types of drain joints depending on the type of outdoor unit.

If the drain joint comes with a rubber seal (see Fig. 5.4 - A), do the following:

1. Fit the rubber seal on the end of the drain joint that will connect to the outdoor unit.
2. Insert the drain joint into the hole in the base pan of the unit.
3. Rotate the drain joint 90° until it clicks in place facing the front of the unit.
4. Connect a drain hose extension (not included) to the drain joint to redirect water from the unit during heating mode.

If the drain joint doesn't come with a rubber seal (see Fig. 5.4 - B), do the following:

1. Insert the drain joint into the hole in the base pan of the unit. The drain joint will click in place.
2. Connect a drain hose extension (not included) to the drain joint to redirect water from the unit during heating mode.

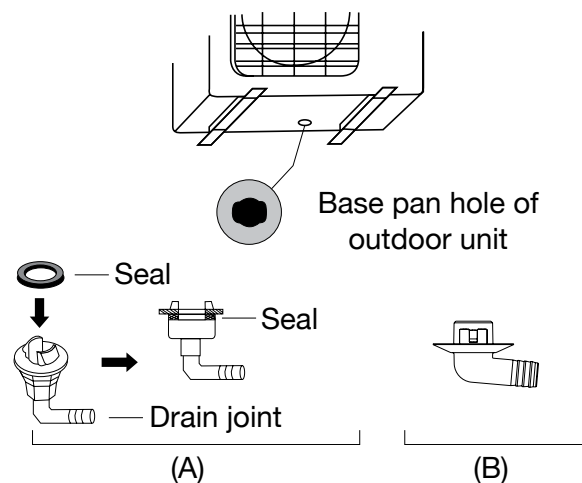


FIG. 5.4

! IN COLD CLIMATES

In cold climates, make sure that the drain hose is as vertical as possible to ensure swift water drainage. If water drains too slowly, it can freeze in the hose and flood the unit.

► STEP 3: Anchor Outdoor Unit

The outdoor unit can be anchored to the ground or to a wall-mounted bracket.

Installing the unit on a condenser pad:

1. Mark the positions for four expansion bolts based on dimensions in the Unit Mounting Dimensions chart.
2. Pre-drill holes for expansion bolts.
3. Clean concrete dust away from holes.
4. Place a nut on the end of each expansion bolt.
5. Hammer expansion bolts into the pre-drilled holes.
6. Remove the nuts from expansion bolts, and place outdoor unit on bolts.
7. Put washer on each expansion bolt, then replace the nuts.
8. Using a wrench, tighten each nut until snug.

WARNING

WHEN DRILLING INTO CONCRETE, EYE PROTECTION IS RECOMMENDED AT ALL TIMES.

Installing the unit on a wall-mounted bracket:

CAUTION

Before installing a wall-mounted unit, make sure that the wall is made of solid brick, concrete, or of similarly strong material. **The wall must be able to support at least four times the weight of the unit.**

1. Mark the position of bracket holes based on dimensions in the Unit Mounting Dimensions chart on the previous page.
2. Pre-drill the holes for the expansion bolts.
3. Clean dust and debris away from holes.
4. Place a washer and nut on the end of each expansion bolt.
5. Thread expansion bolts through holes in mounting brackets, put mounting brackets in position, and hammer expansion bolts into the wall.
6. Check that the mounting brackets are level.
7. Carefully lift unit and place its mounting feet on brackets.
8. Bolt the unit firmly to the brackets.

TO REDUCE VIBRATIONS OF WALL-MOUNTED UNIT

If allowed, you can install the wall-mounted unit with rubber gaskets to reduce vibrations and noise.

UNIT MOUNTING DIMENSIONS

The following is a list of different outdoor unit sizes and the distance between their mounting feet. Prepare the installation base of the unit according to the dimensions below.

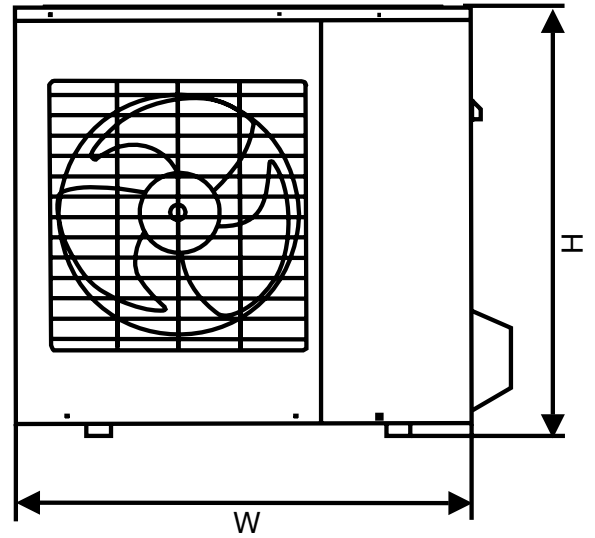
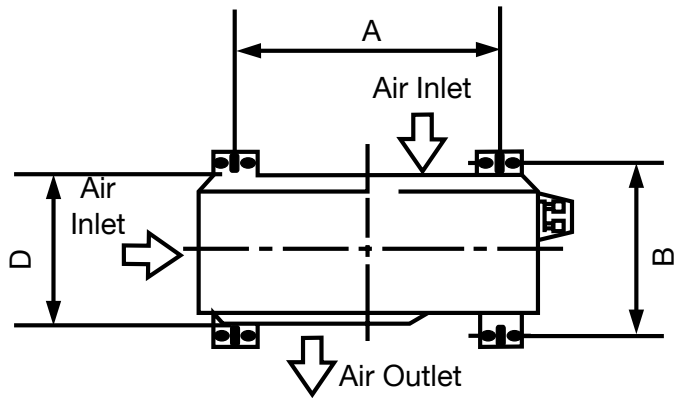


FIG. 5.5

OUTDOOR UNIT DIMENSIONS W x H x D	MOUNTING DIMENSIONS	
	DISTANCE A	DISTANCE B
27" x 17" x 10.25" (685 x 430 x 260mm)	18.10" (460mm)	10.85" (276mm)
27.5" x 21.25" x 9.45" (700 x 540 x 240mm)	18" (458mm)	9.85" (250mm)
30.7" x 21.25" x 9.85" (780 x 540 x 250mm)	21.6" (549mm)	10.85" (276mm)
29.9" x 23.2" x 11.2" (760 x 590 x 285mm)	20.85" (530mm)	11.4" (290mm)
33.25" x 27.5" x 12.6" (845 x 700 x 320mm)	22" (560mm)	13.2" (335mm)
31.9" x 22" x 12.2" (810 x 558 x 310mm)	21.6" (549mm)	12.8" (325mm)
35.4" x 33.85" x 12.4" (900 x 860 x 315mm)	23.2" (590mm)	13.1" (333mm)
37.2" x 31.9" x 15.55" (945 x 810 x 395mm)	25.2" (640mm)	15.95" (405mm)



BEFORE PERFORMING ELECTRICAL WORK, READ THESE REGULATIONS

1. All wiring must comply with local and national electrical codes, and must be installed by a licensed electrician.
2. All electrical connections must be made according to the Electrical Connection Diagram located on the side panels of the indoor and outdoor units.
3. If there is a serious safety issue with the power supply, stop work immediately. Explain your reasoning to the client, and refuse to install the unit until the safety issue is properly resolved.
4. Power voltage should be within 90–110% of rated voltage. Insufficient power supply can cause electrical shock or fire.
5. If connecting power to fixed wiring, install a surge protector and main power switch with a capacity of 1.5 times the maximum current of the unit.
6. If connecting power to fixed wiring, a switch or circuit breaker that disconnects all poles and has a contact separation of at least 1/8 in. (3mm) must be incorporated in the fixed wiring. The qualified technician must use an approved circuit breaker or switch.
7. Only connect the unit to an individual branch circuit outlet. Do not connect another appliance to that outlet.
8. Make sure to properly ground the air conditioner.
9. Every wire must be firmly connected. Loose wiring can cause the terminal to overheat, resulting in product malfunction and possible fire.
10. Do not let wires touch or rest against refrigerant tubing, the compressor, or any moving parts within the unit.
11. If the unit has an auxiliary electric heater, it must be installed at least 40 in. (1 meter) away from any combustible materials.

STEP 4: Main Electrical Connection

All wiring must comply with local and national electrical codes, and must be installed by a licensed electrician.

ATTENTION: A surge protector is needed to prevent electrical failure.

You must first choose the right cable size before preparing it for connection.

Outdoor Power Cable: H07RN-F

North America

APPLIANCE AMPS (A)	AWG
10	18
13	16
18	14
25	12
30	10

CHOOSE THE RIGHT CABLE SIZE

The size of the power supply cable, signal cable, fuse, and switch needed is determined by the maximum current of the unit. The maximum current is indicated on the nameplate located on the side panel of the unit. Refer to this nameplate to choose the right cable, fuse, or switch.

Run power from the disconnect box to the unit.

STEP 5: Connect the Indoor and Outdoor Units

Hold the indoor plug connector and insert the mating plug connector located on the outdoor unit until it fixed with a clicking sound. the PY/G wire should be connected individually. Secure the cable on to the control board with the cord clamp. See Fig. 5.6 for example:

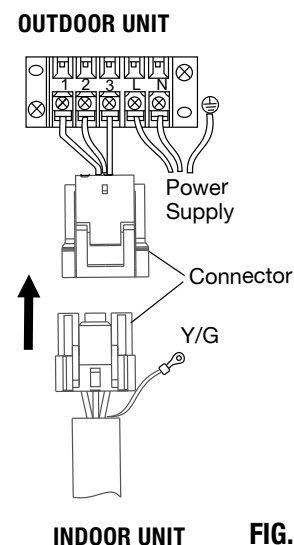


FIG. 5.6

REFRIGERANT PIPING CONNECTION

CONNECT THE REFRIGERANT PIPE TO OUTDOOR UNIT

CAUTION: For your safety, always wear goggles and work gloves when connecting the pipes.

- 1 First, remove the water tray on the outdoor unit as shown in Fig. 6.1.

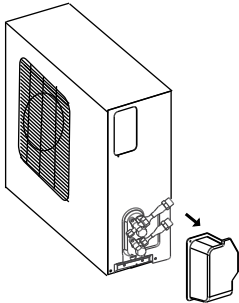


FIG. 6.1

2. Do not remove the plastic seals from the outdoor unit and the appropriate refrigerant pipes until immediately before you connect them. See Fig. 6.2.

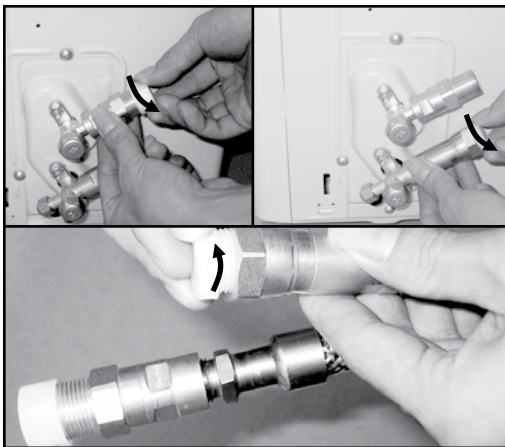


FIG. 6.2

3. Align the refrigerant pipes correctly so that they line up with the valves and are not stressed. The larger line will connect with the valve that has 2 caps. The thinner line will connect to the valve with one cap. Place the screw connector on the refrigerant line just on to the thread on the outdoor unit and tighten the first few threads by hand, Fig.6.3.

NOTE: The refrigerant pipes must be connected to the valves on the outdoor unit with as little stress as possible.

IMPORTANT: Before you continue, it is essential that you read the following instructions carefully.

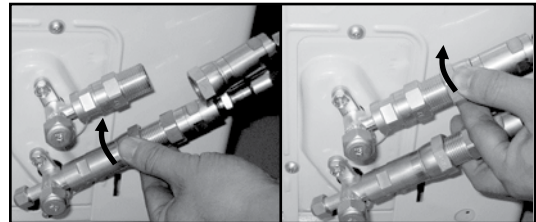


FIG. 6.3

4. Now tighten the bottom screw connector first and then the top screw connector using the open-ended wrench. Hold the points marked "①" using an open-ended wrench and turn the nuts only at the points marked "②" using an open-ended wrench (Select the appropriate wrench according to the dimensions of the connector). See Fig.6.4.

Ensure that the screw connectors do not skew as you tighten them and work quickly. See the next page for the proper torque.

IMPORTANT: Since the coupling works with tapping rings, it may leak if you undo and reconnect the pipes. This will also void the warranty.

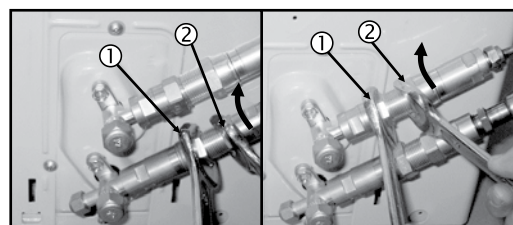


FIG. 6.4

COUPLING SIZE (LAST 2 PART NUMBERS)	POUND-FORCE FOOT
-06 (9.5mm dash size)	18–20 ft lbs
-08 (12.7mm dash size)	30–35 ft lbs
-12 (19.1mm dash size)	45–50 ft lbs
-16 (25.4mm dash size)	60–65 ft lbs

After completing steps 1–4, check that all the connections are sealed correctly using leak detection spray or soap suds. If any bubbles form, the system has a leak and the screw connectors must be re-tightened using an open-ended wrench.

- Now remove the cover on the top valve using a 19 mm open-ended wrench. Open the valve by turning it counter-clockwise as far as it will go using a 5 mm Allen key. The valve is now open. If the valve is not opened fully, the system may malfunction and suffer damage. Screw the cover back on to the top valve and tighten it well to ensure that it is properly sealed. See Fig.6.5.

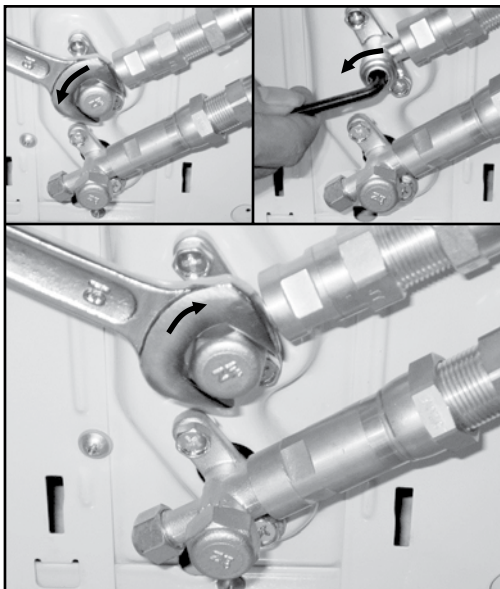


FIG. 6.5

- Now remove the cover on the bottom valve using a 19 mm open-ended wrench. Open the valve by turning it counter-clockwise as far as it will go using a 5 mm Allen key. The valve is now open. If the valve is not opened fully, the system may malfunction and suffer damage. Screw the cover back on to the bottom valve and tighten it well to ensure that it is properly sealed. See Fig.6.6.

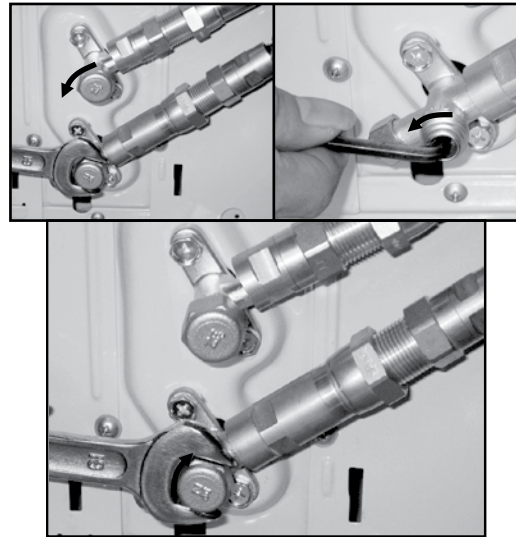
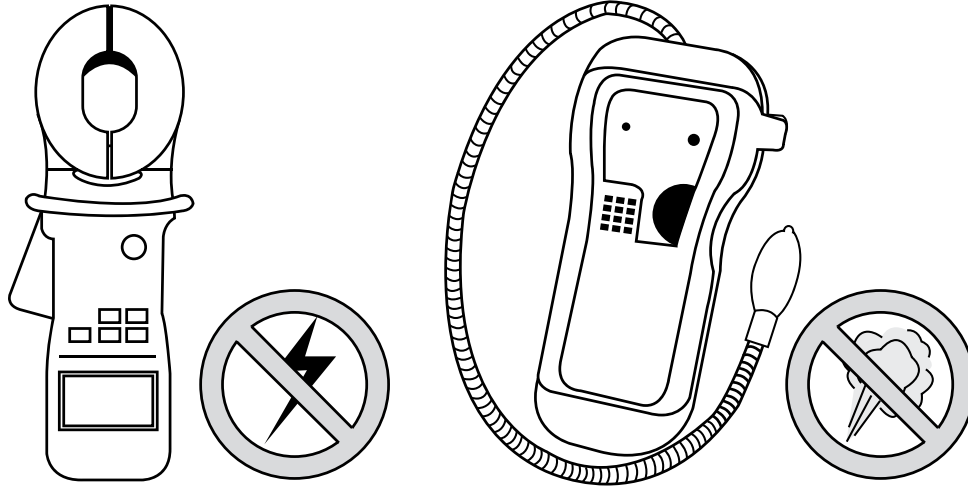


FIG. 6.6

Important! The conical ring on the valve has an important sealing function together with the sealing seat in the caps. Ensure that you do not damage the cone and that you keep the cap free of dirt and dust.

- After completing steps 1–6, check that all the connections are sealed correctly using leak detection spray or soap suds. If any bubbles form, the system has a leak and the screw connectors must be re-tightened using an open-ended wrench.
- Start the equipment so that the operating pressures build up inside it. Check all the connectors again for signs of leaks
 - during cooling mode
 - in heating mode.
 If any bubbles form, the system has a leak and the screw connectors must be re-tightened using an open-ended wrench.

ELECTRICAL & GAS LEAK CHECKS



ELECTRICAL SAFETY CHECKS

After installation, confirm that all electrical wiring is installed in accordance with local and national regulations, and according to the Installation Manual as well.

BEFORE TEST RUN

Check Grounding Work

Measure grounding resistance by visual detection and with grounding resistance tester. Grounding

Note: This may not be required for some locations in the US.

DURING TEST RUN

Check for Electrical Leakage

During the Test Run, use an electroprobe and multimeter to perform a comprehensive electrical leakage test.

If electrical leakage is detected, turn off the unit immediately and call a licensed electrician to find and resolve the cause of the leakage.

Note: This may not be required for some locations in the US.

GAS LEAK CHECKS

There are two different methods to check for gas leaks.

Soap and Water Method

Using a soft brush, apply soapy water or liquid detergent to all pipe connection points on the indoor unit and outdoor unit. The presence of bubbles indicates a leak.

Leak Detector Method

If using leak detector, refer to the device's operation manual for proper usage instructions.

AFTER PERFORMING GAS LEAK CHECKS

After confirming that the all pipe connection points DO NOT leak, replace the valve cover on the outside unit.



WARNING - RISK OF ELECTRIC SHOCK

ALL WIRING MUST COMPLY WITH LOCAL AND NATIONAL ELECTRICAL CODES, AND MUST BE INSTALLED BY A LICENSED ELECTRICIAN.

TEST RUN

BEFORE TEST RUN

Only perform test run after you have completed the following steps:

- **Electrical Safety Checks** - Confirm that the unit's electrical system is safe and operating properly.
- **Gas Leak Checks** - Check all flare nut connections and confirm that the system is not leaking.
- Confirm that gas and liquid (high and low pressure) valves are fully open.

TEST RUN INSTRUCTIONS

You should perform the Test Run for at least 30 minutes.

1. Connect power to the unit.
2. Press the ON/OFF button on the remote controller to turn it on.
3. Press the MODE button to scroll through the following functions, one at a time:
 - COOL - Select lowest possible temperature
 - HEAT - Select highest possible temperature
4. Let each function run for 5 minutes, and perform the following checks:

LIST OF CHECKS TO PERFORM	PASS/FAIL	
No electrical leakage		
Unit is properly grounded		
All electrical terminals properly covered		
Indoor and outdoor units are solidly installed		
All pipe connection points do not leak	Outdoor (2):	Indoor (2):
Water drains properly from drain hose		
All piping is properly insulated		
Unit performs COOL function properly		
Unit performs HEAT function properly		
Indoor unit louvers rotate properly		
Indoor unit responds to remote control		

DOUBLE-CHECK PIPE CONNECTIONS

During operation, the pressure of the refrigerant circuit will increase. This may reveal leaks that were not present during your initial leak check. Take time during the Test Run to double-check that all refrigerant pipe connection points do not have leaks. Refer to the Gas Leak Check section for instructions.

5. After the Test Run is successfully complete, and you confirm that all checks points in List of Checks to Perform have PASSED, do the following:
 - a. Using remote control, return unit to normal operating temperature.
 - b. Using insulation tape, wrap the indoor refrigerant pipe connections that you left uncovered during the indoor unit installation process.

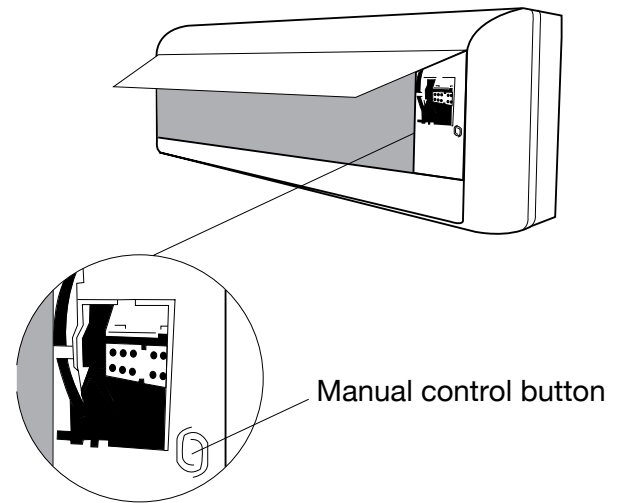


FIG. 8.1

IF AMBIENT TEMPERATURE IS BELOW 63°F (17°C)

You cannot use the remote control to turn on the COOL function when the ambient temperature is below 63°F (17°C). In this instance, you can use the AUTO/COOL button to test the COOL function.

1. Lift the front panel of the indoor unit, and raise it until it clicks in place.
2. The AUTO/COOL button is located on the right-hand side of the unit. Press it 2 times to select the COOL function. See Fig.8.1.
3. Perform Test Run as normal.

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