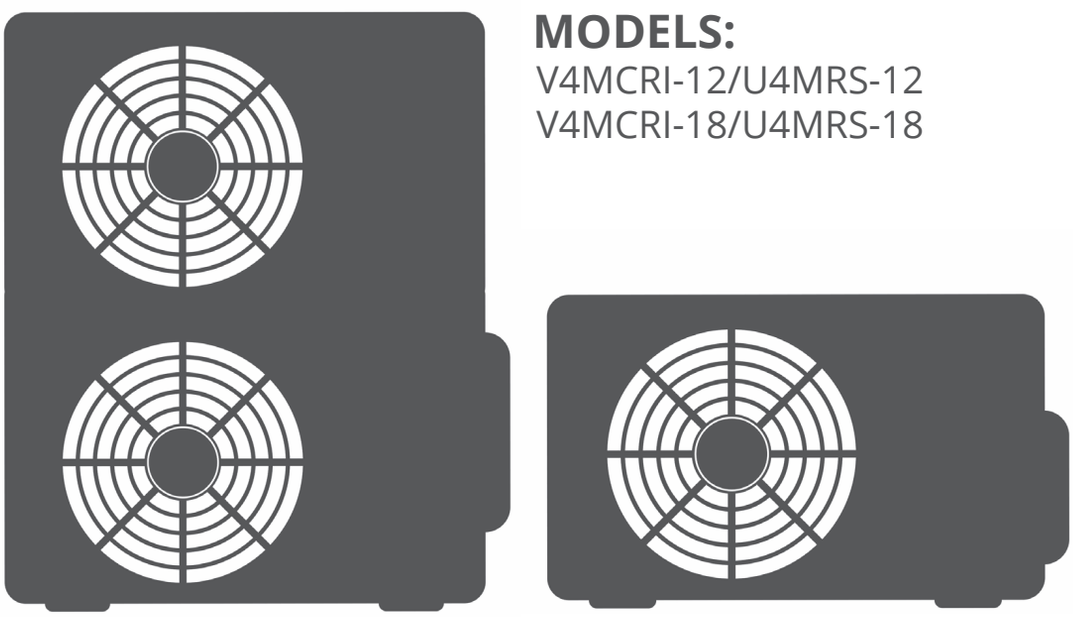
inventor®

AIR CONDITIONING SYSTEMS
CASSETTE TYPE

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



MODELS:
V4MCRI-12/U4MRS-12
V4MCRI-18/U4MRS-18

ENGLISH | ΕΛΛΗΝΙΚΑ | ROMANA

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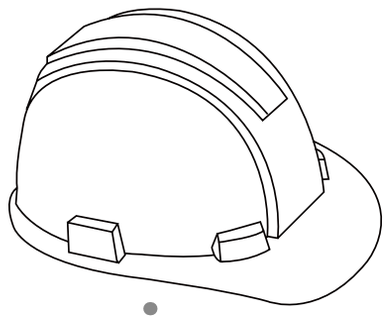
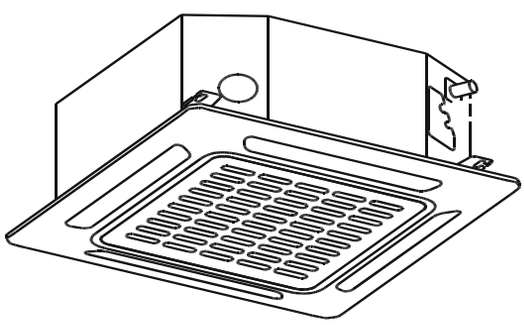
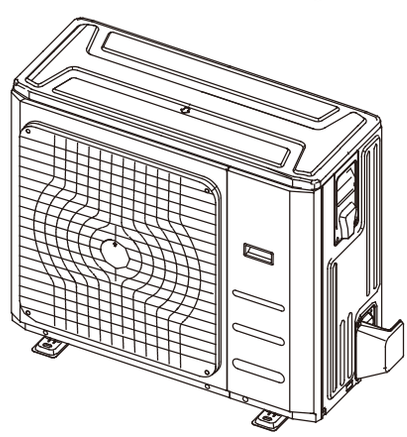
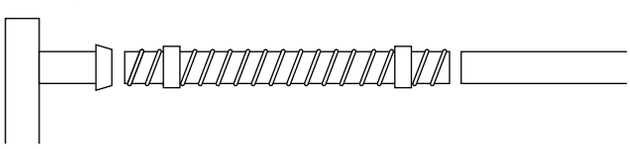
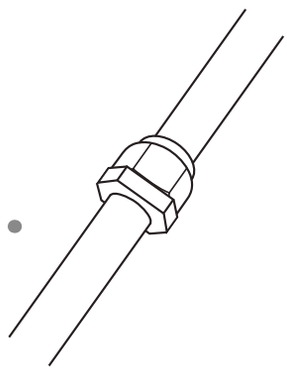
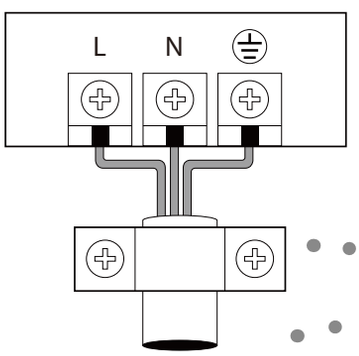


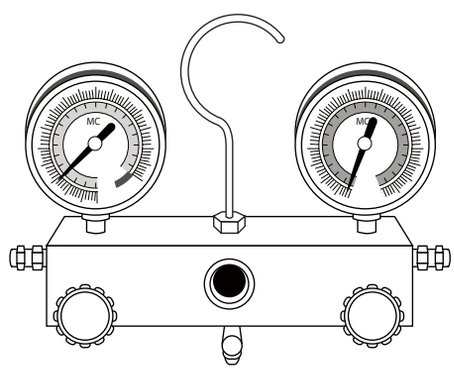








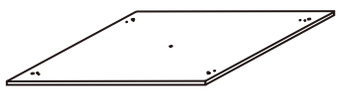
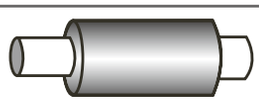
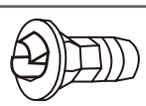
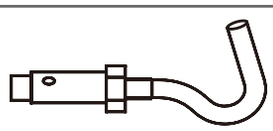




Accessories

1

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

	Name	Shape	Quantity
Indoor unit installation	Installation paper template (some models)		1
Refrigeration Fittings	Insulation for gas pipe fitting (some models)		1
	Insulation for liquid pipe fitting (some models)		1
Drainpipe Fittings	Outlet pipe sheath (some models)		1
	Outlet pipe clasp (some models)		1
	Drain joint (some models)		1
	Seal ring (some models)		1
Installation Accessory (some models)	Ceiling hook		4
	Suspension bolt		4
	Throttle (some units)		1
	Anti-shock rubber		1
	Owner's manual		1
	Installation manual		1

Optional accessories

- There are two types of remote controllers:wired and wireless.
  Select a remote controller according to customers request and install in an appropriate place.
  Refer to catalogues and technical literature for selecting a suitable remote controller.
- This indoor unit requires installation of an optional decoration panel.

Safety Precautions

2

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

Failure to observe a warning may result in death. The appliance must be installed in accordance with national regulations.

CAUTION

Failure to observe a caution may result in injury or equipment damage.

⚠ WARNING

- **Carefully read the Safety Precautions before installation.**
- In certain functional environments, such as kitchens, server rooms, etc., the use of specially designed air-conditioning units is highly recommended.
- **Only trained and certified technicians should install, repair and service this air conditioning unit.** Improper installation may result in electrical shock, short circuit, leaks, fire or other damage to the equipment and personal property.
- **Strictly follow the installation instructions set forth in this manual.** Improper installation may result in electrical shock, short circuit, leaks, fire or other damage to the equipment.
- Before you install the unit, consider strong winds, typhoons and earthquakes that might affect your unit and locate it accordingly. Failure to do so could cause the equipment to fail.
- After installation, ensure there are no refrigerant leaks and that the unit is operating properly. Refrigerant is both toxic and flammable and poses a serious health and safety risk.

Note about Fluorinated Gasses

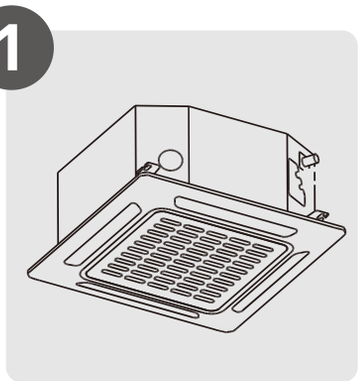
1. This air-conditioning unit contains fluorinated gasses. For specific information on the type of gas and the amount, please refer to the relevant label on the unit itself.
2. Installation, service, maintenance and repair of this unit must be performed by a certified technician.
3. Product uninstallation 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.

Installation Overview

3

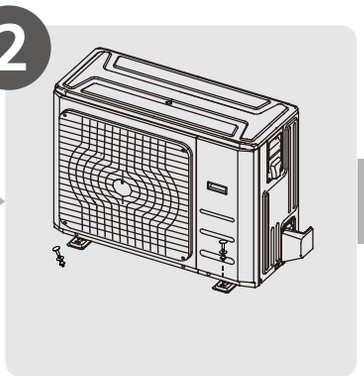
INSTALLATION ORDER

1



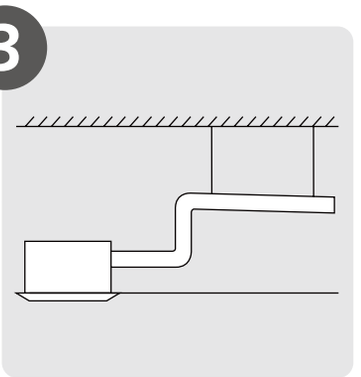
Install the indoor unit
(Page 7)

2



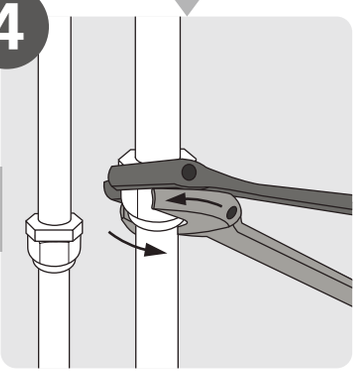
Install the outdoor unit
(Page 11)

3



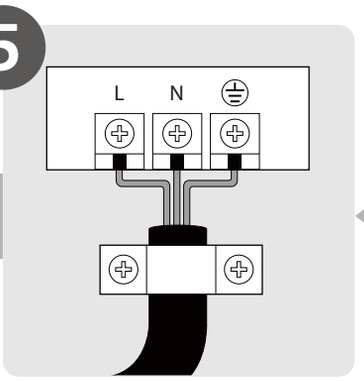
Install the drainpipe
(Page 13)

4



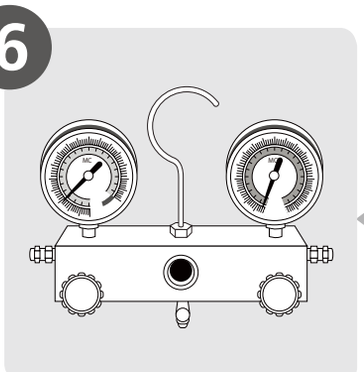
Connect the refrigerant pipes
(Page 15)

5



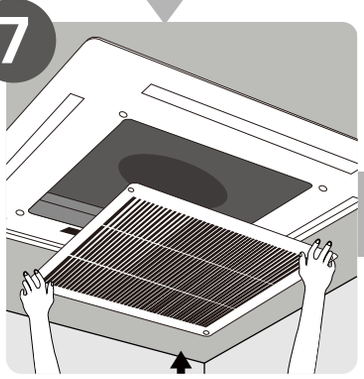
Connect the wires
(Page 19)

6



Evacuate the refrigeration system
(Page 21)

7



Install the front panel
(Page 23)

8

Perform a test run
(Page 25)

Indoor Unit Installation

4

Indoor Unit Parts

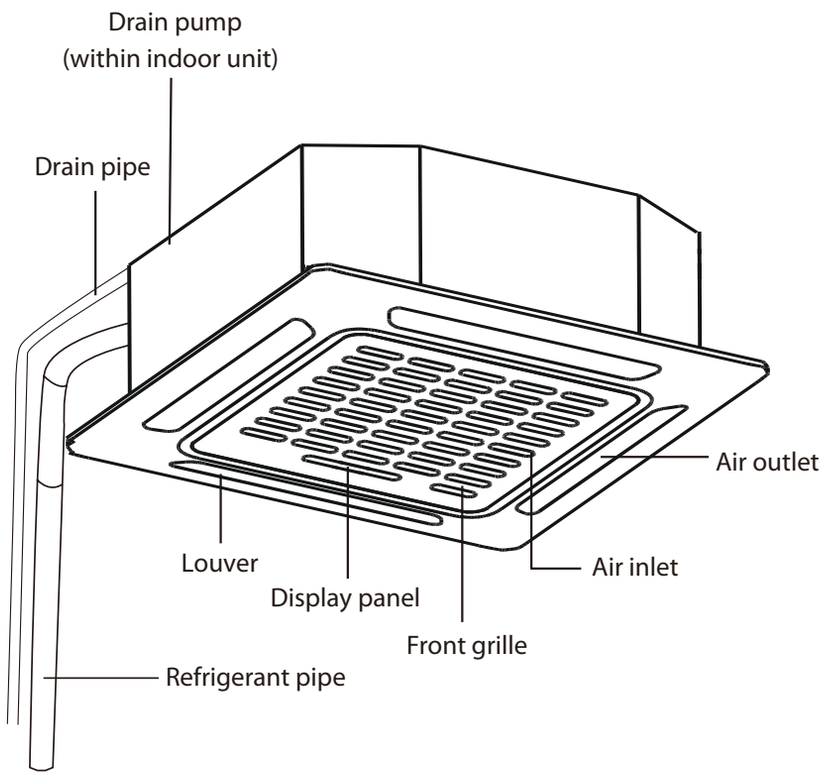


Fig. 4.1

Safety Precautions

⚠ WARNING

- Securely install the indoor unit on a structure that can sustain its weight. If the structure is too weak the unit may fall causing personal injury, unit and property damage or death.
- Install the indoor unit at a height of more than 2.5m (8') above the floor.
- **DO NOT** install the indoor unit in the bathroom or laundry room as excessive moisture can short the unit and corrode the wiring.

! CAUTION

- Install the indoor and outdoor units, cables and wires at least 1m (3.2') from televisions or radios to prevent static or image distortion. Depending on the appliances, a 1m (3.2') distance may not be sufficient.
- If the indoor unit is installed on a metal part of the building, it must be electrically grounded.

Indoor Unit Installation Instructions

NOTE: Panel installation should be done after piping and wiring.

Step 1: Select installation location

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

- ☑ The unit is at least 1m (39") from the nearest wall.
- ☑ There is enough room for installation and maintenance.
- ☑ There is enough room for the connecting pipe and drainpipe.
- ☑ The ceiling is horizontal and its structure can sustain the weight of the indoor unit.
- ☑ The air inlet and outlet are not impeded.
- ☑ The airflow can fill the entire room.
- ☑ There is no direct radiation from heaters.

! CAUTION

DO NOT install the unit in the following locations:

- ⊘ In areas with oil drilling or fracking
- ⊘ In coastal areas with high salt content in the air
- ⊘ In areas with caustic gases in the air, such as near hot springs
- ⊘ In areas with power fluctuations, such as factories
- ⊘ In enclosed spaces, such as cabinets
- ⊘ In kitchens that use natural gas
- ⊘ In areas with strong electromagnetic waves
- ⊘ In areas that store flammable materials or gas
- ⊘ In rooms with high humidity, such as bathrooms or laundry rooms

RECOMMENDED DISTANCES BETWEEN THE INDOOR UNIT AND THE CEILING

The distance between the mounted indoor unit and the internal ceiling should meet the following specifications. (See Fig. 4.2)

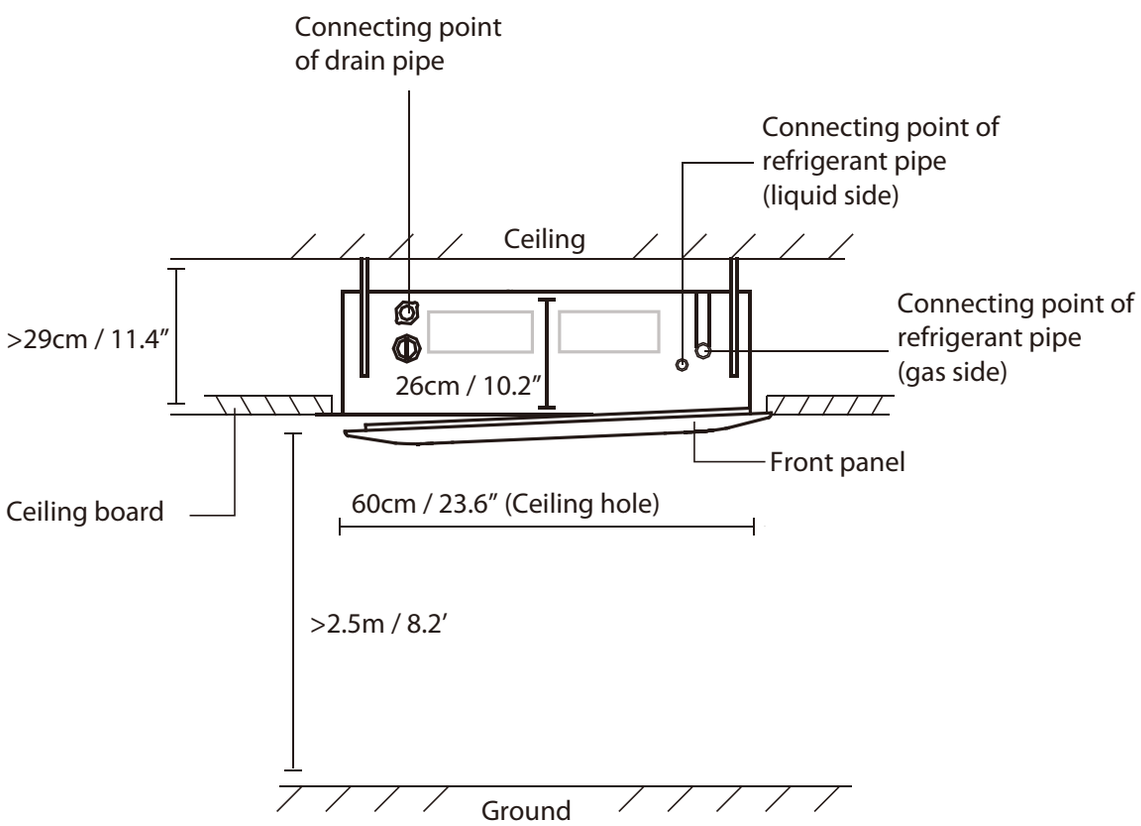


Fig. 4.2

Step 2: Hang indoor unit.

1. Use the included paper template to cut a rectangular hole in the ceiling, leaving at least 1m (39″) on all sides. The hole will be 60x60cm (23.6x23.6″) big. Be sure to mark the areas where ceiling hook holes will be drilled.

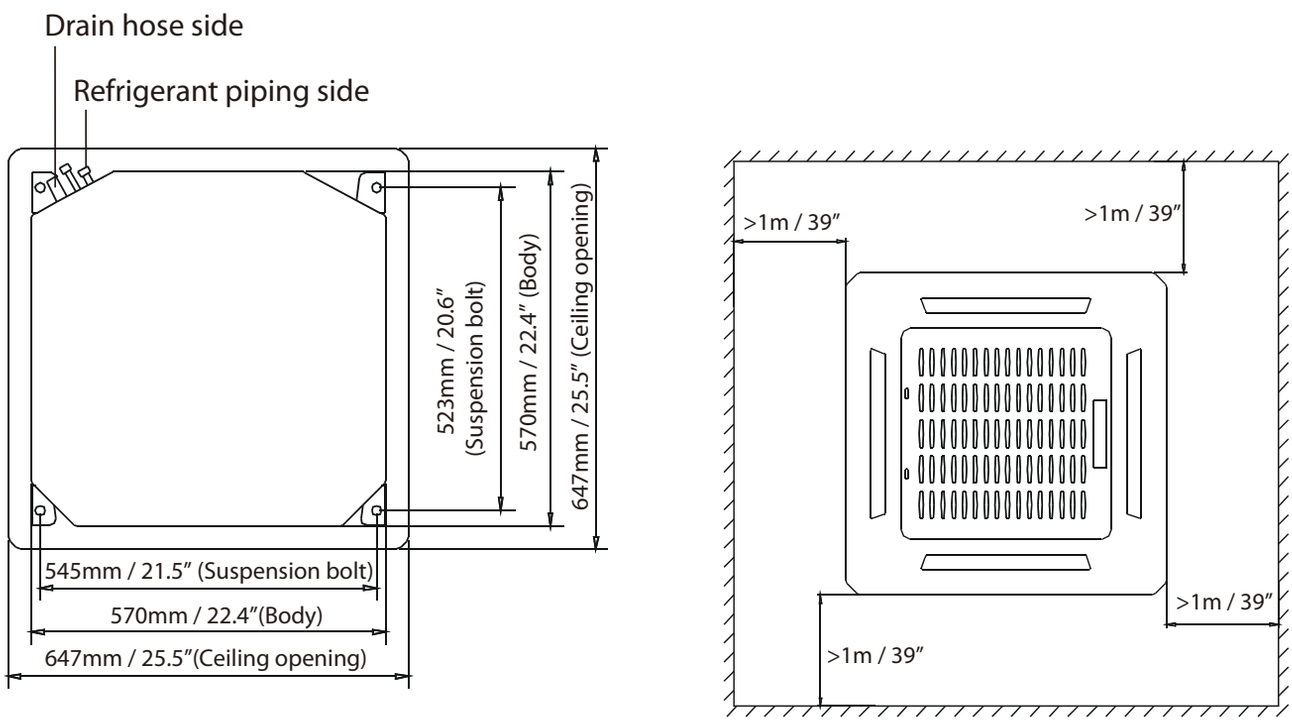


Fig. 4.3

CAUTION

The unit body should align perfectly with the hole. Ensure that the unit and the hole are the same size before moving on.

2. Drill 4 holes 5cm (2″) deep at the ceiling hook positions in the internal ceiling. Be sure to hold the drill at a 90° angle to the ceiling.
3. Using a hammer, insert the ceiling hooks into the pre-drilled holes. Secure the bolt using the included washers and nuts.
4. Install the four suspension bolts (See Fig. 4.4).

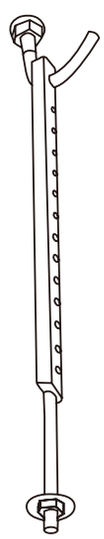


Fig. 4.4

5. Mount the indoor unit. You will need two people to lift and secure it. Insert suspension bolts into the unit's hanging holes. Fasten them using the included washers and nuts (See Fig. 4.5).

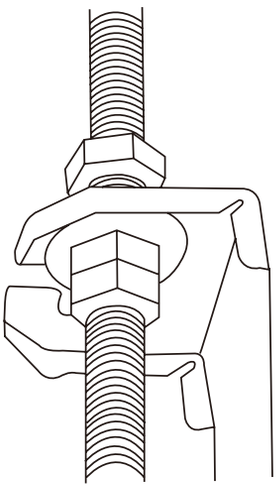


Fig. 4.5

NOTE: The bottom of the unit should be 24mm (0.9") higher than the ceiling board. Generally, L (indicated in Fig. 4.6) should be half the length of the suspension bolt or long enough to prevent the nuts from coming off.

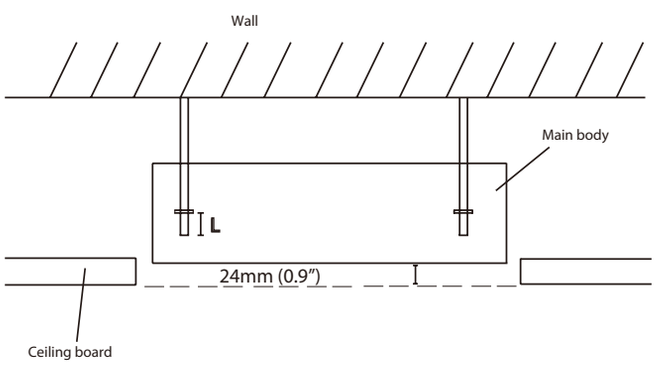


Fig. 4.6

CAUTION

Ensure that the unit is completely level. Improper installation can cause the drain pipe to back up into the unit or water leakage.

NOTE: Ensure that the indoor unit is level. The unit is equipped with a built-in drain pump and float switch. If the unit is tilted against the direction of condensate flows (the drainpipe side is raised), the float switch may malfunction and cause water to leak.

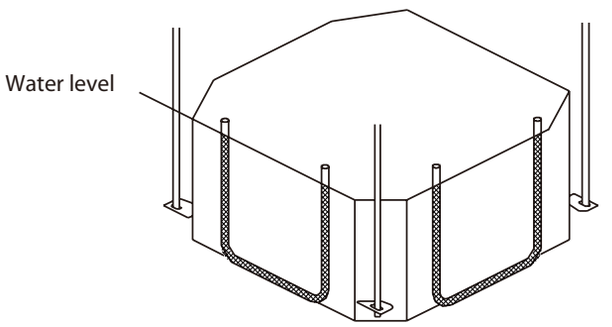


Fig. 4.7

NOTE FOR NEW HOME INSTALLATION

When installing the unit in a new home, the ceiling hooks can be embedded in advance. Make sure that the hooks do not come loose due to concrete shrinkage. After installing the indoor unit, fasten the installation paper template onto the unit with bolts (M6X12) to determine in advance the dimension and position of the opening on the ceiling. Follow the instructions above for the remainder of the installation.

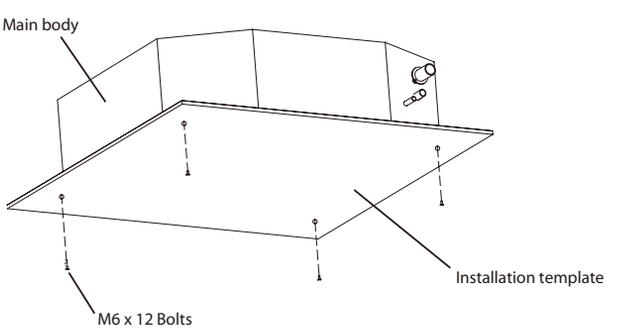


Fig. 4.8

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.

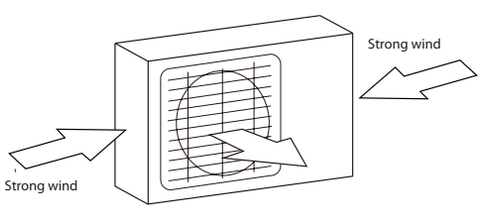


Fig. 5.1

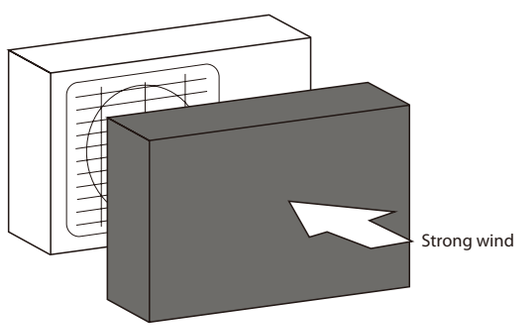


Fig. 5.2

Step 2: Install outdoor unit.

Fix the outdoor unit with anchor bolts (M10)

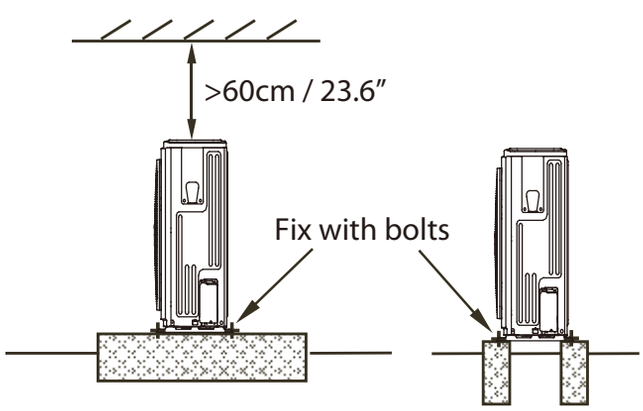


Fig. 5.3

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 and Table 5.1)

Fig. 5.4

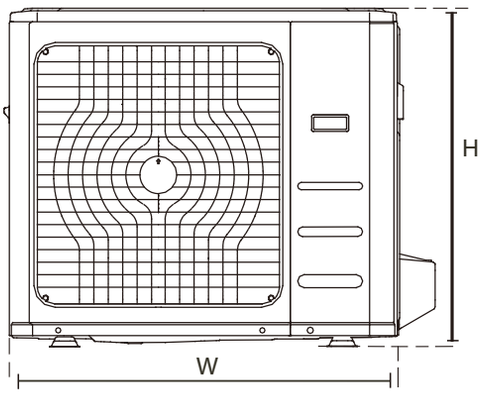


Fig. 5.5

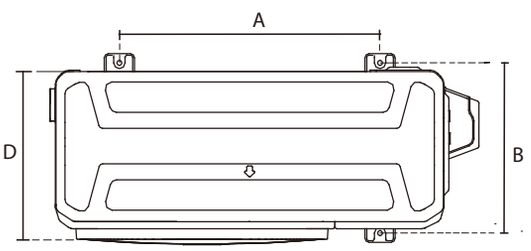


Table 5.1: Length Specifications of Split Type Outdoor Unit (unit: mm/inch)

Outdoor Unit Dimensions	Mounting Dimensions	
W x H x D	Distance A	Distance B
780x540x250 (30.7x21.25x9.85)	549 (21.6)	276 (10.85)
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)
770x555x300 (30.3x21.85x11.81)	487 (19.2)	298 (11.73)
800x554x333 (31.5x21.8x13.1)	514 (20.24)	340 (13.39)
845x702x363 (33.27x27.6x14.3)	540 (21.26)	350 (13.8)

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. 5.6)

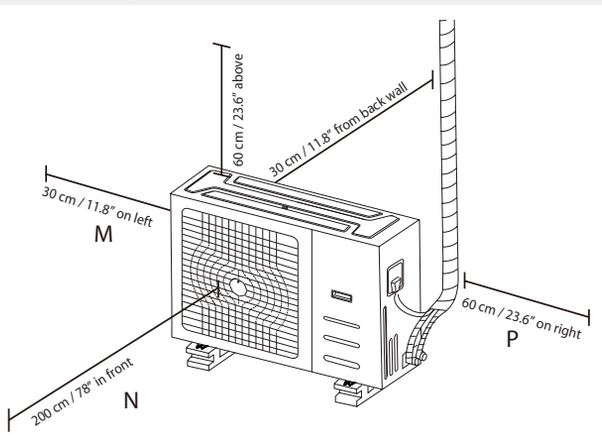


Fig. 5.6

Drain Joint Installation

Before bolting the outdoor unit in place, you must install the drain joint at the bottom of the unit. (See Fig. 5.7)

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.

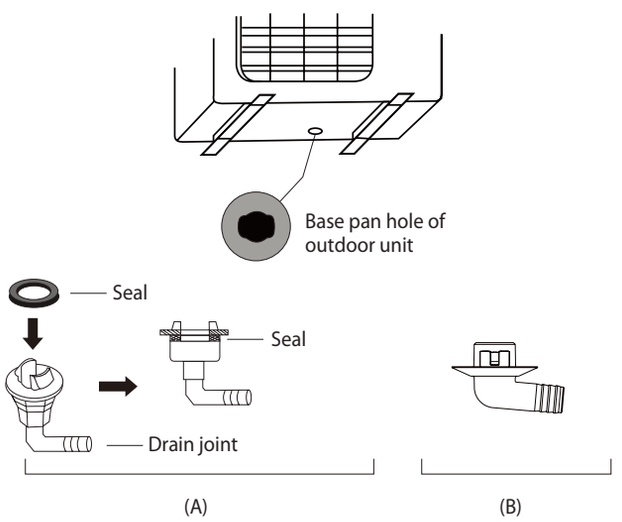


Fig. 5.7

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

Install the drainpipe as shown in Figure 6.2.

1. Cover the drainpipe with heat insulation to prevent condensation and leakage.
2. Attach the mouth of the drain hose to the unit's outlet pipe. Sheath the mouth of the hose and clip it firmly with a pipe clasp. (Fig 6.1)

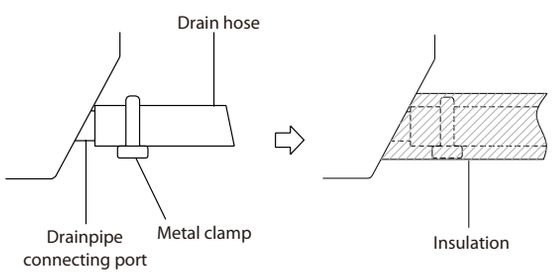


Fig. 6.1

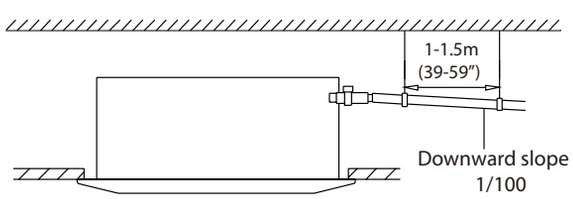


Fig. 6.2

NOTE ON DRAINPIPE INSTALLATION

- When using an extended drainpipe, tighten the indoor connection with an additional protection tube to prevent it from pulling loose.
- The drainpipe should slope downward at a gradient of at least 1/100 to prevent water from flowing back into the air conditioner.
- To prevent the pipe from sagging, space hanging wires every 1-1.5m (40-59").
- If the outlet of the drainpipe is higher than the body's pump joint, provide a lift pipe for the exhaust outlet of the indoor unit. The lift pipe must be installed no higher than 75cm (29.5") from the ceiling board and the distance between the unit and the lift pipe must be less than 30cm (11.8"). Incorrect installation could cause water to flow back into the unit and flood.
- To prevent air bubbles, keep the drain hose level or slightly tiled up (<75mm / 3").

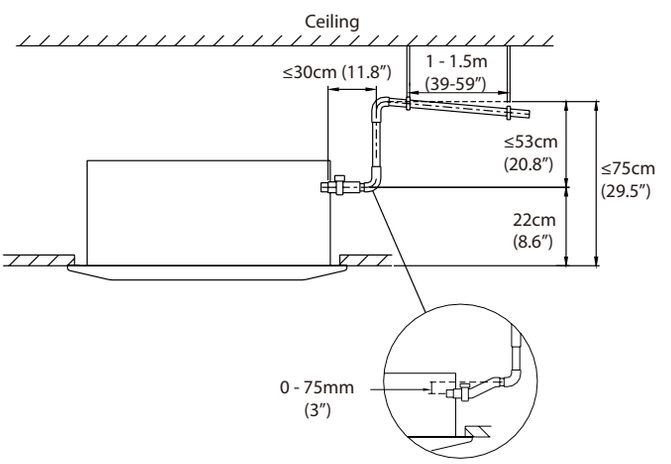


Fig. 6.3

NOTE: When connecting multiple drainpipes, install the pipes as shown in Fig 6.4.

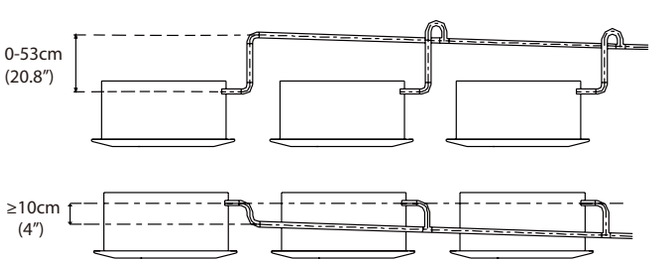


Fig. 6.4

3. 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 12mm (0.5”). This will ensure proper water drainage (See Fig. 6.5). 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.

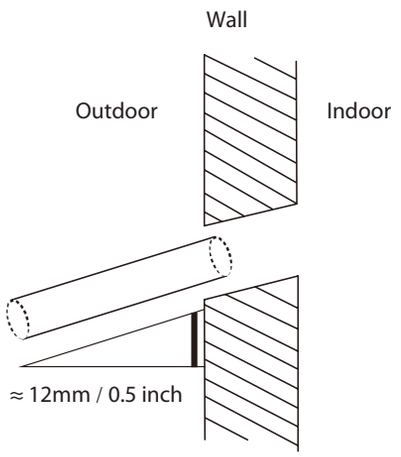


Fig. 6.5

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

4. 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.

Notes On Pipe Length and Elevation

Ensure that the length of the refrigerant pipe, the number of bends, and the drop height between the indoor and outdoor units meets the requirements shown in Table 7.1:

Table 7.1: The Maximum Length And Drop Height Based on Models. (Unit: m/ft.)

Type of model	Capacity (Btu/h)	Length of piping	Maximum drop height
50Hz T1 Condition/R22 Split Type	12K	15/49	8/26
	18K-24K	30/98.4	10/32.8
	30K-42K	50/164	20/65.6
	48K-60K	50/164	25/82
50Hz Vertical Discharge, 60Hz T1 condition/ R22 Split Type, Vertical Discharge	12K	15/49	8/26
	18K-24K	30/98.4	10/32.8
	30K-60K	30/98.4	20/65.6
R410A Inverter Split Type	<15K	25/82	10/32.8
	≥15K - <24K	30/98.4	20/65.6
	≥24K - <36K	50/164	25/82
	≥36K - ≤60K	65/213	30/98.4
R410A Split Type	12K	15/49	8/26
	18K-30K	25/82	15/49
	36K	30/98.4	20/65.6
	48K-60K	50/164	25/82
50Hz/60Hz T3 condition (outdoor unit down)	18K-24K	35/114	10/32.8
	30K	30/98.4	15/49
	36K	30/98.4	20/65.6
	42K-60K	50/164	25/82
50Hz/60Hz T3 Condition (outdoor unit up)	18K-24K	25/82	15/49
	30K	30/98.4	20/65.6
	36K	30/98.4	25/82
	42K	50/164	30/98.4
	48K-60K	50/164	35/114
Unit with quick joint	12K-18K	5/16.4	5/16.4

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.

Step1: 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. 7.2 for examples of bad cuts

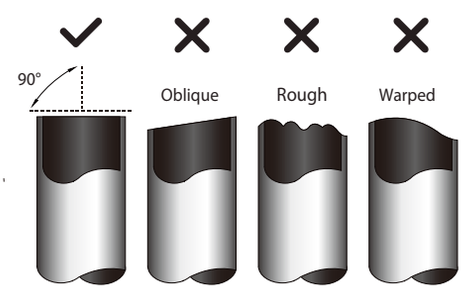


Fig. 7.2

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.

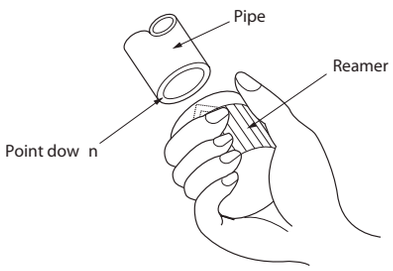


Fig. 7.3

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. 7.4

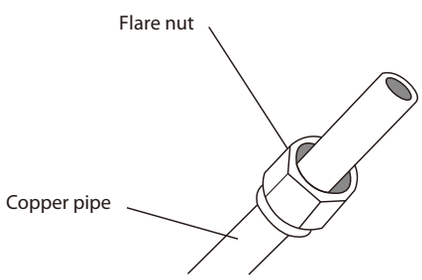


Fig. 7.4

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.

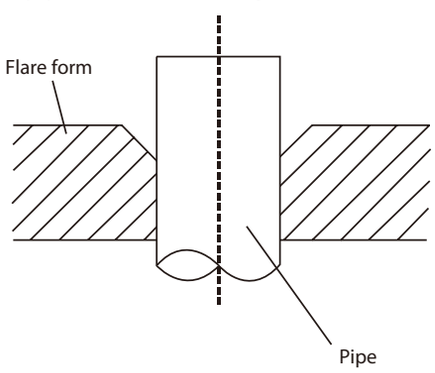


Fig. 7.5

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 7-3.

Table 7.3: PIPING EXTENSION BEYOND FLARE FORM

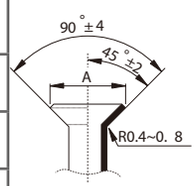
Pipe gauge	Tightening torque	Flare dimension (A) (Unit: mm/Inch)		Flare shape
		Min.	Max.	
Ø 6.4	14.2-17.2 N.m (144-176 kgf.cm)	8.3/0.3	8.3/0.3	
Ø 9.5	32.7-39.9 N.m (333-407 kgf.cm)	12.4/0.48	12.4/0.48	
Ø 12.7	49.5-60.3 N.m (504-616 kgf.cm)	15.4/0.6	15.8/0.6	
Ø 15.9	61.8-75.4 N.m (630-770 kgf.cm)	18.6/0.7	19/0.74	

Fig. 7.6

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.

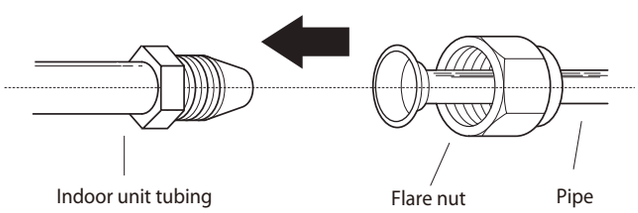


Fig. 7.7

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-.3.

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

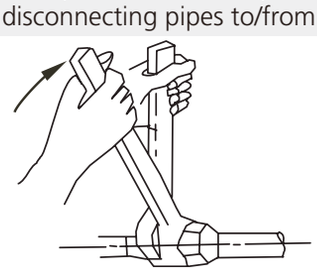


Fig. 7.8

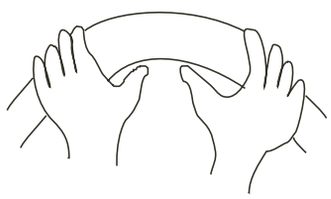
CAUTION

- 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. 7.9

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

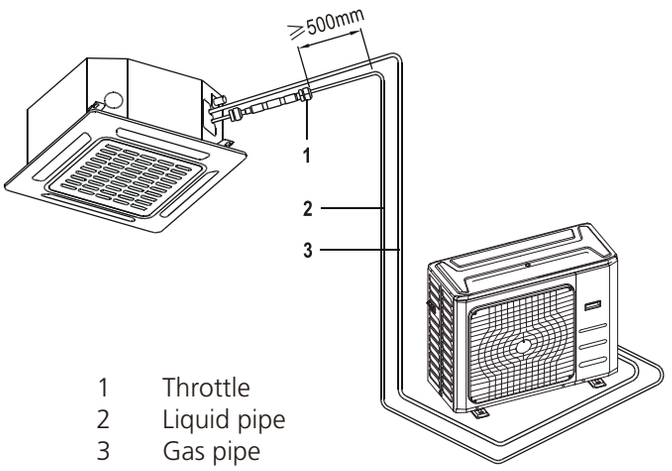
NOTE: DO NOT intertwine signal cable with other wires. While bundling these items together, do not intertwine or cross the signal cable with any other wiring.

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.

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).

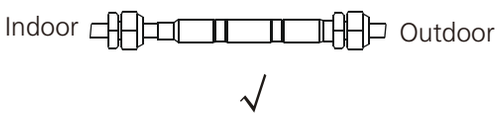
Installation Of The Throttle. (Some Models)



1 Throttle
2 Liquid pipe
3 Gas pipe

Precautions

- For ensuring throttled efficiency, please mount the throttle as horizontally as possible.



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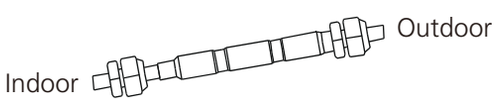

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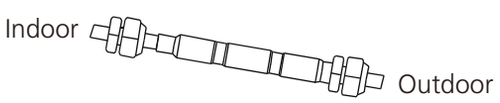

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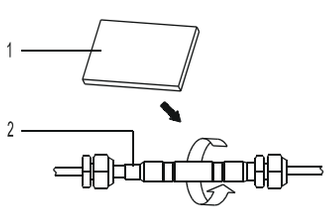
- Wrap the supplied anti-shock rubber at external of the throttle for denoise.



1 Anti-shock rubber
2 Throttle

Wiring

8

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.

Power Specifications

Power			
Model	Phase	Frequency and volt	Circuit breaker/Fuse(A)
9K~18K	1Phase	208-240V	20/16

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

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 Regions

Rated Current of Appliance (A)	Nominal Cross-Sectional Area (mm²)
≤ 6	0.75
6 - 10	1
10 - 16	1.5
16 - 25	2.5
25- 32	4
32 - 45	6

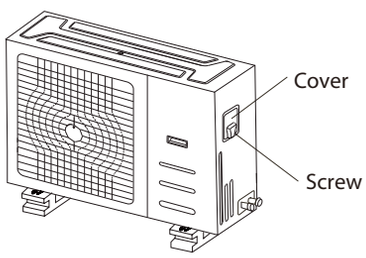
b. Using wire strippers, strip the rubber jacket from both ends of signal cable to reveal about 15cm (5.9”) of the wires inside.

c. Strip the insulation from the ends of the wires.

d. Using a wire crimper, crimp u-lugs on the ends of the wires.

NOTE: While connecting the wires, please 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, disassemble the bolts from the maintenance board and remove the protection board. (See Fig. 8.1)



3. Connect the u-lugs to the terminals
   Match the wire colors/labels with the labels on the terminal block, and firmly screw the u-lug of each wire to its corresponding terminal.
4. Clamp down the cable with designated 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.

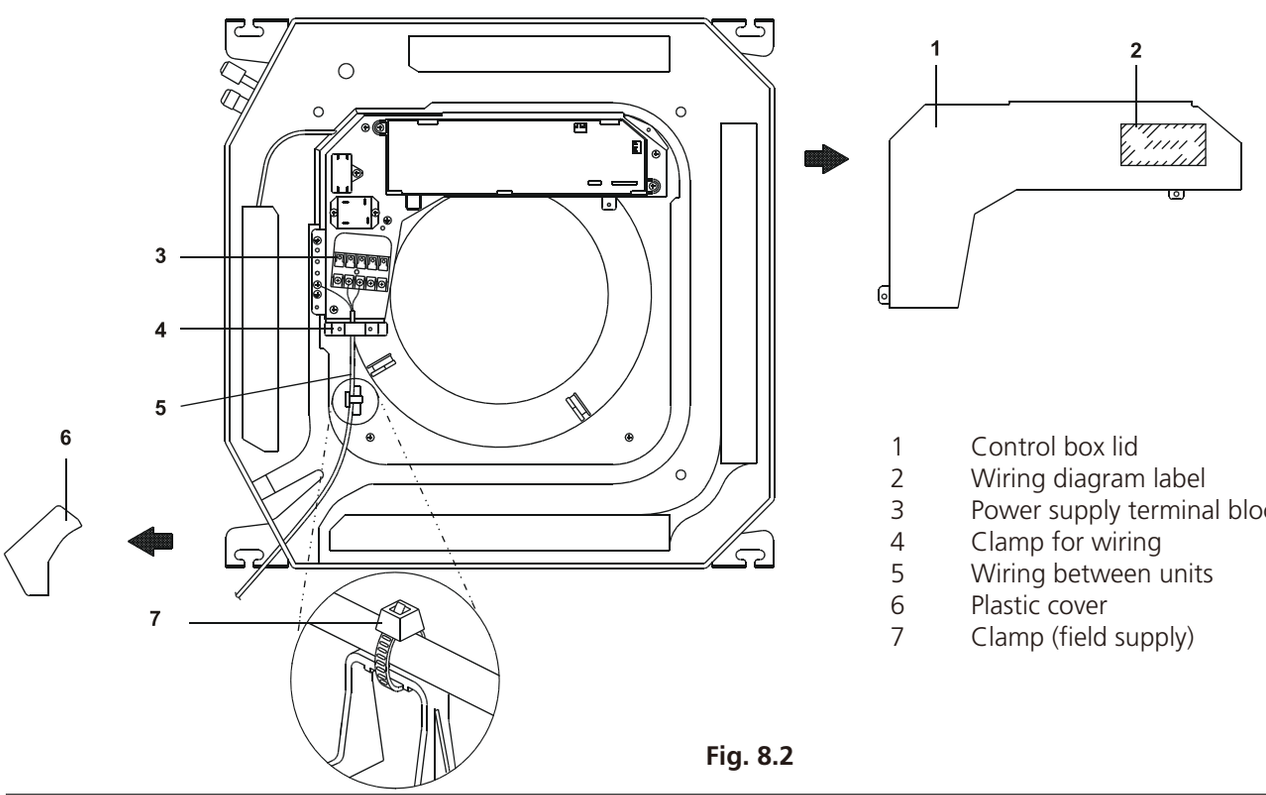
Indoor Unit Wiring

1. Prepare the cable for connection
   a. Using wire strippers, strip the rubber jacket from both ends of signal cable to reveal about 15cm (5.9”) of the wires inside.
   b. Strip the insulation from the ends of the wires.
   c. Using wire crimper, crimp the u-lugs to the ends of the wires.
2. Open the front panel of the indoor unit. Using a screwdriver, remove the cover of the electric control box on your indoor unit.
3. Thread the power cable and the signal cable through the wire outlet.
4. Connect the u-lugs to the terminals.
   Match the wire colors/labels with the labels on the terminal block, and 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.

5. Clamp down cable with the designated cable clamp to secure it in place. The cable should not be loose, and should not pull on the u-lugs.
6. Reinstall the electric box cover and the front panel of the indoor unit.



1 Control box lid
2 Wiring diagram label
3 Power supply terminal block
4 Clamp for wiring
5 Wiring between units
6 Plastic cover
7 Clamp (field supply)

Fig. 8.2

Air Evacuation

9

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.

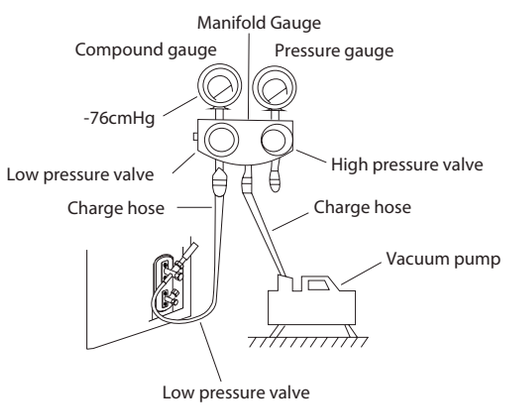


Fig. 9.1

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 (-1x105Pa).
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.

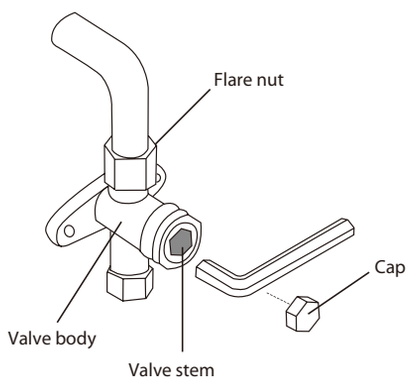


Fig. 9.2

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")
Fixed-frequency R22 (orifice tube in the indoor unit):	(Total pipe length - standard pipe length)x 30g (0.32oZ)/m(ft)	(Total pipe length - standard pipe length)x 65g(0.69oZ)/m(ft)	(Total pipe length - standard pipe length)x 115g(1.23oZ)/m(ft)
Fixed-frequency R22 (orifice tube in the outdoor unit):	(Total pipe length - standard pipe length) x15g(0.16oZ)/m(ft)	(Total pipe length - standard pipe length) x30(0.32oZ)/m(ft)	(Total pipe length - standard pipe length) x60g(0.64oZ)/m(ft)
Fixed-frequency R410A:	(Total pipe length - standard pipe length) x20g(0.21oZ)/m(ft)	(Total pipe length - standard pipe length) x40g(0.42oZ)/m(ft)	(Total pipe length - standard pipe length) x60g(0.64oZ)/m(ft)
Inverter R410A:	(Total pipe length - standard pipe length) x15g(0.16oZ)/m(ft)	(Total pipe length - standard pipe length) x30g(0.32oZ)/m(ft)	

Panel Installation

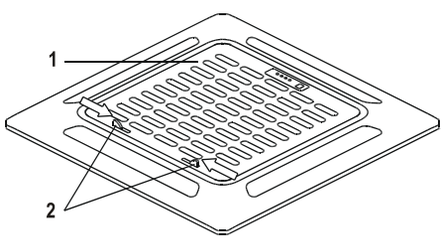
10

CAUTION

DO NOT place the panel facedown on the floor, against a wall, or on uneven surfaces.

Step 1: Remove the front grille.

1. Push both of the tabs towards the middle simultaneously to unlock the hook on the grille.



1 Intake grille
2 Grille hook

Fig. 10.1

2. Hold the grille at a 45° angle, lift it up slightly and detach it from the main body.

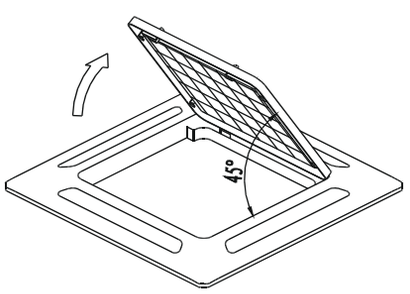
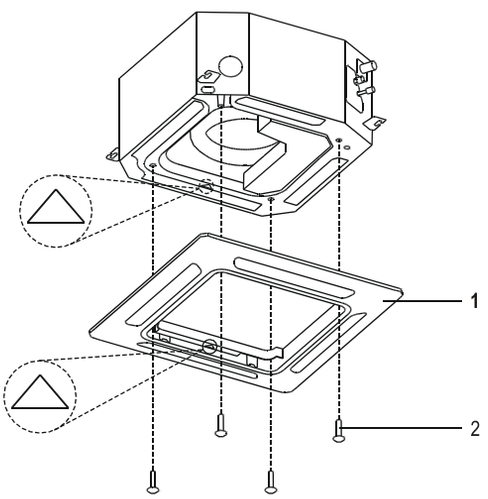


Fig. 10.2

Step 2: Install the panel

Align the indicate "△" on the decoration panel to the indicate "△" on the unit .
Attach the decoration panel to the unit with the supplied screws as shown in figure below.



1 Decoration panel
2 Screws (M5)(supplied with the panel)

Fig. 10.3

After installing the decoration panel, ensure that there is no space between the unit body and decoration panel. Otherwise air may leak through the gap and cause dewdrop. (See figure below)

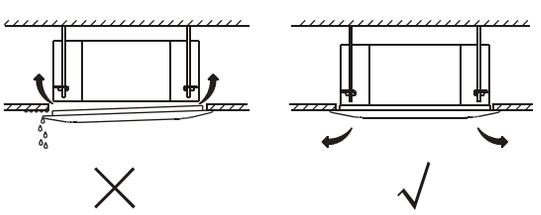


Fig. 10.4

Step 3: Mount the intake grille.

Ensure that the buckles at the back of the grille be properly seated in the groove of the panel.

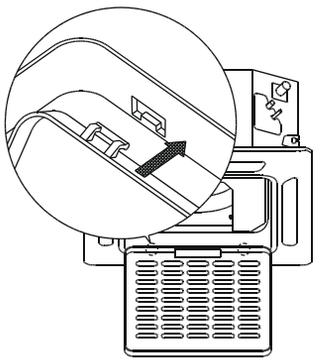


Fig. 10.5

Step 4: Connect the 2 wires of the decoration panel to the mainboard of the unit.

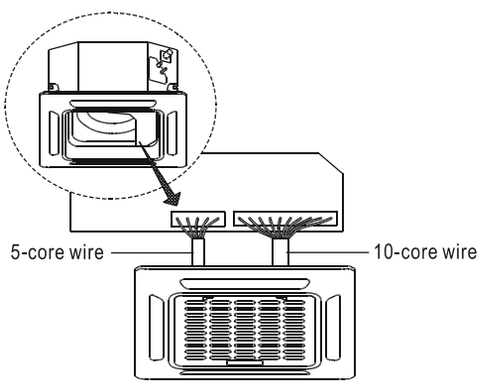


Fig. 10.6

Step 5: Fasten the control box lid with 2 screws .

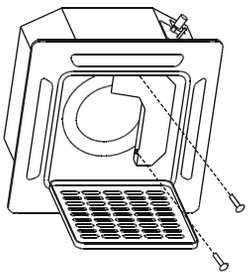


Fig. 10.7

Step 6: Close the intake grille, and close the 2 grille hooks.

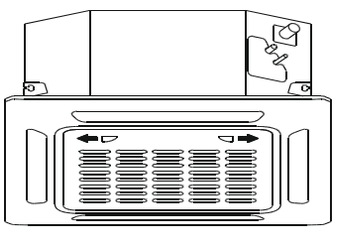


Fig. 10.8

Test Run

11

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.

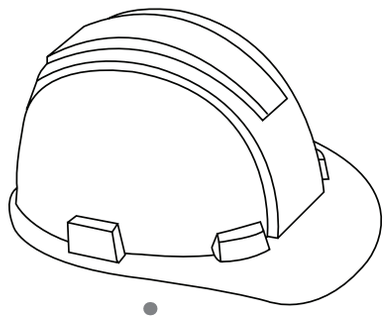
Test Run Instructions

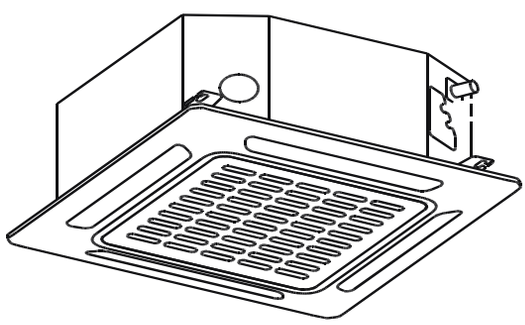
1. Open both the liquid and gas stop valves.
2. Turn on the main power switch and allow the unit to warm up.
3. Set the air conditioner to COOL mode.
4. For the Indoor Unit
   a. Ensure the remote control and its buttons work properly.
   b. Ensure the louvers move properly and can be changed using the 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.

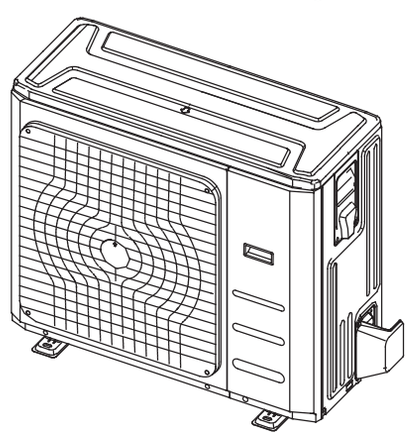
NOTE: If the unit malfunctions or does not operate according to your expectations, please refer to the Troubleshooting section of the Owner's Manual before calling customer service.

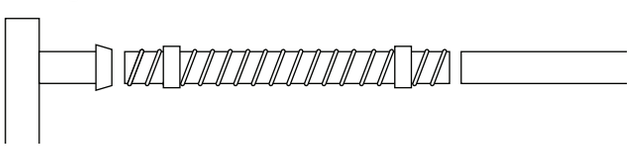
Cuprins

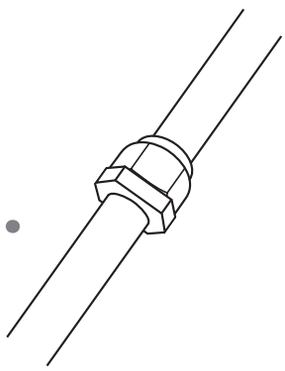
Manual Instalare

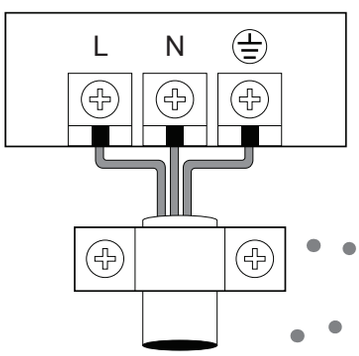


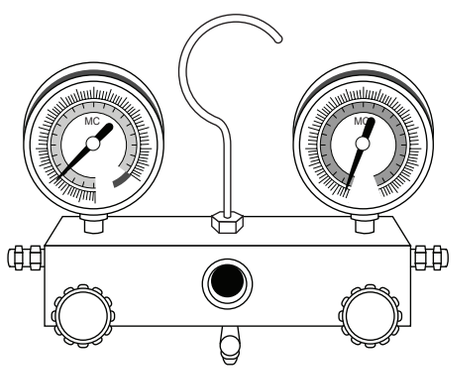








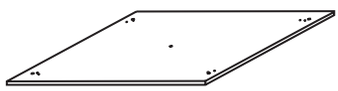
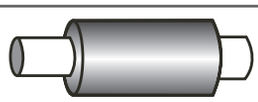
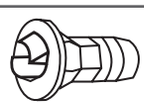
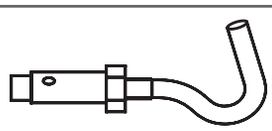
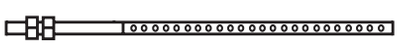
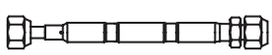




Accesorii

1

Aparatul de aer conditionat vine cu urmatoarele accesorii. Utilizati toate piesele de instalare si accesoriile lui pentru a instala aparatul de aer conditionat. Instalarea necorespunzatoare poate cauza scapari de apa, socuri electrice sau incendii, sau poate provoca echipamentul sa nu functioneze.

	Name	Shape	Quantity
Instalarea unitatii interioare	Sablon de hartie pentru instalare (la unele modele)		1
Fitinguri de racire	Izolatie pentru teava de gaz (la unele modele)		1
	Izolatie pentru teava de lichid (la unele modele)		1
Fitinguri pentru drenul de scurgere	Manson teava de evacuare (la unele modele)		1
	Agrafă teava de evacuare (la unele modele)		1
	Articulatie pentru scurgere (la unele modele)		1
	Inel de etansare (la unele modele)		1
Accesorii de instalare (la unele modele)	Carlig de agatare in tavan		4
	Bolt de suspendare		4
	Clapeta (la unele unitati)		1
	Cauciuc anti-soc		1
	Manual Utilizator		1
	Manual instalare		1

Accesorii optionale

- Există două tipuri de telecomenzi: cu fir si fara fir.
  Selectați o telecomanda in functie de cererea clientilor si instalati-o intr-un loc adecvat.
  Verificati cataloagele și literatura tehnica de selectare a unei telecomenzi adecvate.
- Această unitate interioara necesita instalarea unui panou decorativ optional.

Masuri de siguranta

2

Cititi precautiile de siguranta inainte de instalare

Instalarea incorecta datorita ignorarii instructiunilor poate provoca daune grave sau ranire. Gravitatea potentialelor pagube sau eventualele raniri este clasificata ca fiind fie un **AVERTISMENT** sau o **ATENȚIE.**

AVERTIZARE

Nerespectarea unui avertisment poate duce la deces. Aparatul trebuie sa fie instalat in conformitate cu reglementarile nationale.

ATENTIE

Nerespectarea unei precautii poate duce la vatamari corporale sau la deteriorarea echipamentului.

AVERTIZARE

- **Citii cu atentie masurile de siguranta inainte de instalare.**
- In anumite medii functionale, cum ar fi bucatarii, camere de server, etc., se recomanda utilizarea aparatelor de aer conditionat special concepute.
- **Aparatele trebuie instalate si reparate numai de tehnicieni special instruiti si ceritificati.** Instalarea necorespunzătoare poate duce la un soc electric, scurt-circuit, scurgeri, incendii sau alte deteriorări ale echipamentului și a bunurilor personale.
- **Respectati cu strictete instructiunile de instalare prezentate in acest manual.** Instalarea necorespunzătoare poate duce la șoc electric, scurt-circuit, scurgeri, incendii sau alte deteriorari ale echipamentului.
- Inainte de a instala aparatul, luati in considerare vantul puternic, taifunuri si cutremure care ar putea afecta unitatea si instalati-o in mod corespunzător. Daca nu faceti acest lucru ar putea duce echipamentul sa se defecteze.
- După instalare, asigurați-va ca nu exista scurgeri de agent frigorific si ca unitatea functioneaza in mod corespunzător. Agentul frigorific este atat toxic cat si inflamabil si prezinta un risc grav pentru sanatate si siguranta dvs.

Nota despre gaze fluorinate

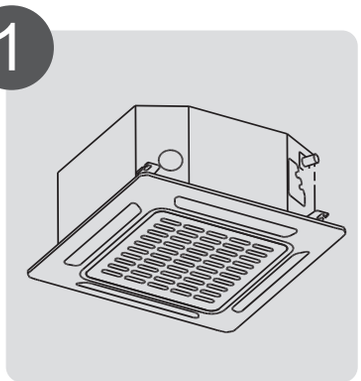
1. Acest aparat de aer condiționat contine gaze fluorurate. Pentru informatii specifice privind tipul de gaz si canitate, va rugam sa consultati eticheta relevanta de pe aparat.
2. Instalarea, service-ul, intreținerea și repararea acestui aparat trebuie să fie efectuata de catre un tehnician certificat.
3. Dezinstalarea aparatului si reciclarea trebuie să fie efectuata de catre un tehnician certificat.
4. In cazul in care aparatul dispune de un sistem de detectare a scurgerilor, acesta trebuie să fie verificat pentru scurgeri cel putin o data la 12 luni.
5. Atunci cand aparatul este verificat pentru scurgeri, este recomandat sa se tina o evidenta stricata a tuturor controalelor.

Prezentare generala de instalare

3

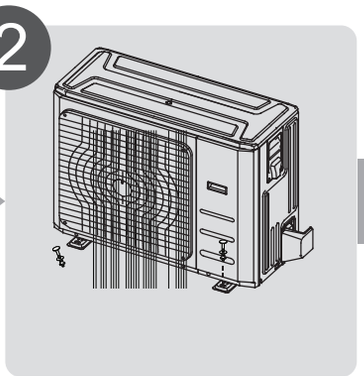
ORDINEA DE INSTALARE

1



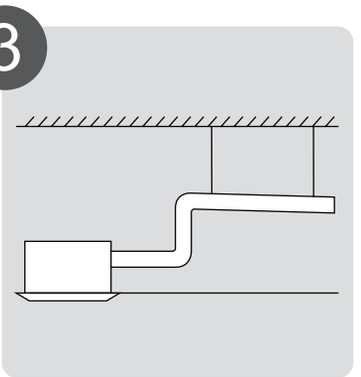
Instalarea unitatii interioare
(pagina 7)

2



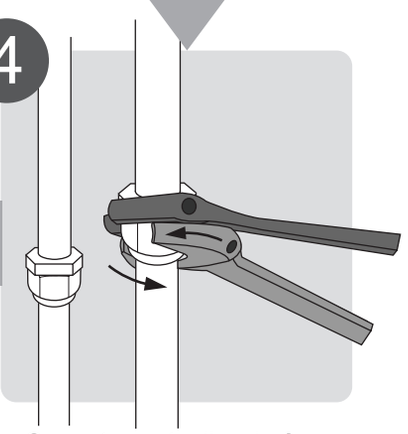
Instalarea unitatii exterioare
(pagina 11)

3



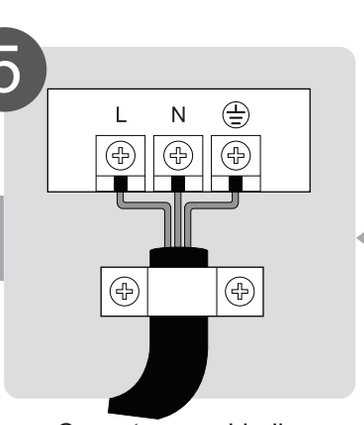
Instalați drenul de scurgere
(Pagina 13)

4



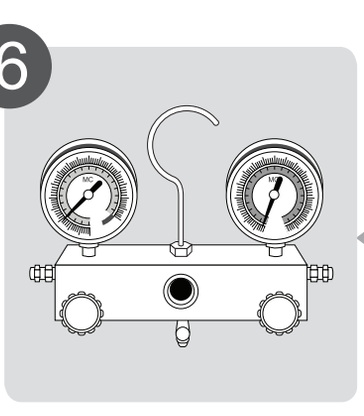
Conectarea tevilor de freon
(Pagina 15)

5



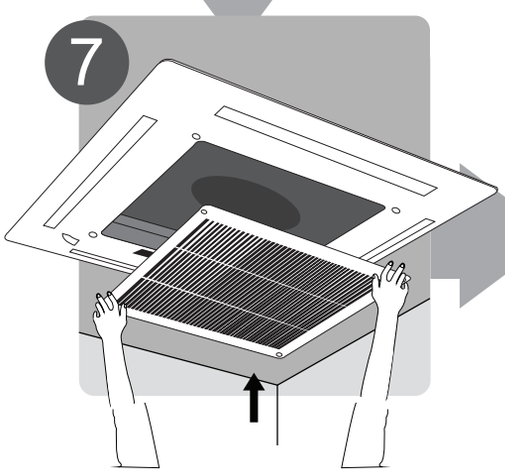
Conectarea cablurilor
(Pagina 19)

6



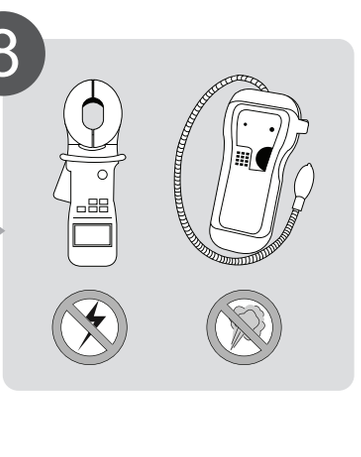
Curatati sistemul de refrigerare
(Pagina 21)

7



Instalarea panoului frontal
(Pagina 23)

8



Faceti un test de functionare
(Pagina 25)

Instalarea unitatii interioare

4

Componente unitate interioara

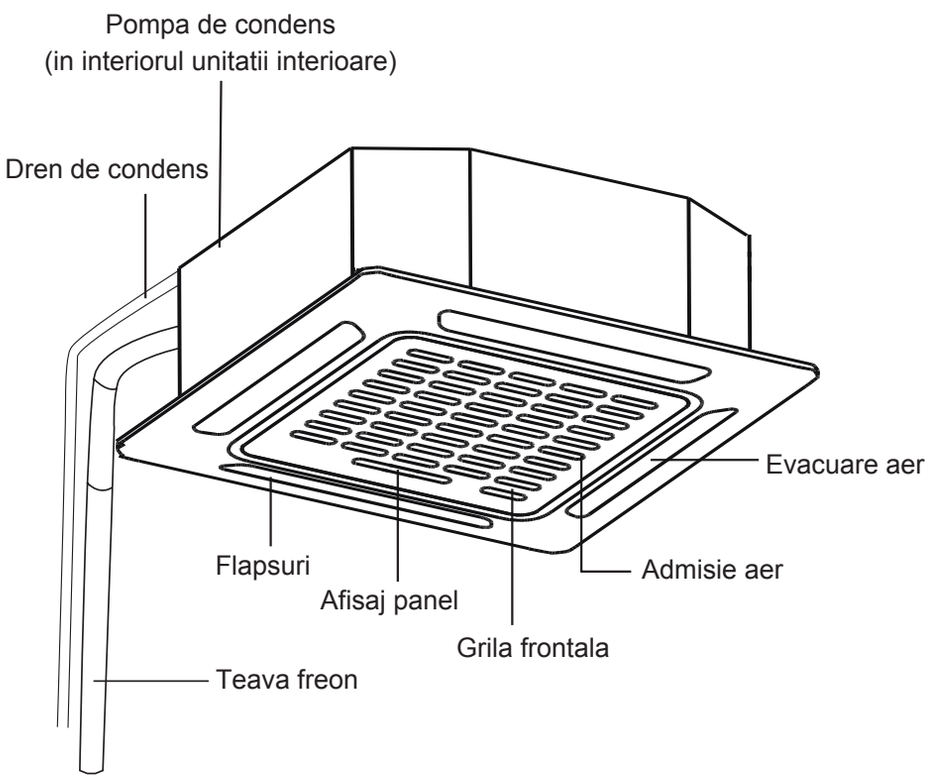


Fig. 4.1

Masuri de siguranta

⚠ AVERTIZARE

- Instalati unitatea interioara in siguranta pe o structura care ii poate sustine greutatea sa. In cazul in care structura este prea slaba unitatea poate cadea cauzand un prejudiciu, provocand daune bunurilor personale sau chiar un deces.
- Instalati unitatea interioara la o inaltime mai mare de 2,5 m (8') deasupra podelei.
- NU instalati unitatea interioara in baie sau in camera de uscare rufe deoarece umiditatea excesiva poate provoca un scurt-circuit.

! ATENTIE

- Instalati unitatile interioare si exterioare, cablurile si firele la cel putin 1m (3.2') de televizoare sau aparatele radio pentru a preveni distorsionarea statică a imaginii. In functie de tipul de aparat, distanta de1m (3,2'), poate sa nu fie suficienta.
- Daca unitatea interioara este instalata pe o parte metalică a cladirii, acesta trebuie sa aibe impamantare.

Instructiuni de instalare a unitatii interioare

NOTA: instalarea panelului trebuie sa se facă dupa instalarea tevilor si a cablurilor.

Pasul 1: Alege locul de instalare

Unitatea interioara trebuie sa fie instalata intr-o locatie care indeplineste următoarele cerinte:

- ☑ Unitatea este la puțin 1m (39") de la cel mai apropiat perete.
- ☑ Este suficient loc pentru instalare si intreținere.
- ☑ Exista suficient spatiu pentru tevile de legatura si drenul de scurgere.
- ☑ Plafonul este orizontal si structura sa poate sustine greutatea unitatii interioare.
- ☑ Orificiul de admisie si de evacuare a aerului nu sunt obstructionate.
- ☑ Fluxul de aer se poata umple intreaga camera.
- ☑ Nu exista nici o radiatie directa de la sistemele de incalzire.

ATENTIE

NU instalati unitatea in urmatoarele locatii:

- ⊘ In zonele cu foraj de petrol sau fracturi hidraulice
- ⊘ In zonele de coasta cu un continut ridicat de sare in aer
- ⊘ In zonele cu gazele caustice in aer, cum ar fi in apropierea izvoarelor termale
- ⊘ In zonele cu fluctuatii de tensiune, cum ar fi fabrici
- ⊘ In spatii inchise, cum ar fi dulapuri
- ⊘ In bucatariile care folosesc gaze naturale
- ⊘ In zonele cu unde electromagnetice puternice
- ⊘ In zonele care stocheaza materiale sau gaze inflamabile
- ⊘ In incaperi cu umiditate ridicata, cum ar fi bai sau camere de rufe

DISTANTE RECOMANDATE INTRE UNITATEA INTERIOARA SI TAVAN

Distanta dintre unitatea interioara montata si plafonul intern trebuie sa indeplineasca urmatoarele specificatii. (Vezi fig. 4.2)

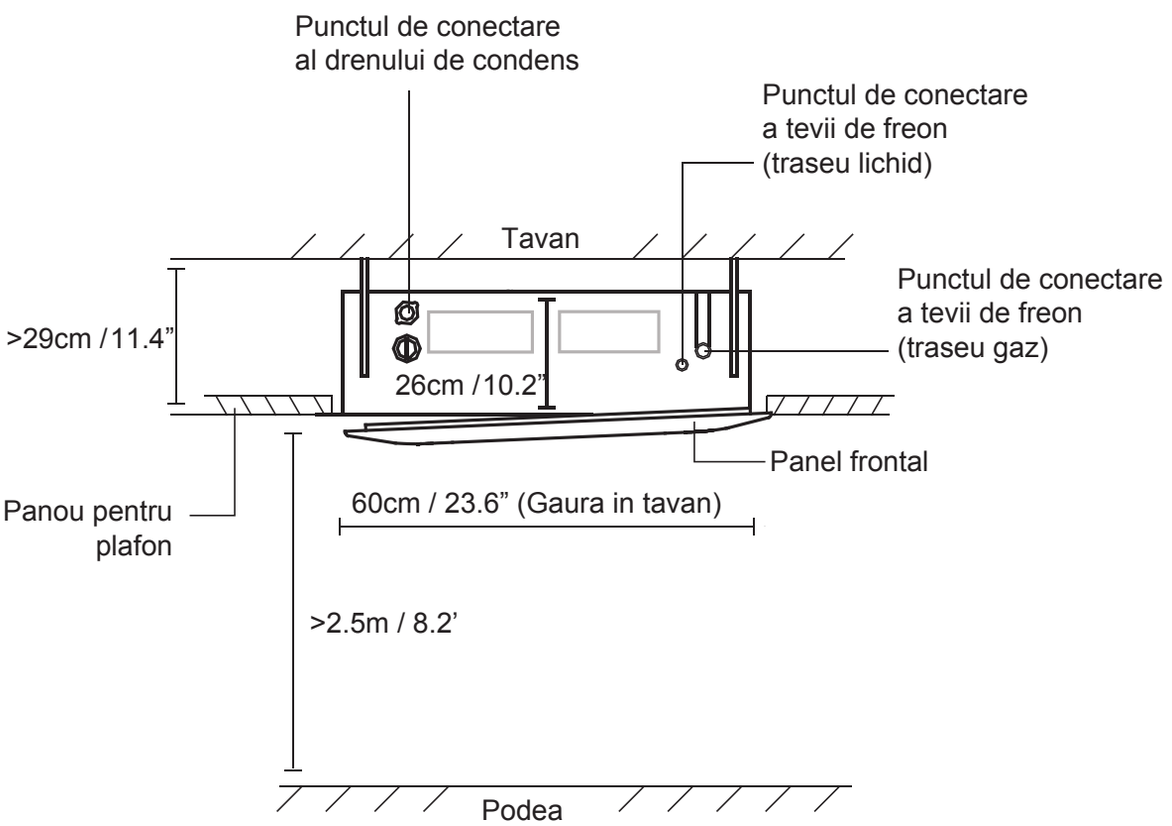


Fig. 4.2

Pasul 2: Agatarea unitatii interioare.

1. Utilizati sablonul de hartie inclus pentru a taia o gaura dreptunghiulara in tavan, lasand cel putin 1m (39") pe toate laturile. Gaura va fi 60x60cm (23.6x23.6"). Asigurati-va ca marcati zonele in se vor da gaurile pentru carligele plafon.

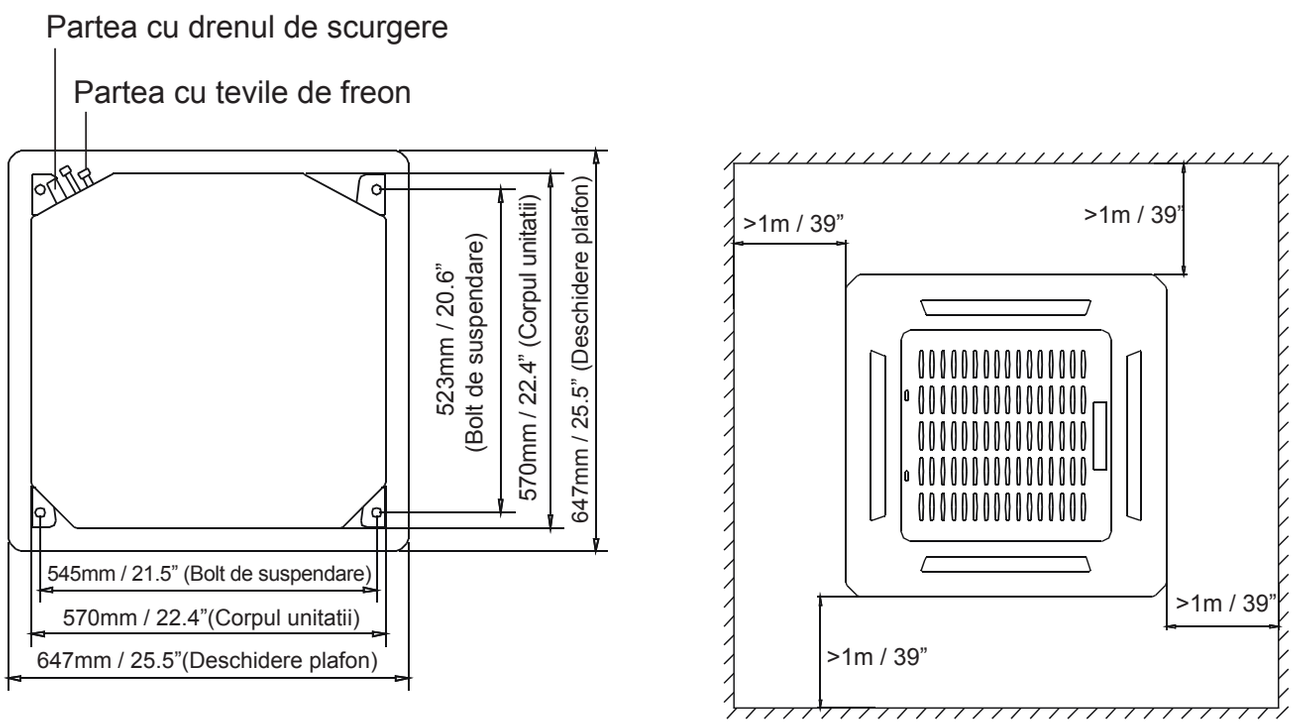


Fig. 4.3

! ATENŢIE

Corpul unitatii ar trebui sa se alinieze perfect cu gaura. Asigurati-va ca unitatea si gaura sunt de aceeasi dimensiune inainte de a trece mai departe.

2. Faceti 4 gauri de 5cm (2"), in adancime, la pozitiile carligelor in plafonul intern. Asigurati-va ca pastrati bormasina la un unghi de 90° spre tavan.
3. Cu ajutorul unui ciocan, introduceti carligele de plafon in gaurile perforate in prealabil. Fixati surubul folosind saibele si piulitele incluse.
4. Instalati cele patru suruburi ale suspensiei (vezi fig. 4.4).

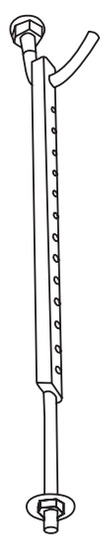


Fig. 4.4

5. Montati unitatea interioara. Veti avea nevoie de doua persoane pentru a o ridica si fixa. Se introduc suruburile de suspendare in gaurile de suspendate ale unitatii. Fixati folosind saibe si piulite incluse (vezi fig. 4.5).

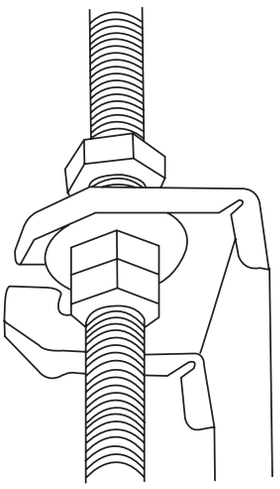


Fig. 4.5

NOTA: Partea de jos a unitatii ar trebui sa fie de 24mm (0,9"), mai mare decat placa de plafon. In general, L (indicată în fig. 4.6) trebuie sa fie jumatate din lungimea surubului suspendare sau suficient de lung pentru a preveni piulitele de la desfacere.

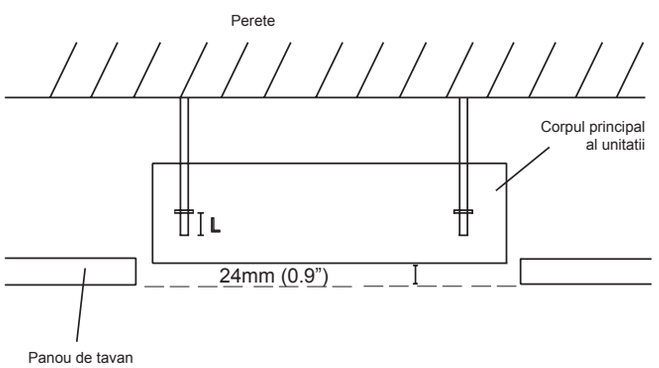


Fig. 4.6

ATENTIE

Asigurati-va ca unitatea este complet dreapta. O instalare necorespunzatore poate duce ca drenul de evacuare sa mentina in unitate apa din condens.

NOTA: Asigurati-va ca unitatea interioara este dreapta. Unitatea este echipata cu o pompa de evacuare incorporata si cu un comutator plutitor. Daca unitatea este inclinata invers fata de directia fluxului de condens (partea cu teava de scurgere este ridicata), flotorul se poate defecta si cauza scurgeri de apa.

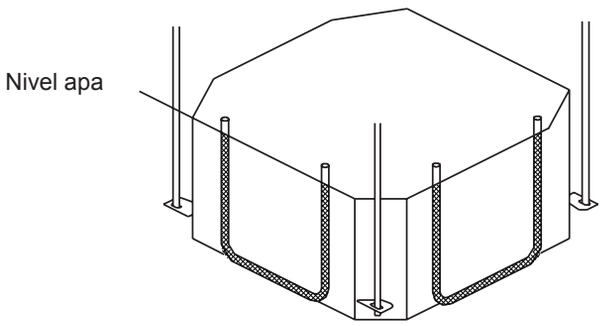


Fig. 4.7

NOTA PENTRUINSTALAREA IN CASA

La instalarea aparatului intr-o casa noua, carlige de plafon pot fi incorporate in avans. Asigurati-va ca aceste carligele nu se slabesc din cauza uscarii betonului.

După instalarea unitatii interioare, fixati sablonul de hartie pe unitatea interioara cu suruburi (M6X12) pentru a determina in prealabil dimensiunea si pozitia deschiderii din tavan. Urmati instructiunile de mai sus pentru restul instalarii.

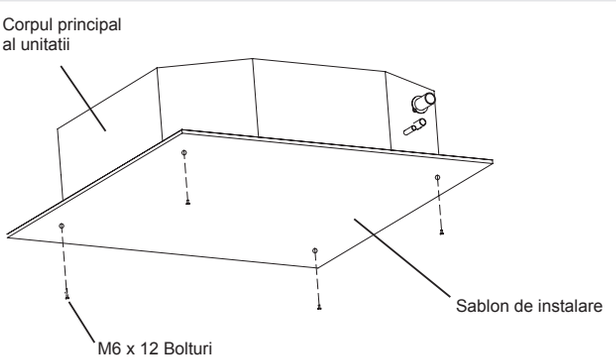


Fig. 4.8

Instalarea unitatii exterioare

5

Instructiuni pentru instalarea unitatii exterioare

Pasul 1: Alegeto locul de instalare

Unitatea exterioara trebuie sa fie instalata in locatia care indeplineste urmatoarele cerinte:

- ☑ Asezati unitatea exterioara cat mai aproape de unitatea interioara atat cat este posibil.
- ☑ Asigurati-va ca exista suficient spatiu pentru instalare si intretinere.
- ☑ Gaurile de intrare si de evacuare a aerului si nu trebuie sa fie blocate sau expuse la vant puternic.
- ☑ Asigurati-va ca locatia unitatii nu va fi acoperita de troiene, acumularea de frunze sau alte resturi de sezon. Daca este posibil construiti o marchiza pentru unitate. Asigurati-va insa ca marchiza nu obstructioneaza fluxul de aer.
- ☑ Zona de instalare trebuie sa fie uscata si bine ventilata.
- ☑ Trebuie sa existe suficient spatiu pentru a instala tevile si cablurile de conectare si sa le acceseze pentru intretinere.
- ☑ Zona trebuie sa fie libera de gaze combustibile si alte substante chimice.
- ☑ Lungimea tevii intre unitatea exterioara si cea interioară nu poate depasi lungimea maxima admisa de producator.
- ☑ Daca este posibil, NU instalati unitatea în cazul in care acesta este expusa la lumina directa a soarelui.
- ☑ Daca este posibil, asigurati-va ca unitatea este situata departe de proprietatea vecinilor, astfel incat zgomotul produs de unitate nu ii va deranja.
- ☑ Daca locatia aleasa este expusa la vanturi puternice (de exemplu: langa malul marii), unitatea trebuie să fie amplasata pe perete la adapost de vant. Daca este necesar, utilizați o marchiză. (A se vedea fig. 5.1 și 5.2)
- ☑ Instalati cablurile de la unitatile interioare si exterioare la cel putin 1 metru de televizoare sau aparate radio pentru a preveni distorsionarea statică a imaginii. In functie de undele radio, o distanta de 1 metru poate să nu fie suficienta pentru a elimina orice interferenta.

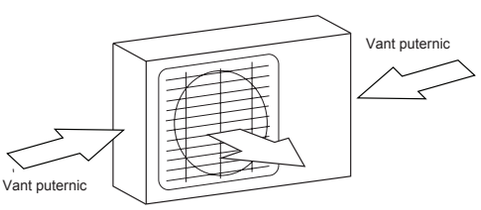


Fig. 5.1

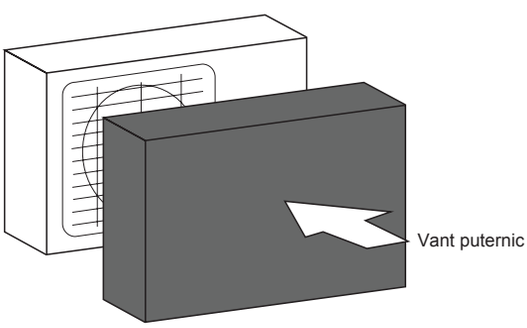


Fig. 5.2

Pasul 2: Instalarea unitatii exterioare

Se fixeaza unitatea exterioara cu suruburi de ancorare (M10)

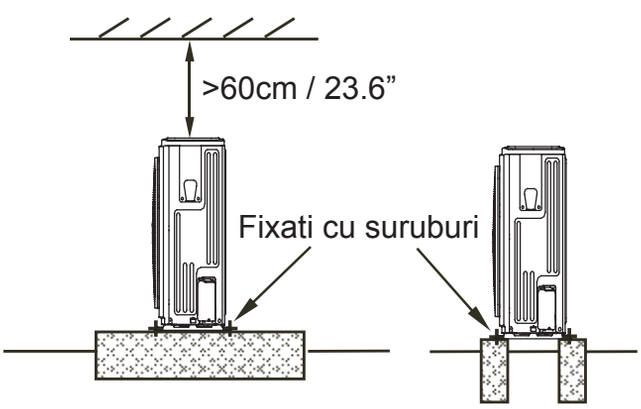


Fig. 5.3

ATENTIE

- Asigurati-va ca ati eliminat orice obstacole care pot bloca circulatia aerului.
- Asigurati-va ca ati consultat lungimile pentru a va asigura ca exista suficient spatiu pentru instalare si intretinere.

Unitate exterioara model split

(A se vedea figura 5.4, 5.5 si Tabelul 5.1)

Fig. 5.4

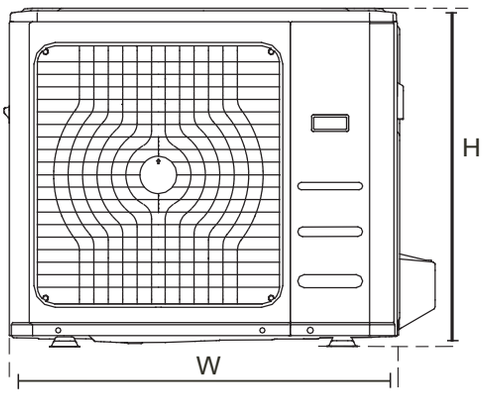
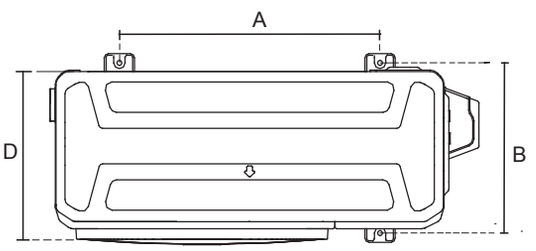


Fig. 5.5



Tabel 5.1: Specificatii Lungime pentru unitatea exterioara tip split (unitati: mm/inch)

Dimensiuni unitate exterioara L x l x A	Dimensiuni de instalare	
	Distanta A	Distanta B
780x540x250 (30.7x21.25x9.85)	549 (21.6)	276 (10.85)
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)
770x555x300 (30.3x21.85x11.81)	487 (19.2)	298 (11.73)
800x554x333 (31.5x21.8x13.1)	514 (20.24)	340 (13.39)
845x702x363 (33.27x27.6x14.3)	540 (21.26)	350 (13.8)

NOTA: Distanta minima dintre unitatea exterioara si pereti descrisa in ghidul de instalare nu se aplica in cazul camerelor inchise ermetic. Asigurati-va ca mentineti libere cel putin doua din cele trei directii ale unitatii exterioare (M, N, P) (vezi Fig. 5.6)

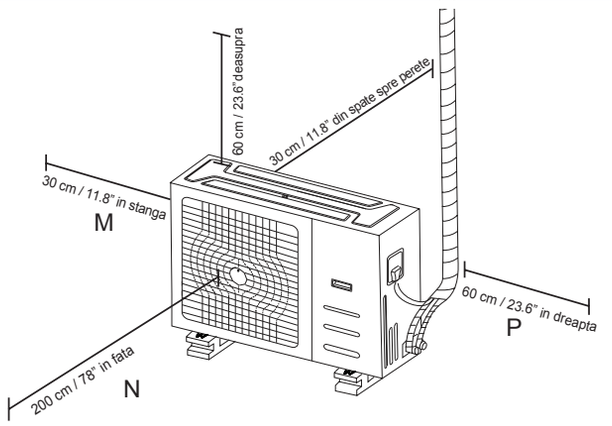


Fig. 5.6

Instalarea drenului de scurgere a condensului

Inainte de a fixa unitatea exterioara pe loc, trebuie sa instalati articulatia de evacuare din partea de jos a unitatii. (Vezi fig. 5.7)

1. Fixati garnitura de cauciuc la capatul imbinarii de scurgere care se va conecta la unitatea exterioara.
2. Introduceti articulatia de scurgere in orificiul din tava de la baza unitatii.
3. Rotiti articulatia cu 90°, pana cand se fixeaza in pozitie spre partea frontala a unitatii.
4. Conectati o extensie a furtunului de evacuare (care nu este inclusa) la imbinarea de scurgere pentru a redirectiona apa din unitate in timpul functionarii in modul de incalzire.

NOTA: Asigurati-va ca se scurge apa la un loc sigur unde nu va cauza daune sau un pericol de alunecare.

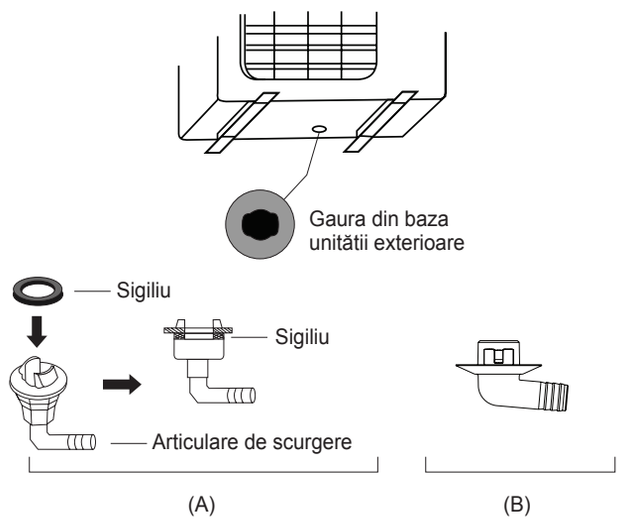


Fig. 5.7

Note cu privire la gaurire in perete

Trebuie sa dati o gaură in perete pentru a trece tevile de freon, impreuna cu cablul de semnal care va conecta unitatile interioare si exterioare.

1. Se determina amplasarea gaurii in perete in functie de locația unitatii exterioare.
2. Folositi un burghiu de 65-mm (2.5 ") pentru a da o gaură în perete.

NOTA: Atunci cand faceti gaura din perete, asigurati-va ca evitati eventuale fire, instalații sanitare sau alte componente sensibile aflate in perete.

3. Asezati un protector in gaura. Acesta protejeaza marginile gaurii si va ajuta la sigilare atunci cand terminati procesul de instalare.

Instalarea tevii de scurgere

6

Teava de scurgere este folosita pentru a ne asigura de scurgerea apei din unitate. Instalarea necorespunzatoare poate duce la deteriorarea unitatii sau a bunurilor.

ATENTIE

- Izolati toate conductele pentru a preveni formarea condensului, ceea ce ar putea duce la daune provocate de apa.
- Daca drenul este indoit sau instalat incorect, apa se poate scurge la interior si poate provoca o defectiune a intrerupatorului de nivel a apei.
- In modul INCALZIRE, unitatea exterioara se va umple de apa. Asigurati-va ca drenul de evacuare este amplasat intr-o zona adecvata pentru a evita deteriorarea provocata de apa si alunecarea din cauza apei scurse si inghetate.
- NU trageti de dren cu forta ca acest lucru ar putea determina sa se deconecteze de pe unitate.

NOTA PRIVIND ACHIZITIA DE TEVI

Aceasta instalare necesita un tub de polietilena (diametru exterior = 3.7-3.9cm, diametru interior = 3,2 cm), care pot fi obtinute de pe piata locala de profil sau de la distribuitorul dumneavoastra.

Instalarea drenului de scurgere la Interior

Instalati drenul de scurgere asa cum se arata in figura 6.2.

1. Se acopera drenul cu izolatie termica, pentru a preveni condensarea si scurgerile de apa.
2. Atasaai gura drenului de evacuare la conducta de evacuare a unitatii. Sigilati gura drenului, ferm cu o clema de teava. (Fig 6.1)

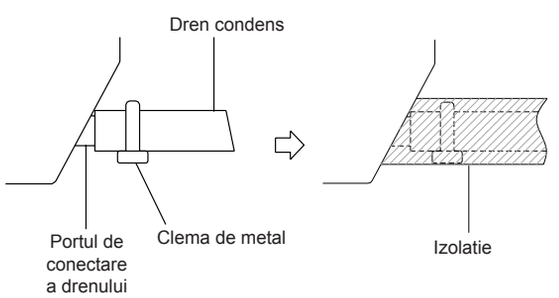


Fig. 6.1

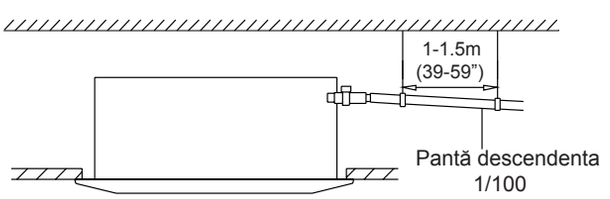


Fig. 6.2

NOTĂ DE INSTALARE A DRENULUI DE CONDENS

- CAnd utilizati un dren de scurgere extins, strangeti racordul interior cu un tub de protectie suplimentara pentru a preveni deconectarea.
- Drenul trebuie sa aibe o panta descendenta, la un gradient de cel putin 1/100 pentru a evita ca apa sa curga inapoi in aparatul de aer conditionat.
- Pentru a preveni deformarea drenului agatati-l la fiecare 1-1.5m (40-59 ").
- Daca iesirea drenului este mai sus decat nivelul pompei, asigurati o teavă de ridicare pentru iesirea de evacuare a unitatii interioare. Teava de ridicare trebuie sa fie instalata nu mai sus de 75cm (29,5") fata de la placa de tavan, iar distanta dintre unitate și teava de ridicare trebuie să fie mai mică de 30 cm (11,8"). O instalare gresita poate cauza ca apa sa curgă inapoi în aparat si sa provoace inundatii.
- Pentru a preveni bulele de aer, mentineti nivelul furtunului de evacuare sau usor in sus (<75mm / 3").

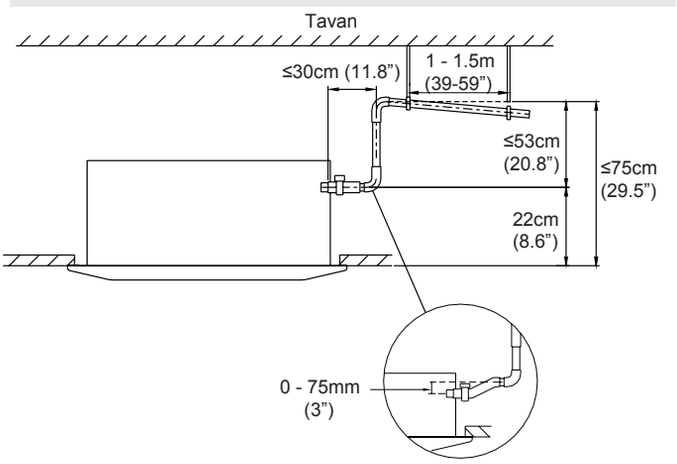


Fig. 6.3

NOTA: La conectarea mai multor drenuri de scurgere, montati tevile asa cum se arata in Fig 6.4.

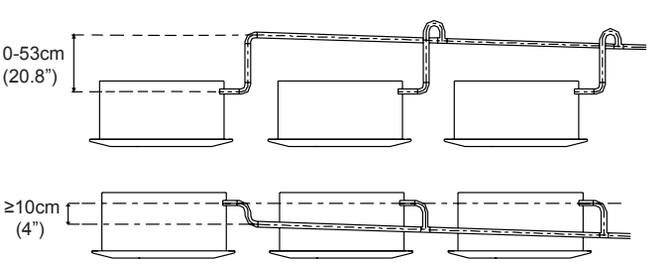


Fig. 6.4

3. Folosind un burghiu de 65-mm (2.5") faceti o gaură in perete. Asigurati-va ca gaura este la un unghi in jos ușor, astfel incat capatul exterior al găurii este mai mic decat capatul interior cu aproximativ 12 mm (0.5"). Acest lucru va asigura o buna drenare a apei (vezi fig. 6.5). Se pune protectia de perete in gaură. Aceasta protejeaza marginile gaurii si va ajuta la sigilare atunci cand terminati procesul de instalare.

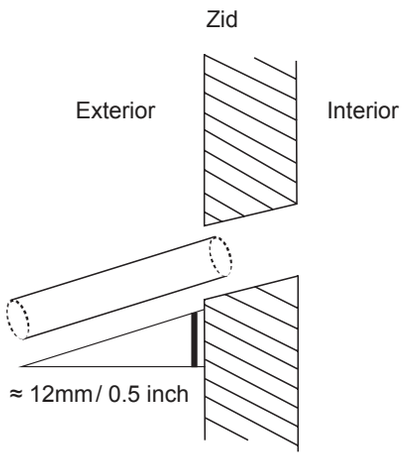


Fig. 6.5

NOTA: Atunci cand gauriti peretele, asigurati-va ca evitati firele, instalatiile sanitare si alte componente sensibile.

4. Treceti drenul de evacuare prin gaura din perete. Asigurati-va ca apa se scurge intr-o locatie sigura unde nu va cauza daune provocate de apa sau unde nu este un pericol de alunecare.

NOTA: capatul de evacuare a drenului trebuie sa fie la cel puțin 5 cm (1.9 ") deasupra solului. In cazul in care atinge solul, se poate bloca si afecteaza functionarea aparatului. Daca alegeti sa scurgeti apa direct intr-un canal, asigurati-va că scurgerea are o forma de U sau S pentru a opri eventualele mirosuri, care altfel s-ar putea intoarce inapoi in casa.

Conexiunea traseului frigorific

7

Masuri de precautie

⚠ AVERTIZARE

- Toate tevile trebuie trase de catre un tehnician licentiat si trebuie sa respecte reglementarile locale și nationale.
- Cand aparatul de aer conditionat este instalat intr-o cameră mica, trebuie luate masuri pentru a preveni depasirea concentratiei de agent frigorific in cazul unei scurgeri de freon. In cazul in care exista scurgeri de agent frigorific si se depaseste limita corespunzatoare, exista riscuri din cauza lipsei de oxigen.
- La instalarea aparatului de aer conditionat, asigurati-va ca aerul, praful, umiditatea sau alte substante straine nu intra in circuitul agentului frigorific. In caz contrar aparatul poate avea o capacitate de funcționare slabă, presiune ridicată în ciclul de refrigerare, explozie sau ranire.
- Aerisiti zona imediat dacă exista scurgeri de agent frigorific in timpul instalării. Freonul este atat toxic cat si inflamabil. Asigurati-va ca nu exista scurgeri de agent frigorific dupa finalizarea lucrarilor de instalare.

Note referitoare la lungimea conductei si elevatie

Asigurati-va ca lungimea conductei de agent frigorific, numarul de coturi, si diferenta de nivel dintre unitatile interioare si exterioare indeplinesc cerintele prezentate in tabelul 7.1:

Tabel 7.1: Lungimea maxima a traseului frigorific si diferenta de nivel (Unitati de masura: m/ft)

Model	Capacitate (Btu/h)	Lungimea traseului frigorific	Diferenta de nivel
50Hz T1 Condition/R22 Tip split	12K	15/49	8/26
	18K-24K	30/98.4	10/32.8
	30K-42K	50/164	20/65.6
	48K-60K	50/164	25/82
50 Hz Descarcare verticala, 60 Hz T1 conditii / R22 Tip split, Descarcare vericala	12K	15/49	8/26
	18K-24K	30/98.4	10/32.8
	30K-60K	30/98.4	20/65.6
Tip split Inverter R410	<15K	25/82	10/32.8
	≥15K - <24K	30/98.4	20/65.6
	≥24K - <36K	50/164	25/82
	≥36K - ≤60K	65/213	30/98.4
Tip Split R410	12K	15/49	8/26
	18K-30K	25/82	15/49
	36K	30/98.4	20/65.6
	48K-60K	50/164	25/82
50Hz/60Hz conditii T3 (unitatea exterioara mai jos)	18K-24K	35/114	10/32.8
	30K	30/98.4	15/49
	36K	30/98.4	20/65.6
	42K-60K	50/164	25/82
50Hz/60Hz conditii T3 (unitatea exterioara mai sus)	18K-24K	25/82	15/49
	30K	30/98.4	20/65.6
	36K	30/98.4	25/82
	42K	50/164	30/98.4
	48K-60K	50/164	35/114
Aparate cu conectare rapida	12K-18K	5/16.4	5/16.4

Instructiuni de conectare a traseului frigorific

ATENTIE

- Refnetii trebuie instalati orizontal. Un unghi mai mare de 10° poate provoca defectiuni.
- NU instalati tevile de legatura pana cand nu au fost instalate ambele unitati interioare si exterioare.
- Izolati ambele tevi de gaz si de lichid pentru a preveni scurgerile de apa.

Pasul 1: Taierea tevilor

Atunci cand pregatiti tevile de agent frigorific, aveti mare grija sa taiati si sa le bercluiti in mod corespunzător. Acest lucru va asigura o functionare eficienta si pentru a minimiza nevoia de o mentenanta viitoare.

1. Se masoara distanta dintre unitatile interioare si exterioare.
2. Folosind un taietor de teavă, se taie conducta un pic mai lung decat distanta masurata.

ATENŢIE

NU deforma teava in timpul taierii. Fiti foarte atenti să nu deteriorati sau sa deformati teava in timpul taierii. Acest lucru va reduce drastic randamentul de incalzire a unitatii.

1. Asigurati-va ca teava este taiata la un unghi de 90°. A se vedea Fig. 7.2 pentru exemple de taieri defectuase

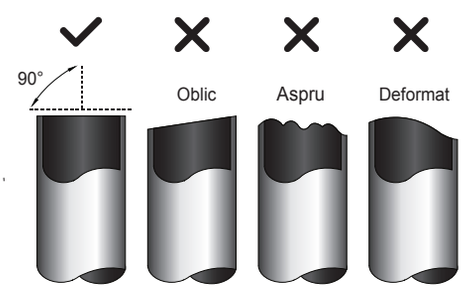


Fig. 7.2

Pasul 2: Netezati

Nervurile pot afecta etansarea tevilor de freon. Ele trebuie sa fie eliminate complet.

1. Tineti teava indreptata in jos, pentru a preveni caderea impuritatilor in interiorul tevii.
2. Cu ajutorul unui instrument alezor, eliminati toate nervurile din sectiunea decupată a tevii.

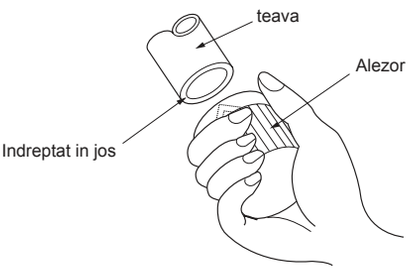


Fig. 7.3

Etapa 3: Bercluirea la capetele de teava

Bercluirea adecvata este esentiala pentru obtinerea unui sigiliu etans.

1. Dupa indepartarea nervurilor rezultate din taierea tevilor, sigilati capete cu banda din PVC pentru a preveni materialele straine sa intre in interiorul tevii.
2. Infasurati conducta cu material izolant.
3. Puneti piulitele la ambele capete ale tevii. Asigurati-va ca acestea se invart in directia corecta, pentru ca nu le mai puteti pune sau schimba directia lor dupa bercluire. A se vedea fig. 7.4

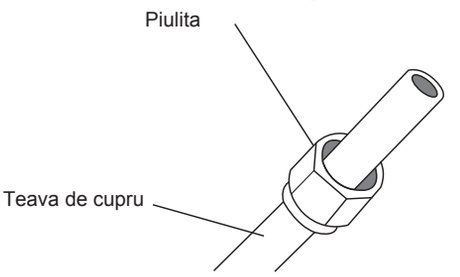


Fig. 7.4

4. Scoateti banda din PVC de la capetele tevii atunci cand bercluiti.
5. Capatul tevii trebuie sa se extinda dincolo de forma bercluita.

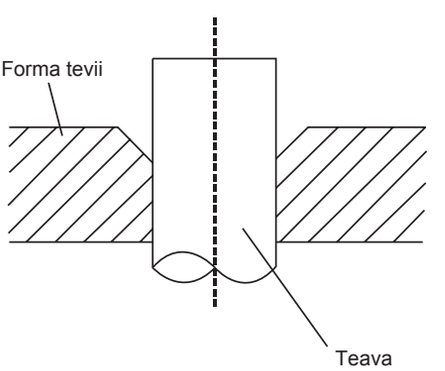


Fig. 7.5

6. Pune instrumentul de bercluit pe teava.
7. Se roteste manerul sculei in sensul orelor de ceas pana cand conducta este complet bercluita in conformitate cu dimensiunile prezentate in tabelul 7-3.

Tabelul 7.3: PRELUNGIREA CONDUCTELOR DINCOLO DE BERCLUIRE

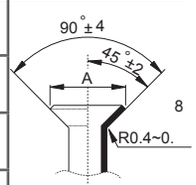
Dimen-siune teava	Cuplu strangere	Dimensiune bercluire (A) (Unitati: mm/Inch)		Forma teava
		Min.	Max .	
Ø 6.4	14.2-17.2 N.m (144-176 kgf.cm)	8.3/0.3	8.3/0.3	
Ø 9.5	32.7-39.9 N.m (333-407 kgf.cm)	12.4/0.48	12.4/0.48	
Ø 12.7	49.5-60.3 N.m (504-616 kgf.cm)	15.4/0.6	15.8/0.6	
Ø 15.9	61.8-75.4 N.m (630-770 kgf.cm)	18.6/0.7	19/0.74	

Fig. 7.6

8. Scoateți instrumentul de bercluit si verificati capatul conductei de eventualele fisuri.

Etapa 4: Conectarea tevilor

Conectati conductele de cupru la unitatea interioara mai intai, apoi conectati tevile la unitatea exterioara. Ar trebui sa conectati mai intai conducta de presiune joasa apoi conducta de presiune inalta.

1. La conectarea piulitelor, aplicati un strat subtire de ulei de refrigerare la capetele bercluite ale conductelor.
2. Aliniati centrul celor doua conducte pe care le veti conecta.

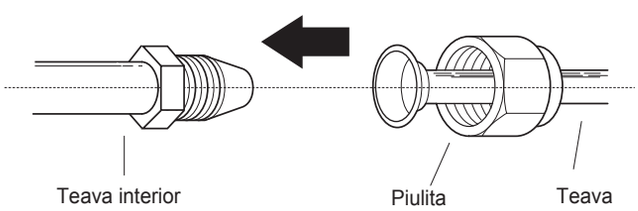


Fig. 7.7

3. Strângeți piulița cat mai strans posibil cu mana.
4. Cu ajutorul unei chei fixe, prindere piulita de pe teava de la unitate.
5. In timp ce strangeti ferm piulita, folosind o cheie in conformitate cu valorile de torsiune din tabelul 7-0.3.

NOTA: Utilizati atat o cheie cat si o cheie de cuplu la conectarea sau deconectarea tevilor la/de la aparat.

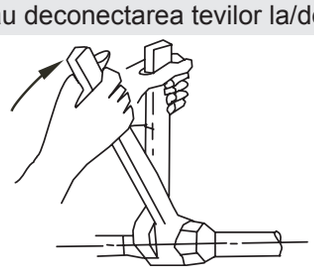


Fig. 7.8

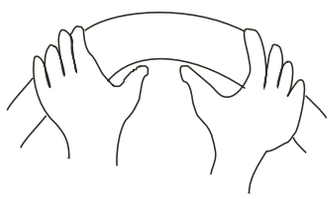
ATENTIE

- Asigurati-va ca puneti izolatie in jurul conductelor. Contactul direct cu tevile goale pot provoca arsuri sau degeraturi.
- Asigurati-va ca teava este conectata corespunzator. Strangerea excesiva poate deteriora teava si poate duce la scurgeri.

NOTA PRIVIND RAZA MINIMA DE INDOIRE

Indoiti cu grija tubul din mijloc conform schemei de mai jos. NU indoiți tubul mai mult de 90° sau mai mult de 3 ori.

Indoiti conducta cu degetul mare.



Rază minima 10cm (3.9”)

Fig. 7.9

6. După conectarea conductelor de cupru la unitatea interioară, înfășurați cablul de alimentare, cablul de semnal și tubulatura, împreună cu banda de legare.

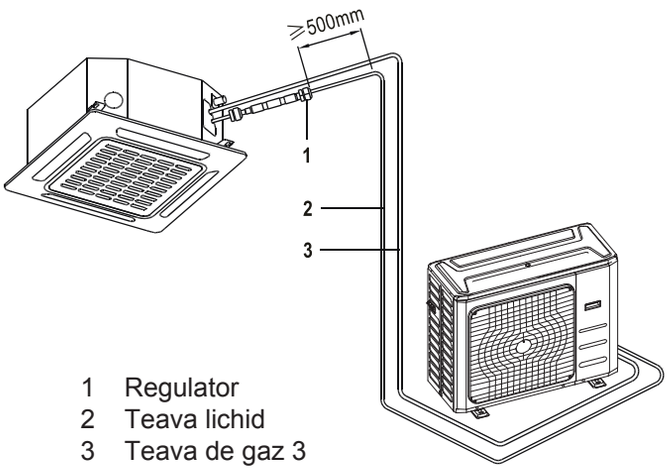
NOTĂ: NU întrepătrundeti cablul de semnal cu alte fire. În timp ce grupati aceste elemente împreună, nu întrepătrundeti cablul de semnal cu orice altă formă de cablaj.

7. Treceți această conductă prin perete și conectați la unitatea exterioară.
8. Izolați toate conductele, inclusiv valvele unității exterioare.
9. Deschideți supapele de oprire ale unității exterioare pentru a începe curgerea agentului frigorific între unitatea interioară și exterioară.

ATENŢIE

Verificați pentru a vă asigura că nu există nici o scurgere a agentului frigorific după finalizarea lucrărilor de instalare. În cazul în care există o scurgere de agent frigorific, ventilați zona imediat și goliti aparatul (consultați secțiunea de evacuare a aerului acestui manual).

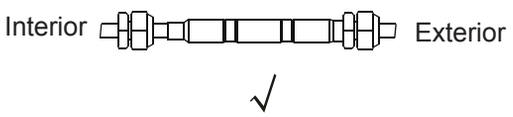
Instalarea dispozitivelor de regulare. (la unele modele)



1 Regulator
2 Teava lichid
3 Teava de gaz 3

Precauții

- Pentru a asigura eficienta, va rugam sa montati regulatorul cat orizontal posibil.



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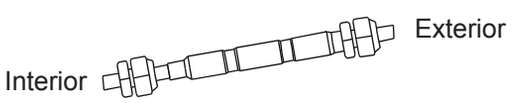
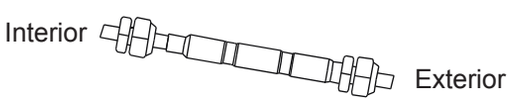
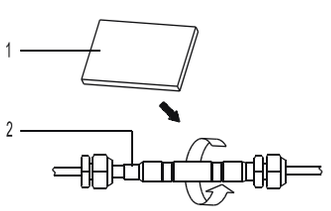


×



×

- Infasurati cauciucul anti-soc furnizat la exteriorul regulatorului pentru inlaturarea zgomotelor.



1. Cauciuc anti soc
2. Regulator

Cablare

8

Masuri de precautie

⚠ AVERTIZARE

- Aveti grija sa deconectati sursa de alimentare inainte de a lucra la unitate.
- Toate cablarile trebuie sa se faca in conformitate cu reglementarile locale si nationale.
- Cablarea trebuie sa fie efectuata de catre un tehnician calificat. Conexiunile incorecte pot provoca defectiuni electrice, vatamare corporala sau incendiu.
- Un circuit independent si o priza unica trebuie să fie utilizate pentru acest aparat. NU conectati un alt aparat in aceeasi priza. In cazul in care capacitatea circuitului electric nu este suficienta sau daca exista un defect in activitatea electrica, aceasta poate duce la soc electric, incendiu sau pagube materiale.
- Conectati cablul de alimentare la borne si fixati-l cu o clema. O conexiune nesigură poate provoca incendii.
- Asigurati-va ca toate cablarile se fac corect, iar capacul placii de control este instalat corect. Imposibilitatea de a face acest lucru poate duce la supraîncălzire la punctele de conexiune, foc sau soc electric.
- Asigurati-va ca conexiunea principala de alimentare se face printr-un comutator care deconecteaza toti polii, cu decalaj de contact a unui 3mm (0,118").
- NU modificati lungimea cablului de alimentare si nu folositi un cablu prelungitor.

! ATENŢIE

- Conectati cablurile la exterioara inainte de a conecta si interioara.
- Asigurati-va ca unitatea are impamantare. Firul de impământare trebuie să fie la distanta de conducte de gaz, conducte de apa, paratrasnete, cablurile de telefon sau alte cabluri cu legare la pamant. Impamantarea neadecvata poate provoca un soc electric.
- NU conectati aparatul la sursa de alimentare, pana cand toate cablurile si conductele sunt conectate.
- Asigurati-va ca nu intersectati cablajul electric cu cablurile de semnal, deoarece acest lucru poate provoca o denaturare si interferente.

Urmati aceste instructiuni pentru a preveni denaturarea atunci cand compresorul pornește:

- Aparatul trebuie să fie conectat la priza principala. In mod normal, sursa de alimentare trebuie sa aiba o impedanta de iesire redusa la 32 de ohmi.
- Nici un alt echipament nu trebuie sa fie conectat la acelasi circuit de alimentare.
- Informațiile de alimentare ale unitatii pot fi găsite pe eticheta produsului.

Specificatii de putere

Tensiune			
Model	Faza	Frecventa si voltaj	Intrerupator de circuit / Sigurante
9K~18K	1Phase	208-240V	20/16

Cablare unitate exterioara

⚠ AVERTIZARE

Inainte de a efectua orice lucrare electrica sau de cablare, opriti alimentarea principala a sistemului.

1. Pregatiti cablul pentru conectare
   A. Trebuie sa alegi mai intai dimensiunea cablului inainte de a pregati cablurile pentru conectare. Asigurati-va ca pentru a utiliza cabluri H07RN-F.

Tabelul 8.1: Sectiunea minim transversala in zona de alimentare și Cabluri de semnal

America de Nord

Curent nominal (A)	AWG
≤ 7	18
7 - 13	16
13 - 18	14
18 - 25	12
25 - 30	10

Tabelul 8.2: Alte regiuni

Curent nominal (A)	Transversală nominală intermediară Suprafata (mm²)
≤ 6	0.75
6 - 10	1
10 - 16	1.5
16 - 25	2.5
25- 32	4
32 - 45	6

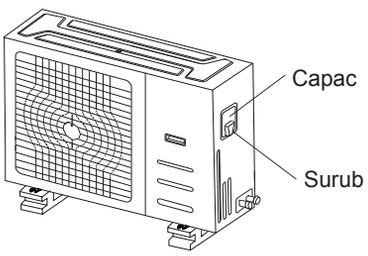
b. Cu ajutorul decapantului de sârmă, cojiti plasticul de pe fire la ambele capete ale cablului de semnal pentru a decoji aproximativ 15 cm (5,9").

c. Indepartati izolatia de la capetele firelor.

d. Montati papuci la capetele firelor.

NOTA: In timp ce conectati cablurile, va rugam sa urmați cu strictete schema electrica (o gasiti in interiorul capacului cutiei electrice).

2. Scoateti capacul electric al unitatii exterioare. In cazul in care nu exista nici o acoperire pe unitatea exterioara, demontati suruburile de la placa de intreținere si scoateti placa de protectie. (Vezi fig. 8.1)



3. Conectati firele la terminalele
Potriviti culorile firelor cu etichetele de pe blocul de borne, și strangeti ferm fiecare fir la terminalul sau corespunzator.

4. Fixati în jos cablul cu clemă de cablu desemnat.

5. Izolati firele neutilizate cu banda. Pastrati-le departe de orice componente electrice sau din metal.

6. Puneti la loc capacul cutiei electrice.

Cablare unitate interioara

1. Pregătiti cablul pentru conectare

a. Cu ajutorul decapantului de sarmă, indepartati izolatia de cauciuc de la ambele capete ale cablului de semnal pentru a dezvălui aproximativ 15 cm (5,9") a firelor din interior.

b. Curatati izolatia de la capetele firelor.

c. Puneti papuci la capetele firelor.

2. Deschideți panoul frontal al unitatii interioare. Cu ajutorul unei surubelnite, scoateti capacul cutiei de comanda de pe unitatea interioara.

3. Treceti cablul de alimentare si cablul de semnal prin priza de sarma.

4. Conectati papuciii la terminalele.

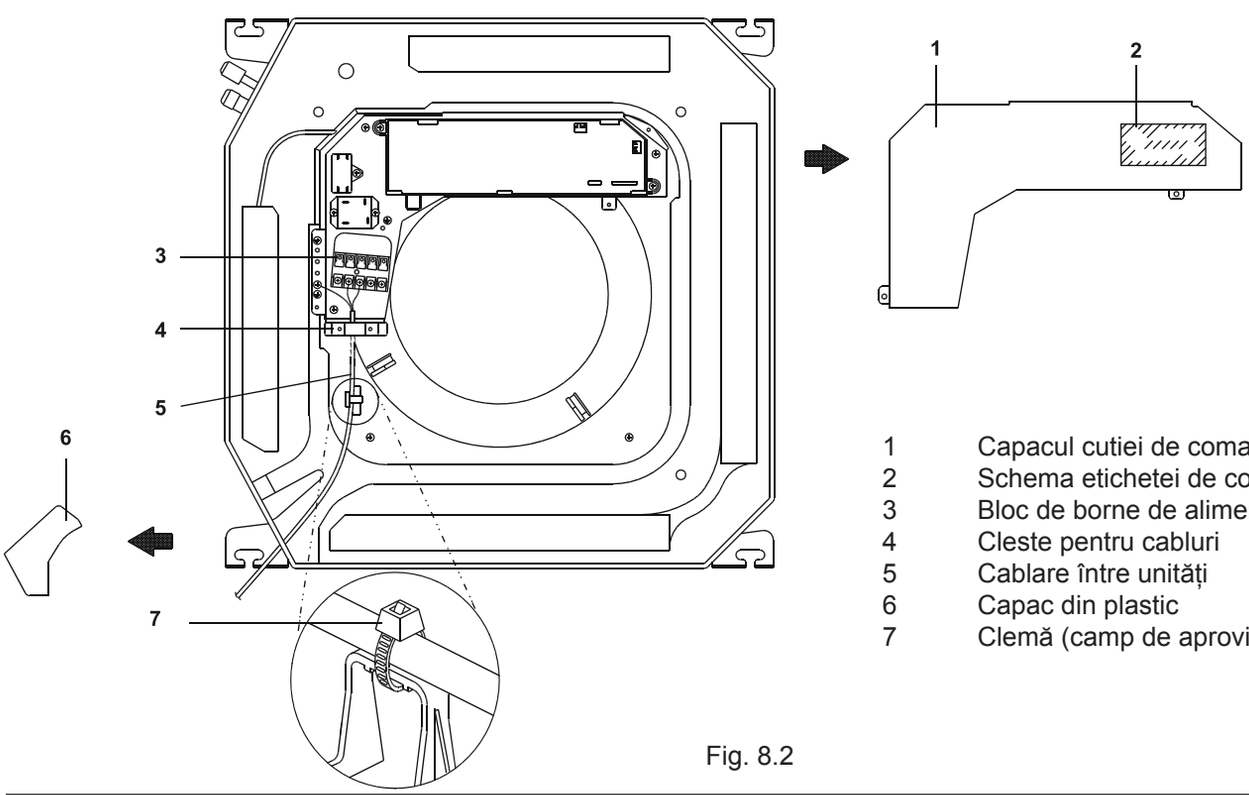
Potriviti culorile cu etichetele de pe blocul de borne, si prindeti ferm papucul fiecarui fir la terminalul sau corespunzator. Aveti in vedere la numarul de serie si schema de conexiuni amplasata pe capacul cutiei electrice de comanda.

ATENTIE

- In timpul conectării firelor, va rugam sa respectati cu strictete schema de conexiuni.
- Circuitul de agent frigorific poate deveni foarte fierbinte. Tineți cablul de interconectare departe de teava de cupru.

5. Fixati in jos cablul cu clema de cablu desemnat pentru a fixa in poziție. Cablul nu trebuie sa fie liber, si nu ar trebui sa trageti de papuci.

6. Puneti la loc capacul cutiei electrice si panoul frontal al unitati interioare.



1	Capacul cutiei de comanda
2	Schema etichetei de conexiuni
3	Bloc de borne de alimentare
4	Cleste pentru cabluri
5	Cablare între unități
6	Capac din plastic
7	Clemă (camp de aprovizionare)

Fig. 8.2

Evacuare aer

9

Masuri de precautie

ATENTIE

- Utilizati o pompa de vid, cu un ecartament de citire mai mic decat -0.1MPa si o capacitate de evacuare a aerului peste 40L / min.
- Unitatea exterioara nu are nevoie de vacumare. NU deschideți robinetele de gaz și de lichid de la unitatea exterioara.
- Asigurati-va ca ceasurile indica -0.1MPa sau mai jos, dupa 2 ore. In cazul in care, după trei ore de funcționare, iar citirea gabaritul este încă de mai sus -0.1MPa, verificați dacă există o scurgere de gaz sau de apa in interiorul tevii. In cazul in care nu exista nici o scurgere, efectuați o altă evacuare pentru 1 sau 2 ore.
- NU folositi agent frigorific pentru a evacua sistemul.

Instructiuni de evacuare

Inainte de a utiliza un manometru si o pompa de vacuum, citiți manualele lor de operare pentru a va familiariza cu modul in care sa le folositi in mod corespunzator.

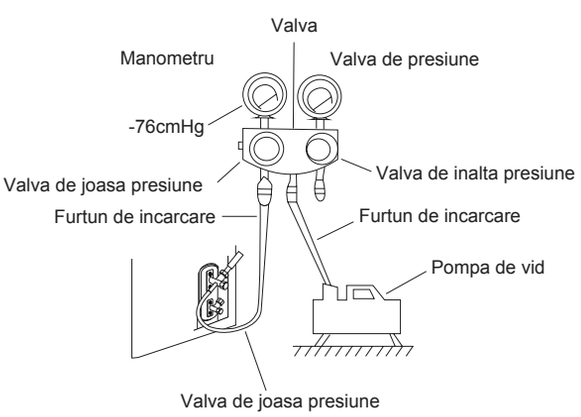


Fig. 9.1

1. Conectati furtunul de incarcare la portul de serviciu pe supapa de presiune joasa a unitatii exterioare.
2. Conectati furtunul de incarcare la pompa de vid.
3. Deschideti partea de joasa presiune. A se pastra partea de inalta presiune inchisa.
4. Porniți pompa de vid pentru a vacuma aparatul.
5. Folositi pompa timp de cel puțin 15 minute, sau pana cand pe ceas se citește -76cmHG (-1x105Pa).
6. Inchideti partea de joasa presiune si opriti pompa de vid.
7. Asteptati timp de 5 minute, apoi verificati daca exista o modificare a presiunii sistemului.

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. Introduceti o cheie hexagonala la valva (supapa de inalta presiune) si deschideti valva prin rotirea cheii in sens invers acelor de ceasornic. Ascultati daca gazul iese afara din sistem, apoi inchideti valva dupa 5 secunde.

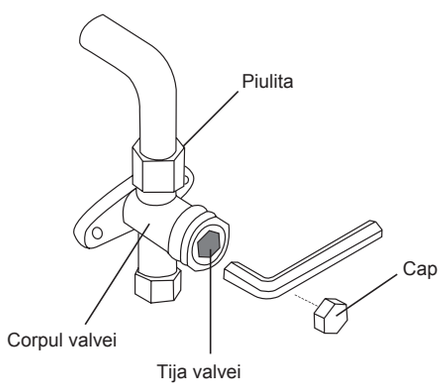


Fig. 9.2

9. Uita-te la manometru de presiune timp de un minut pentru a te asigura ca nu exista nicio schimbare a presiunii. Manometrul trebuie sa citeasca putin mai mare decat presiunea atmosferica.
10. Scoateti furtunul de incarcare din portul de service.
11. Folosind chei hexagonale, deschideti complet, valvele de inalta si joasa.

DESCHIDE VALVA USOR

La deschiderea valvei, rotiti cheia hexagonala pana cand se atinge impotriva dopului. NU incercati sa fortati supapa pentru a o deschide in continuare.

12. Strangeti capacele de ventil manual, apoi strangeti utilizand instrumentul adecvat.

Nota cu privire la adaugarea agentului de racire

ATENŢIE

- Incarcarea cu agent frigorific trebuie sa fie realizat dupa cablare, vacumare si dupa testul de scurgere.
- NU depasiti cantitatea maxima admisibila de agent frigorific pentru a nu supraîncărca sistemul. Acest lucru poate deteriora sau impiedica buna functionare a aparatului.
- Incarcarea cu substante neadecvate poate cauza explozii sau accidente. Asigurati-va că agentul frigorific adecvat este cel utilizat.
- Recipientele de agent frigorific trebuie să fie deschise incet. Folositi intotdeauna echipament de protecție in timpul incarcarii sistemului.
- NU amestecati tipurile de agenti frigorifici.

Unele sisteme necesita o incarcare suplimentara in functie de lungimea tevilor. Lungimea tevii standard, variază in functie de reglementarile locale. De exemplu, in America de Nord, lungimea conductei standard este 7.5m (25'). In alte zone, lungimea tevii standard este de 5 m (16'). Agentul frigorific suplimentar care urmează sa fie incarcat poate fi calculat folosind urmatoarea formula:

	Diametru lateral lichid		
	φ6.35(1/4”)	φ9.52(3/8”)	φ12.7(1/2”)
Fix-frecventa R22 (tub orificiu in unitatea interioara):	(Lungimea totala teava - lungime teava standard) x 30g (0.32oZ) / m (ft)	(Lungimea totala teava-lungime teava standard) x 65g (0.69oZ) / m (ft)	(Lungimea totala teava-lungime teava standard) x 115g (1.23oZ)/m(ft)
R22 fix-frecvență (Tub orificiu în unitatea exterioară):	(Lungimea totala teava-lungime teava standard) x 15g (0.16oz) / m (ft)	(Lungimea totala teava-lungime teava standard) x 30g (0.32oZ) / m (ft)	(Lungimea totala teava-lungime teava standard) x 60g (0.64oZ)/m(ft)
R410A fix-frecvență:	(Lungimea totala teava-lungime teava standard) x 20g (0.21oz) / m (ft)	(Lungimea totala teava-lungime teava standard) x 40g (0.42oZ)/m(ft)	(Lungimea totala teava-lungime teava standard) x 60g (0.64oZ)/m(ft)
Inverter R410A:	(Lungime totala teava-lungime teava standard) x15g (0.16oz) / m (ft)	(Lungimea totala teava-lungime teava standard) x 30g (0.32oZ)/m(ft)	

Instalarea panelului

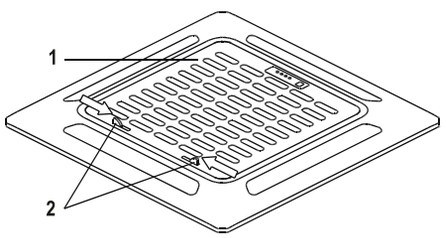
10

ATENTIE

NU asezati panoul cu fata in jos pe podea, pe un perete sau pe suprafete neregulate.

Pasul 1: Scoateti grila frontala.

1. Impingeti ambele file spre mijloc simultan pentru a debloca carligul de pe grila.



1. Grila de absortie
2. Carlig grila

Fig. 10.1

2. Tineti grila la un unghi de 45°, ridicati-o usor si detasati-o de corpul unitatii.

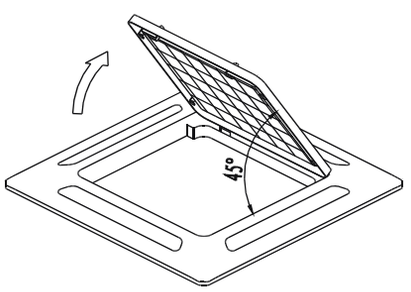
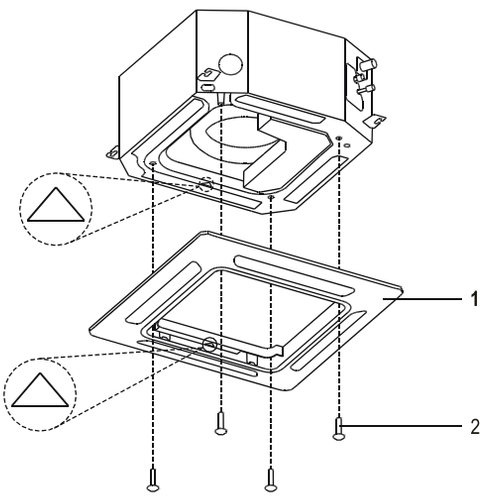


Fig. 10.2

Pasul 2: Instalati panoul

Aliniati indicatoarele "△" de pe panel cu indicatorul "△" de pe aparat.

Atasati panelul la unitate cu suruburi asa cum se arata in figura de mai jos.



1 Panel
2 Suruburi (M5) (livrate cu panoul)

Fig. 10.3

Dupa instalarea panelului, asigurati-va ca nu exista niciun spațiu intre corpul unitatii si panel. In caz contrar, aerul poate refula prin i cauza Dewdrop. (A se vedea figura de mai jos)

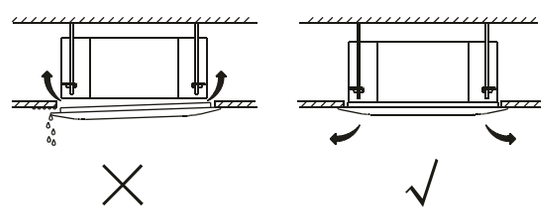


Fig. 10.4

Etapa 3: Se montează grila de admisie

Asigurati-va ca cataramele la partea din spatele grilei sa fie asezate corect in canelura panoului.

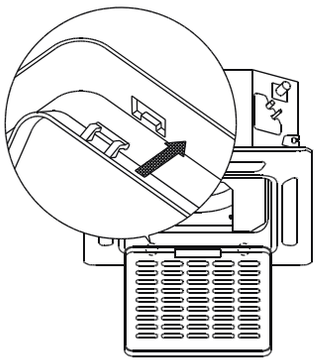


Fig. 10.5

Pasul 4: Conectati cele 2 fire ale panelului la placa electronica a unitatii.

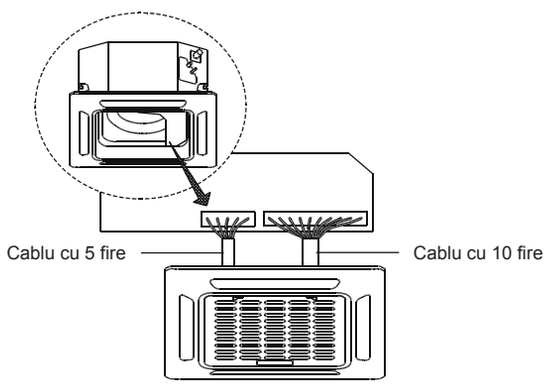


Fig. 10.6

Pasul 5: Fixati capacul cutiei de control cu 2 suruburi.

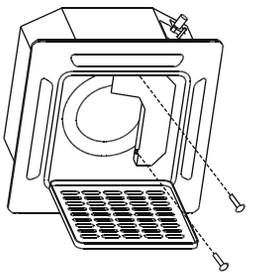


Fig. 10.7

Pasul 6: Inchideti grila de admisie si cele 2 carlige ale grilei.

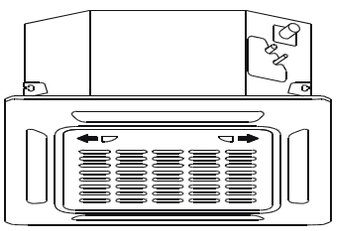


Fig. 10.8

Test de functionare

11

Inainte de testare

Un test trebuie efectuat dupa ce intregul sistem a fost complet instalat. Confirmati urmatoarele puncte inainte de efectuarea testului:

a) Unitatile interioare si exterioare sunt instalate in mod corespunzator.

b) Tevile si cablurile sunt conectate in mod corespunzator.

c) Sa va asigurati ca nu exista obstacole in apropiere de intrarea si de iesirea unitatii care ar putea duce la performante slabe sau la functionarea necorespunzatoare a produsului.

d) Sistemul de refrigerare nu are scurgeri.

e) Sistemul de drenaj este fara obstacole pentru scurgerea apei intr-o locatie sigura.

f) Izolarea impotriva incalzirii este corect facuta.

g) Firele de impamantare sunt conectate in mod corespunzator.

h) Lungimea conductelor si cantitatea de agent frigorific sunt cele corecte.

i) Tensiunea de alimentare este corecta pentru aparatul de aer conditionat

ATENŢIE

Imposibilitatea de a efectua testarea poate duce la deteriorarea aparatului, la pagube materiale sau chiar la vatamare corporală.

Instrucțiuni de testare

1. Deschideti valvele de lichid si gaz.
2. Porniți aparatul si permite unitatii sa se incalzeasca.
3. Setati instalatia de aer conditionat in modul RACIRE.
4. Pentru Unitatea interioară
   a. Asigurati-va ca telecomanda si butoanele acesteia functioneaza in mod corespunzator.
   b. Asigurati-va ca flapsurile se misca in mod corespunzator si pot fi modificate cu ajutorul telecomenzii.
   c. Verificati de doua ori pentru a vedea daca temperatura camerei este corect inregistrata.
   d. Asigurati-va ca indicatoarele de pe telecomanda si de pe panoul de afisaj de la unitatea interioarea functioneaza in mod corespunzator.
   e. Asigurati-va ca butoanele manuale de pe unitatea interioara functioneaza in mod corespunzator.
   f. Verificati pentru a vedea daca sistemul de drenaj este fara obstacole si apa se scurge lin.
   g. Asigurati-va ca nu exista nici o vibratie sau zgomote anormale in timpul functionarii.
5. Pentru Unitatea exterioară
   a. Verificati pentru a vedea daca sistemul de refrigerare are scurgeri (pierderi).
   b. Asigurati-va ca nu exista nici o vibratie sau zgomote anormale in timpul functionarii.
   c. Asigurati-va ca vantul, zgomotul, si apa generată de unitate nu deranjeaza vecinii sau nu prezintă un risc pentru siguranta.
6. Testul de scurgere a apei
   a. Asigurati-va ca apa curge lin prin drenul de scurgere. In cladirile noi ar trebui sa efectueze acest test inainte de a termina inchiderea plafonului.
   b. Se scoate capacul de testare. Adaugati 2000ml apa in rezervor prin tubul atasat.
   c. Porniti aparatul in modul de RACIRE.
   d. Ascultati sunetul pompei de evacuare pentru a vedea daca face zgomote neobisnuite.
   e. Verificati pentru a vedea daca apa este evacuata. Aceasta poate dura pana la un minut inainte ca unitatea sa inceapa sa curgă in functie de dren.
   f. Asigurati-va ca nu exista scurgeri la nico teava/conducta.
   g. Se opreste aparatul de aer conditionat.

NOTA: In cazul in care aparatul nu funcționeaza corect sau nu in conformitate cu asteptările dumneavoastra, va rugam sa consultati sectiunea de depanare a Manualului de utilizare inainte de a apela serviciul pentru clienti.

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AIR CONDITIONING SYSTEMS

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