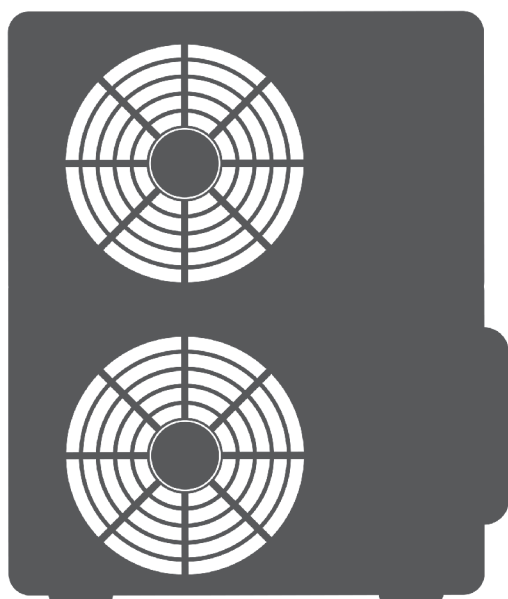




AIR CONDITIONING SYSTEMS

FLOOR STANDING

- **INSTALLATION MANUAL**
- **ΕΓΧΕΙΡΙΔΙΟ ΕΓΚΑΤΑΣΤΑΣΗΣ**
- **MANUAL DE INSTALARE**



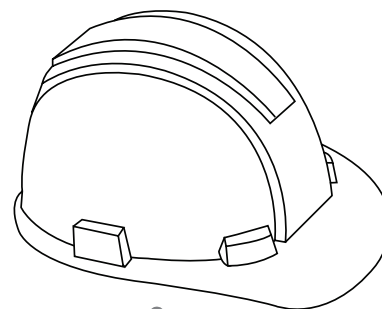
MODELS:
V4MRFI-24/V4MRFO-24



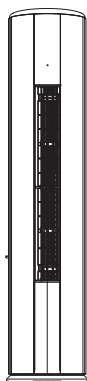
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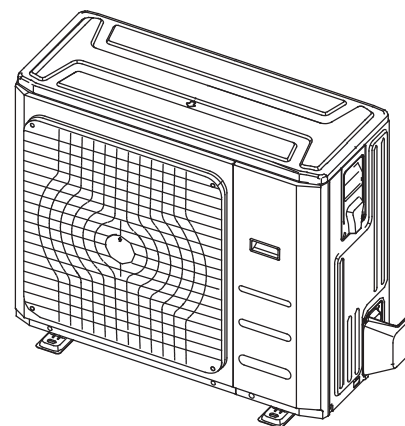
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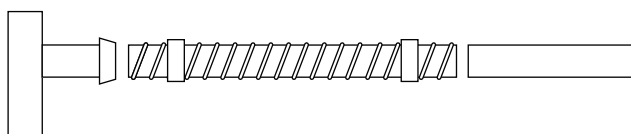
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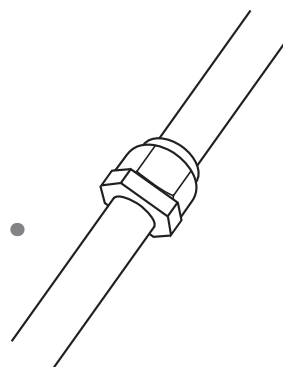
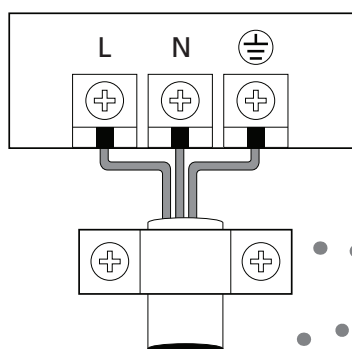
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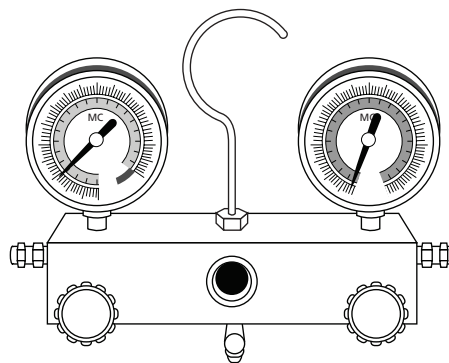
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Safety Precautions

1

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.

WARNING

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.
10. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
11. This appliance can be used by children aged from 8 years and above and persons with reduced Physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

CAUTION

- ⊘ For units that have an auxiliary electric heater, **do not** install the unit within 1 meter (3 feet) 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 Gasses

1. This air-conditioning unit contains fluorinated gasses. 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

2

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 equipment failure.

	Name	Shape	Quantity
Indoor unit installation	Safety lock (some models)		1
	Self-tapping screw 3.9×25 (some models)		2
	Flat washers (some models)		2
	Bushing-sleeve cover (some models)		1
Refrigeration Fittings	Soundproof/insulation sheath (some models)		2
Drainpipe Fittings	Drain hose (some models)		1
	Band (some models)		2
	Drain joint (some models)		1
	Seal ring (some models)		1
Installation Accessory (some models)	Connection cables		1
	Putty		1
	Rodent-proof mesh		1
	Self-tapping screw ST3.9×12		1
Remote controller & Its Frame (some models)	Remote controller		1
	Fixing screw for remote controller holder ST2.9 x 10		2
	Remote controller holder		1
	Dry battery AAA		2
	Remote controller illustration		1
	Owner's manual		1
	Installation manual		1
	Refrigerant Pipe (optional)		1

If there is any difference between the above table and the Packing List, the Packing List should prevail.

Installation Overview

3

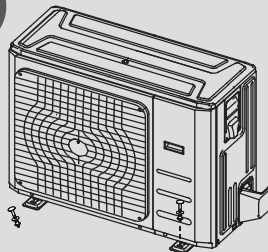
INSTALLATION ORDER

1



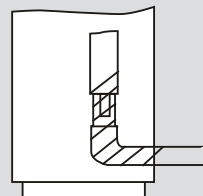
Install the indoor unit
(Page 7)

2



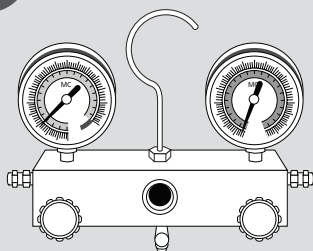
Install the outdoor unit
(Page 11)

3



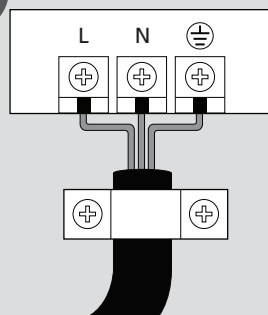
Install the drainpipe
(Page 14)

6



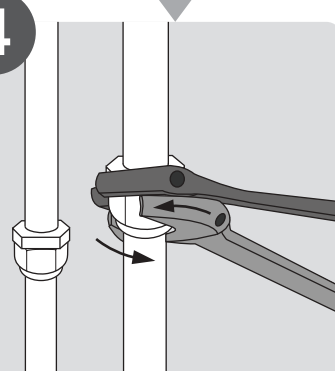
Evacuate the refrigeration system
(Page 23)

5



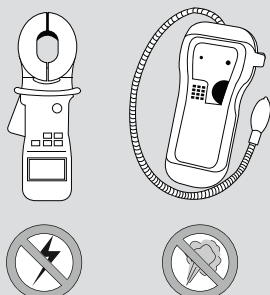
Connect the wires
(Page 19)

4



Connect the refrigerant pipes
(Page 16)

7



Perform a test run
(Page 23)

Indoor Unit Installation

4

Indoor Unit Parts

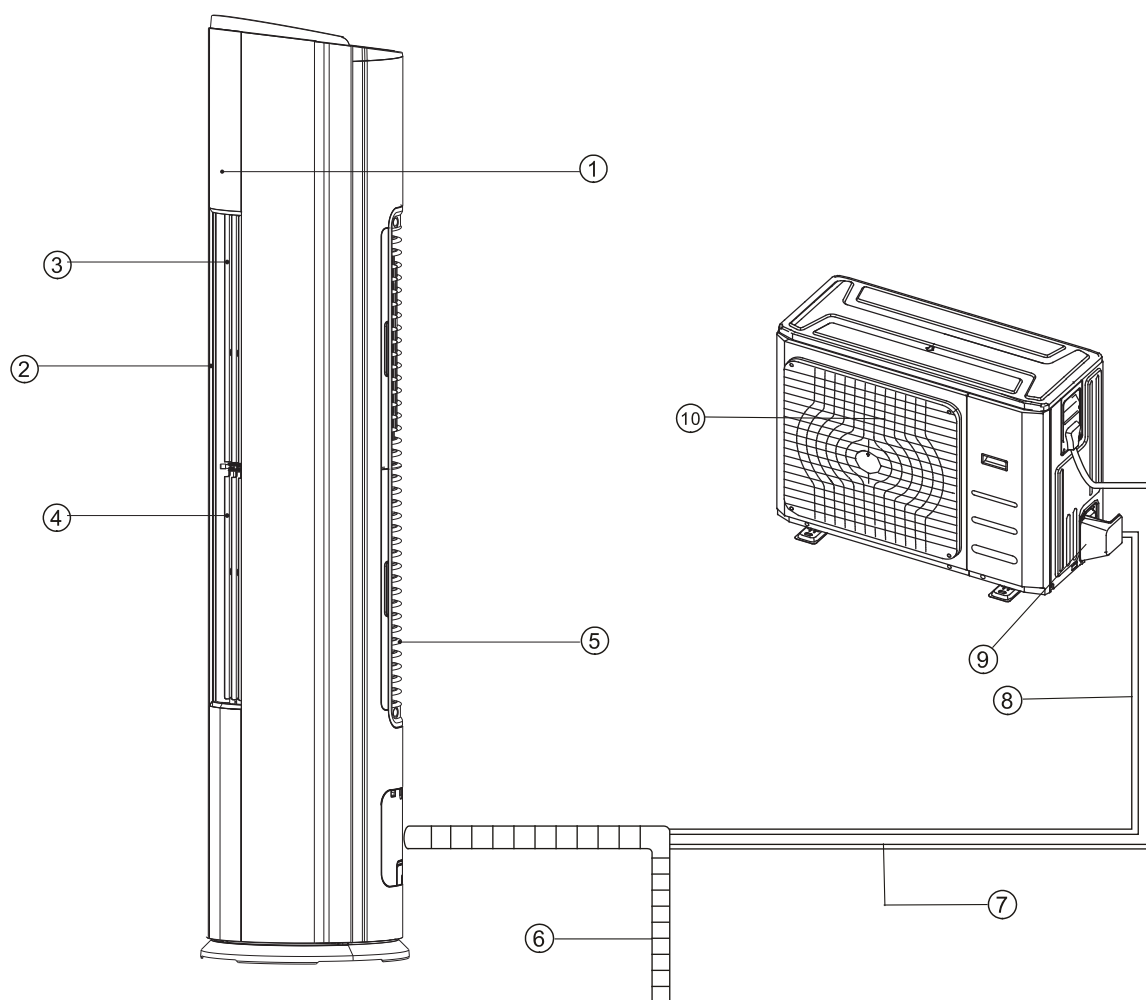


Fig. 4.1

Indoor unit

- ① Operation panel/Air outlet
- ② Air outlet
- ③ Upside horizontal airflow control louver
- ④ Downside horizontal airflow control louver
- ⑤ Air inlet

Outdoor unit

- ⑥ Drain pipe, vent pipe
- ⑦ Connection cable
- ⑧ Connection pipe
- ⑨ Refrigerant pipe port
- ⑩ Air outlet

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 Instructions

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 meet the following standards:

- ☑ Good air circulation
- ☑ Convenient drainage
- ☑ Positioned such that 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
- ☑ Positioned 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: When choosing a location, be aware that you should leave ample room for a hole in the wall (see the step “Drill wall hole for connective piping”) 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 or the right.

Refer to the following diagram to ensure proper distance from walls and ceiling:

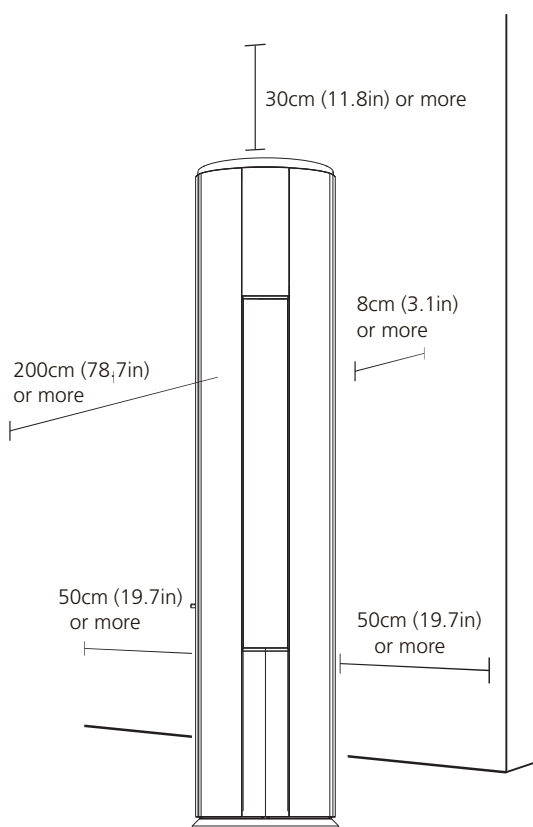


Fig. 4.2

Step 2: Unfastening the operation panel and detaching the filter

1. Open the packaging and take out the indoor unit. Remove the protective tape and any components.
2. Remove all of the accessories.
3. Check that all of the accessories match those found on the "Installation Diagrams and Accessories" as shown on the previous page.
4. Take out the PM2.5 filter and install it.

Step 3. Fastening the indoor unit (to prevent it from falling down)

NOTE: To prevent the unit from falling down, the indoor unit must be fastened on the floor by the bolts.

1. Measure the position of the holes for installation.
2. Insert the M8 bolts into the unit while it is on the floor (the amount of bolts used depends on the number of holes on the unit's chassis).
3. Lift up the indoor unit so that the installation holes cover the bolts, then fasten the nuts onto the bolts and tighten them.

! CAUTION

If further support is needed to prevent the unit from falling down, a protective wedge can be installed. The installation procedure for this wedge is as follows:

- Take out the protective wedge and measure the correct size.
- Use the self-tapping screws to fasten the protective wedge to the top cover of the indoor unit.
- Fasten the other end of the wedge tightly to the wall using the self-tapping screws.

Step 4. Piping and binding

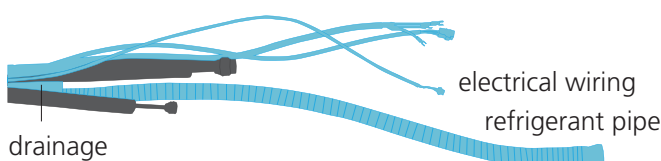


Fig. 4.3

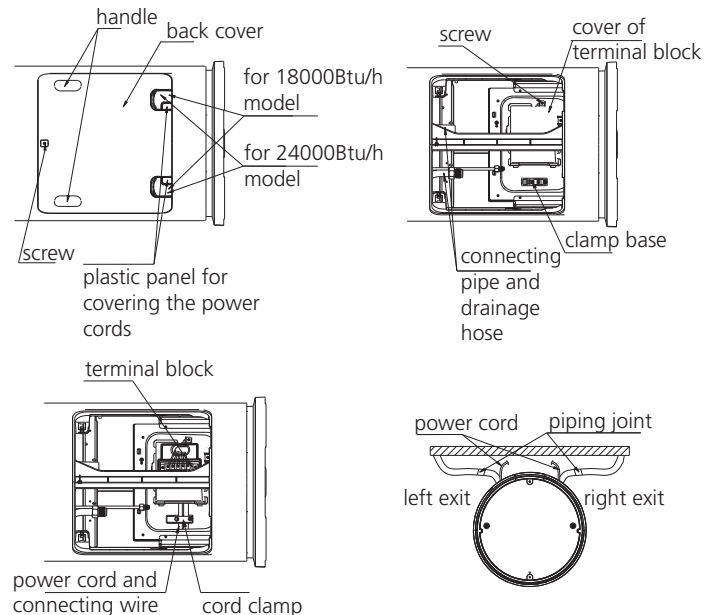


Fig. 4.4

1. Lay the connecting piping flat on the ground. Place the drainage hose, refrigerant pipe, and all electrical wiring (making sure that both ends are arranged correctly) next to the piping.
2. Using the drainage hose as a guide, measure and adjust the length of the low voltage wiring, high voltage wiring, any other electrical wiring, and refrigerant pipe. Use cable ties to initially fasten them in place.
3. Arrange the piping so that the drainage hose is on the bottom, the connecting piping is in the middle, and the electrical wiring is at the top.
4. According to the place of the indoor unit and the hole in the wall, adjust the direction and place of hoses (See Fig.4.5) to determine discharging from left or right.
5. Lay the machine's packaging on the ground. Place the unit face down to the packaging. Undo the screws on the back cover, then hold the hook and pull the cover out. Undo the screws of the terminal block's cover, then remove the cover along the direction of arrow.
6. Remove the cable for test and match the wire colors /labels with the labels on the terminal block. Use cord clamp and screws to fasten the wires to the terminal.

7. Reinstall the terminal's cover and fix the cover with screws. Set up the unit.
8. Bind the piping in order that the drainage hose is on the bottom, the connecting piping is in the middle, and the electrical wiring is at the top. Do not wrap the joint of the connecting pipe until the leak detection is finished.
9. According to the discharging place, use a nose plier to remove a matching plastic panel, fasten the wirings and pipes across the gap with the cover on and screwed.

Step 5: Applying the sealant putty and installing the wall hole cover

1. Tidy up the already bound piping.
2. Evenly apply the sealant putty to the gaps between the piping and the wall, then press on the putty firmly.
3. Pull the wall hole cover apart to open it. After fastening tightly to the piping, push it into the hole in the wall to securely fasten it to the wall and complete the installation.

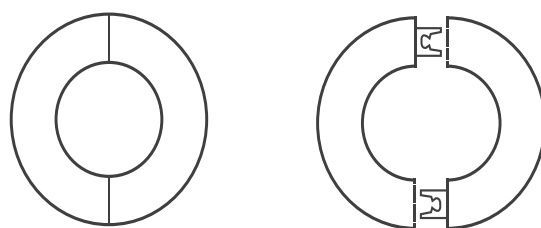


Fig. 4.6

NOTE

- When the unit is installed near the curtain, please keep it at least 1m away from the curtain to prevent the air intake from being sheltered.

! CAUTION

- Use the cable ties to fasten the wirings and pipes should keep away from the connecting ends in case of leak detection.
- When need to lengthen the drainage pipe, please use a protecting tube to wrap the indoor part of the extension, seal the connector with contact glue. Any part of the pipes should not be bending.
- Be careful when place down or set up the unit, prevent the surface from being scratched.
- Before removing the plastic panel, choose the side from which the piping and wiring will exit the unit. (a. Discharge from the power side: remove the plastic panel of power cord. B. For the 18000Btu/h model, remove the plastic panel both of the power and the 18000Btu/h side. C. For the 24000Btu/h model, remove the plastic panel of the power side, 18000Btu/h side and 24000Btu/h side.) If do not discharge from the panel which is removed, the hole will not be rat proof since without any block.
- When bending the pipes, please note intensity to prevent the pipes becoming flat or bend.

Outdoor Unit Installation

5

Outdoor Unit Installation Instructions

Step 1: Select installation location.

The outdoor unit should be installed in the location that meets the following requirements:

- ☑ Place the outdoor unit as close to the indoor unit as possible.
 - ☑ Ensure that there is enough room for installation and maintenance.
 - ☑ The air inlet and outlet must not be obstructed or exposed to strong wind.
 - ☑ Ensure the location of the unit will not be subject to snowdrifts, accumulation of leaves or other seasonal debris. If possible, provide an awning for the unit. Ensure the awning does not obstruct airflow.
 - ☑ The installation area must be dry and well ventilated.
 - ☑ There must be enough room to install the connecting pipes and cables and to access them for maintenance.
- ☑ The area must be free of combustible gases and chemicals.
 - ☑ The pipe length between the outdoor and indoor unit may not exceed the maximum allowable pipe length.
 - ☑ If possible, **DO NOT** install the unit where it is exposed to direct sunlight.
 - ☑ If possible, make sure the unit is located far away from your neighbors' property so that the noise from the unit will not disturb them.
 - ☑ If the location is exposed to strong winds (for example: near a seaside), the unit must be placed against the wall to shelter it from the wind. If necessary, use an awning. (See Fig. 5.1 & 5.2)
 - ☑ Install the indoor and outdoor units, cables and wires at least 1 meter from televisions or radios to prevent static or image distortion. Depending on the radio waves, a 1 meter distance may not be enough to eliminate all interference.

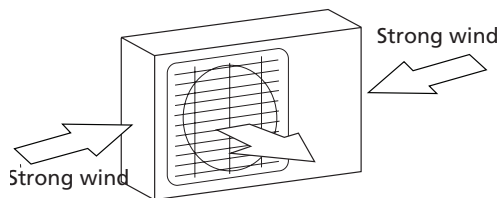


Fig. 5.1

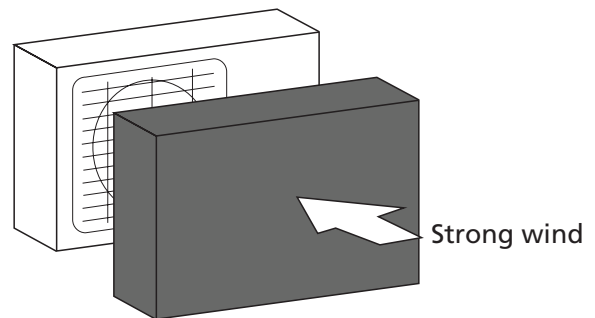


Fig. 5.2

Step 2: Install outdoor unit.

Fix the outdoor unit with anchor bolts (M10)

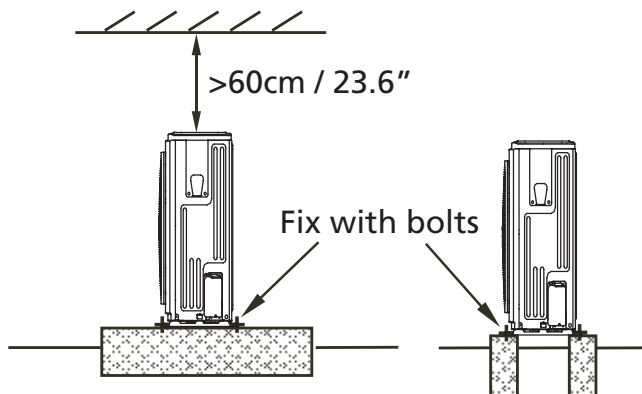


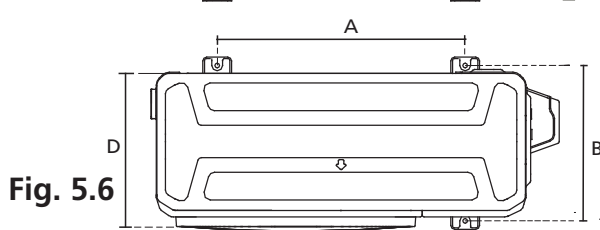
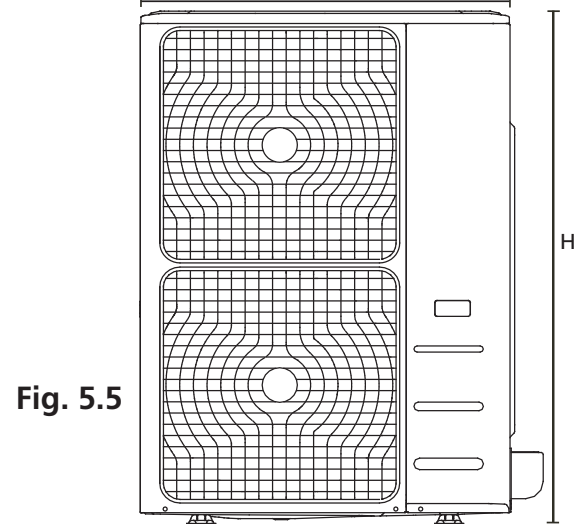
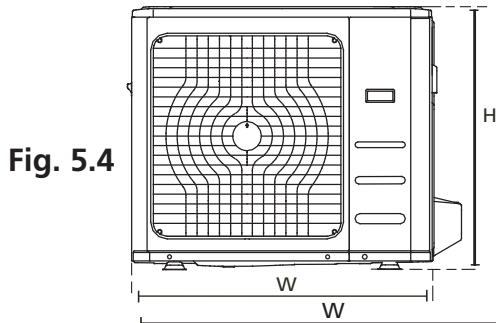
Fig. 5.3

! CAUTION

- Be sure to remove any obstacles that may block air circulation.
- Make sure you refer to Length Specifications to ensure there is enough room for installation and maintenance.

Split Type Outdoor Unit

(Refer to Fig 5.4, 5.5, 5.6, 5.10 and Table 5.1)



Vertical Discharge Type Outdoor Unit

(Refer to Fig 5.7, 5.8, 5.9 and Table 5.2)

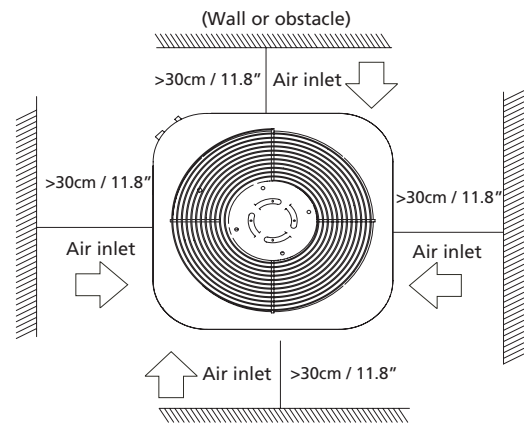
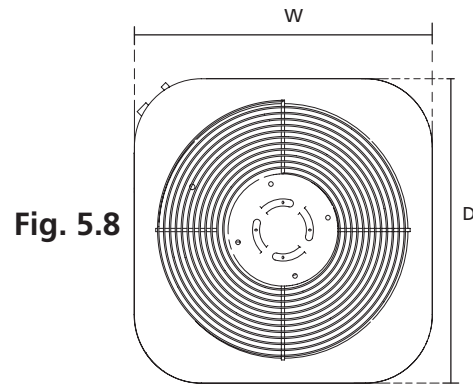
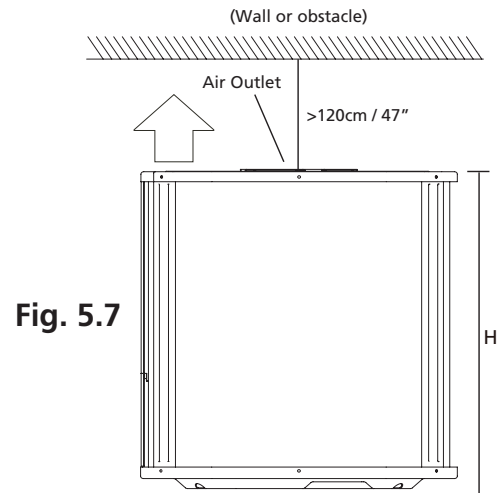


Table 5.1: Length Specifications of Split Type Outdoor Unit (unit: mm/inch)

Outdoor Unit Dimensions W x H x D	Mounting Dimensions	
	Distance A	Distance B
760x590x285 (29.9x23.2x11.2)	530 (20.85)	290 (11.4)
810x558x310 (31.9x22x12.2)	549 (21.6)	325 (12.8)
845x700x320 (33.27x27.5x12.6)	560 (22)	335 (13.2)
900x860x315 (35.4x33.85x12.4)	590 (23.2)	333 (13.1)
945x810x395 (37.2x31.9x15.55)	640 (25.2)	405 (15.95)
990x965x345 (38.98x38x13.58)	624 (24.58)	366 (14.4)
938x1369x392 (36.93x53.9x15.43)	634 (24.96)	404 (15.9)
900x1170x350 (35.4x46x13.8)	590 (23.2)	378 (14.88)
800x554x333 (31.5x21.8x13.1)	514 (20.24)	340 (13.39)
845x702x363 (33.27x27.6x14.3)	540 (21.26)	350 (13.8)
946x810x420 (37.24x31.9x16.53)	673 (26.5)	403 (15.87)
946x810x410 (37.24x31.9x16.14)	673 (26.5)	403 (15.87)
952x1333x410 (37.5x52.5x16.14)	634 (24.96)	404 (15.9)
952x1333x415 (37.5x52.5x16.34)	634 (24.96)	404 (15.9)

Table 5.2: Length Specifications of Vertical Discharge Outdoor Unit (unit: mm/inch)

MODEL	DIMENSIONS		
	W	H	D
18	554/21.8	633/25	554/21.8
24	554/21.8	633/25	554/21.8
36	554/21.8	759/29.8	554/21.8
36	600/23.6	633/25	600/23.6
48	710/28	759/29.8	710/28
60	710/28	843/33	710/28

NOTE: The minimum distance between the outdoor unit and walls described in the installation guide does not apply to airtight rooms. Be sure to keep the unit unobstructed in at least two of the three directions (M, N, P) (See Fig. 5.10)

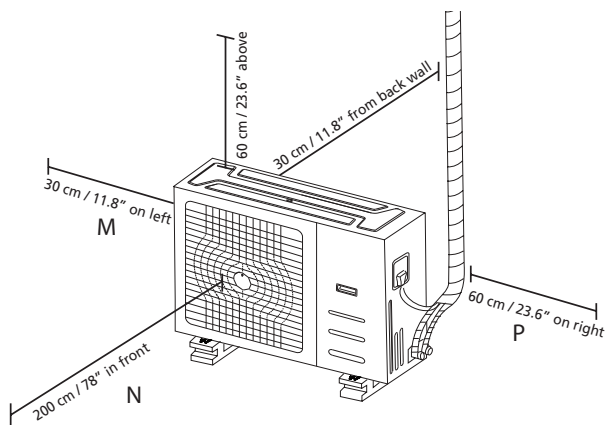


Fig. 5.10

Rows of series installation

Table 5.3 The relations between H, A and L are as follows.

	L	A
$L \leq H$	$L \leq 1/2H$	25 cm / 9.8" or more
	$1/2H < L \leq H$	30 cm / 11.8" or more
$L > H$	Can not be installed	

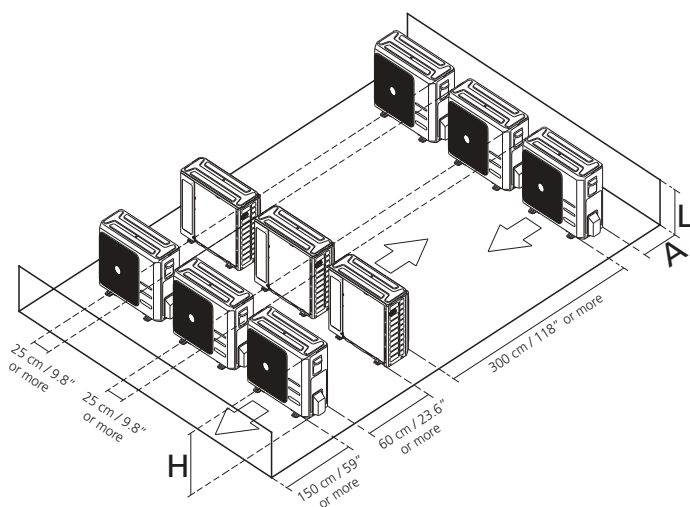


Fig. 5.11

Drain Joint Installation

Before bolting the outdoor unit in place, you must install the drain joint at the bottom of the unit. (See Fig. 5.12)

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.

NOTE: Make sure the water drains to a safe location where it will not cause water damage or a slipping hazard.

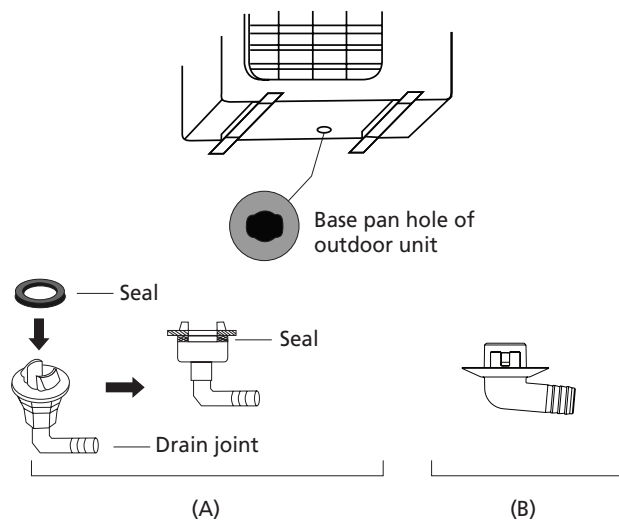


Fig. 5.12

Notes On Drilling Hole In Wall

You must drill a hole in the wall for the refrigerant piping, and the signal cable that will connect the indoor and outdoor units.

1. Determine the location of the wall hole based on the location of the outdoor unit.
2. Using a 65-mm (2.5") core drill, drill a hole in the wall.

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

3. 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.

Drainpipe Installation

6

The drainpipe is used to drain water from the unit. Improper installation may cause unit and property damage.

! CAUTION

- Insulate all piping to prevent condensation, which could lead to water damage.
- If the drainpipe is bent or installed incorrectly, water may leak and cause a malfunction of the water-level switch.
- In HEAT mode, the outdoor unit will discharge water. Ensure that the drain hose is placed in an appropriate area to avoid water damage and slippage due to frozen drain water.
- **DO NOT** pull the drainpipe forcefully as this could cause it to disconnect.

NOTE ON PURCHASING PIPES

This installation requires a polyethylene tube (outside diameter = 3.7-3.9cm, inside diameter = 3.2cm), which can be obtained at your local hardware store or from your dealer.

Indoor Drainpipe Installation

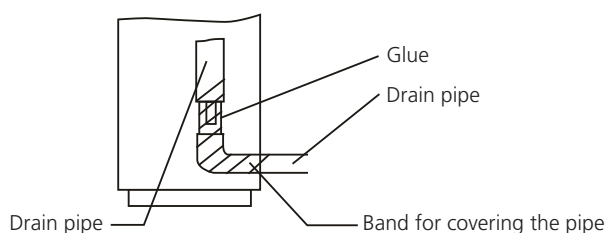


Fig. 6.1

1. Make sure the drain pipe is connected to the outdoor side downward.
2. The hard polyvinyl chloride(PVC)plastic pipe (external diameter 26 mm) sold in the market is suitable for the attached soft drain pipe.
3. Please connect the Soft Drain Pipe with the Drain Pipe, then fix it with band; if you have to connect the Drain Pipe indoors, to avoid condensing caused by air intake, you must cover the pipe with heat-insulation material (polyethylene with Specific Gravity of 0.03, at least 9 mm in thickness), and use Glue Band to fix it

4. After the Drain Pipe has been connected, please check if the water drains out of the pipe efficiently and has no leakage.
5. Refrigerant Pipe and Drain Pipe should be heat-insulated to avoid condensing and water-dropping later on.
6. Using a 65-mm (2.5") core drill, drill a hole in the wall. Make sure that the hole is drilled at a slight downward angle, so that the outdoor end of the hole is lower than the indoor end by about 1cm (0.4"). This will ensure proper water drainage (See Fig. 6.2). 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.

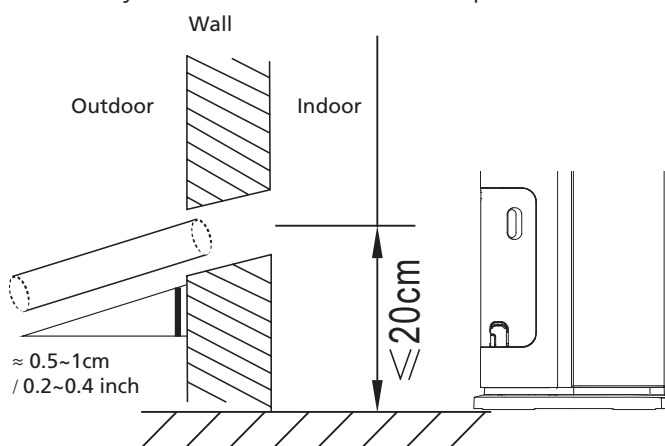


Fig. 6.2

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

7. Pass the drain hose through the wall hole. Make sure the water drains to a safe location where it will not cause water damage or a slipping hazard.

NOTE: The drainpipe outlet should be at least 5cm (1.9") above the ground. If it touches the ground, the unit may become blocked and malfunction. If you discharge the water directly into a sewer, make sure that the drain has a U or S pipe to catch odors that might otherwise come back into the house.

Refrigerant Piping Connection

7

Safety Precautions

! WARNING

- All field piping must be completed by a licensed technician and must comply with the local and national regulations.
- When the air conditioner is installed in a small room, measures must be taken to prevent the refrigerant concentration in the room from exceeding the safety limit in the event of refrigerant leakage. If the refrigerant leaks and its concentration exceeds its proper limit, hazards due to lack of oxygen may result.
- When installing the refrigeration system, ensure that air, dust, moisture or foreign substances do not enter the refrigerant circuit. Contamination in the system may cause poor operating capacity, high pressure in the refrigeration cycle, explosion or injury.
- Ventilate the area immediately if there is refrigerant leakage during the installation. Leaked refrigerant gas is both toxic and flammable. Ensure there is no refrigerant leakage after completing the installation work.

Refrigerant Piping Connection Instructions

! CAUTION

- The branching pipe must be installed horizontally. An angle of more than 10° may cause malfunction.
- **DO NOT** install the connecting pipe until both indoor and outdoor units have been installed.
- Insulate both the gas and liquid piping to prevent water leakage.

Step 1: Cut pipes

When preparing refrigerant pipes, take extra care to cut and flare them properly. This will ensure efficient operation and minimize the need for future maintenance.

1. Measure the distance between the indoor and outdoor units.
2. Using a pipe cutter, cut the pipe a little longer than the measured distance.

! CAUTION

DO NOT deform pipe while cutting. Be extra careful not to damage, dent, or deform the pipe while cutting. This will drastically reduce the heating efficiency of the unit.

1. Make sure that the pipe is cut at a perfect 90° angle. Refer to Fig. 7.1 for examples of bad cuts

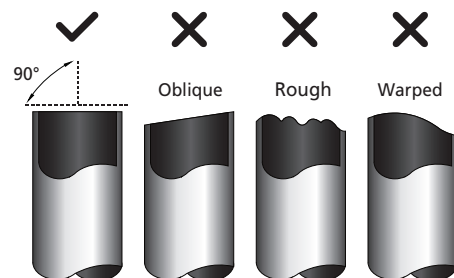


Fig. 7.1

Step 2: Remove burrs.

Burrs can affect the air-tight seal of refrigerant piping connection. They must be completely removed.

1. Hold the pipe at a downward angle to prevent burrs from falling into the pipe.
2. Using a reamer or deburring tool, remove all burrs from the cut section of the pipe.

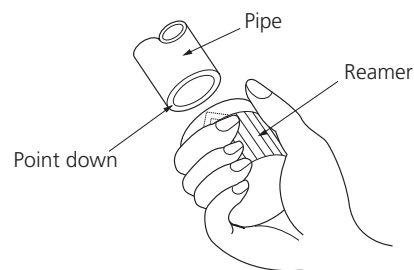


Fig. 7.2

Step 3: Flare pipe ends

Proper flaring is essential to achieve an airtight seal.

1. After removing burrs from cut pipe, seal the ends with PVC tape to prevent foreign materials from entering the pipe.
2. Sheath the pipe with insulating material.
3. Place flare nuts on both ends of pipe. Make sure they are facing in the right direction, because you can't put them on or change their direction after flaring. See Fig. 7.3

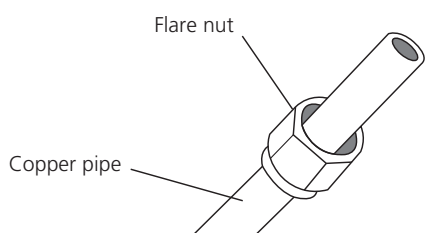


Fig. 7.3

4. Remove PVC tape from ends of pipe when ready to perform flaring work.
5. Clamp flare form on the end of the pipe. The end of the pipe must extend beyond the flare form.

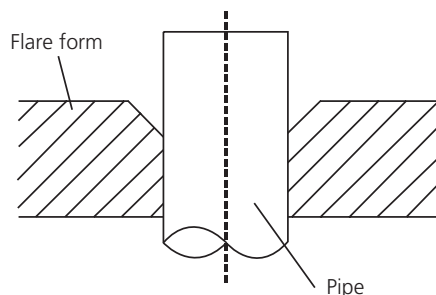


Fig. 7.4

6. Place flaring tool onto the form.
7. Turn the handle of the flaring tool clockwise until the pipe is fully flared. Flare the pipe in accordance with the dimensions shown in table 7.1.

Table 7.1: PIPING EXTENSION BEYOND FLARE FORM

Pipe gauge	Tightening torque	Flare dimension (A) (Unit: mm/Inch)		Flare shape
		Min.	Max.	
Ø 6.4	14.2-17.2 N.m (144-176 kgf.cm)	8.3/0.3	8.3/0.3	
Ø 9.5	32.7-39.9 N.m (333-407 kgf.cm)	12.4/0.48	12.4/0.48	
Ø 12.7	49.5-60.3 N.m (504-616 kgf.cm)	15.4/0.6	15.8/0.6	
Ø 15.9	61.8-75.4 N.m (630-770 kgf.cm)	18.6/0.7	19/0.74	
Ø 19.1	97.2-118.6 N.m (990-1210 kgf.cm)	22.9/0.9	23.3/0.91	
Ø 22	109.5-133.7 N.m (1117-1364 kgf.cm)	27/1.06	27.3/1.07	

Fig. 7.5

8. Remove the flaring tool and flare form, then inspect the end of the pipe for cracks and even flaring.

Step 4: Connect pipes

Connect the copper pipes to the indoor unit first, then connect it to the outdoor unit. You should first connect the low-pressure pipe, then the high-pressure pipe.

1. When connecting the flare nuts, apply a thin coat of refrigeration oil to the flared ends of the pipes.
2. Align the center of the two pipes that you will connect.

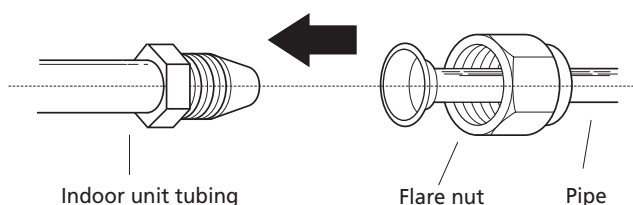


Fig. 7.6

3. Tighten the flare nut as tightly as possible by hand.
4. Using a spanner, grip the nut on the unit tubing.
5. While firmly gripping the nut, use a torque wrench to tighten the flare nut according to the torque values in table 7.1.

NOTE: Use both a spanner and a torque wrench when connecting or disconnecting pipes to/from the unit.

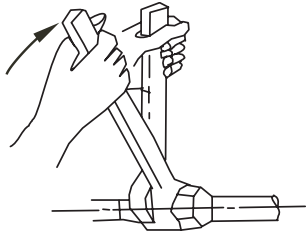


Fig. 7.7

! CAUTION

Check to make sure there is no refrigerant leak after completing the installation work. If there is a refrigerant leak, ventilate the area immediately and evacuate the system (refer to the Air Evacuation section of this manual).

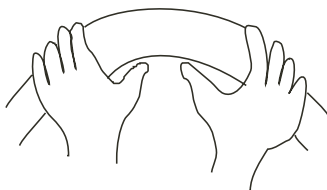
! CAUTION

- Ensure to wrap insulation around the piping. Direct contact with the bare piping may result in burns or frostbite.
- Make sure the pipe is properly connected. Over tightening may damage the bell mouth and under tightening may lead to leakage.

NOTE ON MINIMUM BEND RADIUS

Carefully bend the tubing in the middle according to the diagram below. **DO NOT** bend the tubing more than 90° or more than 3 times.

Bend the pipe with thumb



min-radius 10cm (3.9")

Fig. 7.8

6. After connecting the copper pipes to the indoor unit, wrap the power cable, signal cable and the piping together with binding tape.

NOTE: DO NOT intertwine signal cable with other wires. While bundling these items together, do not intertwine or cross the signal cable with any other wiring.

7. Thread this pipeline through the wall and connect it to the outdoor unit.
8. Insulate all the piping, including the valves of the outdoor unit.
9. Open the stop valves of the outdoor unit to start the flow of the refrigerant between the indoor and outdoor unit.

Safety Precautions

WARNING

- Be sure to disconnect the power supply before working on the unit.
- All electrical wiring must be done according to local and national regulations.
- Electrical wiring must be done by a qualified technician. Improper connections may cause electrical malfunction, injury and fire.
- An independent circuit and single outlet must be used for this unit. **DO NOT** plug another appliance or charger into the same outlet. If the electrical circuit capacity is not enough or there is a defect in the electrical work, it can lead to shock, fire, unit and property damage.
- Connect the power cable to the terminals and fasten it with a clamp. An insecure connection may cause fire.
- Make sure that all wiring is done correctly and the control board cover is properly installed. Failure to do so can cause overheating at the connection points, fire, and electrical shock.
- Ensure that main supply connection is made through a switch that disconnects all poles, with contact gap of a least 3mm (0.118").
- **DO NOT** modify the length of the power cord or use an extension cord.

CAUTION

- Connect the outdoor wires before connecting the indoor wires.
- Make sure you ground the unit. The grounding wire should be away from gas pipes, water pipes, lightning rods, telephone or other grounding wires. Improper grounding may cause electrical shock.
- **DO NOT** connect the unit with the power source until all wiring and piping is completed.
- Make sure that you do not cross your electrical wiring with your signal wiring, as this can cause distortion and interference.

Follow these instructions to prevent distortion when the compressor starts:

- The unit must be connected to the main outlet. Normally, the power supply must have a low output impedance of 32 ohms.
- No other equipment should be connected to the same power circuit.
- The unit's power information can be found on the rating sticker on the product.

TAKE NOTE OF FUSE SPECIFICATIONS

The air conditioner's circuit board(PCB) is designed with a fuse to provide overcurrent protection. The specifications of the fuse are printed on the circuit board, such as: T3.15A/250VAC, T5A/250VAC, etc.

Outdoor Unit Wiring

WARNING

Before performing any electrical or wiring work, turn off the main power to the system.

1. Prepare the cable for connection
 - a. You must first choose the right cable size before preparing it for connection. Be sure to use H07RN-F cables.

Table 8.1: Minimum Cross-Sectional Area of Power and Signal Cables in North America

Rated Current of Appliance (A)	AWG
≤ 7	18
7 - 13	16
13 - 18	14
18 - 25	12
25 - 30	10

Table 8.2: Other World Regions

Rated Current of Appliance (A)	Nominal Cross-Sectional Area (mm ²)
≤ 6	0.75
6 - 10	1
10 - 16	1.5
16 - 25	2.5
25- 32	4
32 - 45	6

- b. Using wire strippers, strip the rubber jacket from both ends of the signal cable to reveal approximately 15cm (5.9") of wire.
- c. Strip the insulation from the ends.
- d. Using a wire crimper, crimp u-lugs on the ends.

NOTE: When connecting the wires, strictly follow the wiring diagram found inside the electrical box cover.

2. Remove the electric cover of the outdoor unit. If there is no cover on the outdoor unit, take off the bolts from the maintenance board and remove the protection board. (See Fig. 8.1, 8.2)

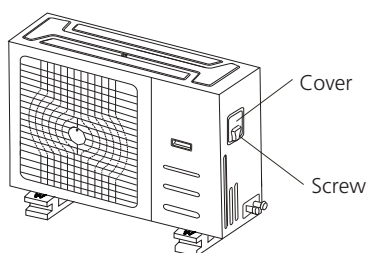


Fig. 8.1

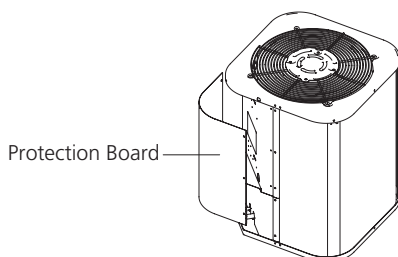


Fig. 8.2

3. Connect the u-lugs to the terminals
Match the wire colors/labels with the labels on the terminal block, Firmly screw the u-lug of each wire to its corresponding terminal.
4. Clamp down the cable with the cable clamp.
5. Insulate unused wires with electrical tape.
Keep them away from any electrical or metal parts.
6. Reinstall the cover of the electric control box.

Indoor Unit Wiring

1. Prepare the cable for connection
 - a. Using wire strippers, strip the rubber jacket from both ends of the signal cable to reveal about 15cm (5.9") of the wire.
 - b. Strip the insulation from the ends of the wires.
 - c. Using a wire crimper, crimp the u-lugs to the ends of the wires.
2. Undo the screw on the cover of the electric control box and remove the cover.
3. Connect the u-lugs to the terminals.
Match the wire colors/labels with the labels on the terminal block, Firmly screw the u-lug of each wire to its corresponding terminal. Refer to the Serial Number and Wiring Diagram located on the cover of the electric control box.

! CAUTION

- While connecting the wires, please strictly follow the wiring diagram.
- The refrigerant circuit can become very hot. Keep the interconnection cable away from the copper tube.

4. Clamp down the cable with the cable clamp.
The cable must not be loose or pull on the u-lugs.
5. Reattach the electric box cover.

Safety Precautions

! CAUTION

- Use a vacuum pump with a gauge reading lower than -0.1MPa and an air discharge capacity above 40L/min .
- The outdoor unit does not need vacuuming. **DO NOT** open the outdoor unit's gas and liquid stop valves.
- Ensure that the Compound Meter reads -0.1MPa or below after 2 hours. If after three hours of operation and the gauge reading is still above -0.1MPa , check if there is a gas leak or water inside the pipe. If there is no leakage, perform another evacuation for 1 or 2 hours.
- **DO NOT** use refrigerant gas to evacuate the system.

Evacuation Instructions

Before using manifold gauge and vacuum pump, read their operation manuals to familiarize yourself with how to use them properly.

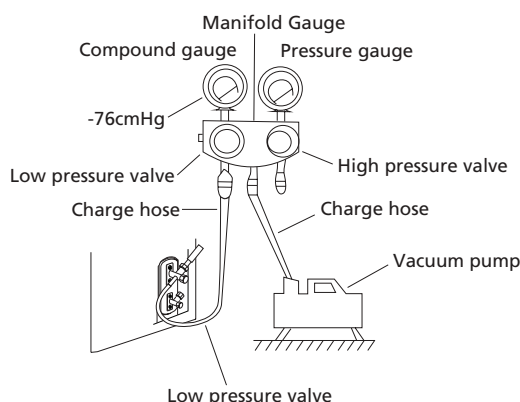


Fig. 9.1

1. Connect the charge hose of the manifold gauge to service port on the outdoor unit's low pressure valve.
2. Connect another charge hose from the manifold gauge to the vacuum pump.
3. Open the Low Pressure side of the manifold gauge. Keep the High Pressure side closed.

4. Turn on the vacuum pump to evacuate the system.
5. Run the vacuum for at least 15 minutes, or until the Compound Meter reads -76cmHg ($-1 \times 10^5\text{Pa}$).
6. Close the Low Pressure side of the manifold gauge, and turn off the vacuum pump.
7. Wait for 5 minutes, then check that there has been no change in system pressure.

NOTE If there is no change in system pressure, unscrew the cap from the packed valve (high pressure valve). If there is a change in system pressure, there may be a gas leak.

8. Insert hexagonal wrench into the packed valve (high pressure valve) and open the valve by turning the wrench in a $1/4$ counterclockwise turn. Listen for gas to exit the system, then close the valve after 5 seconds.

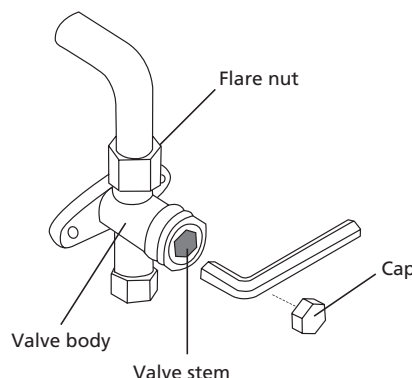


Fig. 9.2

9. Watch the Pressure Gauge for one minute to make sure that there is no change in pressure. The Pressure Gauge should read slightly higher than atmospheric pressure.
10. Remove the charge hose from the service port.
11. Using hexagonal wrench, fully open both the high pressure and low pressure valves.

OPEN VALVE STEMS GENTLY

When opening valve stems, turn the hexagonal wrench until it hits against the stopper. **DO NOT** try to force the valve to open further.

12. Tighten valve caps by hand, then tighten it using the proper tool.

Note On Adding Refrigerant

! CAUTION

- Refrigerant charging must be performed after wiring, vacuuming and the leak test.
- **DO NOT** exceed the maximum allowable quantity of refrigerant or overcharge the system. Doing so can damage or impact the unit's function.
- Charging with unsuitable substances may cause explosions or accidents. Ensure that the appropriate refrigerant is used.
- Refrigerant containers must be opened slowly. Always use protective gear when charging the system.
- **DO NOT** mix refrigerants types.

Some systems require additional charging depending on pipe lengths. The standard pipe length varies according to local regulations. For example, in North America, the standard pipe length is 7.5m (25') In other areas, the standard pipe length is 5m (16'). The additional refrigerant to be charged can be calculated using the following formula:

Liquid Side Diameter

	φ6.35(1/4")	φ9.52(3/8")	φ12.7(1/2")
R22:	(Total pipe length - standard pipe length) x 15g(0.16oz)/m(ft)	(Total pipe length - standard pipe length) x 30g(0.32oz)/m(ft)	(Total pipe length - standard pipe length) x 60g(0.64oz)/m(ft)
R410A:	(Total pipe length - standard pipe length) x 15g(0.16oz)/m(ft)	(Total pipe length - standard pipe length) x 30g(0.32oz)/m(ft)	(Total pipe length - standard pipe length) x 65g(0.69oz)/m(ft)

Before Test Run

A test run must be performed after the entire system has been completely installed. Confirm the following points before performing the test:

- a) The indoor and outdoor units are properly installed.
- b) Piping and wiring are properly connected.
- c) Ensure that there are no obstacles near the inlet and outlet of the unit that might cause poor performance or product malfunction.
- d) The refrigeration system does not leak.
- e) The drainage system is unimpeded and draining to a safe location.
- f) The heating insulation is properly installed.
- g) The grounding wires are properly connected.
- h) The length of the piping and the added refrigerant stow capacity have been recorded.
- i) The power voltage is the correct voltage for the air conditioner.

! CAUTION

Failure to perform the test run may result in unit damage, property damage or personal injury.

Test Run Instructions

1. Open both the liquid and gas stop valves.
2. Turn on the main power switch and allow the unit to warm up.
3. Set the air conditioner to COOL mode.
4. For the Indoor Unit
 - a. Ensure the remote control and its buttons work properly.
 - b. Ensure the louvers move properly and can be changed using the remote control.
 - c. Double check to see if the room temperature is being registered correctly.
 - d. Ensure the indicators on the remote control and the display panel on the indoor unit work properly.
 - e. Ensure the manual buttons on the indoor unit works properly.

- f. Check to see that the drainage system is unimpeded and draining smoothly.
- g. Ensure there is no vibration or abnormal noise during operation.
5. For the Outdoor Unit
 - a. Check to see if the refrigeration system is leaking.
 - b. Make sure there is no vibration or abnormal noise during operation.
 - c. Ensure the wind, noise, and water generated by the unit do not disturb your neighbors or pose a safety hazard.
6. Drainage Test
 - a. Ensure the drainpipe flows smoothly. New buildings should perform this test before finishing the ceiling.
 - b. Remove the test cover. Add 2,000ml of water to the tank through the attached tube.
 - c. Turn on the main power switch and run the air conditioner in COOL mode.
 - d. Listen to the sound of the drain pump to see if it makes any unusual noises.
 - e. Check to see that the water is discharged. It may take up to one minute before the unit begins to drain depending on the drainpipe.
 - f. Make sure that there are no leaks in any of the piping.
 - g. Stop the air conditioner. Turn off the main power switch and reinstall the test cover.

NOTE: If the unit malfunctions or does not operate according to your expectations, please refer to the Troubleshooting section of the Owner's Manual before calling customer service.

All the pictures in the manual are for explanatory purposes only. The actual shape of the unit you purchased may be slightly different, but the operations and functions are the same. The company may not be held responsible for any misprinted information. The design and the specifications of the product for reasons, such as product improvement, are subject to change without any prior notice.

Please consult with the manufacturer at +30 211 300 3300 or with the Sales agency for further details. Any future updates to the manual will be uploaded to the service website, and it is advised to always check for the latest version.

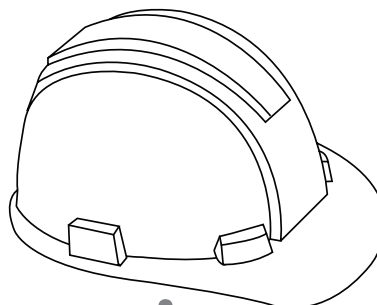


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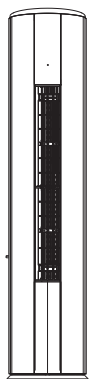
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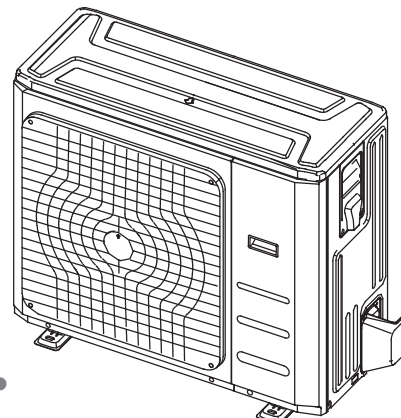
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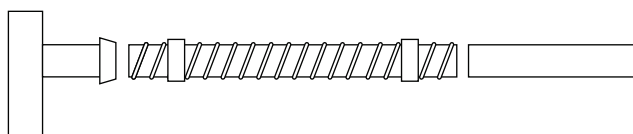
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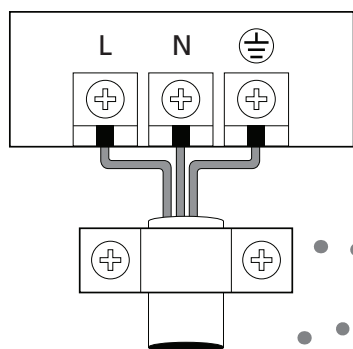
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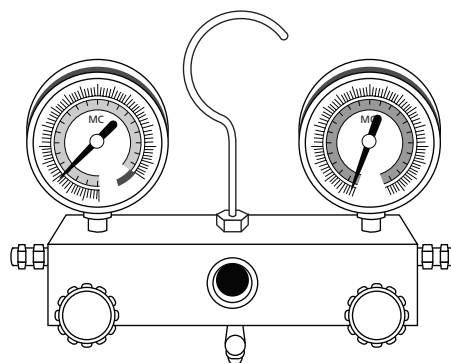


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Διαβάστε τις Οδηγίες Ασφαλείας Πριν την Εγκατάσταση

Εσφαλμένη εγκατάσταση λόγω αγνόησης των οδηγιών μπορεί να προκαλέσει σοβαρές βλάβες ή τραυματισμό. Ο βαθμός σοβαρότητας της ενδεχόμενης βλάβης ή του τραυματισμού διακρίνεται σε δύο κατηγορίες με τη χρήση του όρου ΠΡΟΕΙΔΟΠΟΙΗΣΗ ή, αντίστοιχα, του όρου ΠΡΟΣΟΧΗ.



ΠΡΟΕΙΔΟΠΟΙΗΣΗ

Το σύμβολο αυτό υποδεικνύει ότι παράβλεψη των οδηγιών μπορεί να προκαλέσει θάνατο ή σοβαρό τραυματισμό.



ΠΡΟΣΟΧΗ

Το σύμβολο αυτό υποδεικνύει ότι παράβλεψη των οδηγιών μπορεί να προκαλέσει τραυματισμό, ζημιά στη μονάδα ή σε άλλη ιδιοκτησία.



Το σύμβολο αυτό υποδεικνύει ότι απαγορεύεται αυστηρά η ενέργεια αυτή.



ΠΡΟΕΙΔΟΠΟΙΗΣΗ

- ⊗ **ΜΗΝ** τροποποιείτε το μήκος του καλωδίου τροφοδοσίας ή χρησιμοποιείτε καλώδιο επέκτασης για να τροφοδοτήσετε την μονάδα. **ΜΗΝ** συνδέετε την μονάδα σε πολύπριζο όπου είναι συνδεδεμένες και άλλες ηλεκτρικές συσκευές. Λανθασμένη ή ανεπαρκής παροχή ρεύματος μπορεί να προκαλέσει φωτιά ή ηλεκτροπληξία.
- ⊗ Κατά τη σύνδεση των σωλήνων του ψυκτικού μέσου, **ΜΗΝ** επιτρέπεται άλλες ουσίες ή αέρια εκτός των καθορισμένων ψυκτικών μέσων να εισέλθουν στη μονάδα. Η παρουσία άλλων αερίων ή ουσιών θα μειώσει την απόδοση της μονάδας και μπορεί να προκαλέσει ασυνήθιστα υψηλή πίεση στο ψυκτικό κύκλωμα. Αυτό μπορεί να προκαλέσει έκρηξη και τραυματισμό.
- ⊗ **ΜΗΝ** επιτρέπεται στα παιδιά να παίζουν με το κλιματιστικό. Τα παιδιά πρέπει να εποπτεύονται γύρω από τη μονάδα ανά πάσα στιγμή.
 1. Η εγκατάσταση πρέπει να γίνεται από αδειοδοτημένο τεχνικό ή εξειδικευμένο προσωπικό. Λανθασμένη εγκατάσταση μπορεί να προκαλέσει διαρροή νερού, ηλεκτροπληξία ή πυρκαγιά.
 2. Η εγκατάσταση πρέπει να γίνεται σύμφωνα με τις οδηγίες εγκατάστασης του κατασκευαστή. Λανθασμένη εγκατάσταση μπορεί να προκαλέσει διαρροή νερού, ηλεκτροπληξία ή πυρκαγιά.
 3. Επικοινωνήστε με αδειοδοτημένο τεχνικό για την επισκευή και την συντήρηση της μονάδας.
 4. Χρησιμοποιήστε μόνο τα παρεχόμενα εξαρτήματα, ανταλλακτικά και ειδικά εξαρτήματα για την εγκατάσταση. Χρησιμοποιώντας μη συνιστάμενα εξαρτήματα ενδέχεται να προκαλέσετε διαρροή νερού, ηλεκτροπληξία, πυρκαγιά καθώς και βλάβη στη μονάδα.
 5. Τοποθετήστε τη μονάδα σε μια σταθερή θέση που μπορεί να υποστηρίξει το βάρος της μονάδας. Εάν η επιλεγμένη τοποθεσία δεν μπορεί να υποστηρίξει το βάρος της μονάδας ή δεν επιτρέπει την σωστή εγκατάστασή της, η συσκευή μπορεί να πέσει και να προκαλέσει σοβαρό τραυματισμό και ζημιά.
 6. Για όλες τις ηλεκτρολογικές διεργασίες, ακολουθήστε τις τοπικές και εθνικές προδιαγραφές καλωδίωσης, τους κανονισμούς και το Εγχειρίδιο Εγκατάστασης. Πρέπει να χρησιμοποιήσετε ένα ανεξάρτητο κύκλωμα και μια μόνο έξοδο, για παροχή ρεύματος. Μη συνδέετε άλλες συσκευές στην ίδια πρίζα. Ανεπαρκής ηλεκτρική ισχύς ή ελαττωματικές ηλεκτρικές διεργασίες μπορεί να προκαλέσουν ηλεκτροπληξία ή πυρκαγιά.

ΠΡΟΕΙΔΟΠΟΙΗΣΗ

7. Για όλες τις ηλεκτρολογικές διεργασίες, χρησιμοποιήστε τα προτεινόμενα καλώδια. Συνδέστε τα καλώδια σφιχτά και τυλίξτε καλά για να εμποδίσετε τις εξωτερικές δυνάμεις να βλάψουν το τερματικό. Ενδέχεται να υπάρχουν λανθασμένες ηλεκτρικές συνδέσεις, υπερθέρμανση, να προκληθεί πυρκαγιά και ηλεκτροπληξία.
8. Όλες οι καλωδιώσεις πρέπει να είναι κατάλληλα ρυθμισμένες ώστε να εξασφαλίζεται ότι το κάλυμμα της πλακέτας ελέγχου μπορεί να κλείσει σωστά. Αν το κάλυμμα της πλακέτας ελέγχου δεν είναι καλά κλεισμένο, μπορεί να προκαλέσει διάβρωση και υπερθέρμανση στο τερματικό, να πάρει φωτιά ή να προκληθεί ηλεκτροπληξία.
9. Σε ορισμένα λειτουργικά περιβάλλοντα, όπως κουζίνες, αίθουσες εξυπηρετητών, κλπ., η χρήση ειδικών σχεδιασμένων μονάδων κλιματισμού συνιστώνται ιδιαίτερα.
10. Εάν το καλώδιο τροφοδοσίας είναι κατεστραμμένο, πρέπει να αντικατασταθεί από τον κατασκευαστή, τον αντιπρόσωπο σέρβις του ή εξίσου αδειοδοτημένα άτομα προκειμένου να αποφευχθεί ο κίνδυνος.
11. Η χρήση της παρούσας συσκευής ενδείκνυται για παιδιά άνω των οκτώ (8) ετών, ΑΜΕΑ, άτομα με νοητική υστέρηση και απουσία εμπειρίας ή γνώσεων εφόσον έχουν καθοδηγηθεί για την ασφαλή χρήση της συσκευής ή βρίσκονται υπό επίβλεψη και εφόσον κατανοούν τους κινδύνους που ενέχει η χρήση της. Η συσκευή αυτή δεν είναι παιχνίδι. Απαγορεύεται ο καθαρισμός και η συντήρηση χρήστη της συσκευής από ανηλίκους χωρίς επίβλεψη.

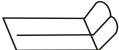
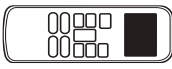
ΠΡΟΣΟΧΗ

- ⊗ Όσον αφορά τα κλιματιστικά που διαθέτουν βοηθητική ηλεκτρική συσκευή θέρμανση. ΜΗΝ εγκαθιστάτε τη συσκευή σε απόσταση μικρότερη του ενός (1) μέτρου (τριών ποδιών) από εύφλεκτα υλικά.
 - ⊗ **ΜΗΝ** εγκαθιστάτε τη συσκευή σε σημείο όπου είναι πιθανή η έκθεσή της σε διαρροή εύφλεκτων αερίων. Σε περίπτωση συσσώρευσης εύφλεκτων αερίων γύρω από τη συσκευή, ενδέχεται να προκληθεί πυρκαγιά.
 - ⊗ **ΜΗΝ** θέτετε το κλιματιστικό σας σε λειτουργία σε υγρά δωμάτια, όπως είναι το λουτρό και το πλυσταριό. Η υπερβολική έκθεση στο νερό μπορεί να προκαλέσει βραχυκύκλωμα στα ηλεκτρικά εξαρτήματα της μονάδας.
1. Το προϊόν πρέπει να γειώνεται κατάλληλα κατά τη στιγμή της εγκατάστασης. Κίνδυνος ηλεκτροπληξίας.
 2. Οι σωληνώσεις αποστράγγισης πρέπει να τοποθετούνται σύμφωνα με τις οδηγίες του παρόντος εγχειριδίου. Η ανεπαρκής αποστράγγιση ενέχει κίνδυνο φθοράς στο σπίτι και την παρουσία σας εξαιτίας της συσσώρευσης νερού.

Σημείωση περί μη φθοριούχων αερίων

1. Αυτή η μονάδα κλιματισμού περιέχει φθοριούχα αέρια θερμοκηπίου. Για εξειδικευμένες πληροφορίες σχετικά με το είδος και την ποσότητα του αερίου, παρακαλούμε ανατρέξτε στη σχετική σήμανση που βρίσκεται επάνω στη μονάδα.
2. Η εγκατάσταση, το σέρβις, η συντήρηση και η επισκευή του κλιματιστικού αυτού πρέπει να πραγματοποιούνται από πιστοποιημένο τεχνικό.
3. Η απεγκατάσταση του προϊόντος και η διάθεσή του προς ανακύκλωση πρέπει να πραγματοποιούνται από πιστοποιημένο τεχνικό.
4. Εάν το σύστημα διαθέτει διάταξη ανίχνευσης διαρροής θα πρέπει να γίνεται έλεγχος κάθε 12 μήνες.
5. Σε περίπτωση ελέγχου της μονάδας για διαρροή, σας συνιστούμε θερμά να τηρείτε κατάλληλο ημερολόγιο ελέγχου.

Το σύστημα κλιματισμού συνοδεύεται από τα ακόλουθα εξαρτήματα (αξεσουάρ). Χρησιμοποιήστε όλα τα κύρια μέρη αλλά και τα εξαρτήματα του κλιματιστικού κατά την εγκατάσταση. Η μη ορθή εγκατάσταση ενδέχεται να οδηγήσει σε διαρροή νερού, ηλεκτροπληξία και πυρκαγιά ή αστοχία του εξοπλισμού:

	Όνομα	Σχήμα	Ποσότητα
Εγκατάσταση εσωτερικής μονάδας	Κλείδωμα ασφαλείας (ορισμένα μοντέλα)		1
	Λαμαρινόβιδα 3,9x25(ορισμένα μοντέλα)		2
	Επίπεδοι παράκυκλοι (ροδέλες)		2
	Περίβλημα καλωδίου		1
Εξαρτήματα ψύξης	Ηχομονωτικό/μονωτικό χιτώνιο (σε ορισμένα μοντέλα)		2
Εξαρτήματα σωλήνα αποστράγγισης	Εύκαμπτος σωλήνας αποστράγγισης (σε ορισμένα μοντέλα)		1
	Ταινία (σε ορισμένα μοντέλα)		2
	Σύνδεσμος σωλήνα		1
	Στεγανοποιητικός δακτύλιος (σε ορισμένα μοντέλα)		1
Εξαρτήματα εγκατάστασης (σε ορισμένα μοντέλα)	Καλώδια σύνδεσης		1
	Στόκος		1
	Πλέγμα προστασίας από τρωκτικά		1
	Λαμαρινόβιδα ST3.9x12		1
Τηλεχειριστήριο και η Βάση του (σε ορισμένα μοντέλα)	Τηλεχειριστήριο		1
	Κοχλίας (βίδα) στερέωσης για βάση τηλεχειριστηρίου ST2.9 x 10		2
	Βάση τηλεχειριστηρίου		1
	Ξηρά μπαταρία AAA		2
	Φυλλάδιο τηλεχειριστηρίου		1
	Εγχειρίδιο Χρήσης		1
	Εγχειρίδιο Εγκατάστασης		1
	Σωλήνας ψυκτικού (προαιρετικό)		1

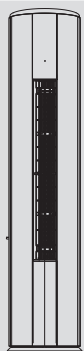
Εάν υπάρχει διαφορά μεταξύ του παραπάνω πίνακα και της λίστας συσκευασίας, ισχύει η λίστα της συσκευασίας.

Σύνοψη Εγκατάστασης

3

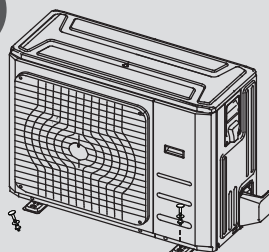
ΣΕΙΡΑ ΕΓΚΑΤΑΣΤΑΣΗΣ

1



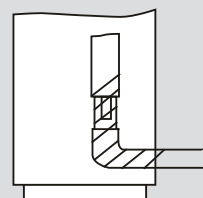
Εγκαταστήστε την
εσωτερική μονάδα
(Σελίδα 9)

2



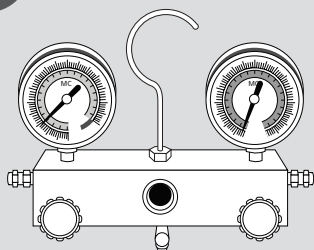
Εγκαταστήστε την
εξωτερική μονάδα
(Σελίδα 12)

3



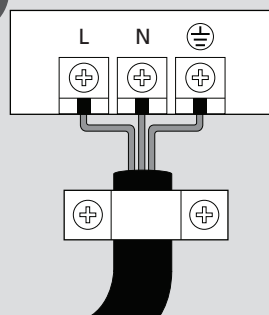
Εγκαταστήστε τον
σωλήνα αποστράγγισης
(Σελίδα 15)

6



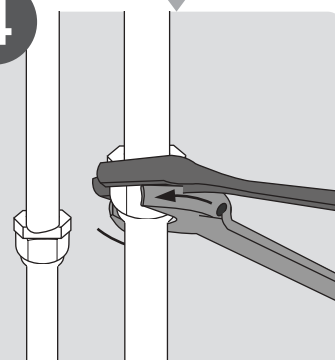
Εκκενώστε το σύστημα
ψύξης (Σελίδα 25)

5



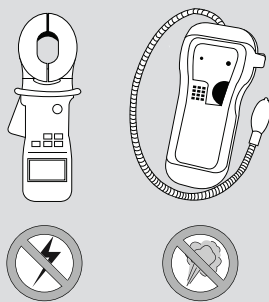
Συνδέστε τα καλώδια
(Σελίδα 22)

4



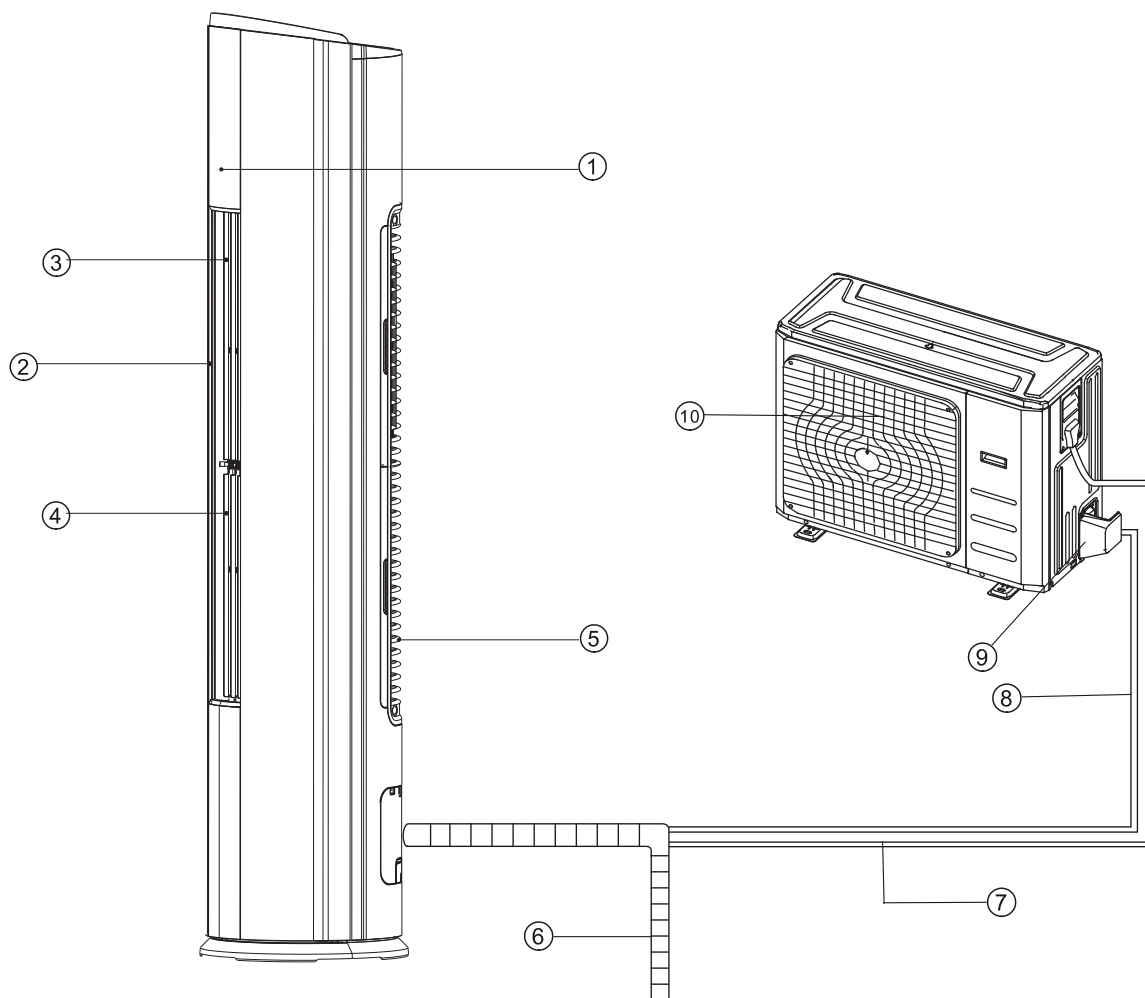
Συνδέστε τους σωλήνες
του ψυκτικού μέσου
(Σελίδα 19)

7



Προβείτε σε δοκιμαστική
λειτουργία (Σελίδα 23)

Μέρη εσωτερικής μονάδας



Εικ. 4.1

Indoor unit

- ① Οθόνη λειτουργίας
- ② Έξοδος αέρα
- ③ Άνω οριζόντια περσίδα ελέγχου ροής αέρα
- ④ Κάτω οριζόντια περσίδα ελέγχου ροής αέρα
- ⑤ Είσοδος αέρα

Outdoor unit

- ⑥ Σωλήνας αποστράγγισης, στόμιο εξαερισμού
- ⑦ Καλώδιο σύνδεσης
- ⑧ Σωλήνας σύνδεσης
- ⑨ Θυρίδα εισόδου του σωλήνας ψυκτικού
- ⑩ Έξοδος αέρα

ΣΗΜΕΙΩΣΗ ΣΧΕΤΙΚΗ ΜΕ ΤΙΣ ΕΙΚΟΝΕΣ

Οι εικόνες του παρόντος εγχειριδίου εξυπηρετούν σκοπούς επεξήγησης. Το πραγματικό μέγεθος της εσωτερικής σας μονάδας ενδέχεται να διαφέρει ελαφρώς. Ισχύει το μέγεθος της μονάδας που προμηθευτήκατε.

Οδηγίες εγκατάστασης εσωτερικής μονάδας

ΠΡΙΝ ΑΠΟ ΤΗΝ ΕΓΚΑΤΑΣΤΑΣΗ

Πριν εγκαταστήσετε την εσωτερική μονάδα συμβουλευτείτε τη σήμανση της συσκευασίας του προϊόντος για να βεβαιωθείτε ότι ο αριθμός μοντέλου της εσωτερικής μονάδας αντιστοιχεί με τον αριθμό μοντέλου της εξωτερικής μονάδας.

Βήμα 1: Επιλέξτε το σημείο εγκατάστασης

Πριν εγκαταστήσετε την εσωτερική μονάδα, επιλέξτε το κατάλληλο σημείο για αυτό.

Ακολουθούν ορισμένες αρχές που θα σας βοηθήσουν να επιλέξετε το κατάλληλο σημείο.

Για να είναι κατάλληλο ένα σημείο πρέπει να πληροί τις ακόλουθες προϋποθέσεις:

- ✓ Καλή κυκλοφορία αέρα
- ✓ Εύκολη αποστράγγιση
- ✓ Να είναι η θέση τέτοια ώστε ο θόρυβος από τη μονάδα να μην ενοχλεί τρίτα άτομα.
- ✓ Να είναι στέρεο και σταθερό - προς αποφυγή κραδασμών.
- ✓ Να είναι αρκετά ανθεκτικό ώστε να αντέχει το βάρος της μονάδας.
- ✓ Το σημείο πρέπει να βρίσκεται τουλάχιστον ένα (1) μέτρο από κάθε άλλη ηλεκτρική συσκευή.

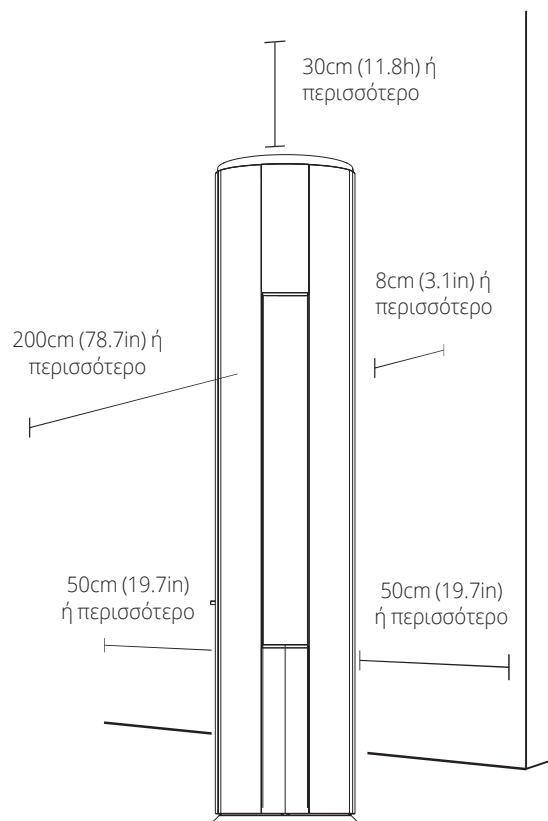
ΜΗΝ εγκαθιστάτε τη μονάδα στα ακόλουθα σημεία:

- ⊗ Κοντά σε πηγές θερμότητας, ατμού ή αερίων καύσεως.
- ⊗ Κοντά σε εύφλεκτα αντικείμενα, όπως κουρτίνες ή ρούχα.
- ⊗ Κοντά σε εμποδίων που ενδέχεται να φράξουν την κυκλοφορία του αέρα.
- ⊗ Κοντά στην είσοδο αέρα.
- ⊗ Σε τοποθεσία με άμεση έκθεση στο ηλιακό φως.

ΣΗΜΕΙΩΣΗ ΓΙΑ ΤΗΝ ΟΠΗ ΣΤΟΝ ΤΟΙΧΟ

Σε περίπτωση απουσίας μόνιμων σωληνώσεων ψυκτικού: Όταν επιλέγετε το σημείο εγκατάστασης του κλιματιστικού σας, αφήστε άφθονο χώρο για την διάνοιξη οπής στον τοίχο (βλέπε το βήμα «Ανοίξτε οπή στον τοίχο για τις σωληνώσεις σύνδεσης») από την οποία θα περάσετε το καλώδιο μεταφοράς σήματος και τις σωληνώσεις ψυκτικού που συνδέουν την εσωτερική με την εξωτερική μονάδα. Η προεπιλεγμένη θέση για κάθε είδους σωληνώσεις είναι η δεξιά πλευρά της εσωτερικής μονάδας (κοιτάζοντας τη μονάδα). Παρ' όλα αυτά, υπάρχει χώρος για σωληνώσεις τόσο στα αριστερά, όσο και στα δεξιά της εσωτερικής μονάδας.

Για τον υπολογισμό της σωστής απόστασης από τοίχους και οροφή, ανατρέξτε στο ακόλουθο διάγραμμα:



Εικ. 4.2

Βήμα 2: Αφαιρέστε τον πίνακα ελέγχου και βγάλτε το φίλτρο

1. Ανοίξτε τη συσκευασία και βγάλτε την εσωτερική μονάδα. Αφαιρέστε την προστατευτική ταινία και τυχόν εξαρτήματα.
2. Αφαιρέστε όλα τα αξεσουάρ.
3. Βεβαιωθείτε ότι τα εξαρτήματα που συνοδεύουν τη μονάδα ταιριάζουν με εκείνα του κεφαλαίου «Διαγράμματα Εγκατάστασης και Εξαρτήματα» όπως φαίνεται στην προηγούμενη σελίδα.
4. Βγάλτε το φίλτρο PM2.5 και εγκαταστήστε το.

Βήμα 3. Στερέωση της εσωτερικής μονάδας (για να αποτρέψετε τη πτώση)

ΣΗΜΕΙΩΣΗ: Για να αποτρέψετε τη πτώση της μονάδας, η εσωτερική μονάδα πρέπει να στερεωθεί από τις βίδες.

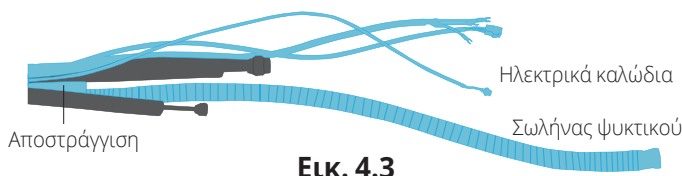
1. Υπολογίστε τη θέση των οπών εγκατάστασης.
2. Εισάγετε τους κοχλίες (βίδες) M8 στη μονάδα ενόσω βρίσκεται στο έδαφος (ο αριθμός των κοχλίων που θα χρησιμοποιήσετε εξαρτάται από τον αριθμό των οπών στο εξωτερικό περίβλημα της συσκευής).
3. Σηκώστε την εσωτερική μονάδα ώστε οι οπές εγκατάστασης να καλύψουν τις κοχλίες και έπειτα σφίξτε τα περικόχλια στις κοχλίες.

! ΠΡΟΣΟΧΗ

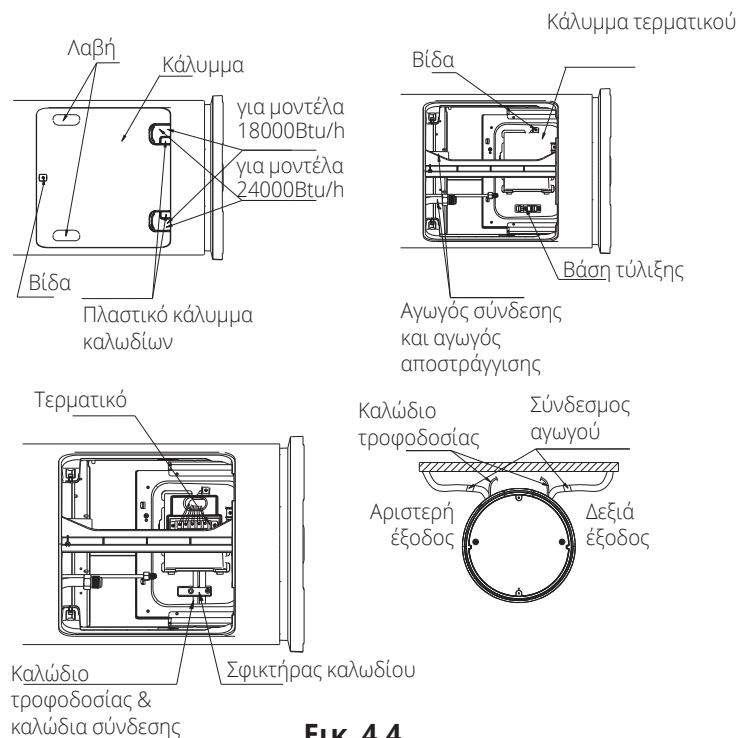
Σε περίπτωση που απαιτείται λήψη συμπληρωματικών μέτρων υποστήριξης της μονάδας για πρόληψη πτώσης, τοποθετήστε μια προστατευτική σφήνα. Η διαδικασία τοποθέτησης της σφήνας είναι η εξής:

- Βγάλτε την προστατευτική σφήνα και υπολογίστε μετρώντας το κατάλληλο μέγεθος.
- Χρησιμοποιήστε λαμαρινόβιδες για να στερεώσετε την προστατευτική σφήνα στο επάνω περίβλημα της εσωτερικής μονάδας.
- Στερεώστε καλά στον τοίχο την άλλη άκρη της σφήνας με λαμαρινόβιδες.

Βήμα 4. Σωληνώσεις και συνδέσεις



Εικ. 4.3



Εικ. 4.4

1. Τοποθετήστε τον σωλήνα σύνδεσης στο έδαφος. Τοποθετήστε τον εύκαμπτο σωλήνα αποστράγγισης, τον σωλήνα του ψυκτικού μέσου και όλα τα ηλεκτρικά καλώδια (αφού σιγουρευτείτε ότι τα άκρα τους είναι σωστά τοποθετημένα) δίπλα στις σωληνώσεις.
2. Χρησιμοποιήστε τον εύκαμπτο σωλήνα αποστράγγισης ως οδηγό για να υπολογίσετε και να προσαρμόσετε το μήκος των καλωδίων χαμηλής και υψηλής τάσης, των λοιπών καλωδίων και τον σωλήνα ψυκτικού μέσου. Χρησιμοποιήστε για να τα τοποθετήσετε αρχικά τη σωστή θέση τους σφικτήρες καλωδίων.
3. Τακτοποιήστε τους αγωγούς έτσι ώστε ο εύκαμπτος σωλήνας αποστράγγισης να βρίσκεται κάτω, οι σωληνώσεις σύνδεσης στη μέση και τα ηλεκτρικά καλώδια επάνω.
4. Σύμφωνα με τη θέση της εσωτερικής μονάδας και την τρύπα στον τοίχο, ρυθμίστε την κατεύθυνση και (Δείτε σχήμα 4.5) για να καθορίσετε την αποφόρτιση από αριστερά ή δεξιά.
5. Τοποθετήστε τη συσκευασία του μηχανήματος στο έδαφος. Τοποθετήστε τη μονάδα με την όψη στη συσκευασία. Αφαιρέστε τις βίδες από το πίσω κάλυμμα και στη συνέχεια, κρατήστε πατημένο το γάντζο ώστε να τραβήξετε το κάλυμμα έξω. Αφαιρέστε τις βίδες του καλύμματος του τερματικού και στη συνέχεια αφαιρέστε το κάλυμμα στην κατεύθυνση του βέλους.

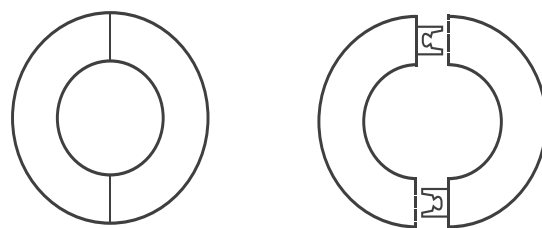
6. Αφαιρέστε το καλώδιο για δοκιμαστικό έλεγχο και ταιριάξτε το καλώδιο χρώματα / ετικέτες με τις ετικέτες στο τερματικό μπλοκ. Χρησιμοποιήστε σφιγκτήρα καλωδίου και βίδες για να στερεώσετε τα καλώδια στο τερματικό.
7. Επανατοποθετήστε το κάλυμμα του τερματικού και στερεώστε το κάλυμμα με βίδες. Έπειτα ρυθμίστε τη μονάδα.
8. Συνδέστε τις σωληνώσεις με τον σωλήνα αποστράγγισης να βρίσκεται στο κάτω μέρος, ο σωλήνας σύνδεσης είναι στο κέντρο και η ηλεκτρική καλωδίωση βρίσκεται στην κορυφή. Μην τυλίξετε τον σύνδεσμο του σωλήνα σύνδεσης έως ότου ολοκληρωθεί η ανίχνευση διαρροών.
9. Σύμφωνα με τον τόπο αποφόρτισης, χρησιμοποιήστε μυτερό αντικείμενο για να αφαιρέσετε ένα αντίστοιχο πλαστικό πάνελ, σφίξτε τις καλωδιώσεις, τοποθετήστε τις σωλήνες στο διάκενο, καλύψτε με το κάλυμμα και βιδώστε.

καλύπτετε την οπή του πάνελ από την οποία εκτελείτε την αποφόρτιση.

- Κατά την κάμψη των σωλήνων, παρακαλούμε σημειώστε την ένταση για να αποτρέψει τους σωλήνες να λυγίσουν ή να έρθουν σε ίσια θέση.

Βήμα 5: Εφαρμογή στεγανοποίησης της οπής σε τοίχο

1. Σφίξτε τις ήδη συνδεδεμένες σωληνώσεις.
2. Εφαρμόστε το στεγανωτικό στα κενά μεταξύ των σωληνώσεων και του τοίχου, έπειτα εφαρμόστε σταθερά με στόκο.
3. Τραβήξτε το κάλυμμα της θήκης τοίχου για να το ανοίξετε. Αφού τοποθετήσετε καλά τις σωληνώσεις, πιέστε το μέσα στην οπή του τοίχου για να το στερεώσετε πλήρως στον τοίχο και να ολοκληρώσετε την εγκατάσταση.



Εικ. 4.6

ΠΡΟΣΟΧΗ

- Χρησιμοποιήστε τους σφιγκτήρες καλωδίων για να σφίξετε τις καλωδιώσεις και οι σωληνώσεις θα πρέπει να μείνουν μακριά από τα άκρα σύνδεσης σε περίπτωση ανίχνευσης διαρροών.
- Όταν χρειαστεί να επιμηκύνετε το σωλήνα αποστράγγισης, χρησιμοποιήστε μια προστατευτική σωλήνα για να τυλίξετε το εσωτερικό τμήμα της προέκτασης και σφραγίστε το συνδετήρα με κόλλα. Δεν πρέπει να λυγίζει κάποιο μέρος των σωλήνων.
- Να είστε προσεκτικοί όταν τοποθετείτε ή εγκαθιστάτε τη μονάδα αποτρέποντας την επιφάνεια από το να γρατζουνιστεί.
- Πριν αφαιρέσετε το πλαστικό πάνελ, επιλέξτε την πλευρά από την οποία οι σωληνώσεις και οι καλωδιώσεις θα βγουν από τη μονάδα. (Αποφόρτιση από την πλευρά τροφοδοσίας: Αφαιρέστε το πλαστικό πάνελ του καλωδίου τροφοδοσίας B. Για το μοντέλο 18000BTU/h, αφαιρέστε το πλαστικό πάνελ τόσο της ισχύος και της πλευράς 18000BTU/h C. Για το μοντέλο 24000BTU/h, αφαιρέστε το πλαστικό πάνελ, 18000BTU/h πλευρά και 24000BTU/h πλευρά.). Φροντίστε να

ΣΗΜΕΙΩΣΗ

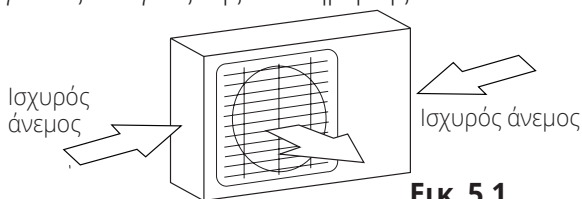
- Όταν η μονάδα είναι εγκατεστημένη κοντά σε κουρτίνα, διατηρήστε την τουλάχιστον 1 μέτρο μακριά για να αποφύγετε τη εισαγωγή αέρα.

Οδηγίες εγκατάστασης εξωτερικής μονάδας

Βήμα 1: Επιλέξτε το σημείο εγκατάστασης

Η εγκατάσταση της εξωτερικής μονάδας πρέπει να γίνει σε σημείο που να πληροί τις ακόλουθες προϋποθέσεις:

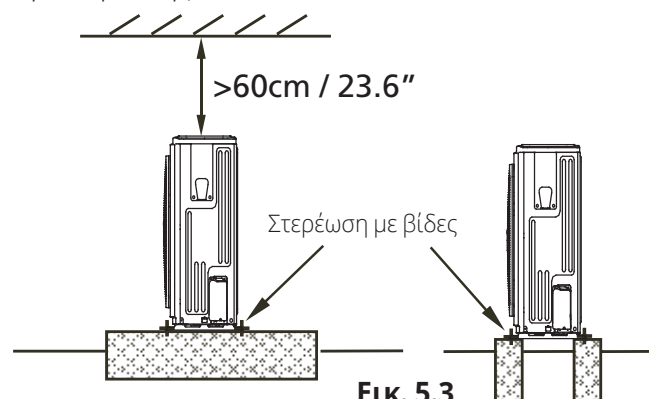
- ✓ Τοποθετήστε την εξωτερική μονάδα όσο το δυνατόν πιο κοντά στην εσωτερική μονάδα.
- ✓ Βεβαιωθείτε ότι ο διαθέσιμος χώρος επαρκεί για την εγκατάσταση και τη συντήρησή της.
- ✓ Φροντίστε να μην υπάρχουν εμπόδια εμπρός από τους αεραγωγούς εισόδου και εξόδου και να εξασφαλίστε ότι δεν υπάρχει έκθεση σε δυνατούς ανέμους.
- ✓ Φροντίστε η θέση της μονάδας να μην την εκθέτει σε ριπές χιονιού, συλλογή φύλλων ή άλλα εποχιακά απορρίμματα. Εφόσον είναι δυνατόν τοποθετήστε στέγαστρο πάνω από τη μονάδα. Το στέγαστρο δεν πρέπει να εμποδίζει την ελεύθερη κυκλοφορία του αέρα.
- ✓ Ο χώρος εγκατάστασης πρέπει να είναι στεγνός και να αερίζεται καλά.
- ✓ Φροντίστε να υπάρχει άφθονος χώρος για την εγκατάσταση των σωλήνων σύνδεσης και των καλωδίων καθώς και ελεύθερη πρόσβαση σε αυτά για τις ανάγκες της συντήρησης.



Εικ. 5.1

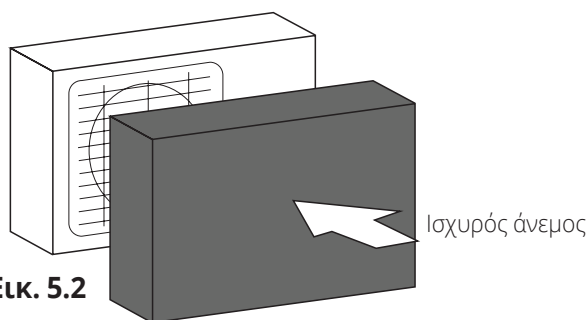
Βήμα 2: Εγκατάσταση της εξωτερικής μονάδας

Στερεώστε την εξωτερική μονάδα με κοχλίες αγκίστρωσης (M10)



Εικ. 5.3

- ✓ Ο χώρος πρέπει να είναι απαλλαγμένος από αέρια καύσης και χημικά.
- ✓ Το μήκος των σωλήνων μεταξύ της εξωτερικής και της εσωτερικής μονάδας δεν πρέπει να υπερβαίνει το μέγιστο επιτρεπόμενο μήκος σωλήνα.
- ✓ Εφόσον είναι εφικτό, ΜΗΝ εγκαθιστάτε τη μονάδα σε σημείο όπου θα είναι εκτεθειμένη στο άμεσο ηλιακό φως.
- ✓ Εφόσον είναι δυνατόν, φροντίστε να τοποθετείτε τη μονάδα μακριά από τις γειτονικές κατοικίες ώστε να μην ενοχλεί τους γείτονές σας ο θόρυβος που εκπέμπει.
- ✓ Εάν το σημείο είναι εκτεθειμένο σε ισχυρούς ανέμους (για παράδειγμα όταν βρίσκεται σε παραθαλάσσιο σημείο) η μονάδα πρέπει να τοποθετείται κόντρα στον τοίχο για λόγους προφύλαξης από τον άνεμο. Εάν το κρίνετε απαραίτητο, χρησιμοποιήστε στέγαστρο. (Βλέπε Σχήματα 5.1 & 5.2)
- ✓ Εγκαταστήστε την εσωτερική και την εξωτερική μονάδα αλλά και τα καλώδια και τους αγωγούς σε απόσταση τουλάχιστον ενός (1) μέτρου από συσκευές τηλεόρασης και ραδιοφώνου ώστε να αποτρέψετε φαινόμενα στατικών παρεμβολών ή παραμόρφωσης ειδώλου. Ανάλογα με τα ραδιοκύματα, η απόσταση του ενός (1) μέτρου ενδέχεται να μην επαρκεί για την εξάλειψη κάθε παρεμβολής.



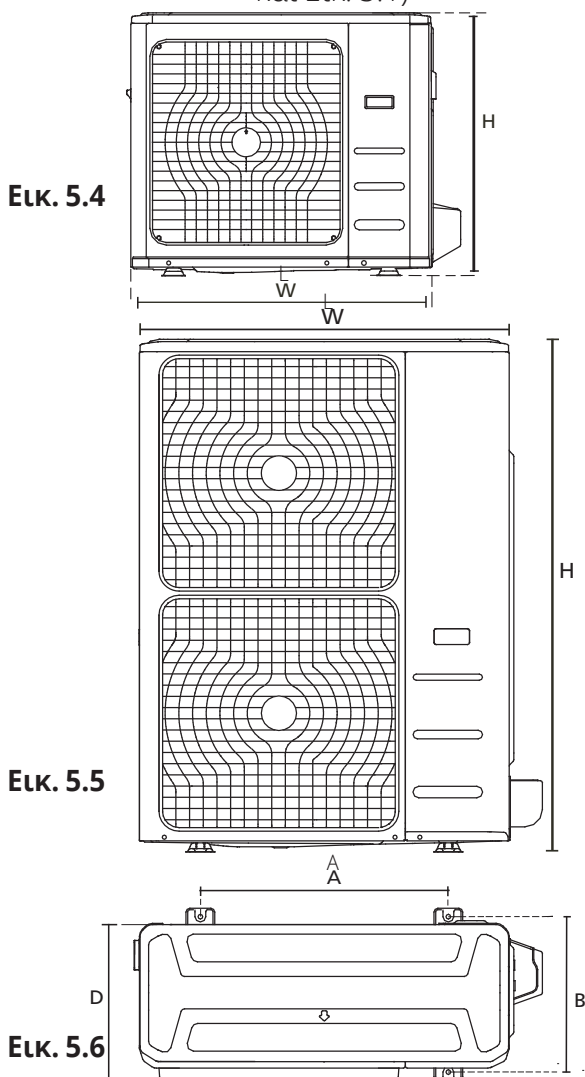
Εικ. 5.2

! ΠΡΟΣΟΧΗ

- Βεβαιωθείτε ότι έχετε αφαιρέσει κάθε εμπόδιο που ενδέχεται να εμποδίζει την κυκλοφορία του αέρα.
- Συμβουλευτείτε τις προδιαγραφές που αφορούν στο μήκος ώστε να εξασφαλίσετε ότι υπάρχει αρκετός χώρος τόσο για την εγκατάσταση, όσο και για τη συντήρηση.

Εξωτερική Μονάδα

(Ανατρέξτε στην Εικ.5.4, 5.5, 5.6, 5.10 και Εικ. 5.1)

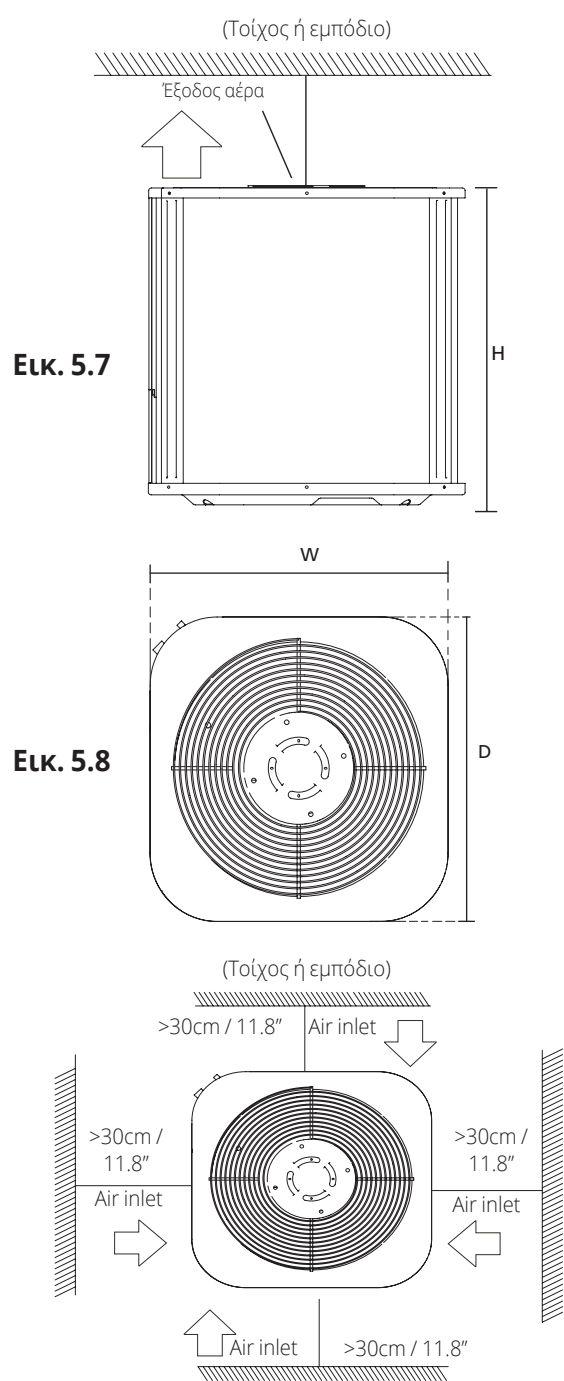


Πίνακας 5.1: Προδιαγραφές μήκους για την εξωτερική μονάδα (mm/inch)

Διαστάσεις Εξωτερικής Μονάδας ΜxYxB	Διαστάσεις τοποθέτησης	
	Απόσταση Α	Απόσταση Β
760x590x285 (29.9x23.2x11.2)	530 (20.85)	290 (11.4)
810x558x310 (31.9x22x12.2)	549 (21.6)	325 (12.8)
845x700x320 (33.27x27.5x12.6)	560 (22)	335 (13.2)
900x860x315 (35.4x33.85x12.4)	590 (23.2)	333 (13.1)
945x810x395 (37.2x31.9x15.55)	640 (25.2)	405 (15.95)
990x965x345 (38.98x38x13.58)	624 (24.58)	366 (14.4)
938x1369x392 (36.93x53.9x15.43)	634 (24.96)	404 (15.9)
900x1170x350 (35.4x46x13.8)	590 (23.2)	378 (14.88)
800x554x333 (31.5x21.8x13.1)	514 (20.24)	340 (13.39)
845x702x363 (33.27x27.6x14.3)	540 (21.26)	350 (13.8)
946x810x420 (37.24x31.9x16.53)	673 (26.5)	403 (15.87)
946x810x410 (37.24x31.9x16.14)	673 (26.5)	403 (15.87)
952x1333x410 (37.5x52.5x16.14)	634 (24.96)	404 (15.9)
952x1333x415 (37.5x52.5x16.34)	634 (24.96)	404 (15.9)

Εξωτερική μονάδα τύπου κάθετης εξαγωγής

(Ανατρέξτε στην Εικ.5.7, 5.8, 5.9, και Εικ. 5.1)

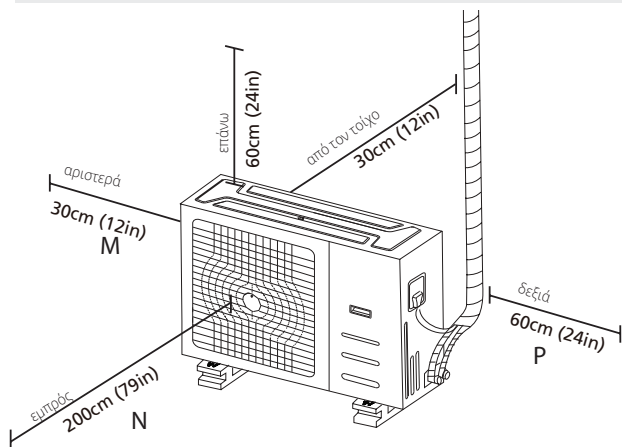


Εικ. 5.9

Πίνακας 5.2: Προδιαγραφές μήκους για την εξωτερική μονάδα κάθετης εξαγωγής (mm/inch)

Μοντέλο	Διαστάσεις		
	Μ	Υ	Β
18	554/21.8	633/25	554/21.8
24	554/21.8	633/25	554/21.8
36	554/21.8	759/29.8	554/21.8
36	600/23.6	633/25	600/23.6
48	710/28	759/29.8	710/28
60	710/28	843/33	710/28

ΣΗΜΕΙΩΣΗ: Η ελάχιστη απόσταση μεταξύ εξωτερικής μονάδας και τοίχου που περιγράφεται στον οδηγό εγκατάστασης δεν ισχύει για αεροστεγή δωμάτια. Φροντίστε να διατηρείτε την μονάδα ανεμπόδιστη σε τουλάχιστον δύο από τις τρεις κατευθύνσεις (M, N, P) (Δείτε Σχήμα 5.10)

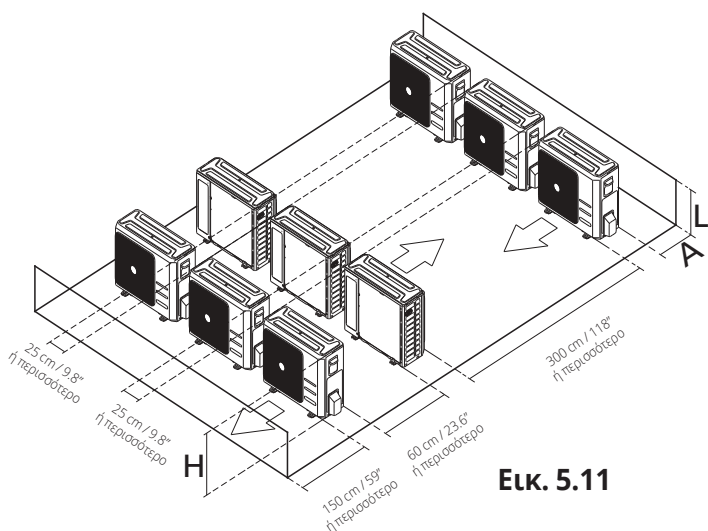


Εικ. 5.10

Γραμμές σειρών εγκατάστασης

Πίν. 5.3 Οι σχέσεις μεταξύ H, A, L είναι οι παρακάτω.

	L	A
$L \leq H$	$L \leq 1/2H$	25 cm / 9.8" ή περισσότερο
	$1/2H < L \leq H$	30 cm / 11.8" ή περισσότερο
$L > H$	Δε μπορεί να εγκατασταθεί	



Εικ. 5.11

Εγκατάσταση Αγωγού Αποστράγγισης

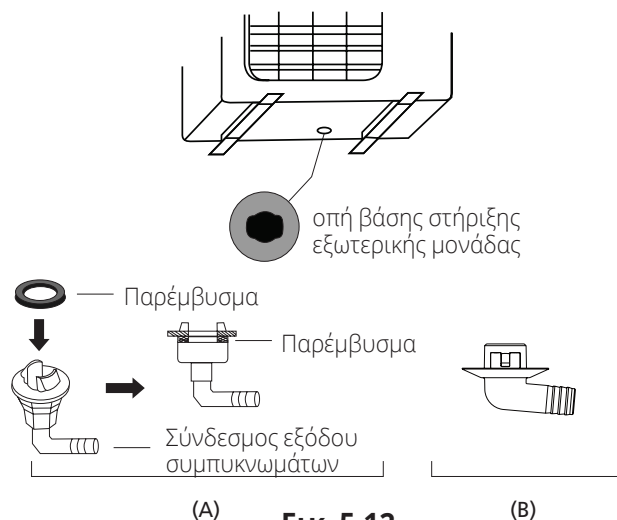
Πριν εγκαταστήσετε την εξωτερική μονάδα στη θέση της, θα πρέπει να εγκαταστήσετε τον αγωγό αποστράγγισης στο κάτω μέρος της μονάδας. (Δείτε Σχ. 5.12)

1. Προσαρμόστε τη φλάντζα στο άκρο του του αγωγού αποστράγγισης που θα συνδεθεί με την

εξωτερική μονάδα.

2. Εισάγετε τον αγωγό αποστράγγισης στην οπή που βρίσκεται στη βάση της εξωτερικής μονάδας.
3. Περιστρέψτε τον αγωγό αποστράγγισης κατά 90° μέχρις ότου έρθει στη θέση του (με ένα κλικ) ώστε να βλέπει το μπροστινό μέρος της μονάδας.
4. Συνδέστε μια προέκταση εύκαμπτου σωλήνα αποστράγγισης (δεν περιλαμβάνεται) στον αγωγό αποστράγγισης για να στέλνετε το νερό εκεί που εσείς θέλετε όταν η συσκευή βρίσκεται σε λειτουργία θέρμανσης.

ΣΗΜΕΙΩΣΗ: Φροντίστε η απορροή του νερού να γίνεται σε σημείο ασφαλές όπου δεν μπορεί να προκαλέσει φθορές ή κίνδυνο ολίσθησης.



Εικ. 5.12

Σημειώσεις που αφορούν τη διάτρηση οπής στον τοίχο

Η διάνοιξη οπής στον τοίχο είναι απαραίτητη για να περάσετε τις σωληνώσεις του ψυκτικού μέσου και το καλώδιο μεταφοράς σήματος που θα συνδέσει την εσωτερική με την εξωτερική μονάδα.

1. Προσδιορίστε τη θέση της οπής με βάση τη θέση της εξωτερικής μονάδας.
2. Χρησιμοποιήστε ένα τρυπάνι 65-mm (2,5") για να ανοίξετε την οπή στον τοίχο.

ΣΗΜΕΙΩΣΗ: Κατά τη διάνοιξη της οπής φροντίστε να αποφύγετε καλώδια, την υδραυλική εγκατάσταση και άλλα ευαίσθητα εξαρτήματα.

3. Τοποθετήστε το προστατευτικό κολάρο στην οπή. Με αυτό τον τρόπο προστατεύεται το χείλος της οπής και παράλληλα καθίσταται ευκολότερη η σφράγιση της οπής μετά το πέρας της διαδικασίας εγκατάστασης.

Ο σωλήνας αποστράγγισης απομακρύνει το νερό από τη μονάδα. Η μη ορθή τοποθέτησή του ενδέχεται να προκαλέσει φθορές τόσο στη μονάδα, όσο και σε άλλα περιουσιακά στοιχεία.

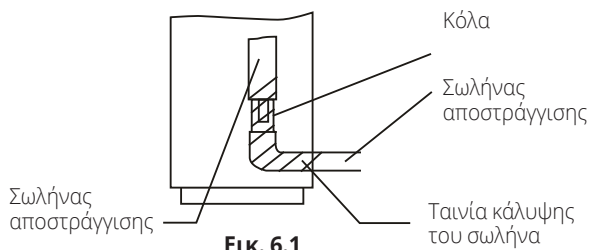
! ΠΡΟΣΟΧΗ

- Μονώστε όλους τους σωλήνες ώστε να αποφύγετε τη δημιουργία συμπυκνώματος που ενδέχεται να προκαλέσει φθορές.
- Εάν ο σωλήνας αποστράγγισης είναι λυγισμένος ή δεν εγκατασταθεί σωστά, υπάρχει κίνδυνος διαρροής και συνεπακόλουθης δυσλειτουργίας του διακόπτη στάθμης νερού.
- Όταν η συσκευή βρίσκεται σε λειτουργία θέρμανσης (HEAT), από την εξωτερική μονάδα απορρέει νερό. Βεβαιωθείτε ότι ο εύκαμπτος σωλήνας αποστράγγισης είναι τοποθετημένος έτσι ώστε να αποφεύγονται φθορές από το νερό αλλά και κίνδυνος ολίσθησης λόγω του παγωμένου απορρέοντος νερού.
- **ΜΗΝ** τραβάτε δυνατά τον σωλήνα αποστράγγισης διότι υπάρχει κίνδυνος αποσύνδεσής του.

ΣΗΜΕΙΩΣΗ ΠΕΡΙ ΑΓΟΡΑΣ ΣΩΛΗΝΩΝ

Για την εγκατάσταση αυτή χρειάζεστε σωλήνα πολυαιθυλενίου (εξωτερική διάμετρος = 3,7-3,9cm, εσωτερική διάμετρος = 3,2cm). Τον σωλήνα αυτό μπορείτε να τον προμηθευτείτε από το τοπικό κατάστημα σιδηρικών ή από τον αντιπρόσωπό σας.

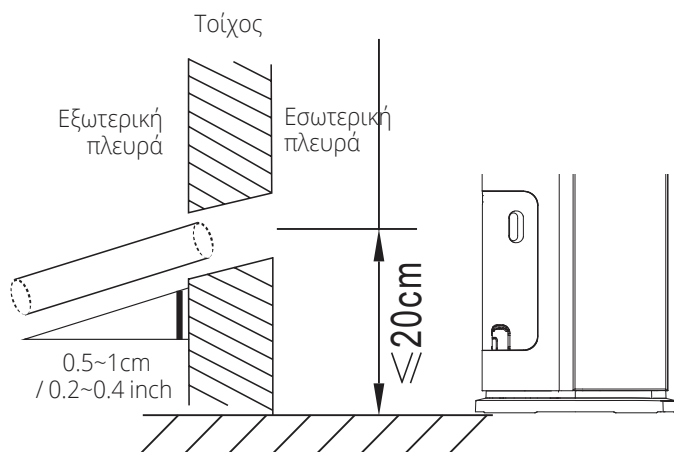
Εγκατάσταση του Εσωτερικού Σωλήνα Αποστράγγισης



1. Βεβαιωθείτε ότι ο σωλήνας αποστράγγισης είναι συνδεδεμένος με την εξωτερική πλευρά με φορά προς τα κάτω.
2. Ο σκληρός πλαστικός σωλήνας από

πολυβινυλοχλωρίδιο (PVC) (εξωτερική διάμετρος 26mm) που διατίθεται στο εμπόριο είναι κατάλληλος για να τον συνδέσετε με τον εύκαμπτο σωλήνα αποστράγγισης.

3. Παρακαλούμε συνδέστε τον εύκαμπτο σωλήνα αποστράγγισης με τον σωλήνα αποστράγγισης και στερεώστε τους με ταινία. Εάν πρέπει να συνδέσετε τον σωλήνα αποστράγγισης σε εσωτερικό χώρο και προς αποφυγή συμπύκνωσης λόγω πρόσληψης αέρα, καλύψτε τον σωλήνα με θερμομονωτικό υλικό (πολυαιθυλένιο ειδικού βάρους 0,03 και ελάχιστου πάχους 9 mm) και στερεώστε τη μόνωση με αυτοκόλλητη ταινία.
4. Μετά τη σύνδεση του σωλήνα αποστράγγισης, παρακαλούμε ελέγξτε κατά πόσον το νερό απορρέει με επάρκεια από τον σωλήνα και βεβαιωθείτε ότι δεν υπάρχουν διαρροές.
5. Ο σωλήνας ψυκτικού μέσου και ο σωλήνας αποστράγγισης πρέπει να είναι θερμομονωμένοι για να αποφευχθεί η συμπύκνωση και συνεπακόλουθα ο σχηματισμός σταγόνων νερού.
6. Χρησιμοποιήστε ένα τρυπάνι 65-mm (2,5") για να ανοίξετε την οπή στον τοίχο. Φροντίστε να την ανοίξετε ώστε να βλέπει ελαφρά προς τα κάτω. Το εξωτερικό της άκρο πρέπει να βρίσκεται χαμηλότερα από το εσωτερικό της άκρο κατά περίπου ένα (1) cm (0,4"). Με αυτό τον τρόπο εξασφαλίζεται η ορθή αποστράγγιση (βλέπε Σχήμα .2). Τοποθετείστε το προστατευτικό κολάρο στην οπή. Με αυτό τον τρόπο προστατεύεται το χείλος της οπής και παράλληλα καθίσταται ευκολότερη η σφράγιση της οπής μετά το πέρας της εγκατάστασης.



Εικ. 6.2

ΣΗΜΕΙΩΣΗ: Κατά τη διάνοιξη της οπής φροντίστε να αποφύγετε καλώδια, την υδραυλική εγκατάσταση και άλλα ευαίσθητα εξαρτήματα

7. Περάστε τον εύκαμπτο σωλήνα αποστράγγισης από την οπή στον τοίχο. Φροντίστε η απορροή του νερού να γίνεται σε σημείο ασφαλές όπου δεν μπορεί να προκαλέσει φθορές ή κίνδυνο ολίσθησης.

ΣΗΜΕΙΩΣΗ: Η έξοδος του σωλήνα αποστράγγισης πρέπει να βρίσκεται τουλάχιστον 5cm (1.9") πάνω από το έδαφος. Σε περίπτωση που ακουμπά στο έδαφος μπορεί να δημιουργηθεί απόφραξη της που θα οδηγήσει σε δυσλειτουργία. Σε περίπτωση αποστράγγισης του νερού απευθείας στην αποχέτευση, φροντίστε η αποχέτευση να διαθέτει σωλήνα απορροής σχήματος U ή S για την ανάσχεση της άσχημης μυρωδιάς που ενδέχεται διαφορετικά να διαχέεται στους εσωτερικούς χώρους της κατοικίας.

Οδηγίες Ασφαλείας

! ΠΡΟΕΙΔΟΠΟΙΗΣΗ

- Οι εγκαταστάσεις των σωληνώσεων πρέπει να γίνονται από εξουσιοδοτημένο τεχνικό και πρέπει να συμμορφώνονται με τους τοπικούς και εθνικούς κανόνες.
- Εάν το κλιματιστικό είναι εγκατεστημένο σε μικρών διαστάσεων χώρο, συνίσταται λήψη μέτρων ώστε σε περίπτωση διαρροής ψυκτικού ή συγκέντρωση ψυκτικού να μην υπερβεί τα όρια ασφαλείας. Σε περίπτωση διαρροής ψυκτικού και υπέρβασης των προκαθορισμένων ορίων συγκέντρωσης ενδέχεται να προκληθεί κίνδυνος εξαιτίας της έλλειψης οξυγόνου.
- Κατά την εγκατάσταση του συστήματος ψύξης, λάβετε μέτρα ώστε να αποφύγετε την είσοδο αέρα, σκόνης, υγρασίας ή ξένων σωμάτων στο κύκλωμα του ψυκτικού μέσου. Η μόλυνση του συστήματος ενέχει κίνδυνο ανεπαρκούς λειτουργικής δυναμικότητας, υψηλής πίεσης στο κύκλωμα ψυκτικού, έκρηξης και τραυματισμών.
- Αερίζετε τον χώρο αμέσως σε περίπτωση διαρροής ψυκτικού μέσου κατά την εγκατάσταση. Το ψυκτικό μέσο είναι τοξικό και εύφλεκτο. Μετά την ολοκλήρωση των εργασιών εγκατάστασης βεβαιωθείτε ότι δεν υπάρχει διαρροή ψυκτικού μέσου.

Οδηγίες για τη Σύνδεση των Σωληνώσεων Ψυκτικού Μέσου

! ΠΡΟΣΟΧΗ

- Ο σωλήνας διακλάδωσης πρέπει να εγκαθίσταται οριζόντια. Γωνία που υπερβαίνει τις 10° ενδέχεται να προκαλέσει δυσλειτουργία.
- **ΜΗΝ** εγκαθιστάτε τον σωλήνα σύνδεσης πριν ολοκληρώσετε την εγκατάσταση τόσο της εσωτερικής, όσο και της εξωτερικής μονάδας.
- Μονώστε τόσο τους σωλήνες αερίου, όσο και τους σωλήνες υγρού για να αποφύγετε τυχόν διαρροές.

Βήμα 1: Κοπή των σωλήνων

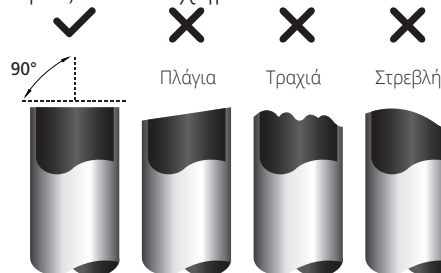
Κατά την προετοιμασία των σωλήνων ψυκτικού μέσου, ιδιαίτερη προσοχή πρέπει να δοθεί στην κοπή και τη διαμόρφωσή τους. Με αυτό τον τρόπο εξασφαλίζεται η αποδοτική λειτουργία της συσκευής και ελαχιστοποιείται η ανάγκη συντήρησης στο μέλλον.

1. Μετρήστε την απόσταση μεταξύ εσωτερικής και εξωτερικής μονάδας.
2. Χρησιμοποιήστε έναν κόφτη σωλήνων για να κόψετε το σωλήνα λίγο μακρύτερο από το μέγεθος που μετρήσατε.

! ΠΡΟΣΟΧΗ

ΜΗΝ παραμορφώνετε το σωλήνα ενώ τον κόβετε. Ενώ κόβετε το σωλήνα, προσέξτε ιδιαίτερα ώστε να μην προκαλέσετε φθορές, να μην τον βαθουλώσετε και να μην τον παραμορφώσετε. Κάθε μορφής παραμόρφωση μειώνει σε μεγάλο βαθμό τη θερμαντική απόδοση της συσκευής.

1. Φροντίστε ο σωλήνας να κοπεί αυστηρά υπό γωνία 90° Για παραδείγματα κακής κοπής ανατρέξτε στο Σχήμα 7.1.



Εικ. 7.1

Βήμα 2: Αφαιρέστε τα γρέζια.

Τα γρέζια ενδέχεται να επηρεάσουν αρνητικά τηναεροστεγή στεγανοποίηση της σύνδεσης ψυκτικού μέσου. Ως εκ τούτου πρέπει να αφαιρούνται ολοσχερώς.

1. Κρατήστε τον σωλήνα ώστε να βλέπτε προς τα κάτω για να μην πέσουν τα γρέζια στο εσωτερικό του.

2. Χρησιμοποιήστε έναν περικοπτήρα (αλεξουάρ) ή ένα εργαλείο/μηχάνημα αφαίρεσης των γρεζιών για να αφαιρέσετε όλα τα γρέζια από το σημείο όπου κόψατε τον σωλήνα.

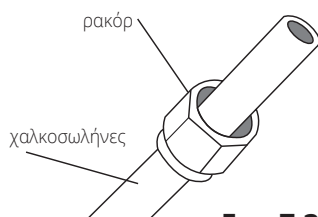


Εικ. 7.2

Βήμα 3: Διαμόρφωση των άκρων του σωλήνα

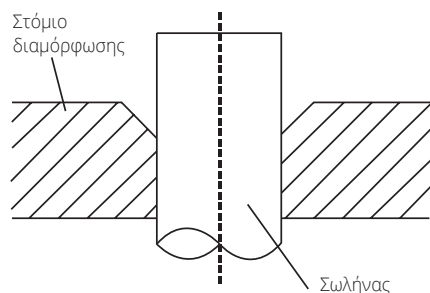
Η κατάλληλη διαμόρφωση είναι απαραίτητη για την επίτευξη αεροστεγούς στεγανοποίησης.

1. Μετά την αφαίρεση των γρεζιών από τον κομμένο σωλήνα, σφραγίστε τα άκρα με ταινία PVC ώστε να μην εισέρχονται ξένα σώματα/ υλικά στον σωλήνα.
2. Τυλίξτε τον σωλήνα με μονωτικό υλικό.
3. Τοποθετήστε περικόχλια με άνοιγμα και στα δύο άκρα του σωλήνα. Φροντίστε να είναι στραμμένα προς τη σωστή κατεύθυνση γιατί δεν μπορείτε μετά τη διαμόρφωση να τα τοποθετήσετε ή να αλλάξετε την κατεύθυνσή τους. Βλέπε Σχήμα 7.3.



Εικ. 7.3

4. Αφαιρέστε την ταινία PVC από τα άκρα του σωλήνα όταν είστε έτοιμοι να τον διαμορφώσετε.
5. Στερεώστε το στόμιο διαμόρφωσης στην άκρη του σωλήνα. Το άκρο του σωλήνα πρέπει να ξεπερνά το στόμιο.



Εικ. 7.4

6. Τοποθετήστε το εργαλείο διαμόρφωσης πάνω στο στόμιο.
7. Γυριστέ το χερούλι του εργαλείου κατασκευής στομίου δεξιόστροφα μέχρι να ολοκληρωθεί η διαμόρφωση του σωλήνα. Διαμορφώστε τον σωλήνα σύμφωνα με τις διαστάσεις του πίνακα 7.1.

Πίνακας 7.1: ΠΡΟΕΚΤΑΣΗ ΤΗΣ ΣΩΛΗΝΩΣΗΣ ΠΕΡΑ ΑΠΟ ΤΟ ΣΤΟΜΙΟ ΔΙΑΜΟΡΦΩΣΗΣ

Πάχος σωλήνα	Δυναμομετρικό κλειδί σύσφιξης	Μέγεθος στομίου (A) (mm/inch)		Σχήμα στομίου
		Min.	Max.	
Ø 6.4	14.2-17.2 N.m (144-176 kgf.cm)	8.3/0.3	8.3/0.3	
Ø 9.5	32.7-39.9 N.m (333-407 kgf.cm)	12.4/0.48	12.4/0.48	
Ø 12.7	49.5-60.3 N.m (504-616 kgf.cm)	15.4/0.6	15.8/0.6	
Ø 15.9	61.8-75.4 N.m (630-770 kgf.cm)	18.6/0.7	19/0.74	
Ø 19.1	97.2-118.6 N.m (990-1210 kgf.cm)	22.9/0.9	23.3/0.91	
Ø 22	109.5-133.7 N.m (1117-1364 kgf.cm)	27/1.06	27.3/1.07	

8. Αφαιρέστε το εργαλείο και το στόμιο διαμόρφωσης και επιθεωρήστε το άκρο του σωλήνα για τυχόν ρωγμές. Βεβαιωθείτε ότι η διαμόρφωση είναι ομοιόμορφη.

Βήμα 4: Σύνδεση των σωλήνων

Συνδέστε τους χάλκινους σωλήνες πρώτα με την εσωτερική μονάδα. Συνδέστε κατόπιν την εσωτερική μονάδα με την εξωτερική. Συνδέστε πρώτα τον σωλήνα χαμηλής και κατόπιν τον σωλήνα υψηλής πίεσης.

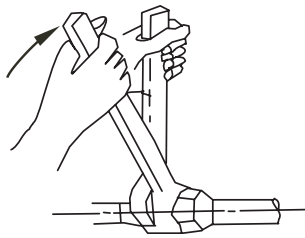
1. Κατά τη σύνδεση των περικοχλίων με στόμιο, απλώστε ένα λεπτό στρώμα ψυκτικού ελαίου στα διαμορφωμένα άκρα των σωλήνων.
2. Ευθυγραμμίστε το κέντρο των δύο σωλήνων που πρόκειται να συνδέσετε.



Εικ. 7.6

3. Σφίξτε το περικόχλιο με στόμιο όσο το δυνατόν περισσότερο με το χέρι.
4. Χρησιμοποιήστε περικοχλιοστρόφο για να πιάσετε το περικόχλιο του σωλήνα της μονάδας.
5. Ενώ κρατάτε σταθερά το περικόχλιο χρησιμοποιήστε ένα δυναμομετρικό κλειδί σύσφιξης για να σφίξετε το περικόχλιο με στόμιο σύμφωνα με τις τιμές ροπής στρέψης του πίνακα 7.1.

ΣΗΜΕΙΩΣΗ: Χρησιμοποιήστε περικοχλιοστρόφιο και δυναμομετρικό κλειδί σύσφιξης για να συνδέσετε τους σωλήνες με τη μονάδα ή να τους αποσυνδέσετε από αυτήν.



Εικ. 7.7

! ΠΡΟΣΟΧΗ

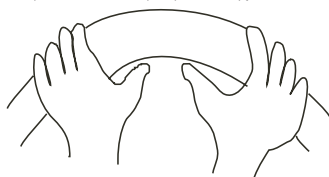
- Βεβαιωθείτε ότι έχετε τυλίξει τους σωλήνες με θερμομονωτικό υλικό. Η άμεση επαφή με τους γυμνούς σωλήνες μπορεί να προκαλέσει εγκαύματα ή κρυοπαγήματα.
- Βεβαιωθείτε ότι ο σωλήνας έχει συνδεθεί σωστά. Το υπερβολικό σφίξιμο του σωλήνα ενδέχεται να προκαλέσει φθορά στον εκχειλωμένο σωλήνα ενώ το ανεπαρκές σφίξιμο ίσως προκαλέσει διαρροή.

ΣΗΜΕΙΩΣΕΙΣ ΠΕΡΙ ΕΛΑΧΙΣΤΗΣ ΑΚΤΙΝΑΣ ΚΑΜΨΕΩΣ

Λυγίστε με προσοχή τον σωλήνα στη μέση σύμφωνα με το ακόλουθο διάγραμμα.

ΜΗΝ κάμπτετε τους σωλήνες σε γωνία που υπερβαίνει τις 90° ή για περισσότερες από τρεις 3 φορές.

Λυγίστε τον σωλήνα με το δάχτυλο



ελάχιστη ακτίνα 10cm

Εικ. 7.8

6. Αφού συνδέσετε τους χαλκοσωλήνες με την εσωτερική μονάδα, τυλίξτε το καλώδιο ισχύος, το καλώδιο σήματος και τις σωληνώσεις συνδέοντάς τα με συνδετική ταινία.

ΣΗΜΕΙΩΣΗ: ΜΗΝ τυλίγετε το καλώδιο σήματος με άλλα σύρματα. Κατά την ομαδοποίηση των στοιχείων αυτών, μην τυλίγετε και μην διασταυρώνετε το καλώδιο σήματος με άλλα καλώδια ή σύρματα.

7. Περάστε τον αγωγό από τον τοίχο και συνδέστε τον με την εξωτερική μονάδα.
8. Μονώστε όλες τις σωληνώσεις, συμπεριλαμβανομένων και των βαλβίδων της εξωτερικής μονάδας.
9. Ανοίξτε τις βαλβίδες απομόνωσης της εξωτερικής μονάδας για να αρχίσει η ροή ψυκτικού ανάμεσα στην εσωτερική και την εξωτερική μονάδα.

! ΠΡΟΣΟΧΗ

Μετά την ολοκλήρωση των εργασιών εγκατάστασης βεβαιωθείτε ότι δεν υπάρχει διαρροή ψυκτικού μέσου. Σε περίπτωση διαρροής ψυκτικού μέσου, αερίστε τον χώρο αμέσως και εκκενώστε το σύστημα (συμβουλευτείτε το κεφάλαιο με τίτλο Εκκένωση Αέρα του παρόντος εγχειριδίου).

Οδηγίες Ασφαλείας



ΠΡΟΕΙΔΟΠΟΙΗΣΗ

- Πριν πραγματοποιήσετε οποιαδήποτε εργασία στο σύστημα, αποσυνδέστε την παροχή ηλεκτρικού ρεύματος.
- Οι εργασίες καλωδίωσης πρέπει να γίνονται σύμφωνα με τις τοπικές και εθνικές κανονιστικές ρυθμίσεις.
- Η ηλεκτρική καλωδίωση πρέπει να γίνεται από αδειοδοτημένο τεχνικό. Ανεπαρκείς/εσφαλμένες συνδέσεις ενέχουν κίνδυνο ηλεκτρικής δυσλειτουργίας, τραυματισμού και πυρκαγιάς.
- Για το σύστημα αυτό απαιτείται ανεξάρτητο κύκλωμα και μεμονωμένη έξοδος. ΜΗΝ συνδέετε δεύτερο ρευματολήπτη ή φόρτιση στον ίδιο ρευματοδότη.
- Εάν η δυναμικότητα του ηλεκτρικού κυκλώματος δεν επαρκεί ή οι συνδέσεις είναι ελαττωματικές υπάρχει κίνδυνος ηλεκτροπληξίας, πυρκαγιάς καθώς και φθοράς της συσκευής και άλλων περιουσιακών στοιχείων.
- Συνδέστε το καλώδιο τροφοδοσίας με τα τερματικά και σφίξτε το με σφικτήρα. Μη ασφαλισμένη σύνδεση ενέχει κίνδυνο πυρκαγιάς.
- Βεβαιωθείτε ότι όλες οι εργασίες καλωδίωσης γίνονται ορθά και ότι το κάλυμμα του πίνακα ελέγχου έχει τοποθετηθεί επίσης ορθά.
- Οποιαδήποτε αστοχία ενδέχεται να προκαλέσει υπερθέρμανση στα σημεία σύνδεσης, πυρκαγιά και ηλεκτροπληξία.
- Βεβαιωθείτε ότι η σύνδεση με την κεντρική παροχή γίνεται μέσω διακόπτη που αποσυνδέει όλους τους πόλους και διαθέτει διάκενο επαφής τουλάχιστον 3mm (0,118").
- **ΜΗΝ** τροποποιείτε το μήκος του καλωδίου τροφοδοσίας και μην χρησιμοποιείτε επέκταση καλωδίου ρεύματος.



ΠΡΟΣΟΧΗ

- Συνδέστε τα εξωτερικά καλώδια πριν συνδέσετε τα εσωτερικά καλώδια.
- Βεβαιωθείτε ότι έχετε γειώσει το σύστημα. Το καλώδιο της γείωσης πρέπει να απέχει από σωλήνες φυσικού αερίου και νερού, ράβδους κεραυνίτης προστασίας, τηλεφωνικά καλώδια και άλλα καλώδια γείωσης. Η ανεπαρκής γείωση της συσκευής ενέχει κίνδυνο ηλεκτροπληξίας.
- **ΜΗΝ** συνδέετε τη συσκευή με την παροχή ρεύματος πριν ολοκληρώσετε όλες τις εργασίες καλωδίωσης και τοποθέτησης των σωληνώσεων.
- Βεβαιωθείτε ότι δεν έχετε διασταυρώσει τα καλώδια τροφοδοσίας με τα καλώδια σήματος καθώς μπορεί να προκληθεί παραμόρφωση του σήματος και παρεμβολές.

Ακολουθήστε αυτές τις οδηγίες για να αποφύγετε την παραμόρφωση όταν τεθεί ο συμπιεστής σε λειτουργία.

- Η συσκευή πρέπει να είναι συνδεδεμένη με την κεντρική παροχή. Συνήθως, η παροχή ρεύματος πρέπει να έχει χαμηλή σύνθετη αντίσταση εξόδου 32 ohm.
- Μην συνδέετε άλλον εξοπλισμό στο ίδιο κύκλωμα.
- Πληροφορίες για την ισχύ τροφοδοσίας της συσκευής αναγράφονται στο αυτοκόλλητο με τα ονομαστικά μεγέθη που βρίσκεται πάνω στο προϊόν.

ΣΗΜΕΙΩΣΕΙΣ ΠΟΥ ΑΦΟΡΟΥΝ ΤΙΣ ΠΡΟΔΙΑΓΡΑΦΕΣ ΗΛΕΚΤΡΙΚΗΣ ΑΣΦΑΛΕΙΑΣ

Η πλακέτα τυπωμένου κυκλώματος (PCB) του κλιματιστικού περιέχει ασφάλεια τήξης για προστασία από την υπερφόρτιση. Οι προδιαγραφές της ασφάλειας τήξης είναι τυπωμένες στην πλακέτα τυπωμένου κυκλώματος, όπως T3.15A/250VAC, T5A/250VAC, κλπ.

Καλωδίωση εξωτερικής μονάδας



ΠΡΟΕΙΔΟΠΟΙΗΣΗ

Πριν πραγματοποιήσετε εργασίες καλωδίωσης ή άλλες ηλεκτρικές εργασίες, αποσυνδέστε την κεντρική παροχή ρεύματος.

1. Προετοιμάστε το καλώδιο για τη σύνδεση.
 - α. Επιλέξτε το σωστό μέγεθος καλωδίου πριν ετοιμάσετε το καλώδιο για να το συνδέσετε. Βεβαιωθείτε ότι χρησιμοποιείτε καλώδια H07RN-F.

Πίνακας 8.1: Ελάχιστη επιφάνεια διατομής καλωδίων ισχύος και καλωδίων σήματος στη Β. Αμερική

Ονομαστική ισχύς της συσκευής (A)	AWG
≤ 7	18
7 - 13	16
13 - 18	14
18 - 25	12
25 - 30	10

Πίνακας 8.2: Άλλες περιοχές

Ονομαστική ισχύς της συσκευής (A)	Ονομαστικό εμβαδόν διατομής (mm ²)
≤ 6	0.75
6 - 10	1
10 - 16	1.5
16 - 25	2.5
25 - 32	4
32 - 45	6

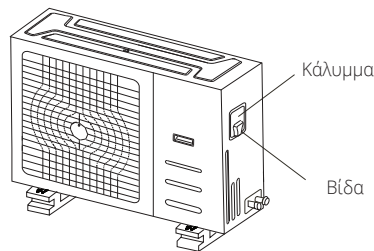
β. Χρησιμοποιήστε απογυμνωτές καλωδίων για να αφαιρέσετε το ελαστικό περίβλημα από αμφότερα τα άκρα του καλωδίου σήματος σε μήκος περίπου 15cm (5,9").

γ. Αφαιρέστε τη μόνωση από τα άκρα.

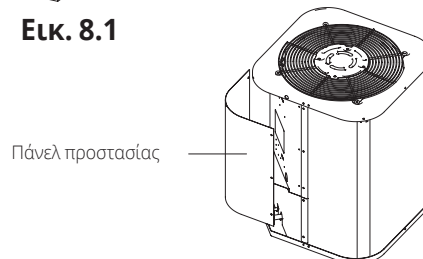
δ. Χρησιμοποιήστε πένσα σύσφιξης για να δημιουργήσετε u απολήξεις.

ΣΗΜΕΙΩΣΗ: Κατά τη σύνδεση των καλωδίων ακολουθείτε με προσήλωση το διάγραμμα συρμάτωσης που θα βρείτε στην εσωτερική πλευρά του καλύμματος του ηλεκτρικού κιβωτίου.

2. Αφαιρέστε το ηλεκτρικό κάλυμμα της εξωτερικής μονάδας. Αν δεν υπάρχει κάλυμμα στην εξωτερική μονάδα, αφαιρέστε τις βίδες από τη πλακέτα της συντήρησης και αφαιρέστε την πλακέτα προστασίας. (Δείτε Σχ. 8.1, 8.2).



Εικ. 8.1



Εικ. 8.2

3. Συνδέστε τα άκρα σε σχήμα u με τις τερματικές απολήξεις. Ταιριάξτε τα χρώματα/ετικέτες σήμανσης των καλωδίων με τις ετικέτες της συστοιχίας τερματικών απολήξεων. Βιδώστε και στερεώστε τα άκρα του κάθε καλωδίου στην αντίστοιχη τερματική απόληξη.
4. Σφίξτε το καλώδιο με τον σφικτήρα καλωδίων.
5. Μονώστε τα καλώδια που δεν χρησιμοποιήσατε με ηλεκτρική ταινία. Διατηρήστε τα μακριά από κάθε είδους ηλεκτρικό ή μεταλλικό εξάρτημα.
6. Επανατοποθετήστε το κάλυμμα του ηλεκτρικού κιβωτίου.

Καλωδίωση της εσωτερικής μονάδας

1. Προετοιμάστε το καλώδιο για τη σύνδεση.
 - α. Χρησιμοποιήστε απογυμνωτές καλωδίων για να αφαιρέσετε το ελαστικό περίβλημα από αμφότερα τα άκρα του καλωδίου σήματος σε μήκος περίπου 15cm (5,9").
 - β. Αφαιρέστε τη μόνωση από τα άκρα των καλωδίων.
 - γ. Χρησιμοποιήστε πένσα σύσφιξης για να δημιουργήσετε σχήμα u στα άκρα.
2. Χαλαρώστε τον κοχλία στο κάλυμμα του ηλεκτρικού κιβωτίου και αφαιρέστε το κάλυμμα.
3. Συνδέστε τα άκρα σε σχήμα u με τις τερματικές απολήξεις. Ταιριάξτε τα χρώματα/ετικέτες σήμανσης των καλωδίων με τις ετικέτες της

συστοιχίας τερματικών απολήξεων. Βιδώστε και στερεώστε το άκρο σε σχήμα u του κάθε καλωδίου στην αντίστοιχη τερματική απόληξη. Ανατρέξτε στο διάγραμμα Σειριακών Αριθμών και Καλωδίωσης που βρίσκεται στο εσωτερικό του καλύμματος του ηλεκτρικού κιβωτίου της συσκευής.



ΠΡΟΣΟΧΗ

- Κατά τη σύνδεση των καλωδίων ακολουθείτε με προσήλωση το διάγραμμα συρμάτωσης.
 - Το κύκλωμα ψυκτικού μέσου μπορεί να αναπτύξει υψηλές θερμοκρασίες. Διατηρείστε το καλώδιο διασύνδεσης μακριά από τον χάλκινο σωλήνα.
4. Σφίξτε το καλώδιο με τον σφικτήρα καλωδίων. Το καλώδιο δεν πρέπει ούτε να είναι χαλαρό ούτε να ασκεί τάση στα κως.
 5. Τοποθετήστε στη θέση του το κάλυμμα του ηλεκτρικού κιβωτίου.

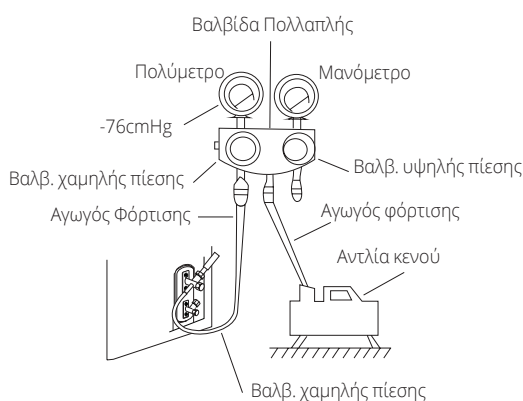
Οδηγίες Ασφαλείας

ΠΡΟΣΟΧΗ

- Χρησιμοποιήστε αντλία κενού με ενδείξεις πίεσης κάτω του -0.1 MPa και ικανότητα εκκένωσης αέρα άνω των 40 L/λεπτό .
- Η εξωτερική μονάδα δεν χρειάζεται εκκένωση. **ΜΗΝ** ανοίγετε τις βαλβίδες απομόνωσης αερίου και υγρών της εξωτερικής μονάδας.
- Βεβαιωθείτε ότι μετά από δύο (2) ώρες, η ένδειξη του μετρητή είναι -0.1 MPa ή χαμηλότερη. Εάν μετά από τρεις (3) ώρες λειτουργίας η ένδειξη του μετρητή παραμένει υψηλότερη από -0.1 MPa , ελέγξτε για τυχόν διαρροή αερίου ή νερού εντός των σωληνώσεων. Σε περίπτωση που δεν υπάρχει διαρροή, επαναλάβετε την εκκένωση για 1 ή 2 ώρες.
- ΜΗΝ** χρησιμοποιείτε ψυκτικό μέσο για την εκκένωση του συστήματος.

Οδηγίες εκκένωσης

Πριν χρησιμοποιήσετε την πολλαπλή και την αντλία κενού διαβάστε τα εγχειρίδια λειτουργίας του για να εξοικειωθείτε με την ορθή τους χρήση.



Εικ. 9.1

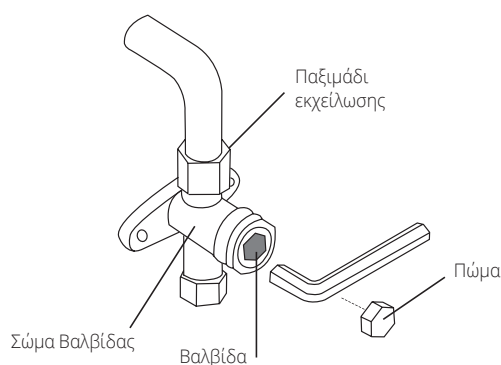
- Συνδέστε τον εύκαμπτο σωλήνα πλήρωσης της πολλαπλής στο στόμιο εξαγωγής της βαλβίδας χαμηλής πίεσης της εξωτερικής μονάδας.
- Συνδέστε την πολλαπλή με την αντλία κενού με έναν ακόμα εύκαμπτο σωλήνα πλήρωσης.
- Ανοίξτε την πλευρά χαμηλής πίεσης της πολλαπλής. Διατηρείτε την πλευρά υψηλής πίεσης κλειστή.

- Θέστε σε λειτουργία την αντλία κενού για να εκκενώσετε το σύστημα.
- Αφήστε την αντλία να λειτουργήσει για τουλάχιστον δεκαπέντε (15) λεπτά της ώρας ή μέχρι ο μετρητής περιεχομένου να αναγράψει -76 cmHg ($-1 \times 105 \text{ Pa}$).
- Κλείστε την πλευρά χαμηλής πίεσης της πολλαπλής και απενεργοποιήστε την αντλία κενού.
- Περιμένετε για πέντε (5) λεπτά και κατόπιν ελέγξτε εάν υπάρχει αλλαγή στην πίεση του συστήματος.

ΣΗΜΕΙΩΣΗ: Εάν η πίεση του συστήματος παραμένει αμετάβλητη, ξεβιδώστε το κάλυμμα της κλειστής βαλβίδας (υψηλής πίεσης). Εάν και τότε δεν υπάρξει μεταβολή στην πίεση του συστήματος, ενδέχεται να υπάρχει διαρροή αερίου.

- Εισάγετε το πολυγωνικό κλειδί στη βαλβίδα υψηλής πίεσης και ανοίξτε τη βαλβίδα στρέφοντας το κλειδί αριστερόστροφα κατά 90° του κύκλου.

Ακούστε για να αντιληφθείτε αν υπάρχει διαφυγή αερίου από το σύστημα. Μετά από πέντε (5) δευτερόλεπτα κλείστε τη βαλβίδα.



Εικ. 9.2

- Παρακολουθήστε το μανόμετρο για ένα (1) λεπτό για να βεβαιωθείτε ότι η πίεση δεν έχει αλλάξει. Η ένδειξη του μανομέτρου πρέπει να είναι κατά τι υψηλότερη από την ατμοσφαιρική πίεση.
- Αφαιρέστε τον εύκαμπτο σωλήνα πλήρωσης από το στόμιο εξαγωγής.
- Με τη βοήθεια του πολυγωνικού κλειδιού ανοίξτε τελείως τόσο τη βαλβίδα της χαμηλής, όσο και τη βαλβίδα της υψηλής πίεσης.

ΑΝΟΙΞΤΕ ΤΟΥΣ ΜΙΣΧΟΥΣ ΤΩΝ ΒΑΛΒΙΔΩΝ

Καθώς ανοίγετε τους μίσχους των βαλβίδων, γυρίστε το πολυγωνικό κλειδί μέχρι το τέρμα. **ΜΗΝ** προσπαθήσετε να πιέσετε τη βαλβίδα να ανοίξει και άλλο.

12. Σφίξτε τα προστατευτικά καλύμματα των βαλβίδων με το χέρι και μετά με το κατάλληλο εργαλείο.

Σημείωση σχετικά με την πλήρωση με ψυκτικό μέσο

! ΠΡΟΣΟΧΗ

- Η πλήρωση με ψυκτικό μέσο πρέπει να γίνεται μετά την ολοκλήρωση της καλωδίωσης, της εκκένωσης του συστήματος και της δοκιμής ανίχνευσης διαρροών.
- **ΜΗΝ** υπερβαίνετε τη μέγιστη επιτρεπόμενη ποσότητα ψυκτικού μέσου και μην υπερπληρώνετε το σύστημα. Η υπερπλήρωση ενδέχεται να προκαλέσει φθορά στο σύστημα ή να επηρεάσει αρνητικά τη λειτουργία του.
- Η πλήρωση του συστήματος με ακατάλληλες ουσίες ενδέχεται να προκαλέσει εκρήξεις ή ατυχήματα. Βεβαιωθείτε ότι χρησιμοποιείτε το κατάλληλο ψυκτικό μέσο.
- Τα δοχεία ψυκτικού μέσου πρέπει να ανοίγονται αργά. Κατά την πλήρωση του συστήματος με ψυκτικό μέσο, χρησιμοποιείτε πάντοτε ατομικά μέσα προστασίας.
- **ΜΗΝ** αναμειγνύετε διάφορα είδη ψυκτικών μέσων.

Σε ορισμένα συστήματα και ανάλογα με το μήκος των σωλήνων απαιτείται επιπλέον ψυκτικό μέσο. Το τυπικό μήκος σωλήνα κυμαίνεται και εξαρτάται από τις κατά τόπους κανονιστικές ρυθμίσεις. Στη Βόρειο Αμερική, για παράδειγμα, το τυπικό μήκος σωλήνα είναι 7,5m (25') ενώ σε άλλες περιοχές το τυπικό μήκος της σωλήνας είναι 5m (16'). Η επιπλέον ποσότητα ψυκτικού μέσου που πρέπει να χρησιμοποιήσετε για την πλήρωση του συστήματος μπορεί να υπολογιστεί με βάση τον ακόλουθο μαθηματικό τύπο.

Διάμετρος πλευράς υγρού

	φ6.35(1/4")	φ9.52(3/8")	φ12.7(1/2")
R22:	(Συνολικό μήκος σωλήνα - τυπικό μήκος σωλήνα) x 15g(0.16oz)/m(ft)	(Συνολικό μήκος σωλήνα - τυπικό μήκος σωλήνα) x 30g(0.32oz)/m(ft)	(Συνολικό μήκος σωλήνα - τυπικό μήκος σωλήνα) x 60g(0.64oz)/m(ft)
R410A:	(Συνολικό μήκος σωλήνα - τυπικό μήκος σωλήνα) x 15g(0.16oz)/m(ft)	(Συνολικό μήκος σωλήνα - τυπικό μήκος σωλήνα) x 30g(0.32oz)/m(ft)	(Συνολικό μήκος σωλήνα - τυπικό μήκος σωλήνα) x 65g(0.69oz)/m(ft)

Πριν από τη δοκιμαστική λειτουργία

Μετά την ολοκλήρωση της εγκατάστασης του συστήματος πρέπει να προχωρήσετε σε δοκιμαστική λειτουργία. Πριν από τη δοκιμή αυτή, ελέγξτε τα ακόλουθα σημεία:

- α) Έχει γίνει ορθή εγκατάσταση τόσο της εσωτερικής, όσο και της εξωτερικής μονάδας.
- β) Έχει γίνει ορθή εγκατάσταση των σωληνώσεων και των καλωδίων.
- γ) Δεν υπάρχουν εμπόδια πλησίον της εισόδου και της εξόδου της μονάδας, τα οποία ενδέχεται να προκαλέσουν δυσλειτουργία ή να μειώσουν την απόδοσή του.
- δ) Δεν υπάρχει διαρροή στο σύστημα ψύξης.
- ε) Το σύστημα αποστράγγισης είναι ελεύθερο και η αποστράγγιση πραγματοποιείται σε ασφαλές σημείο.
- ζ) Έχει τοποθετηθεί ορθά η θερμομόνωση.
- η) Τα καλώδια γείωσης είναι ορθά συνδεδεμένα.
- η) Έχετε καταγράψει το μήκος των σωληνώσεων και την επιπλέον χωρητικότητα ψυκτικού μέσου. Η τάση συστήματος είναι κατάλληλη για το συγκεκριμένο κλιματιστικό.
- θ) Η τάση ισχύος είναι η σωστή τάση για το κλιματιστικό.

! ΠΡΟΣΟΧΗ

Η μη πραγματοποίηση δοκιμαστικής λειτουργίας ενδέχεται να οδηγήσει σε φθορά της συσκευής, ζημιές σε περιουσιακά στοιχεία και τραυματισμό.

Οδηγίες για την πραγματοποίηση της δοκιμαστικής λειτουργίας

1. Ανοίξτε τις βαλβίδες υγρού και τις βαλβίδες απομόνωσης αερίου.
2. Ανεβάστε τον κεντρικό διακόπτη και αφήστε το σύστημα να «Ζεσταθεί».
3. Ρυθμίστε το κλιματιστικό σε λειτουργία ψύξης (COOL).
4. Εσωτερική μονάδα:

- α. Βεβαιωθείτε ότι το τηλεχειριστήριο και τη πλήκτρα λειτουργούν ορθά.
- β. Βεβαιωθείτε ότι οι περσίδες κινούνται όπως πρέπει και ανταποκρίνονται στις εντολές του τηλεχειριστηρίου.
- γ. Βεβαιωθείτε ότι η θερμοκρασία δωματίου καταγράφεται ορθά.
- δ. Βεβαιωθείτε ότι οι ενδεικτικές λυχνίες του τηλεχειριστηρίου και της οθόνης απεικόνισης
- ε. Βεβαιωθείτε ότι τα πλήκτρα χειροκίνητης λειτουργίας της εσωτερικής μονάδας λειτουργούν ορθά.
- ζ. Βεβαιωθείτε ότι το σύστημα αποστράγγισης είναι ελεύθερο και η αποστράγγιση πραγματοποιείται ομαλά.
- η. Βεβαιωθείτε ότι ενόσω η συσκευή λειτουργεί δεν υπάρχουν κραδασμοί ή μη φυσιολογικοί θόρυβοι.

5. Εξωτερική μονάδα:

- α. Ελέγξτε για διαρροές στο σύστημα ψύξης.
- β. Βεβαιωθείτε ότι ενόσω η συσκευή λειτουργεί δεν υπάρχουν κραδασμοί ή μη φυσιολογικοί θόρυβοι.
- γ. Βεβαιωθείτε ότι ο αέρας, ο θόρυβος και το νερό που παράγει η συσκευή σας δεν ενοχλούν τους γείτονες και δεν δημιουργούν θέματα ασφάλειας.

6. Δοκιμή αποστράγγισης

- α. Βεβαιωθείτε ότι το υγρό ρέει ομαλά από τον σωλήνα αποστράγγισης. Σε νέα κτίρια, η δοκιμή αυτή πρέπει να γίνεται πριν ολοκληρωθεί η επεξεργασία της οροφής.
- β. Αφαιρέστε το κάλυμμα δοκιμής. Προσθέστε 2.000ml νερού στο ντεπόζιτο με τη βοήθεια του σωλήνα που βρίσκεται σε αυτό.
- γ. Ανεβάστε τον κεντρικό διακόπτη και ρυθμίστε το κλιματιστικό σε λειτουργία ψύξης (COOL).
- δ. Ακούστε για να βεβαιωθείτε ότι η αντλία αποστράγγισης δεν εκπέμπει ασυνήθεις θορύβους.
- ε. Ελέγξτε για να βεβαιωθείτε ότι η

αποστράγγιση νερού πραγματοποιείται ομαλά.
Ανάλογα με τον σωλήνα αποστράγγισης, ίσως
περάσει ως και ένα (1) λεπτό της ώρας μέχρι να
αρχίσει η αποστράγγιση του συστήματος.

ζ. Βεβαιωθείτε ότι δεν υπάρχει διαρροή στις
σωληνώσεις.

η. Απενεργοποιήστε το κλιματιστικό.
Κατεβάστε τον γενικό διακόπτη και
επανατοποθετήστε το κάλυμμα δοκιμής.

ΣΗΜΕΙΩΣΗ: Σε περίπτωση δυσλειτουργίας ή
ανεπαρκούς λειτουργίας του κλιματιστικού,
παρακαλούμε, πριν επικοινωνήσετε με την
εξυπηρέτηση πελατών (σέρβις), ανατρέξτε
στο κεφάλαιο περί Επίλυσης προβλημάτων
του Εγχειριδίου χρήσης.

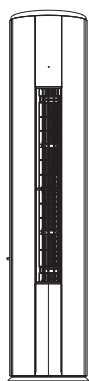
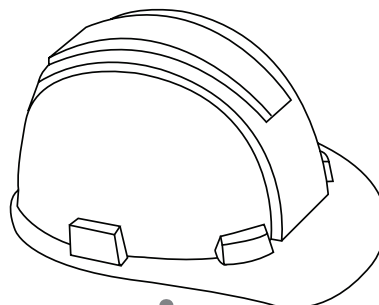
Όλες οι εικόνες στο παρόν εγχειρίδιο εξυπηρετούν επεξηγηματικούς σκοπούς.
Το προϊόν που προμηθευτήκατε μπορεί να εμφανίζει ορισμένες διαφορές ως προς το σχήμα,
ωστόσο οι λειτουργίες και τα χαρακτηριστικά παραμένουν ίδια.
Η εταιρεία δεν φέρει ευθύνη για τυχόν τυπογραφικά λάθη. Ο σχεδιασμός και οι προδιαγραφές
του προϊόντος μπορεί να τροποποιηθούν χωρίς προηγούμενη ειδοποίηση με σκοπό τη
βελτίωση των προϊόντων.
Για λεπτομέρειες, απευθυνθείτε στον κατασκευαστή στο 211 300 3300 ή στον αντιπρόσωπο.
Τυχόν ενημερώσεις του εγχειριδίου θα αναρτηθούν στην ιστοσελίδα του κατασκευαστή,
παρακαλούμε να ελέγξετε για την πιο πρόσφατη έκδοση.



Σαρώστε εδώ για να κατεβάσετε την τελευταία έκδοση του εγχειριδίου.
www.inventoraircondition.gr/media-library

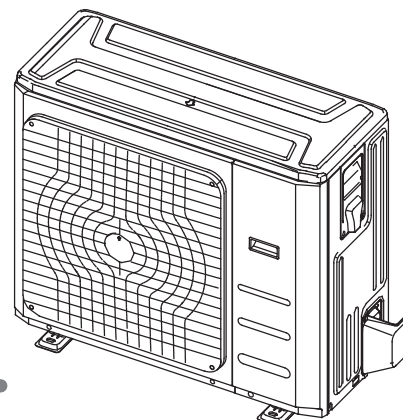
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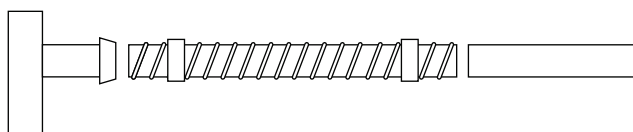


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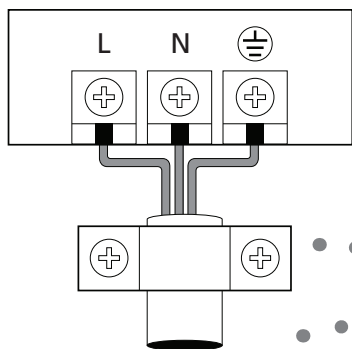
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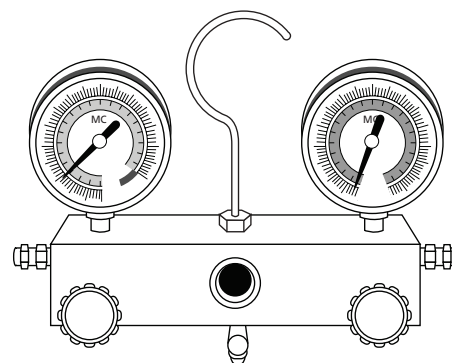


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Precauții privind siguranța

1

Citiți precauțiile privind siguranța înainte de instalare

Instalarea incorectă datorată ignorării instrucțiunilor poate duce la daune însemnate sau vătămare gravă. Gradul de seriozitate al potențialelor daune sau vătămări este clasificat fie ca AVERTIZARE fie ca ATENȚIE.



AVERTIZARE

Acest simbol indică faptul că ignorarea instrucțiunilor poate duce la deces sau vătămare gravă.



ATENȚIE

Acest simbol indică faptul că ignorarea instrucțiunilor poate cauza vătămare moderată a utilizatorului sau avarierea aparatului dvs. sau a altor obiecte.



Το σύμβολο αυτό υποδεικνύει ότι απαγορεύεται αυστηρά η ενέργεια αυτή.



AVERTIZARE

- ⊗ **Nu** modificați lungimea cablului de alimentare electrică sau nu utilizați un prelungitor pentru alimentarea aparatului. **Nu** împărțiți aceeași priză cu alte aparate. O alimentare electrică neadecvată sau insuficientă poate duce la incendiu sau electrocutare.
- ⊗ Când conectați instalația de țevi pentru agent frigorific, **nu** permiteți pătrunderea în unitate a altor substanțe sau gaze decât cele indicate. Prezența altor gaze sau substanțe va scădea performanța aparatului și pot cauza o presiune anormal de ridicată în ciclul de refrigerare.
- ⊗ **Nu** permiteți copiilor să se joace cu aparatul de aer condiționat. Copiii trebuie supravegheați întotdeauna în preajma aparatului.
- 1. Instalarea trebuie efectuată de un reprezentant autorizat sau un specialist. O instalație defectuoasă poate duce la scurgeri de apă, electrocutare sau incendiu.
- 2. Instalarea trebuie efectuată conform instrucțiunilor de instalare. Instalarea neadecvată poate duce la scurgeri de apă, electrocutare sau incendiu. (În America de Nord, instalarea trebuie realizată în conformitate cu cerințele NEC și CEC și doar de către personal autorizat)
- 3. Contactați un depanator autorizat pentru repararea sau întreținerea acestui aparat.
- 4. Utilizați numai accesoriile și piesele incluse și piesele specificate pentru instalare. Utilizarea unor piese care nu corespund standardelor poate cauza scurgeri de apă, electrocutare, incendiu, precum și defectarea aparatului.
- 5. Instalați aparatul într-un loc stabil, care poate susține greutatea unității. Dacă locația aleasă nu poate susține greutatea unității sau dacă instalarea nu este realizată adecvat, aparatul poate cădea și poate duce la vătămare serioasă sau daune.
- 6. Pentru toate lucrările electrice, respectați standardele și reglementările existente la nivel local și național cu privire la instalațiile electrice, precum și manualul de instalare. Trebuie să utilizați un circuit independent și o singură priză pentru alimentare electrică. Nu conectați alte aparate la aceeași priză. Capacitatea electrică insuficientă sau greșelile de instalare pot cauza electrocutare sau incendiu.

AVERTIZARE

7. Pentru toate lucrările electrice, folosiți cablurile specificate. Conectați ferm cablurile și prindeți-le cu clemă pentru a preveni ca forțe din exterior să avarieze terminalul. Conexiunile electrice neadecvate pot duce la supraîncălzire și pot cauza incendii sau electrocutare.
8. Toate cablurile trebuie aranjate corespunzător pentru a permite închiderea corectă a capacului panoului de control. Dacă acest capac al panoului de control nu este bine închis, acest lucru poate duce la coroziune și poate cauza ca punctele de legătură de pe terminal să se încingă, să se aprindă sau să cauzeze electrocutare.
9. În anumite medii funcționale, cum ar fi bucătării, camere pentru servere, etc., se recomandă utilizarea unor aparate de aer condiționat speciale.
10. Dacă este avariata cablul de alimentare, acesta trebuie înlocuit de către producător, reprezentantul autorizat sau persoane calificate în acest sens, pentru a evita un pericol.
11. Acest aparat poate fi utilizat de copii cu vârsta de cel puțin 8 ani și de persoane cu capacități fizice, senzoriale sau mintale reduse, sau cărora le lipsesc experiența și cunoștințele, cu condiția de a fi supravegheate sau instruite cu privire la utilizarea aparatului în siguranță și de a înțelege riscurile existente. Le este interzis copiilor să se joace cu aparatul. Activitățile de curățare și întreținere nu trebuie efectuate de copii nesupravegheați.

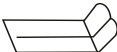
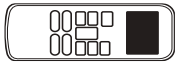
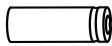
ATENȚIE

- ⦿ Pentru aparatele care au un radiator suplimentar, nu instalați aparatul la o distanță mai mică de 1 m (3 picioare) de orice materiale combustibile.
 - ⦿ **Nu** instalați aparatul într-o locație ce poate fi expusă scurgerilor de gaze inflamabile. Dacă se acumulează gaze inflamabile în jurul aparatului, acest lucru poate duce la incendiu..
 - ⦿ **Nu** puneți în funcțiune aparatul de aer condiționat într-o cameră cu umiditate ridicată, cum ar fi baie sau spălătorie. Expunerea excesivă la apă poate duce la un scurtcircuit al componentelor electrice.
1. La momentul instalării trebuie efectuată o împământare corespunzătoare pentru a evita electrocutarea.
 2. Instalați conducta de scurgere conform instrucțiunilor din acest manual. Scurgerea necorespunzătoare poate produce locuinței și bunurilor dumneavoastră daune cauzate de apă.

Notă cu privire la gazele fluorurate

1. Acest aparat de aer condiționat conține gaze fluorurate. Pentru informații specifice cu privire la tipul de gaz și cantitatea acestuia, vă rugăm consultați eticheta corespunzătoare de pe aparat. Se vor respecta normele naționale în vigoare privind gazele.
2. Instalarea, repararea, și întreținerea acestui aparat trebuie realizate de către un tehnician calificat.
3. Dezinstalarea produsului și reciclarea trebuie realizate de către un tehnician calificat.
4. Dacă sistemul include un sistem de detectare a scurgerilor, existența scurgerilor trebuie verificată cel puțin o dată la 12 luni.
5. Când are loc verificarea existenței scurgerilor din aparat, se recomandă înregistrarea corectă a acestor verificări.

Aparatul de aer condiționat este livrat însoțit de următoarele accesorii. Utilizați toate componentele de instalare și accesoriile pentru instalarea aparatului de aer condiționat. O instalare neadecvată poate duce la scurgeri de apă, electrocutare și incendiu sau poate cauza defectarea echipamentului.

	Nume	Forma	Cantitate
Instalarea unității de interior	Sistem de fixare de siguranță (unele modele)		1
	Șurub auto-filetant (unele modele)		2
	Șaibe plate (unele modele)		2
	Manșon cu reducere (unele modele)		1
Accesorii refrigerare	Manșon cu izolare sonoră / termică (unele modele)		2
Accesorii conductă de scurgere	Furtun de scurgere (unele modele)		1
	Bandă (unele modele)		2
	Racord de scurgere (unele modele)		1
	Garnitură etanșare (unele modele)		1
Accesorii pentru instalare (unele modele)	Cabluri de legătură		1
	Chit		1
	Plasă anti-rozătoare		1
	Șurub auto-filetant ST3.9x12		1
Telecomandă și Cadru telecomandă	Telecomandă		1
	Șurub pentru fixarea suportului telecomenzii		2
	Suportul telecomenzii		1
	Baterie uscată AAA		2
	Ilustrație telecomandă		1
	Manual de utilizare		1
	Manual de instalare		1
	Țeavă refrigerare (opțional)		1

În cazul în care există diferențe între tabelul de mai sus și lista de inventar, aceasta din urmă prevalează

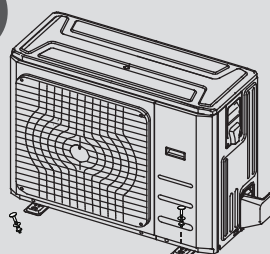
ORDINEA OPERAȚIILOR DE INSTALARE

1



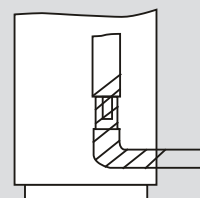
Instalarea unității de interior (pagina 9)

2



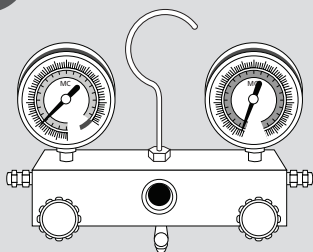
Instalarea unității de exterior (pagina 12)

3



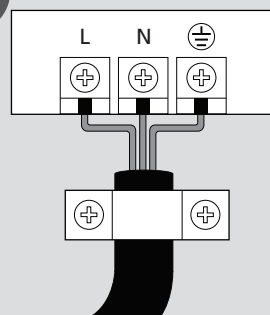
Instalarea conductei de evacuare (pagina 15)

6



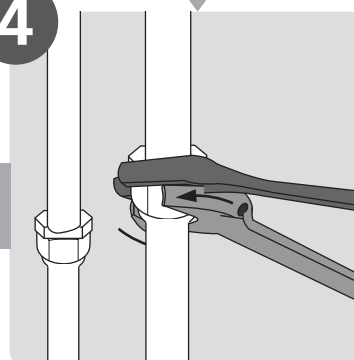
Evacuarea sistemului de refrigerare (pagina 25)

5



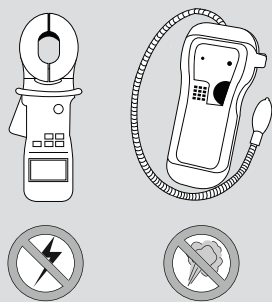
Conectarea cablurilor (pagina 22)

4



Conectarea țevelor de refrigerare (pagina 19)

7



Efectuarea unui test (pagina 23)

Instalarea unității de interior

4

Pieșele unității de interior

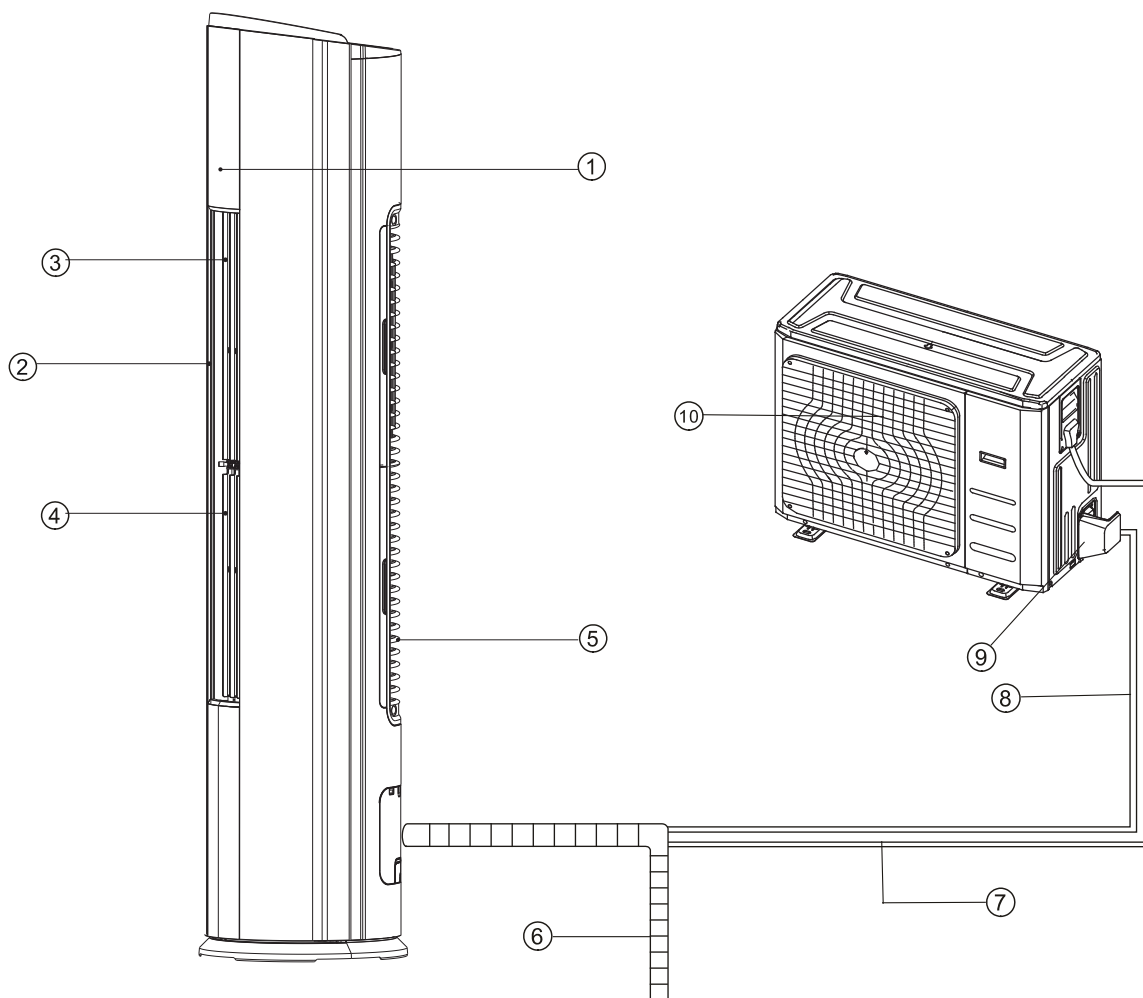


Fig. 4.1

Unitatea interioară

- ① Panou de comandă
- ② Orificiu de evacuare a aerului
- ③ Orificiu de direcționare orizontală superioară a fluxului de aer
- ④ Orificiu de direcționare orizontală inferioară a fluxului de aer
- ⑤ Orificiu de admisie a aerului

Unitatea exterioară

- ⑥ Conductă de scurgere, conductă de aerisire
- ⑦ Cablu de conectare
- ⑧ Conductă de legătură
- ⑨ Orificiu pentru țeava de refrigerare
- ⑩ Orificiu de evacuare a aerului

NOTĂ CU PRIVIRE LA IMAGINI

Ilustrațiile din prezentul manual au doar scop de exemplificare. Forma reală a unității interioare poate fi ușor diferită. Forma reală va fi cea care va fi luată în considerare.

Instrucțiuni instalare unitate de interior

ÎNAINTE DE INSTALARE

Înainte de instalarea unității interioare, consultați eticheta de pe cutia produsului pentru a vă asigura că numărul modelului unității interioare se potrivește cu numărul modelului unității exterioare.

Pasul 1: Alegeți locația pentru instalare

Înainte de a instala unitatea interioară, trebuie să alegeți o locație adecvată. Următoarele reprezintă standarde ce vă vor ajuta în alegerea unei locații adecvate pentru aparat.

O locație adecvată pentru instalare trebuie să îndeplinească următoarele condiții:

- ✓ Bună circulație a aerului
- ✓ Scurgere convenabilă
- ✓ Zgomotul produs de aparat nu deranjează alți oameni
- ✓ Fermitate și stabilitate - ocația nu va vibra
- ✓ Destul de solidă pentru a suporta greutatea aparatului
- ✓ Amplasată la cel puțin 1 m distanță de toate dispozitivele electrice (ex. televizor, aparat radio, calculator)

NU instalați aparatul în următoarele locații:

- ⊗ În apropierea unei surse de căldură, aburi sau gaze inflamabile
- ⊗ În apropierea elementelor inflamabile de genul perdelelor sau hainelor
- ⊗ În apropierea obstacolelor ce pot bloca circulația aerului.
- ⊗ Aproape de ușă
- ⊗ Într-un loc acțiunii directe a razelor solare

Note privind găurirea pereților

În cazul în care nu există un sistem fix de țevi de refrigerare: Atunci când alegeți locația, vă rugăm să țineți cont de faptul că trebuie să lăsați spațiu suficient pentru o gaură în perete (consultați pasul „Găurirea peretelui pentru conductele de legătură”) pentru cablul de semnal și conducta de agent frigorific ce leagă unitatea interioară de cea exterioară. Poziția implicită pentru toate conductele este pe partea dreaptă a unității interioare (atunci când vă uitați la aparat). Cu toate acestea, aparatul permite legarea conductelor atât pe partea stângă cât și pe dreapta.

Pentru a calcula distanța corectă dintre pereți și acoperiș, consultați următoarea diagramă:

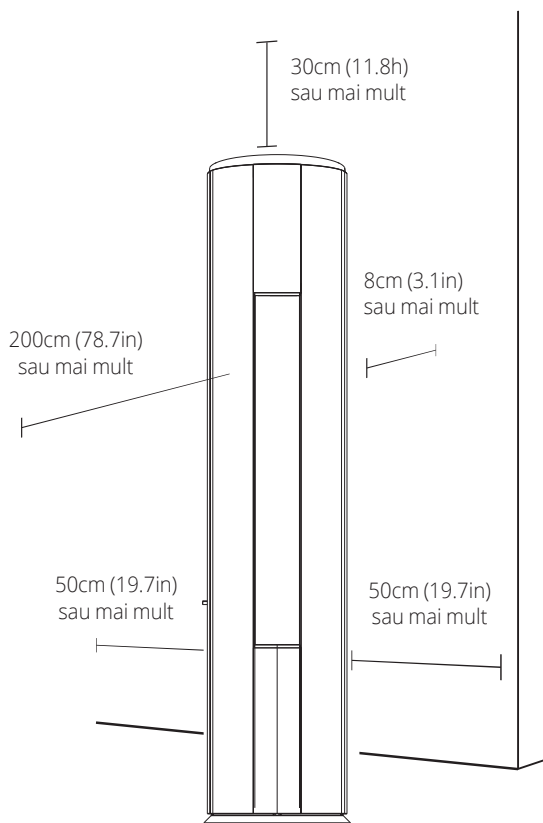


Fig. 4.2

Pasul 2: Desfacerea panoului de comandă și detașarea filtrului

1. Desfaceți pachetul și scoateți unitatea de interior. Îndepărtați banda de protecție și orice componente.
2. Scoateți toate accesoriile.
3. Verificați că toate accesoriile se potrivesc cu cele din „Schemele de instalare și accesorii” de pe pagina anterioară.
4. Scoateți filtrul PM2.5 și instalați-l.

Pasul 3: Fixarea unității de interior (pentru a evita căderea acesteia)

NOTĂ: Pentru a evita căderea unității, unitatea de interior trebuie fixată cu șuruburi pe podea.

1. Măsurați poziția găurilor pentru instalare.
2. Introduceți șuruburile M8 în unitatea aflată pe podea (numărul de șuruburi depinde de numărul de găuri de pe corpul unității).
3. Ridicați unitatea de interior astfel încât găurile de instalare să acopere șuruburile, apoi strângeți piulițele pe șuruburi.

! ATENȚIE

Dacă este necesar mai mult suport pentru a evita căderea unității, poate fi instalată o pană de protecție. Procedura de instalare a acesteia este următoarea:

- Scoateți pana de protecție și măsurați dimensiunea corectă.
- Folosiți șuruburile auto-filetante pentru a fixa pana de protecție de carcasa superioară a unității de interior.
- Fixați bine pe perete celălalt capăt al penei cu ajutorul șuruburilor auto-filetante.

Pasul 4. Instalarea sistemului de conducte

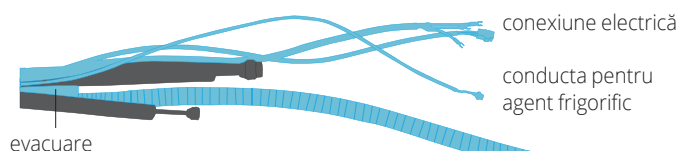


Fig. 4.3

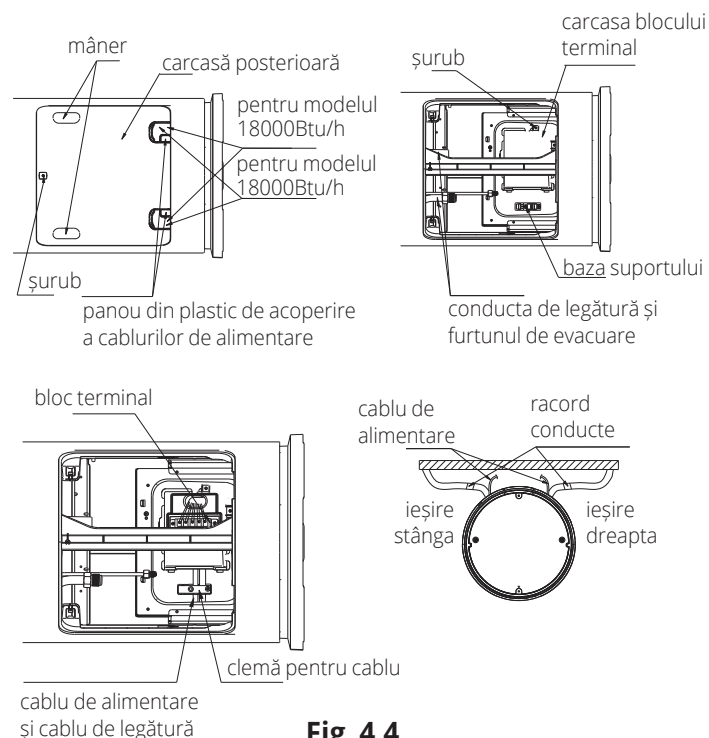


Fig. 4.4

1. Întindeți conductele de legătură pe o suprafață întinsă. Așezați furtunul de evacuare, conducta pentru agent frigorific și toate cablurile electrice (asigurându-vă că ambele capete sunt corect poziționate) lângă acestea.
2. Folosind furtunul de evacuare ca dispozitiv de ghidare, măsurați și reglați lungimea cablului de joasă tensiune, a cablului de înaltă tensiune și a celorlalte cabluri electrice, precum și a conductei pentru agent frigorific. Folosiți curele autoblocante pentru a le ține la un loc.
3. Aranjați sistemul de conducte astfel încât furtunul de evacuare să fie jos, conductele de legătură la mijloc, iar cablurile electrice sus.
4. În funcție de locația unității de interior și a găurii din perete, reglați direcția și poziția furtunurilor (a se vedea Fig. 4.5) pentru a efectua efectuarea din stânga sau din dreapta.
5. Întindeți jos ambalajul aparatului. Puneți unitatea cu fața în jos pe ambalaj. Desfaceți șuruburile carcasei posterioare, apoi apucați de cârlig și ridicați carcasa. Desfaceți șuruburile de pe carcasa blocului terminal, apoi scoateți carcasa urmând direcția săgeții.
6. Scoateți cablul de test și potriviți culorile / etichetele cablurilor cu etichetele de blocul terminal. Folosiți cleme pentru cabluri și șuruburi pentru a prinde cablurile de terminal.
7. Puneți la loc carcasa terminalului și fixați-o cu șuruburi. Instalați unitatea.

8. Legați conductele astfel încât furtunul de evacuare să fie jos, conductele de legătură la mijloc, iar cablurile electrice sus. Nu acoperiți punctul de legătură al conductei de legătură până ce nu vă asigurați că nu există scurgeri.
9. În funcție de locul de evacuare, folosiți un clește cu vârful ascuțit pentru a îndepărta un panou din plastic potrivit, fixați cablurile și conductele de-a curmezișul deschizăturii cu capacul la locul lui și fixat cu șuruburi.

Pasul 5: Aplicarea chitului de etanșare și instalarea măștii pentru gaura din perete.

1. Organizați conductele gata legate.
2. Aplicați uniform chitul în orificiile dintre conducte și perete, apoi apăsați chitul cu fermitate.
3. Trageți de masca pentru capacul din perete pentru a o desface. După ce o prindeți bine de conducte, împingeți-o în gaura din perete pentru a o fixa bine de perete și a finaliza instalarea.

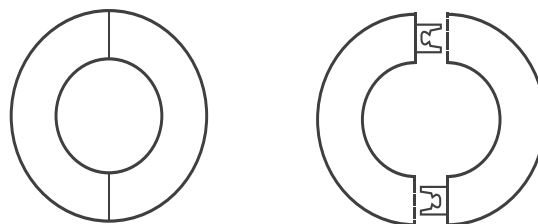


Fig. 4.6

! ATENȚIE

- Folosiți curele autoblocante pentru a fixa cablurile, iar conductele trebuie ținute la distanță de capetele conexiunii pentru eventuale scurgeri.
- Dacă trebuie să prelungiți conducta de evacuare, folosiți un tub de protecție pentru a înfășura partea interioară a extensiei, sigilați racordul cu adeziv. Nici o parte a conductelor nu trebuie să fie îndoită.
- Aveți grijă când așezați unitatea jos sau când o montați, evitați zgârierea suprafeței.
- Înainte de a scoate panoul din plastic, alegeți partea din care conductele și cablurile vor ieși din aparat. (a. Evacuarea din partea cu alimentarea: scoateți panoul de plastic al cablului de alimentare. B. Pentru modelul 18000 Btu/h, scoateți panoul de plastic atât din partea cu alimentare cât și din partea 18000 Btu/h. C. Pentru modelul 24000Btu/h, scoateți panoul de plastic din partea cu alimentarea, din partea 18000 Btu/h și din partea 24000Btu/h.) Dacă nu se face evacuarea din panoul care a fost înlăturat, orificiul nu va fi protejat împotriva rozătoarelor, deoarece nu va exista nici un obstacol.
- Când îndoiiți țevile, aveți grijă la intensitate, pentru a evita aplatizarea sau îndoirea acestora.

NOTĂ

- Dacă montați unitatea în apropierea peretei, păstrați o distanță de cel puțin 1 m de perdea pentru a împiedica obstrucția fluxului de aer.

Instrucțiuni de instalare a unității de exterior

Pasul 1: Alegeți locația instalării

Unitatea de exterior trebuie instalată într-un loc care îndeplinește următoarele condiții:

- ✓ Plasați unitatea de exterior cât mai aproape cu putință de ușa interioară.
- ✓ Asigurați-vă că există spațiu suficient pentru instalare și întreținere.
- ✓ Orificiile de admisie și de evacuare a aerului nu trebuie să fie blocate sau expuse vânturilor puternice.
- ✓ Acumulărilor de zăpadă, de frunze sau de alte elemente sezoniere. Dacă este posibil, instalați un adăpost pentru unitate. Asigurați-vă că adăpostul nu blochează fluxul de aer.
- ✓ Zona de instalare trebuie să fie uscată și bine aerisită.
- ✓ Trebuie să existe suficient spațiu pentru a instala conductele de legătură și cablurile și pentru a le accesa pentru activități de întreținere.
- ✓ Zona nu trebuie să conțină surse de gaz inflamabil și substanțe chimice.

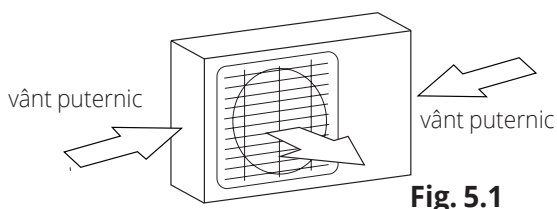


Fig. 5.1

Pasul 2: Instalați unitatea de exterior.

Fixați unitatea exterioară cu bolțuri de ancorare (M10).

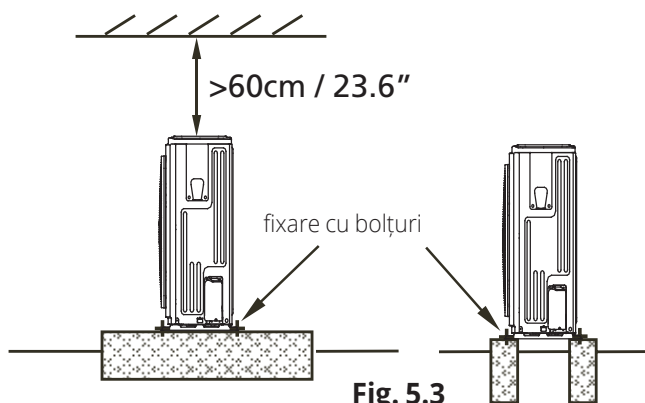


Fig. 5.3

- ✓ Lungimea conductei dintre unitatea exterioară și cea interioară nu trebuie să depășească lungimea maximă permisă a conductei.
- ✓ În măsura în care este posibil, NU instalați unitatea într-un loc în care este expusă acțiunii directe a razelor solare.
- ✓ În măsura în care este posibil, asigurați-vă că unitatea este amplasată departe de proprietatea vecinilor astfel încât aceștia să nu fie deranjați de zgomotul produs de unitate.
- ✓ În cazul în care unitatea este expusă vântului puternic (de ex. la malul mării), unitatea trebuie plasată lângă perete pentru a o adăposti de vânt. Dacă este cazul, folosiți un adăpost. (A se vedea Fig. 5.1 și 5.2).
- ✓ Instalați unitățile de interior și de exterior, cablurile și firele la cel puțin 1 metru de televizoare sau aparate de radio pentru a împiedica interferențele statice sau de imagine. În funcție de unde radio, o distanță de 1 metru poate să nu fie de ajuns pentru a elimina toate interferențele.

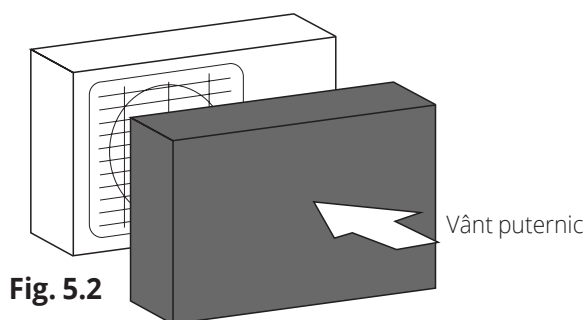


Fig. 5.2

! ATENȚIE

- Asigurați-vă că ați îndepărtat toate obstacolele care pot bloca circulația aerului.
- Consultați specificațiile privitoare la lungime pentru a vă asigura că există suficient loc pentru instalare și întreținere.

Unitate de exterior de tip split

(A se vedea Fig. 5.4, 5.5, 5.6, 5.10 și Tabelul 5.1)

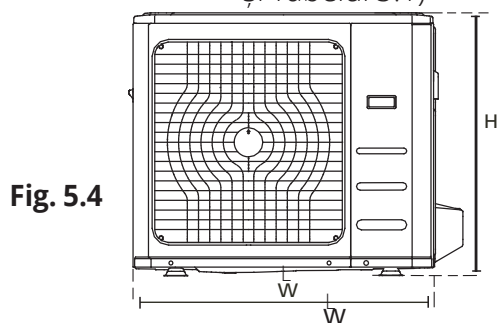


Fig. 5.4

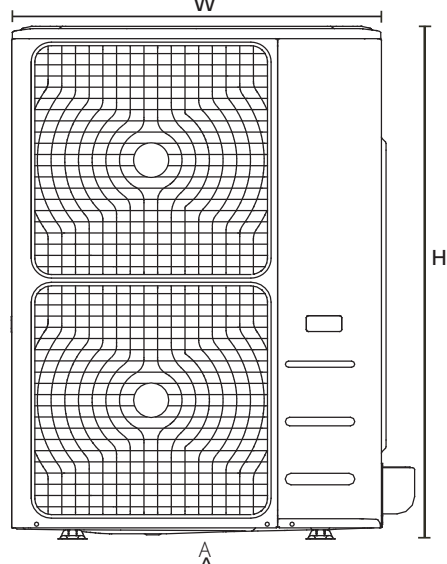


Fig. 5.5



Fig. 5.6

Tabelul 5.1 Specificații privind lungimea pentru unitatea de exterior de tip split (unitate: mm/inci)

Dimensiunile unității de exterior (l x î x d)	Dimensiuni de montare	
	Distanța A	Distanța B
760x590x285 (29.9x23.2x11.2)	530 (20.85)	290 (11.4)
810x558x310 (31.9x22x12.2)	549 (21.6)	325 (12.8)
845x700x320 (33.27x27.5x12.6)	560 (22)	335 (13.2)
900x860x315 (35.4x33.85x12.4)	590 (23.2)	333 (13.1)
945x810x395 (37.2x31.9x15.55)	640 (25.2)	405 (15.95)
990x965x345 (38.98x38x13.58)	624 (24.58)	366 (14.4)
938x1369x392 (36.93x53.9x15.43)	634 (24.96)	404 (15.9)
900x1170x350 (35.4x46x13.8)	590 (23.2)	378 (14.88)
800x554x333 (31.5x21.8x13.1)	514 (20.24)	340 (13.39)
845x702x363 (33.27x27.6x14.3)	540 (21.26)	350 (13.8)
946x810x420 (37.24x31.9x16.53)	673 (26.5)	403 (15.87)
946x810x410 (37.24x31.9x16.14)	673 (26.5)	403 (15.87)
952x1333x410 (37.5x52.5x16.14)	634 (24.96)	404 (15.9)
952x1333x415 (37.5x52.5x16.34)	634 (24.96)	404 (15.9)

Unitate de exterior cu evacuare verticală

(A se vedea Fig. 5.7, 5.8, 5.9 și Tabelul 5.2)

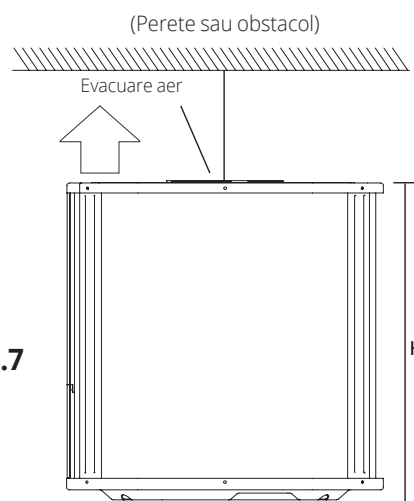


Fig. 5.7

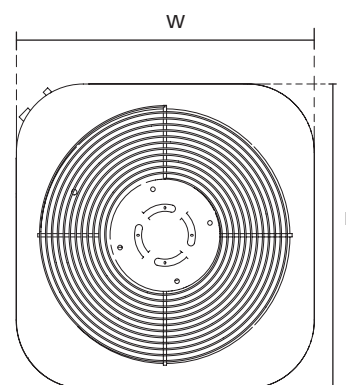


Fig. 5.8

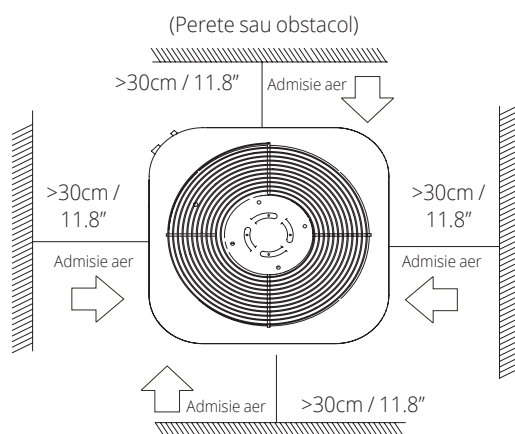


Fig. 5.9

Tabelul 5.2 Specificații privind lungimea pentru unitatea de exterior cu evacuare verticală

MODEL	Dimensiuni		
	l	î	d
18	554/21.8	633/25	554/21.8
24	554/21.8	633/25	554/21.8
36	554/21.8	759/29.8	554/21.8
36	600/23.6	633/25	600/23.6
48	710/28	759/29.8	710/28
60	710/28	843/33	710/28

NOTĂ: Distanța minimă dintre unitatea de exterior și pereți indicată în ghidul de instalare nu se aplică încăperilor ermetice. Asigurați-vă că nu blocați unitatea în cel puțin două dintre cele trei direcții (M, N, P) (A se vedea Fig. 5.10).

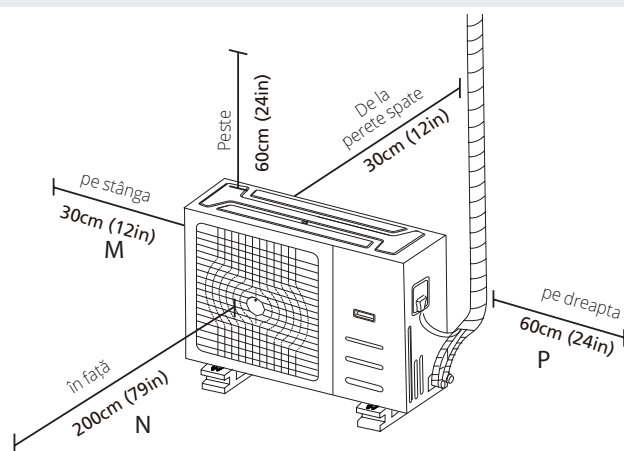


Fig. 5.10

Instalarea în rânduri de serii

Tabelul 5.3 Raporturile dintre Î, A și L sunt următoarele

	L	A
$L \leq H$	$L \leq 1/2H$	25 cm / 9.8" sau mai mult
	$1/2H < L \leq H$	30 cm / 11.8" sau mai mult
$L > H$	Nu se poate instala	

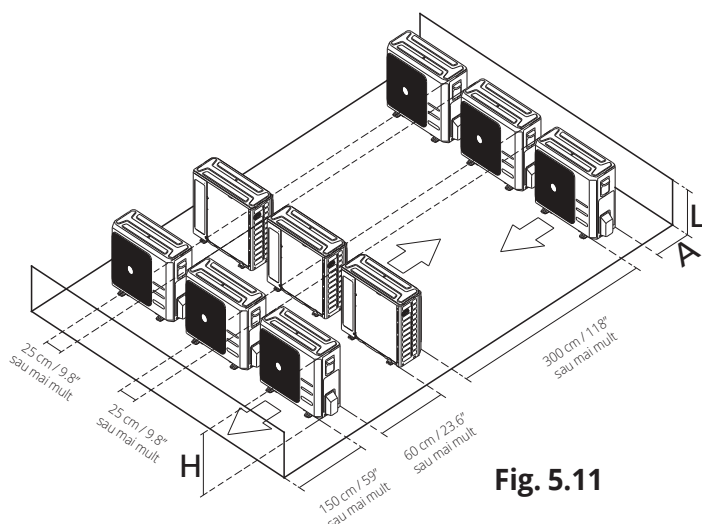


Fig. 5.11

Instalarea racordului de scurgere

Înainte de monta unitatea de exterior trebuie să instalați un racord de scurgere la baza unității (a se vedea Fig. 5.12).

1. Potriveți garnitura de cauciuc pe capătul racordului de scurgere care va conecta unitatea exterioară.
2. Introduceți racordul de scurgere în orificiul din tava de colectare de la baza unității.
3. Rotiți racordul de scurgere 90° până ce se fixează printr-un sunet de clic cu fața spre partea frontală a unității
4. Conectați o extensie a furtunului de scurgere (nu este inclusă) la racordul de scurgere pentru a redirecționa apa din unitate în timpul modului de încălzire.

NOTĂ: Asigurați-vă că apa se scurge într-un loc sigur unde nu poate cauza daune sau pericol de alunecare.

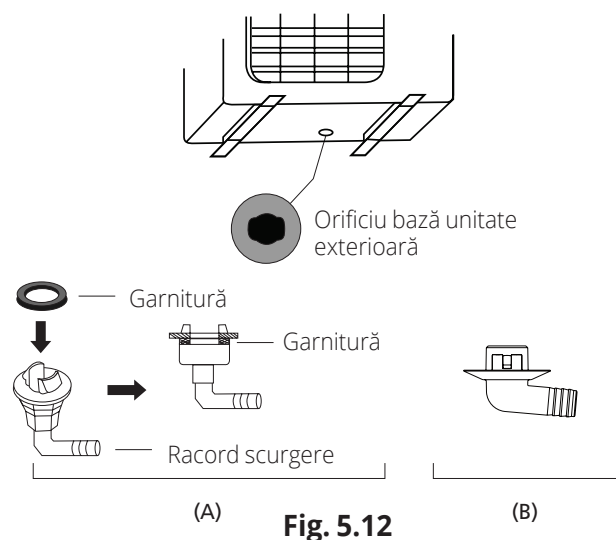


Fig. 5.12

Notă privind găurirea pereților

Trebuie să faceți o gaură în perete pentru conducta de refrigerare și cablul de semnal care va conecta unitatea de interior de cea de exterior.

1. Stabiliți locația găurii din perete în funcția de locația unității exterioare.
2. Folosind un burghiu de de 65 mm (2,5"), faceți o gaură în perete.

NOTĂ: Când găuriți perețele, aveți grijă să evitați cablurile, țevile și alte elemente sensibile.

3. Puneți manșeta protectoare în gaură. Aceasta protejează marginile găurii și ajută la etanșare când finalizați procesul de instalare.

Instalarea conductei de evacuare

6

Conducta de scurgere este folosită la evacuarea apei din unitate. Instalarea necorespunzătoare poate duce la defectarea unității și a bunurilor.

! ATENȚIE

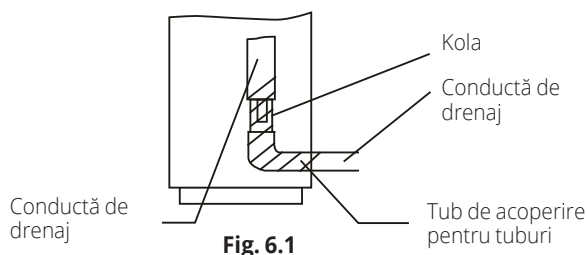
- Izolați toate conductele pentru a evita condensul, care poate cauza daune.
- În cazul în care conducta este îndoită sau instalată greșit, se poate scurge apă ducând la defectarea comutatorului pentru nivelul de apă.
- În mod ÎNCĂLZIRE, unitatea exterioară va evacua apă. Asigurați-vă că furtunul de scurgere este poziționat într-un loc corespunzător pentru a evita daunele cauzate de apă și alunecarea după înghețarea apei scurse.
- **NU** trageți cu forța de conducta de evacuare, deoarece se poate desprinde.

NOTE PRIVIND ACHIZIȚIA ȚEVILOR

Instalarea necesită un tub de polietilenă (diametrul exterior = 3,7 = 3,9 cm, diametrul interior = 3,2 cm), care poate fi achiziționată de la magazinul local de bricolaj sau de la distribuitor.

2. Țevile din plastic PVC dur (diametrul extern de 26 mm) disponibile pe piață sunt potrivite pentru țeava de evacuare flexibilă atașată.
3. Conectați țeava de evacuare flexibilă la conducta de evacuare, apoi fixați-o cu bandă. Dacă trebuie să conectați conducta de evacuare în interior, pentru a evita condensul cauzat de admisia aerului, trebuie să acoperiți țeava cu un material termoizolator (polietilenă cu greutatea specifică de 0,03, cu grosimea de cel puțin 9 mm) și să folosiți bandă adezivă pentru fixare.
4. După conectarea conductei de evacuare, verificați dacă apa este evacuată din conductă corect, fără să existe scurgeri.
5. Conducta pentru agent frigorific și conducta de evacuare trebuie izolate termic pentru a evita condensul și picurarea apei mai târziu.
6. Folosind un burghiu de 65 mm (2,5"), faceți o gaură în perete. Asigurați-vă că gaura este făcută într-un unghi ușor înclinat în jos, astfel încât capătul din exterior al găurii să fie cu aproximativ 1 cm (0,4") mai jos decât cel din interior. Aceasta va asigura o bună evacuare (A se vedea Fig. 6.2). Puneți manșeta protectoare în gaură. Aceasta protejează marginile găurii și ajută la etanșare când finalizați procesul de instalare.

Instalarea conductei de evacuare în interior



1. Asigurați-vă că conducta de evacuare este conectată la partea exterioară în jos.

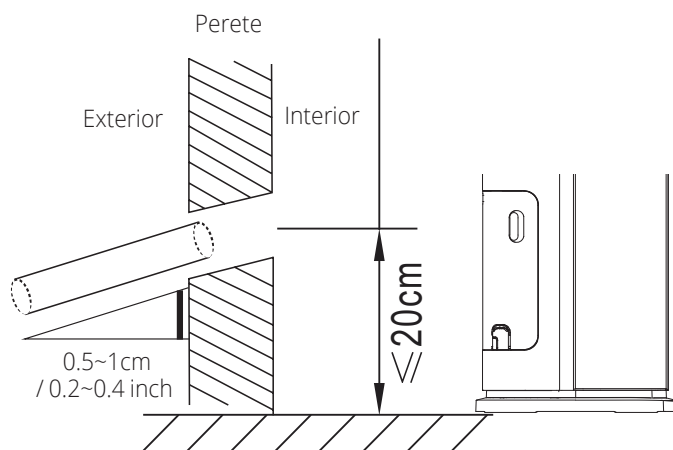


Fig. 6.2

NOTĂ: Când găuriți peretele, aveți grijă să evitați cablurile, țevile și alte elemente sensibile.

7. Introduceți furtunul de evacuare prin gaura din perete. Asigurați-vă că apa se scurge într-un loc sigur unde nu poate cauza daune sau pericol de alunecare.

NOTĂ: Ieșirea conductei de evacuare trebuie să fie la cel puțin 5 cm (1,9") deasupra solului. Dacă atinge solul, unitatea se poate bloca și se poate defecta. Dacă evacuați apa direct într-o canalizare, asigurați-vă că scurgerea are o țevă în formă de U sau S pentru a reține mirosurile care în caz contract pot reveni în interior.

Conectarea conductei de agent frigorific

7

Măsurile de precauție

! AVERTISMENT

- Toată tubulatura de teren trebuie instalată de un tehnician autorizat și trebuie să respecte normele locale și naționale.
- Dacă aparatul de aer condiționat este instalat într-o încăpere mică, trebuie luate măsuri pentru a evita ca concentrația de agent frigorific în încăpere să depășească limita de siguranță în cazul unei scurgeri de agent frigorific. Dacă apar scurgeri de agent frigorific și concentrația acestuia depășește limita corespunzătoare, pot apărea probleme din cauza lipsei de oxigen.
- Când instalați sistemul de refrigerare, asigurați-vă că aerul, praful, umezeala sau corpurile străine nu pătrund în circuitul frigorific. Contaminarea sistemului poate duce la o capacitate de operare scăzută, presiune ridicată în ciclul de refrigerare, explozii sau vătămare.
- Aerisiți spațiul imediat dacă apar scurgeri de agent frigorific în timpul instalării. Gazul frigorific scurs este atât toxic cât și inflamabil. Asigurați-vă că nu există scurgeri de agent frigorific după ce ați finalizat lucrările de instalare.

Instrucțiuni de conectare a conductei de agent frigorific

! ATENȚIE

- Țeava cu ramificații trebuie instalată orizontal. Un unghi mai mare de 10° poate cauza defecțiuni.
- **NU** instalați conducta de legătură până ce nu ați instalat unitățile de interior și de exterior.
- Izolați atât conductele pentru lichide cât și cele pentru gaze pentru a evita scurgerile.

Etapa 1: Tăiere țeavă

Atunci când pregătiți conductele de agent frigorific, aveți deosebită grijă să le tăiați și să le expandați adecvat. Acest lucru va asigura o funcționare eficientă și va reduce la minim necesitatea unei mentenanțe viitoare. Pentru modelele cu agent frigorific R32/R290 punctele de conectare țeavă trebuie să fie în afara camerei.

1. Măsurați distanța dintre unitatea interioară și cea exterioară.
2. Utilizând un clește de tăiat țevi, tăiați conducta puțin mai lungă decât distanța măsurată.

! ATENȚIE

NU deformați țeava în timpul tăierii. Aveți deosebită grijă să nu avariați, îndoiiți sau deformați țeava în timpul tăierii. Acest lucru va reduce drastic eficiența de încălzire a aparatului.

1. Asigurați-vă că țeava este tăiată la un unghi perfect de 90°. Consultați Fig. 7.1 pentru exemple neconforme de tăiere.

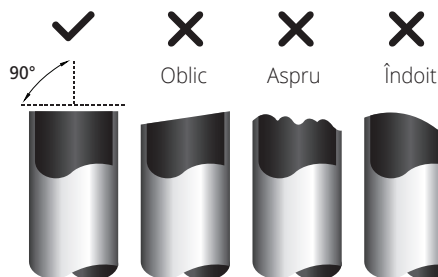


Fig. 7.1

Etapa 2: Îndepărtare bavură

Bavura poate afecta garnitura de etanșare a conexiunii conductei de agent frigorific. Aceasta trebuie îndepărtată complet.

1. Țineți țeava în unghi înclinat pentru a preveni ca bavura să pătrundă în conductă.
2. Utilizând un formator sau un instrument de debavurare, îndepărtați toată bavura din partea tăiată a conductei.

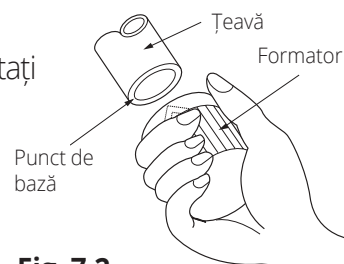
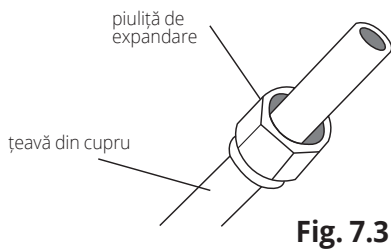


Fig. 7.2

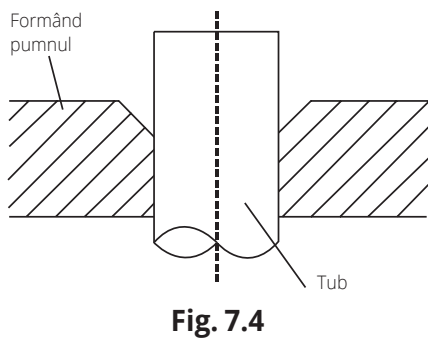
Etapă 3: Capete conductă expandată

O expandare este esențială pentru a avea o etanșare bună.

- 1. După îndepărtarea bavurii din țeava tăiată, etanșați capetele cu bandă din PVC pentru a preveni ca materiile străine să pătrundă în conductă.
- 2. Acoperiți țeava cu material de izolare.
- 3. Atașați piulițe la ambele capete ale conductei. Asigurați-vă că sunt îndreptate în direcția corectă, deoarece nu le puteți instala și nu le puteți schimba direcția după expandare. Vedeți Fig. 7.3.



- 4. Îndepărtați banda din PVC din capetele conductei atunci când trebuie să realizați expandarea.
- 5. Atașați expansorul la capătul conductei. Capătul conductei trebuie să depășească marginea expansorului conform cu dimensiunile din tabelul de mai jos.



- 6. Puneți expansorul pe forma de expandare.
- 7. Rotiți mânerul expansorului în sensul acelor de ceasornic până ce conducta este / expandată complet. Respectați dimensiunile din tabelul 7.1

Tabelul 7.1 Extensie conductă după forma de expandare

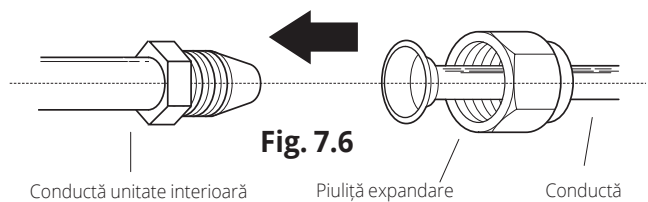
Diametrul conductei	Cuplu de torsiune	Dimensiune expandare (A) (Unitate: mm/inci)		Forma de expandare
		Min.	Max.	
Ø 6.4	14.2-17.2 N.m (144-176 kgf.cm)	8.3/0.3	8.3/0.3	
Ø 9.5	32.7-39.9 N.m (333-407 kgf.cm)	12.4/0.48	12.4/0.48	
Ø 12.7	49.5-60.3 N.m (504-616 kgf.cm)	15.4/0.6	15.8/0.6	
Ø 15.9	61.8-75.4 N.m (630-770 kgf.cm)	18.6/0.7	19/0.74	
Ø 19.1	97.2-118.6 N.m (990-1210 kgf.cm)	22.9/0.9	23.3/0.91	
Ø 22	109.5-133.7 N.m (1117-1364 kgf.cm)	27/1.06	27.3/1.07	

- 8. Îndepărtați expansorul și forma de expandare, apoi inspectați capătul conductei pentru crăpături și expandare uniformă.

Pasul 4: Conectarea conductelor

Conectați țevile din cupru mai întâi la unitatea de interior, apoi la cea de exterior. Conectați mai întâi conducta de joasă presiune, apoi cea de înaltă presiune.

- 1. Când conectați piulițele de expandare, aplicați un strat subțire de ulei frigorific pe capetele expandate ale țevelor.
- 2. Aliniați centrul celor două conducte pe care urmează să le conectați.



- 3. Strângeți piulița pe cât de mult posibil cu mâna.
- 4. Utilizând o cheie de buloane apucați piulița de pe conducta unității.
- 5. După ce apucați ferm piulița de pe conducta unității, utilizați o cheie dinamometrică pentru a strânge piulița conform cu valorile de torsiune din cerințele cuplului de torsiune din tabelul 7.1 Cerințe cuplu de torsiune.

NOTĂ: Folosiți atât o cheie tubulară cât și una dinamometrică pentru a conecta sau deconecta conductele la/de la unitate.

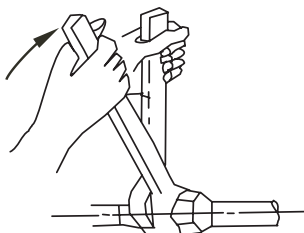


Fig. 7.7

! ATENȚIE

- Asigurați-vă că înfășurați tubulatura în material izolator. Contactul direct cu țevile neacoperite poate cauza arsuri sau degerături.
- Asigurați-vă că țeava este bine conectată. Forța excesivă poate defecta capătul lărgit, iar forța prea mică poate cauza scurgeri.

NOTĂ PRIVIND RAZA MINIMĂ DE ÎNDOIRE

Îndoți tubul la mijloc cu grijă, conform schemei de mai jos.

NU îndoți tubul mai mult de 90° sau mai mult de 3 ori.



Fig. 7.8

6. După ce ați conectat țevile din cupru la unitatea de interior, înfășurați cablul de alimentare, cablul de semnal și conductele împreună cu bandă adezivă.

NOTĂ: NU încrucișați cablul de semnal cu celelalte cabluri. Când legați aceste elemente la un loc, nu încrucișați cablul de semnal cu celelalte cabluri.

7. Introduceți tubulatura prin perete și conectați-o la unitatea de exterior.
8. Izolați toate conductele, inclusiv supapele unității de exterior.
9. Deschideți robinetul de închidere al unității de exterior pentru a porni fluxul de agent frigorific dintre unitatea de interior și cea de exterior.

! ATENȚIE

Asigurați-vă că nu există scurgeri de agent frigorific după ce ați finalizat lucrările de instalare. În cazul în care există, aerisiți imediat spațiul și evacuați sistemul (a se vedea secțiunea Evacuarea aerului din acest manual).

Măsuri de precauție



AVERTISMENT

- Asigurați-vă că ați deconectat alimentarea electrică înainte de a începe lucrul.
- Toate conexiunile electrice trebuie făcute în conformitate cu normele locale și naționale.
- Conexiunile electrice trebuie efectuate de un tehnician calificat. Conexiunile necorespunzătoare pot cauza defecțiuni electrice, vătămare și incendii.
- Pentru această unitate trebuie folosit un circuit independent și o priză unică. **NU** conectați un alt aparat sau încărcător în aceeași priză. În cazul în care capacitatea circuitului electric este insuficientă sau lucrarea electrică este defectuoasă, pot avea loc șocuri electrice, incendii, defectarea unității sau a proprietății.
- Conectați cablul de alimentare la borne și fixați-l cu o clemă. O conexiune nesigură poate produce incendiu.
- Asigurați-vă că toate conexiunile electrice sunt corecte iar capacul panoului de control este bine montat. În caz contrariu punctele de conexiune se pot supraîncălzi, ducând la incendiu sau electrocutare.
- Asigurați-vă că conexiunea la rețeaua electrică se face printr-un conector care deconectează toți polii, cu spațiul de contact de cel puțin 3 mm (0,118``).
• **NU** modificați lungimea cablului de alimentare și nu folosiți un prelungitor.



ATENȚIE

- Conectați cablurile de exterior înainte de cele de interior.
- Asigurați împământarea unității. Cablul de împământare nu trebuie să fie în apropierea conductelor de gaze, de apă, paratrăsnetelor, cablurilor telefonice sau a altor cabluri de împământare. Împământarea necorespunzătoare poate duce la electrocutare.
- **NU** conectați unitatea la sursa de alimentare până ce nu ați finalizat toate conexiunile electrice și sistemele de conducte.
- Asigurați-vă că nu încrucișați cablurile electrice cu cele de semnal, deoarece acesta poate cauza interferențe.

Urmați aceste instrucțiuni pentru a evita interferențele la pornirea compresorului:

- Unitatea trebuie să fie conectată la rețeaua electrică. În mod normal, sursa de alimentare trebuie să aibă o impedanță de ieșire mică, de 32 ohm.
- Nu trebuie conectate alte echipamente la același circuit electric.
- Informațiile referitoare la conexiunea electrică a unității sunt disponibile pe eticheta lipită pe produs.

ȚINEȚI SEAMA DE SPECIFICAȚIILE SIGURANȚEI ELECTRICE

Placa de circuit (PCB) a aparatului de aer condiționat este concepută cu o siguranță care oferă protecție în caz de suprasarcină. Specificațiile siguranței sunt înscrise pe placa de circuit, cum ar fi: T3.15A/250VAC, T5A/250VAC, etc.

Conexiunea electrică a unității de exterior

! AVERTISMENT

Înainte de realizarea oricăror lucrări electrice sau de cablare, opriți alimentarea electrică a sistemului.

1. Pregătiți cablul pentru conexiune.
 - a. Mai întâi trebuie să alegeți un cablu de dimensiune corectă înainte de a-l pregăti pentru conectare. Asigurați-vă că folosiți cabluri H07RN-F.

Tabelul 8.1 Secțiunea transversală minimă a cablurilor de alimentare și de semnal din America de Nord

Puterea nominală a aparatului (A)	AWG
≤ 7	18
7 - 13	16
13 - 18	14
18 - 25	12
25 - 30	10

Tabelul 8.2 Alte regiuni ale lumii

Puterea nominală a aparatului (A)	Zonă nominală transversală (mm ²)
≤ 6	0.75
6 - 10	1
10 - 16	1.5
16 - 25	2.5
25 - 32	4
32 - 45	6

- b. Utilizând un instrument de de izolat cabluri, îndepărtați stratul de cauciuc de la ambele capete ale cablului de semnal pentru a avea liberi aproximativ 15cm (6in) de cablu la interior.
- c. Îndepărtați izolația de la capetele cablurilor.
- d. Utilizând o mașină de ambutsat cabluri ambutsați caneluri de tip U la capetele cablurilor.

NOTA: Toate cablajele trebuie realizate strict în conformitate cu diagrama de cablare din interiorul panoului unității interioare.

2. Îndepărtați capacul electric al unității exterioare. Dacă nu există un capac pe unitatea de exterior, scoateți șuruburile plăcii de întreținere și îndepărtați placa de protecție. (A se vedea Fig. 8.1, 8.2)

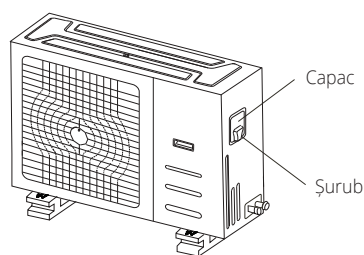


Fig. 8.1

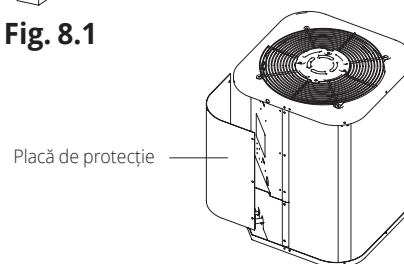


Fig. 8.2

3. Conectați canelurile de tip U la terminal. Potrivii culorile cu etichetele de pe blocul terminal, conectați ambutisarea sub formă de U și înșurubați ferm fiecare cablu la terminalul său corespunzător.
4. Strângeți cablul folosind clema pentru cabluri.
5. Izolați cablurile neutilizate cu bandă izolatoare. Aranjați-le astfel încât să nu atingă nicio parte electrică sau metalică.
6. Puneți la loc capacul cutiei de control electric.

Conexiunea electrică a unității de interior

1. Pregătiți cablul pentru conexiune.
 - a. Utilizând un instrument de de izolat cabluri, îndepărtați stratul de cauciuc de la ambele capete ale cablului de semnal pentru a avea liberi aproximativ 15cm (6in) de cablu la interior.
 - b. Îndepărtați izolația de la capetele cablurilor.
 - c. Utilizând o mașină de ambutsat cabluri ambutsați caneluri de tip U la capetele cablurilor.
2. Desfaceți șurubul capacului cutiei de control electric și scoateți capacul.
3. Conectați canelurile de tip U la terminal. Potrivii culorile cu etichetele de pe blocul terminal, conectați ambutisarea sub formă de U și înșurubați ferm fiecare cablu la terminalul său corespunzător. Consultați numărul de serie și schema electrică pe capacul cutiei de control electric.

TENȚIE

- Când conectați cablurile electrice, urmați cu strictețe schema electrică.
- Circuitul frigorific poate deveni extrem de fierbinte. Țineți cablul de interconexiune la distanță de tubul din cupru.

4. Cablul nu trebuie să fie prea lejer sau să aplice presiune pe canelurile de tip U.

5. Puneți la loc capacul cutiei de control electric.

Măsurile de siguranță

! ATENȚIE

- Utilizați o pompă de vid al cărei manometru indică mai puțin de -0.1 MPa și cu capacitatea de evacuare a aerului mai mare de 40L/m.
- Unitatea de exterior nu necesită evacuare. **NU** deschideți robinetele de închidere a gazelor și lichidelor la unitatea de exterior.
- Asigurați-vă că după 2 ore contorul de substanțe indică -0.1 MPa sau mai puțin. Dacă după trei ore de funcționare contorul indică tot -0.1 MPa, verificați dacă există scurgeri de gaze sau de apă în interiorul conductei. Dacă nu există scurgeri efectuați o nouă evacuare în 1 sau 2 ore.
- **NU** utilizați gaz frigorific pentru a evacua sistemul.

Instrucțiuni de evacuare

Înainte de utilizarea supapei colectoare și a pompei de vid, citiți manualul lor de utilizare pentru a vă familiariza cu modul de utilizare adecvată a acestora.

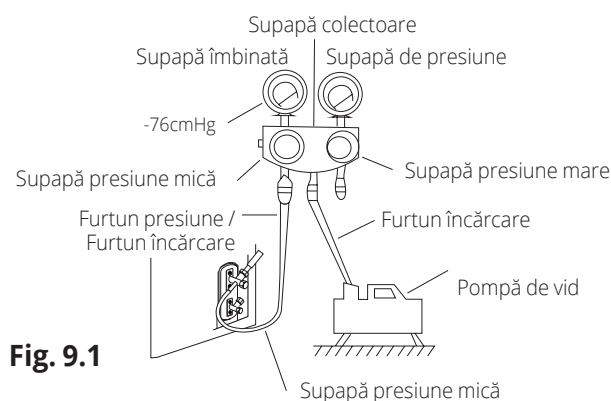


Fig. 9.1

1. Conectați furtunul de încărcare la supapa colectoare din portul de service al supapei de presiune mică a unității exterioare.
2. Conectați un alt furtun de încărcare din supapa colectoare la pompa de vid.
3. Deschideți partea de presiune mică a supapei colectoare. Păstrați partea de presiune mare închisă.

4. Porniți pompa de vid pentru a evacua sistemul.
5. Lăsați pompa să acționeze timp de cel puțin 15 minute sau până ce contorul integral indică - 70 cm Hg (-105 Pa).
6. Închideți partea de presiune mică de pe supapa colectoare apoi opriți pompa de vid.
7. Așteptați 5 minute, apoi verificați dacă există schimbări în presiunea sistemului.

NOTĂ: Dacă nu există schimbări în presiunea sistemului, deșurubați capacul supapei incluse (supapei de presiune mare). Dacă există schimbări în presiunea sistemului, înseamnă că este posibil să existe o scurgere de gaze.

8. Introduceți o cheie hexagonală în supapa inclusă (supapa de presiune mare) și deschideți supapa prin rotirea cheii cu 1/4 rotire în sensul invers acelor de ceasornic. Ascultați ieșirea gazului din sistem, apoi închideți supapa după 5 secunde.

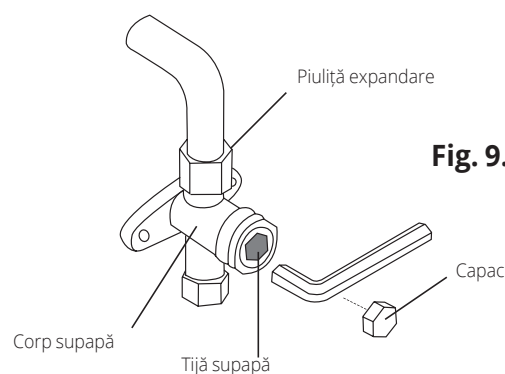


Fig. 9.2

9. Monitorizați indicatorul de presiune timp de un minut pentru a vă asigura că nu există schimbări ale presiunii. Indicatorul de presiune trebuie să arate o presiune ușor mai mare decât presiunea atmosferică.
10. Scoateți furtunul de umplere de la priză.
11. Folosind cheia poligonală, deschideți complet supapa de joasă presiune și supapa de înaltă presiune.

DESCHIDEȚI ÎNCET TIJELE SUPAPEI

Atunci când deschideți tije supapei, rotiți cheia hexagonală până ce atinge opritorul.

Nu încercați să forțați supapa să se deschidă mai mult de atât

12. Strângeți capacele supapelor cu mâna, apoi cu un instrument adecvat.

Notă cu privire la adăugarea de agent frigorific



ATENȚIE

- Încărcarea agentului frigorific trebuie efectuată după efectuarea conexiunii electrice, evacuarea aerului și testul de scurgere.
- NU** depășiți cantitatea maximă de agent frigorific permisă și nu supraîncărcați sistemul, deoarece aceasta poate defecta unitatea sau îi poate afecta randamentul.
- Încărcarea unor substanțe neadecvate poate duce la explozii sau accidente. Asigurați-vă că folosiți agentul frigorific potrivit.
- Recipientele cu agent frigorific trebuie deschise încet. Folosiți întotdeauna echipament de protecție când încărcați sistemul.
- NU** amestecați mai multe feluri de agent frigorific.

Unele sisteme necesită încărcare suplimentară în funcție de lungimea conductelor. Lungimea standard a conductelor variază conform cu reglementările locale. De exemplu, în America de Nord, lungimea standard a conductei este de 7,5 m (25 in). În alte zone, mărimea standard a conductei este de 5 m (16 in). Agentul frigorific suplimentar ce trebuie încărcat poate fi calculat utilizând următoarea formulă:

Diametrul părții lichide

	φ6.35(1/4")	φ9.52(3/8")	φ12.7(1/2")
R22:	(Lungimea totală a conductei – lungimea standard a conductei) x 15g(0.16oz)/m(ft)	(Lungimea totală a conductei – lungimea standard a conductei) x 30g(0.32oz)/m(ft)	(Lungimea totală a conductei – lungimea standard a conductei) x 60g(0.64oz)/m(ft)
R410A:	(Lungimea totală a conductei – lungimea standard a conductei) x 15g(0.16oz)/m(ft)	(Lungimea totală a conductei – lungimea standard a conductei) x 30g(0.32oz)/m(ft)	(Lungimea totală a conductei – lungimea standard a conductei) x 65g(0.69oz)/m(ft)

Înainte de testarea funcționării

Realizați testarea de funcționare numai după ce întregul sistem a fost complet instalat. Efectuați următoarele verificări înainte de testare:

- a) Unitățile de interior și exterior sunt instalate corect.
- b) Țevile și cablurile sunt conectate corect.
- c) Asigurați-vă că nu există obstacole în apropierea orificiilor de admisie și de evacuare a unității, care să poată cauza performanță slabă sau defectarea produsului.
- d) Sistemul frigorific nu prezintă scurgeri.
- e) Sistemul de evacuare nu este blocat și evacuarea se face într-o locație sigură.
- f) Izolarea termică este corect instalată.
- g) Cablurile de împământare sunt corect instalate.
- h) Lungimea conductelor și capacitatea de încărcare a agentului frigorific au fost înregistrate.
- i) Tensiunea electrică este cea potrivită pentru aparatul de aer condiționat.

! ATENȚIE

Neefectuarea testului de funcționare poate duce la defectarea unității, deteriorarea proprietății sau vătămare corporală.

Instrucțiuni de testare a funcționării

1. Deschideți robinetele de închidere a lichidelor și gazelor.
2. Apăsăți comutatorul electric și lăsați unitatea să pornească.
3. Reglați sistemul de aer condiționat în mod RĂCIRE.
4. Pentru unitatea de interior
 - a. Asigurați-vă că telecomanda și butoanele acesteia funcționează corespunzător.
 - b. Asigurați-vă că fantele de ventilație funcționează corect și că pot fi alternate folosind telecomanda.
 - c. Verificați dacă temperatura din încăpere este înregistrată corect.

- d. Asigurați-vă că indicațiile de pe telecomandă și de pe panoul de afișaj sunt corecte.
 - e. Asigurați-vă că butoanele manuale de pe unitatea de interior funcționează corespunzător.
 - f. Asigurați-vă că sistemul de evacuare nu este blocat și că evacuarea are loc fără probleme.
 - g. Asigurați-vă că nu există vibrații sau zgomote anormale în timpul funcționării.
5. Pentru unitatea de exterior
 - a. Verificați dacă sistemul de refrigerare prezintă scurgeri.
 - b. Asigurați-vă că nu există vibrații sau zgomote anormale în timpul funcționării.
 - c. Asigurați-vă că vântul, zgomotul și apa generate de unitate nu deranjează vecinii sau nu reprezintă un risc pentru siguranță.
 6. Test de evacuare
 - a. Asigurați-vă că conducta de evacuare funcționează corect. În clădirile noi, acest test trebuie efectuat înainte de finalizarea tavanului.
 - b. Scoateți capacul de test. Adăugați 2.000 ml de apă în rezervor prin tubul atașat.
 - c. Porniți unitatea și reglați sistemul de aer condiționat în mod RĂCIRE.
 - d. Ascultați sunetul pompei de evacuare pentru a constata dacă face zgomote neobișnuite.
 - e. Verificați dacă apa este evacuată. Poate dura aproximativ un minut până ce unitatea începe evacuarea, în funcție de conducta de evacuare.
 - f. Asigurați-vă că nu există scurgeri în sistemul de conducte.
 - g. Opriți aparatul de aer condiționat. Opriți comutatorul electric și puneți la loc capacul de test.

NOTĂ: Dacă unitatea funcționează incorect sau nu funcționează conform așteptărilor dumneavoastră, consultați secțiunea Depanare din Manualul utilizatorului înainte de a contacta serviciul de asistență clienți.

Toate imaginile din acest manual, au scop pur informativ. Forma reala a produsului pe care l-ati cumparat poate fi usor diferita insa functiile si operatiile sunt aceleasi. Compania nu isi asuma nici o responsabilitate pentru greselile de tipar. Aspectul fizic si specificatiile tehnice se pot schimba fara o notificare prealabila datorita imbunatatirii continue a echipamentelor noastre.

Pentru mai multe detalii, va rugam sa contactati producatorul la numarul de telefon : +30 211 300 3300, sau vanzatorul echipamentului. Toate actualizarile acestui manual vor fi disponibile pe website-ul nostru si va recomandam sa verificati intotdeauna pentru aparitia unei noi versiuni.



Scanati codul QR pentru a descarca ultima versiune a manualului.
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AIR CONDITIONING SYSTEMS

FLOOR STANDING



Please check the applicable models, F-GAS and manufacturer information from the "Owner's Manual - Product Fiche" in the packaging of the outdoor unit. (European Union products only).

