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bryant 40MCCAQ One Way Cassette Ductless Split Unit System Instruction Manual

BRYANT®

Installation Instructions

40MCCAQ
One Way Cassette Ductless Split Unit System
Sizes 6K – 18K

Fig. 1 — Sizes 06K – 18K
NOTE: Read the entire instruction manual before starting the installation.
Images are for illustration purposes only. Actual models may differ slightly.

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SAFETY CONSIDERATIONS

Improper installation, adjustment, alteration, service, maintenance, or use can cause explosion, fire, electrical shock, or other conditions which may cause death, personal injury or property damage. Consult a qualified installer, service agency, or your distributor or branch for information or assistance. The qualified installer or agency must use factory-authorized kits or accessories when modifying this product. Refer to the individual instructions packaged with kits or accessories when installing.
Follow all safety codes. Wear safety glasses, protective clothing and work gloves. Have a fire extinguisher available. Read these instructions thoroughly and follow all warnings or cautions included in the literature and attached to the unit. Consult local building codes and the current editions of the National Electrical Code (NEC) NFPA 70.
In Canada, refer to the current editions of the Canadian Electrical Code CSA C22.1. Recognize safety information.

This is the safety-alert symbol ⚠ . When you see this symbol on the unit and in instruction manuals, be alert to the potential for personal injury. Understand the signal words DANGER, WARN I NG , and CAUTION. These words are used with the safety-alert symbol.
DANGER identifies the most serious hazards which will result in severe personal injury or death. WARNING signifies hazards which could result in personal injury or death. CAUTION is used to identify unsafe practices which may result in minor personal injury or product and property damage. NOTE is used to highlight suggestions which will result in enhanced installation, reliability, or operation.

⚠ **WARNING**
ELECTRICAL SHOCK HAZARD
Failure to follow this warning could result in personal injury or death. Before installing, modifying, or servicing system, main electrical disconnect switch must be in the OFF position. There may be more than 1 disconnect switch. Lock out and tag switch with a suitable warning label.

⚠ **WARNING**

EXPLOSION HAZARD

Failure to follow this warning could result in death, serious personal injury, and/or property damage.

Never use air or gases containing oxygen for leak testing or operating refrigerant compressors. Pressurized mixtures of air or gases containing oxygen can lead to an explosion.

CAUTION

EQUIPMENT DAMAGE HAZARD

Failure to follow this caution may result in equipment damage or improper operation.

Do not bury more than 36 in. (914 mm) of refrigerant pipe in the ground. If any section of pipe is buried, there must be a 6 in. (152 mm) vertical rise to the valve connections on the outdoor units.

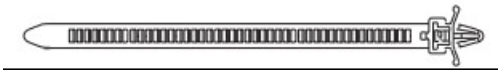
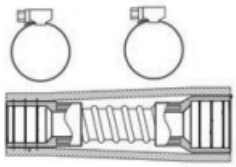
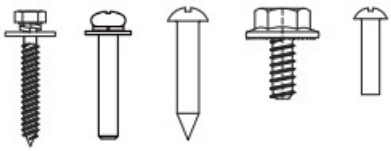
If more than the recommended length is buried, refrigerant may migrate to the cooler buried section during extended periods of system shutdown. This causes refrigerant slugging and could possibly damage the compressor at start-up.

ACCESSORIES

The system is shipped with the following accessories (see Table 1). Use all of the installation parts and accessories to install the system. Improper installation may result in water leakage, electrical shock and fire, or cause the equipment to fail.

Keep the installation manual in a safe place and do not discard any other accessories until the installation work has been completed.

Table 1 — Accessories

NAME	SHAPE	QUANTITY
Cable Tie		6
Drainpipe Adapter		1
Screw kits		1 (8,8,2,2,3)
Tubing Cover		1

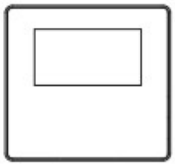
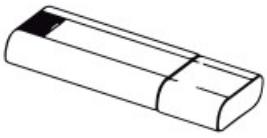
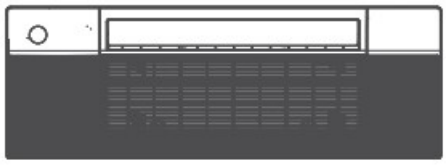
Remote Controller		1
Wire Controller (optional)		1
Rubber Grommet		1
Wi-Fi Dongle (optional)		1
Panel		1
Brass Nut		2

Table 2 — Accessories (Pipe)

NAME	SHAPE		QUANTITY (PC)
Connecting Pipe Assembly	Liquid Side	1/4in (Φ 6.35)	**These parts must be purchased separately.** Consult the dealer about the proper pipe size of the unit purchased.
	Gas Side	3/8in (Φ 9.52)	
		1/2in (Φ12.7)	

PARTS

1. Air inlet
2. Air flow louver (at air outlet)
3. Hanging bracket
4. Display panel
5. Drain pipe
6. Refrigerant piping
7. Air inlet
8. Air outlet
9. Remote controller
10. Outdoor unit power cable

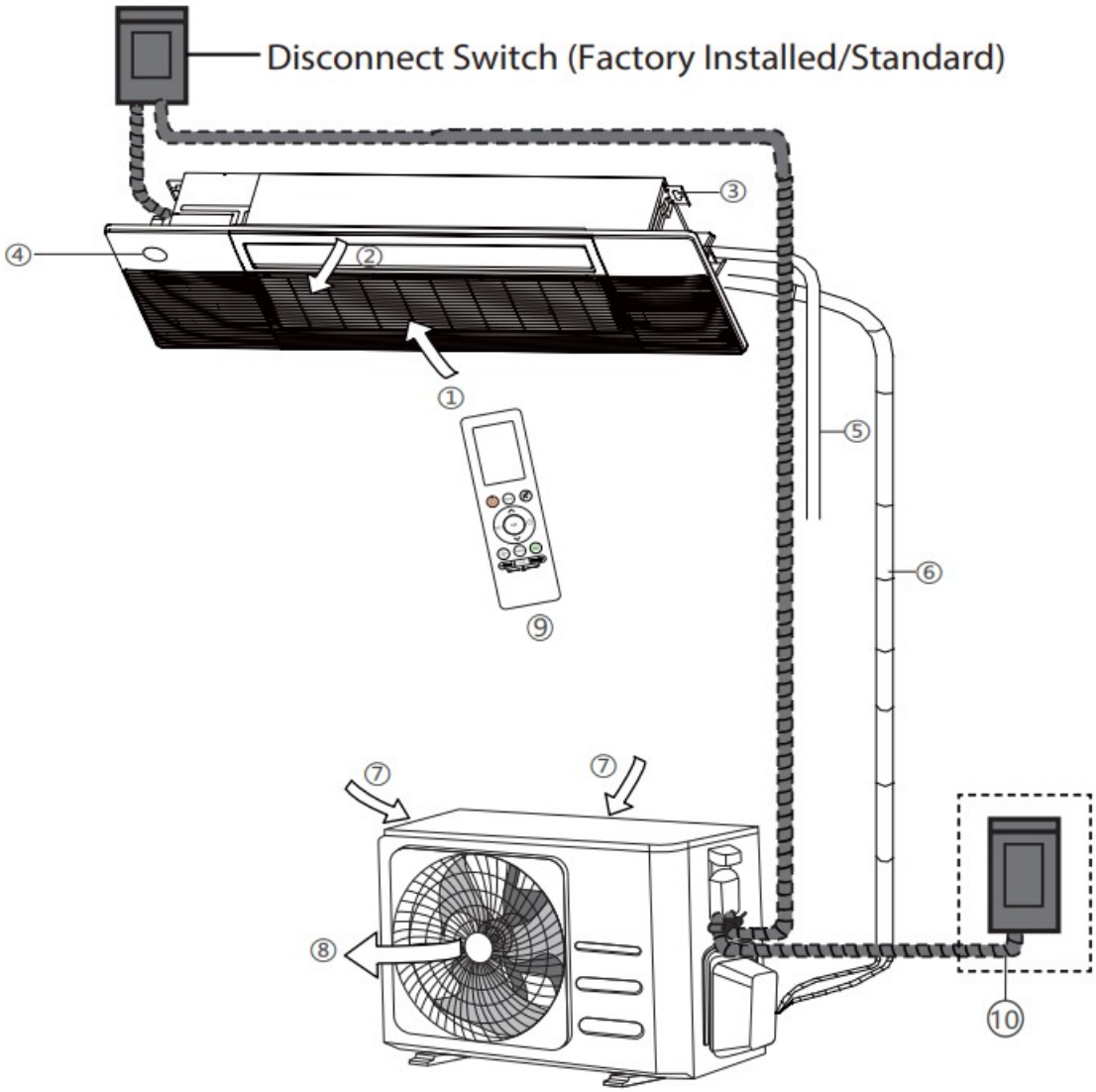


Fig. 2 — System Components

NOTE: Illustrations in this manual are for reference only. The actual shape of the indoor unit and parts may differ slightly.

1. Air Inlet (with air filter installed)
2. Air Flow Louver
3. Hanging Bracket
4. Display Panel
5. Drainage Pipe
6. Refrigerant Piping
7. Air Inlet
8. Air Outlet
9. Remote Controller
10. Outdoor Unit Power Cable (field supplied by installing contractor)

The units listed in Table 3 are addressed in these installation instructions.
Table 3 — Indoor Units

DESCRIPTION	BTUH	V-PH-HZ	ID MODEL NO.
CASSETTE	6	208/230-1-60	40MCCAQ09XA3
	9		
	12		40MCCAQ18XA3
	18		

NOTE: The installation must be performed in accordance with the requirement of local and national standards. The installation may differ slightly in some areas.
NOTES:
– If the outdoor unit is higher than the indoor unit, prevent rain from flowing into the indoor unit along the connection pipe by making a inverted trap in the connection pipe before it enters the wall to the indoor unit. This ensures that rain drips from the connection pipe before it enters the wall.
– Piping and the interconnecting wiring are field supplied.
– Figure 2 is a sketch. Different models may differ slightly.

SYSTEM REQUIREMENTS

Allow sufficient space for airflow and unit service. See Fig. 3 — on page 6 for the minimum required distances between the unit and walls or ceilings.
Table 4 — Indoor Unit Pipe Sizes

UNIT SIZES		6K (208/230V)	9K (208/230V)	12K (208/230V)	18K (208/230V)
GAS PIPE	in	3/8”	3/8”	1/2”	1/2”
	(mm)	9.52	9.52	12.7	12.7
LIQUID PIPE	in	1/4”	1/4”	1/4”	1/4”
	(mm)	6.35	6.35	6.35	6.35

WIRING

All wires must be sized per NEC (National Electrical Code) or CEC (Canadian Electrical Code) and local codes. See the rating plate and/or the installation instructions of the compatible outdoor unit for MCA (minimum circuit amps) and MOCP (maximum over current protection) to correctly size the wires and the disconnect fuse or breakers respectively.

Recommended Connection Method for Power and

Communication Wiring:

The main power is supplied to the outdoor unit. The field supplied 14/3 power/communication wiring from the outdoor unit to the indoor unit consists of four (4) wires and provides the power for the indoor unit. Two wires are high voltage AC power, one is communication wiring and the other is a ground wire. Wiring between the indoor and outdoor unit is polarity sensitive. The use of BX wire is NOT recommended.

If installed in a high Electromagnetic field (EMF) area and communication issues exists, a 14/2 stranded shielded wire can be used to replace wires 2 and 3 between the outdoor unit and indoor unit landing the shield onto ground in the outdoor unit only.

⚠ **WARNING**

EQUIPMENT DAMAGE HAZARD

Failure to follow this caution may result in equipment damage or improper operation.

Wires should be sized based on NEC and local codes.

⚠ **CAUTION**

EQUIPMENT DAMAGE HAZARD

Failure to follow this caution may result in equipment damage or improper operation.

Be sure to comply with local codes while running wire from the indoor unit to the outdoor unit.

Every wire must be connected firmly. Loose wiring may cause the terminal to overheat or result in unit malfunction. A fire hazard may also exist. Ensure all wiring is tightly connected.

No wire should touch the refrigerant tubing, compressor or any moving parts.

Disconnecting means must be provided and shall be located within sight and readily accessible from the air conditioner.

Connecting cable with conduit shall be routed through the hole in the conduit panel.

NOTE: The main power is supplied to the outdoor unit. When disconnecting the power of the outdoor unit, the indoor unit would lose power. A disconnect switch is not required on the Indoor unit side on the wiring between the Outdoor and Indoor unit. A 3 pole disconnect may be used for extra protection between the Indoor and Outdoor Unit.

DIMENSIONS

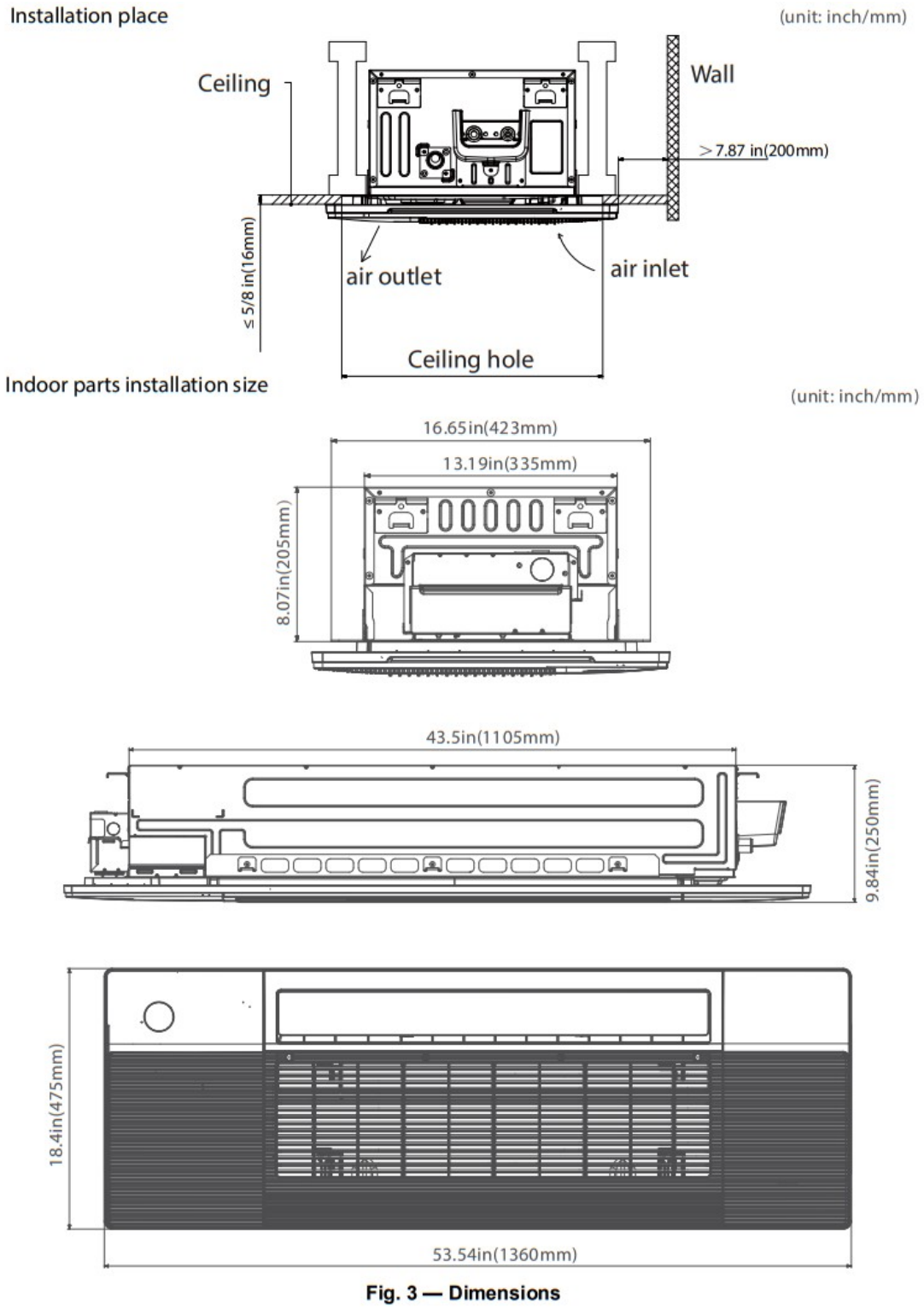


Fig. 3 — Dimensions

PRIOR TO INSTALLATION

Before installing the indoor unit, ensure the compatibility with the outdoor unit using the product data as a reference. It is also necessary to confirm the proper application of the equipment and to perform a heat load calculation for proper sizing.

Step 1 – Select Unit Location

Before installing the indoor unit (cassette), select an appropriate location.

The following are standards that will help you choose an appropriate location for the unit.

Proper installation locations meet the following standards:

- Enough room for installation and maintenance
- Enough room for the line set and drainpipe

- A horizontal ceiling and a structure that can sustain the weight of the indoor unit
- The air inlet and outlet are not impeded
- The airflow can fill the entire room
- The is no direct radiation from heaters.

⚠ CAUTION
DO NOT install the unit in the following locations:

- Areas with oil drilling or fracking
- Coastal areas with high salt content in the air
- Areas with caustic gases in the air, such as near hot springs
- Areas with power fluctuations, such as factories
- Enclosed spaces, such as cabinets
- Areas with strong electromagnetic waves
- Areas that store flammable materials or gas
- Rooms with high humidity, such as bathrooms or laundry rooms.

⚠ WARNING
PRODUCT INSTALLATION

- Installation must be performed by an authorized dealer or specialist.
  A defective installation can cause water leakage, electrical shock, or fire.
- The installation must be performed according to the installation instructions. Improper installation can cause water leakage, electrical shock, or fire. (In North America, installation must be performed in accordance with the requirements of NEC or CEC by authorized personnel only.)
- Contact an authorized service technician for repair or maintenance of this unit. This appliance must be installed in accordance with local codes.
- Only use the included accessories, parts, and specified parts for installation. Using non-standard parts can cause water leakage, electrical shock, fire, or unit failure.
- Install drainage piping according to the instructions in this manual. Improper drainage may cause water damage to your home and property.
- DO NOT install the unit in a location that may be exposed to combustible gas leaks. If combustible gas accumulates around the unit, it may cause a fire.
- DO NOT turn on the power until all work has been completed.
- When moving or relocating the system, consult experienced service technicians for the disconnection and re-installation of the unit.

Step 2 – Indoor Unit Installation
Ensure that only specified components are used for the installation.

1. Connect the wire to the indoor unit.
   a. Remove the four screws to open the indoor control box and disconnect switch box.

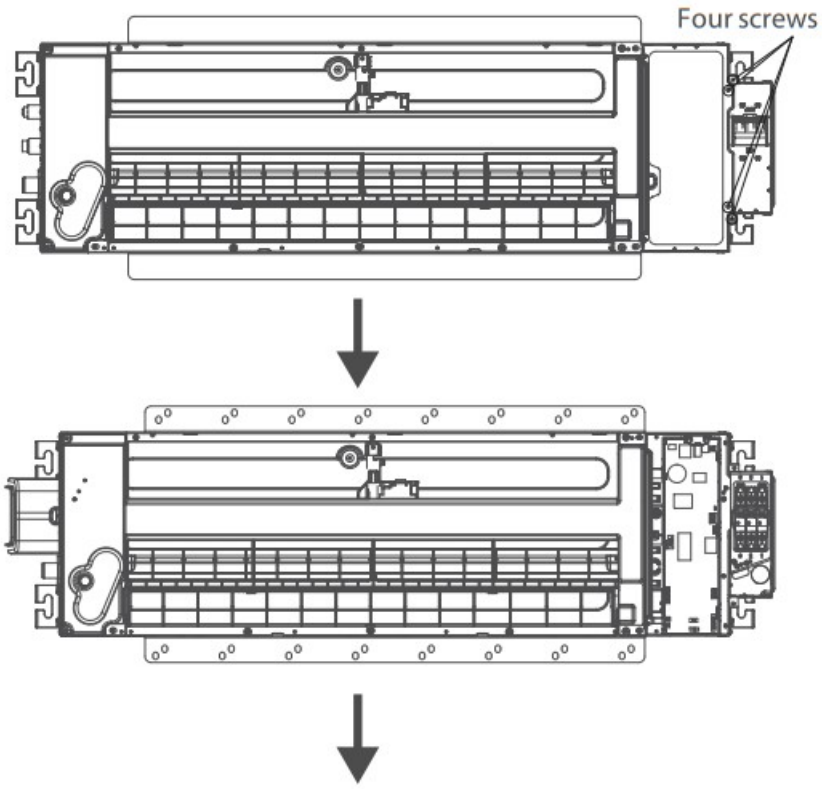


Fig. 4 — Remove 4 screws

b. Remove the electrical knockout on the disconnect switch box.

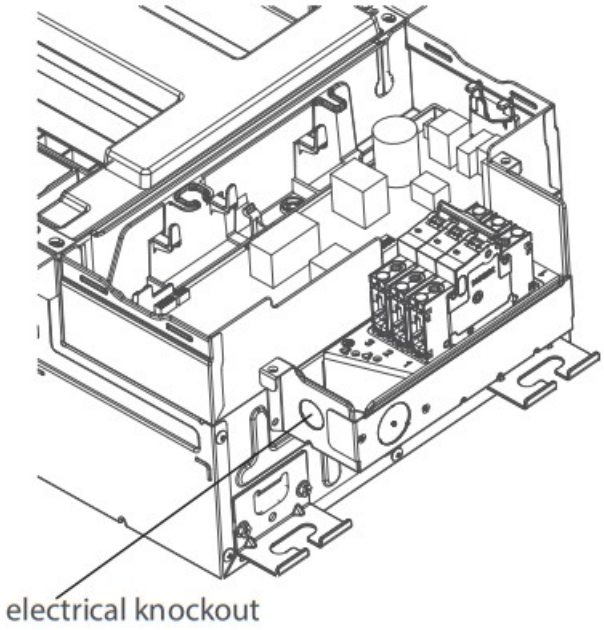


Fig. 5 — Remove the Electrical Knockout

c. Connect the wire to the disconnect switch according to the wire connecting diagram.

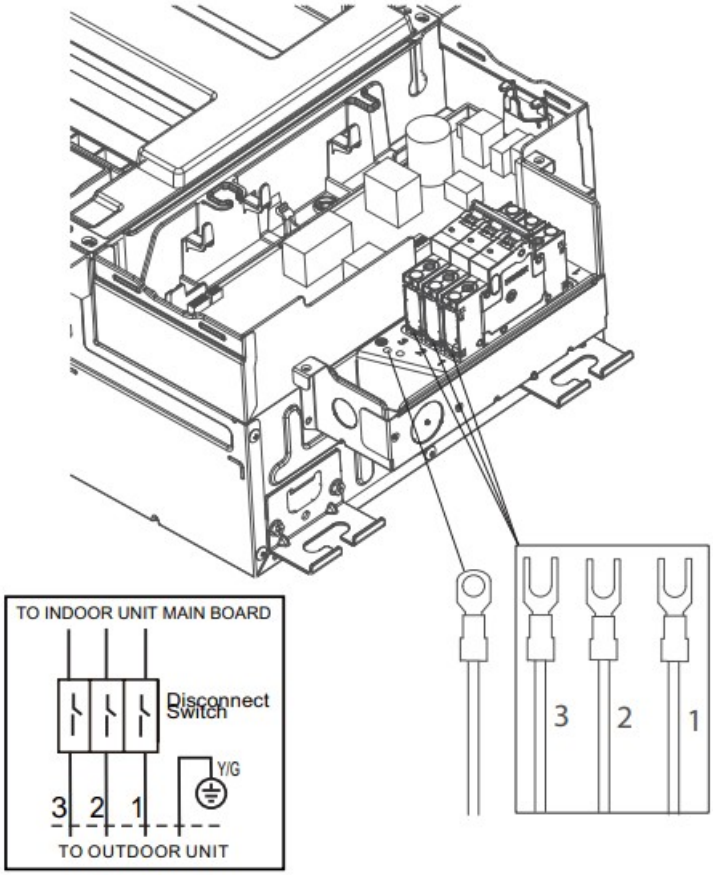


Fig. 6 — Connect wire to disconnect switch

WARNING

The ground wire should be tightened firmly.

d. Fasten and secure the cable body with a tie.

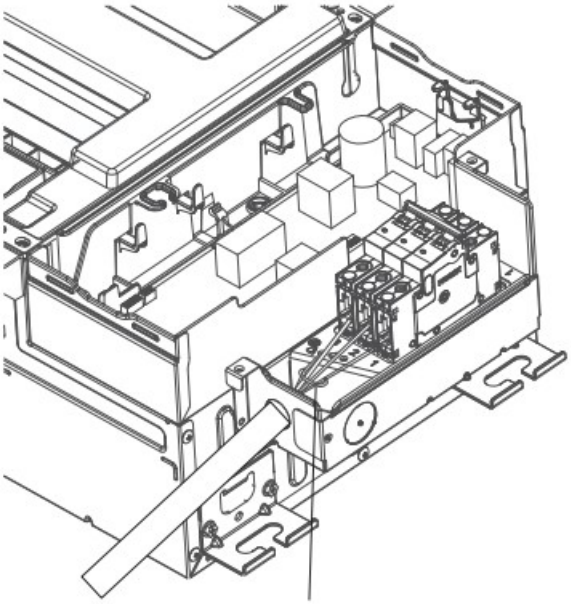


Fig. 7 — Fasten and secure the cable body

e. Install the disconnect switch cover and secure the two screws.

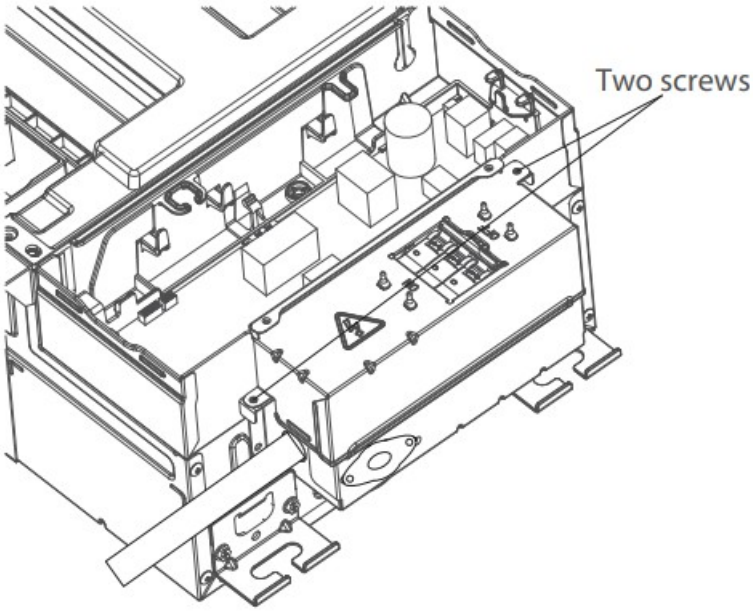


Fig. 8 — Reinstall the cover

Step 3 – Optional Parts Installation
Wire Controller
For the function introduction, operation instruction and installation, refer to the wire controller installation and owner's manual. However, for this unit, follow the steps for wire connection.
NOTE: If you select this configuration, it is recommended that the installation of this wire controller occur during the indoor unit installation.

1. Remove the electrical knockout from the disconnect switch box.

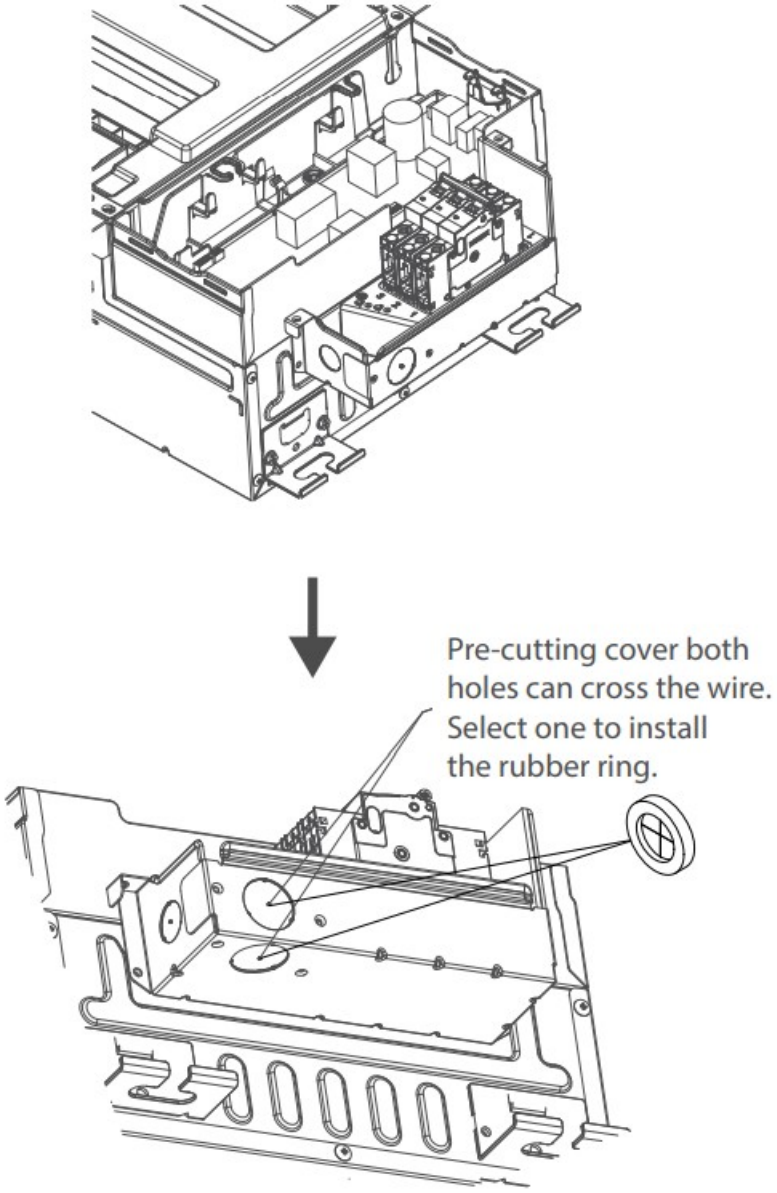


Fig. 9 — Remove the electrical knockout

2. Connect the wire from the control box.

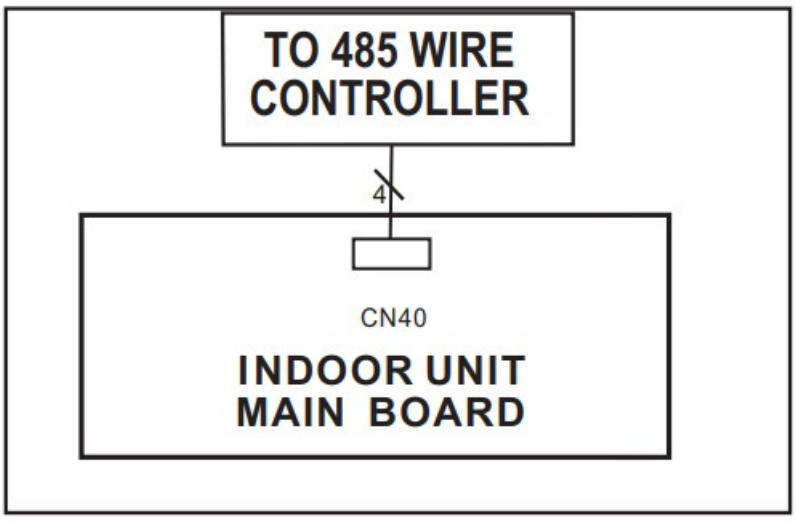


Fig. 10 — Connect Wire from Control Box

3. Connect the other side of the connecting cable to the wire controller.

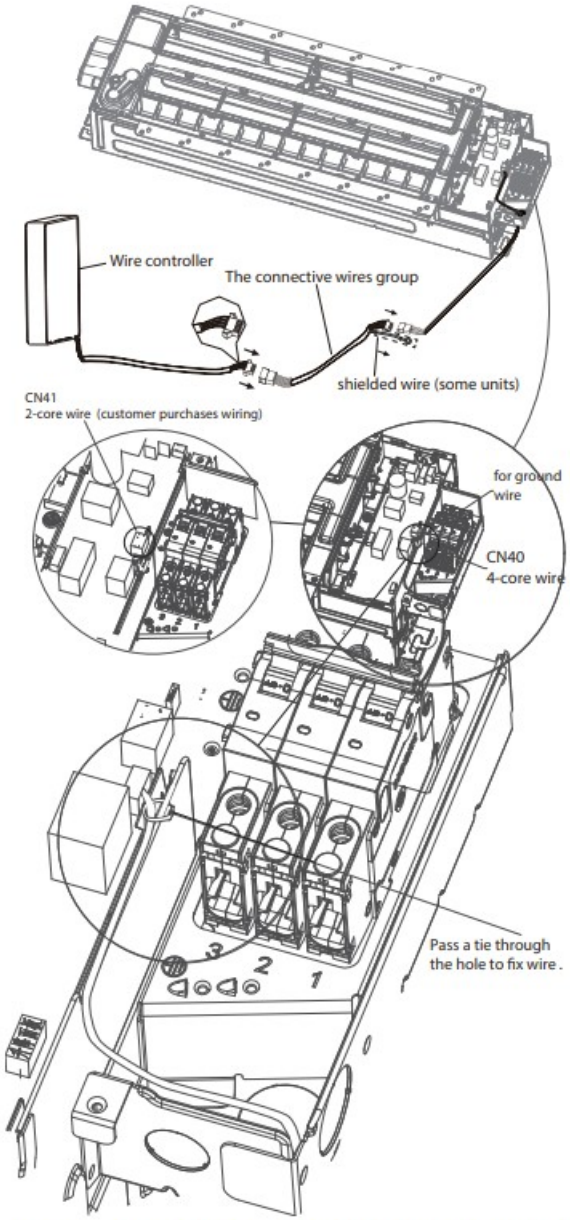


Fig. 11 — Connect the other side of the connecting cable

⚠ **WARNING**

NOTE: Reserve a length of the connecting wire for periodic maintenance. If there is a connection lug at the end of the shielded wire, the connection lug should be properly grounded.

Follow the local regulations and take measures to isolate high and low voltages.

ELECTRICAL DATA

Table 5 — Electrical Data

ONE WAY CASSETTE		**6K (208/230V)**	**9K (208/230V)**	**12K (208/230V)**	**18K (208/230V)**
Running Current	(A)	0.8	0.8	1.5	1.5
Power Consumption	(W)	30	30	30	30
Power Factor	(%)	64.4	64.4	97.7	67.7

CONNECTION DIAGRAMS

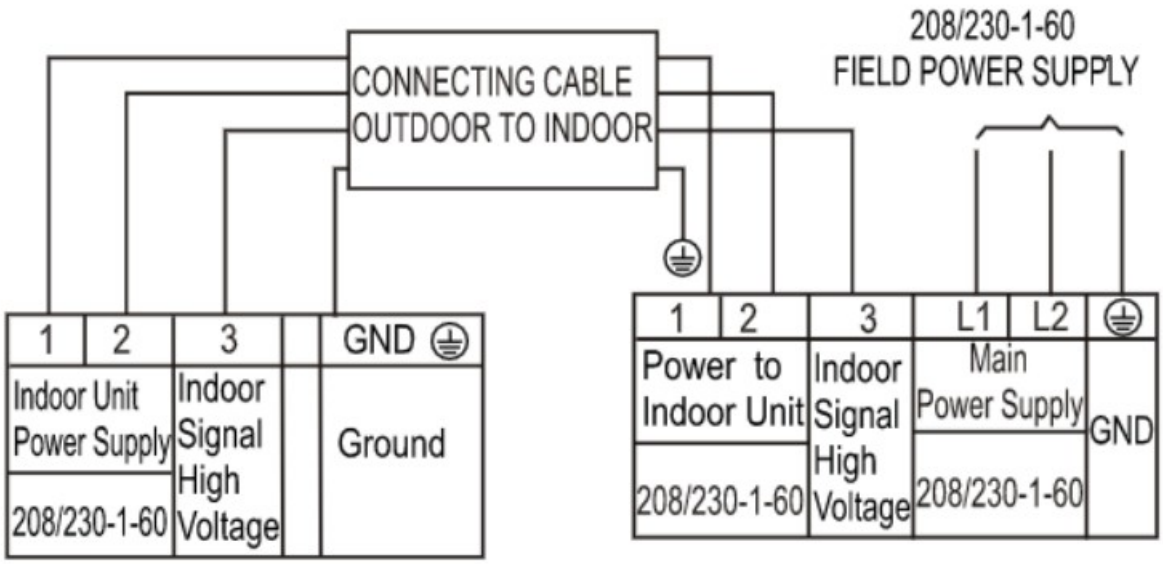


Fig. 12 — Connection Diagram Sizes 06K-18K

WIRING DIAGRAM

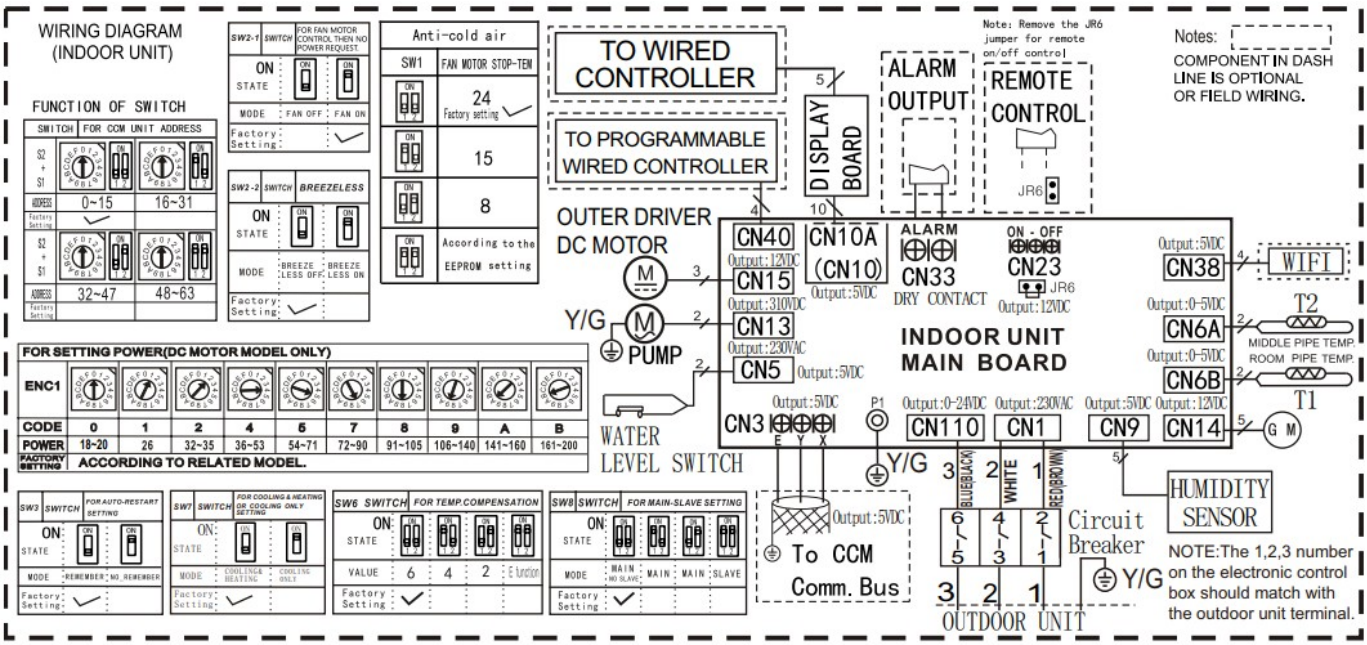


Fig. 13 — Wiring Diagram Sizes 06K-18K

CAPACITY SETTING

One-way cassette models are dual capacity and can be downsized by adjusting the dial switch ENC1 found in the main board as shown in Figure 14.

Table 6 — Capacity Setting

DESCRIPTION	BTUH	V-PH-HZ	ID MODEL NO.
CASSETTE	6	208/230-1-60	40MCCAQ09XA3
	9		
	12		40MCCAQ18XA3
	18		

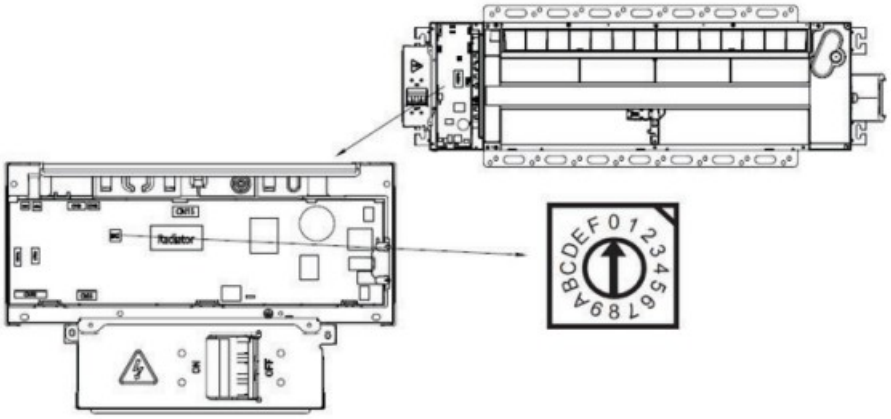


Fig. 14 — Capacity Setting

9K to 6K Setting
The default capacity of 40MCCAQ09XA3 is 9K BTUH, to downsize it to a 6K model.

1. The default ENC1 setting for 9K unit is 1.

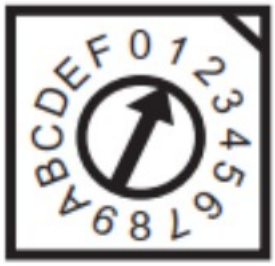


Fig. 15 — Capacity Setting

2. Disconnect the power first.
3. Open the electronic control box, change ENC1 to 0. Then close the electronic control box

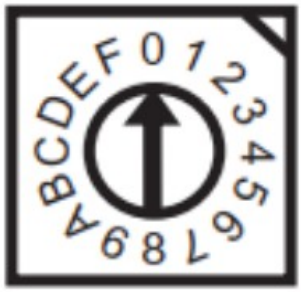


Fig. 16 — Capacity Setting

4. Connect the power again, the capacity of the unit has changed to 6K.

18K to 12K Setting
The default capacity of 40MCCAQ18XA3 is 18K BTUH, to downsize it to a 12K model

1. The default ENC1 setting for 18K unit is 4.

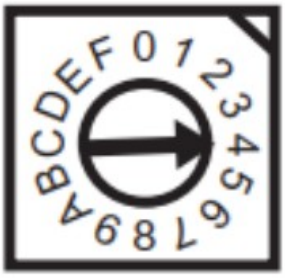


Fig. 17 — Capacity Setting

2. Disconnect the power first.
3. Open the electronic control box, change ENC1 to 2. Then close the electronic control box.

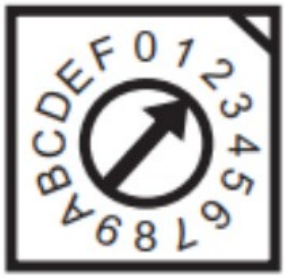


Fig. 18 — Capacity Setting

4. Connect the power again, the capacity of the unit has changed to 12K.

DIP SWITCH SETTINGS

Table 7 — Dip Switch Settings

NO.	DIAL CODE	FUNCTION	ON	OFF	1 ON &2 ON	1 ON&2 OFF	1 OFF&2 ON	1 OFF&2 OFF
1	SW2-1	Fan speed control after compressor stops	Lowest speed	[Default] Fan stop	N/A	N/A	N/A	N/A
2	SW2-2	Breezeless function	Breezeless on	[Default] Breezeless off	N/A	N/A	N/A	N/A
3	SW1	Indoor fan stop temperature (TEL0) for normal anti-cold air function in the **HEATING** mode	N/A	N/A	According to EEROM setting	15°C	8°C	[Default]24°C
4	SW6	Heating temperature compensation	N/A	N/A	According to EEROM setting	4°C	2°C	[Default]6°C
5	S1+Rotary Switch S2	Central control address selection	N/A	N/A	S2 + 48	S2 + 16	S2 + 32	S2
6	SW8	Settings for Twins connection			Slave unit	Master unit, has a slave unit	Master unit, has a slave unit	[Default] Master unit, no slave unit
7	Rotary Switch ENC1	Capacity selection	6K: ENC1=0; 9K:ENC1=1; 12K: ENC1=2; 18K:ENC1=4					

DRAIN PIPE INSTALLATION

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

NOTE: Installation requires a PVC tube (exterior diameter = 1in (25mm)) (depending on models), which can be obtained at your local hardware store or dealer.

Indoor Pipe Installation

Install the drain pipe as shown in Figure 19.

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 water-level switch malfunction.

In HEAT mode, the outdoor unit discharges water. Ensure that the drain hose is placed in an appropriate area to avoid water damage and slippage. DO NOT pull the drainpipe forcefully, doing so may disconnect **it.**

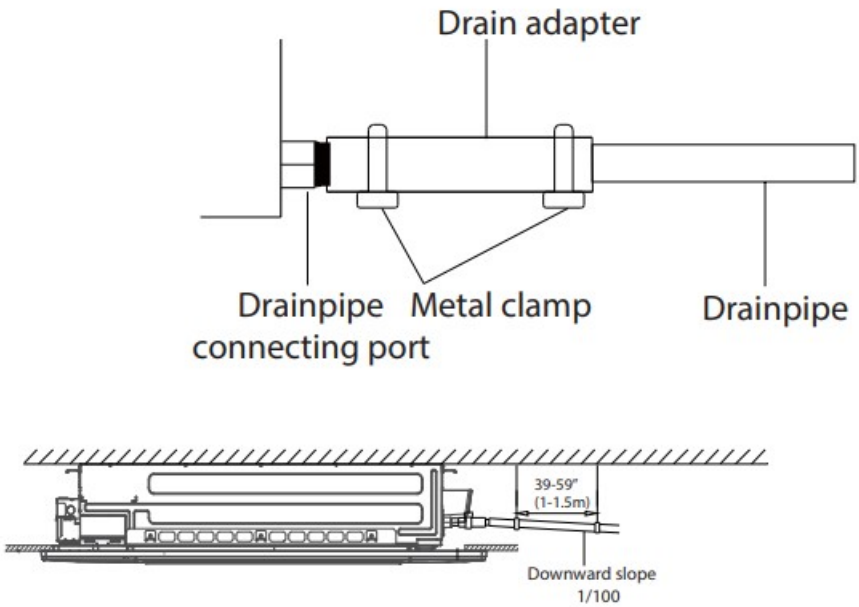


Fig. 19 — Pipe Installation

NOTE: 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 1/8" per foot to prevent water from flowing back into the air conditioner. To prevent the pipe from sagging, space hanging wires every 39-59"(1-1.5m). 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 29.5"(75cm) from the ceiling board and the distance between the unit and the lift pipe must be less than 11.8" (30cm) (depending on models). Incorrect installation could cause water to flow back into the unit and flood. To prevent air bubbles, keep the drain hose level or slightly tilted up (3"/<75mm) (some models).

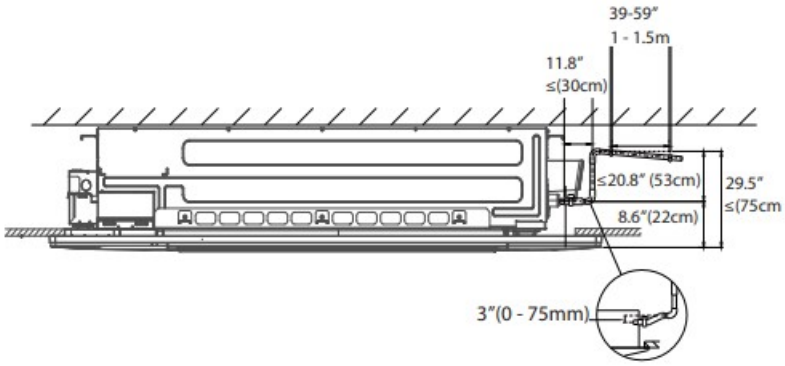


Fig. 20 — Drain pipe installation

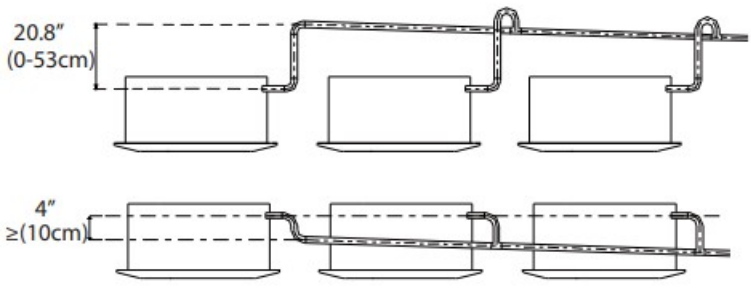


Fig. 21 — Drain pipe installation

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

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

Drill a Wall Hole

1. Use a 2.5in (65mm) or 3.5in (90mm) (depending on models) core drill to drill a hole in the wall. Ensure 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 approximately 1/4” (6mm). This ensures proper water drainage.
2. Place the protective wall cuff in the hole. The cuff protects the edges of the hole and helps seal the hole once the installation is.

⚠ **CAUTION**
When drilling the wall hole, be mindful to avoid wires, plumbing, and other sensitive components.

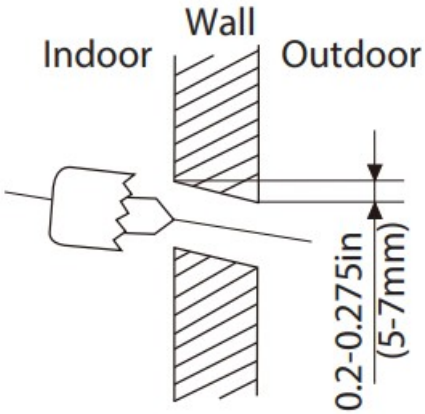


Fig. 22 — Drill Hole

NOTE: When the gas side connective pipe is Φ5/8in (16mm) or more, the wall hole should be 3.54in(90mm).

REFRIGERANT PIPING CONNECTION

When connecting the refrigerant piping, do not allow substances or gases, other than the specified refrigerant, to enter the unit. The presence of other gases or substances lower the unit’s capacity and can cause abnormally high pressure in the refrigeration cycle which may cause an explosion and injury.
NOTE: Ensure the refrigerant pipe length, the number of bends, and the drop height between the indoor and outdoor units meet the requirements listed in Table 8.
Table 8 — Maximum Length and Drop Height Based on Models (Unit ft./m)

CAPACITY (BTU/H)	PIPING LENGTH	MAXIMUM DROP HEIGHT
06K-12K	25/82	10/32.8
18K	30/98.4	20/65.6

⚠ **CAUTION**
OIL TRAPS
If oil flows back into the outdoor unit’s compressor, this might cause liquid compression or deterioration of oil

return. Oil traps in the rising gas piping can prevent this. An oil trap should be installed every 20ft (6m) of the vertical suction line riser (<36000Btu/h unit). An oil trap should be installed every 32.8ft(10m) of vertical suction line riser (≥36000Btu/h unit).

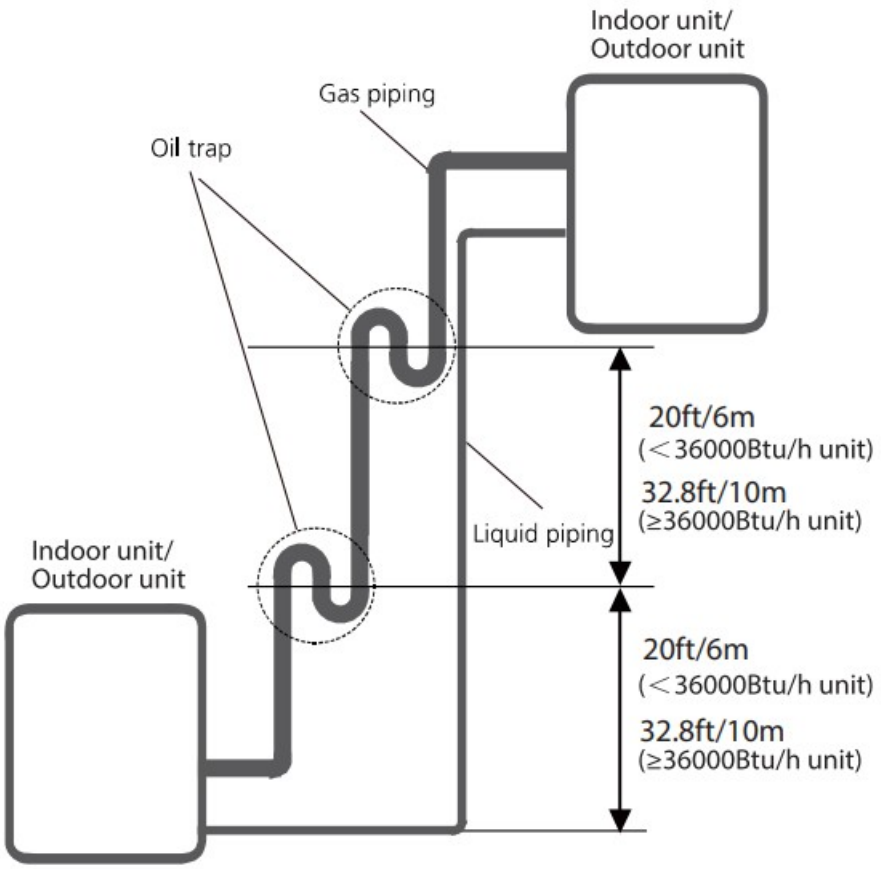


Fig. 23 — Oil Traps

CONNECTION INSTRUCTIONS -REFRIGERANT PIPING

⚠ CAUTION

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

Step 1 – Cut Pipes
When preparing refrigerant pipes, take extra care to cut and flare them properly. Doing so ensures 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.
3. Ensure the pipe is cut at a perfect 90°.

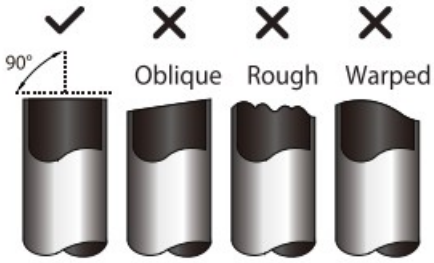


Fig. 24 — Cut pipes

NOTE: DO NOT deform the pipe while cutting. Be careful not to damage, dent, or deform the pipe while cutting. This drastically reduces the heating efficiency of the unit.

Step 2 – Remove The Burrs

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

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

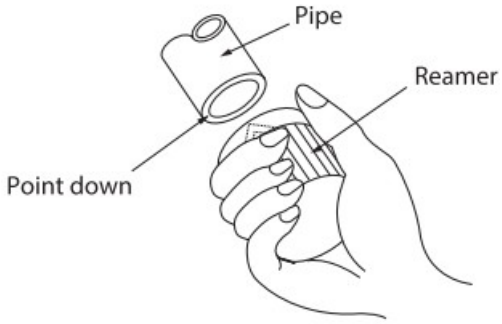


Fig. 25 — Reamer

Step 3 – Flare Pipe Ends

Proper flaring is essential to achieve an airtight seal.

1. After removing burrs from the 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 the pipe. Ensure they are facing the right direction, because they can not put on or their direction changed after flaring.

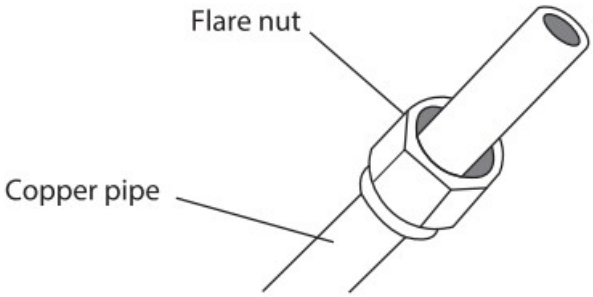


Fig. 26 — Flare Pipe Ends

4. Remove the PVC tape from the pipe ends 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.

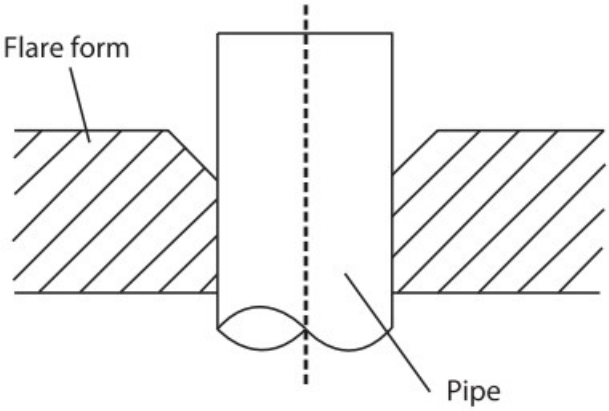
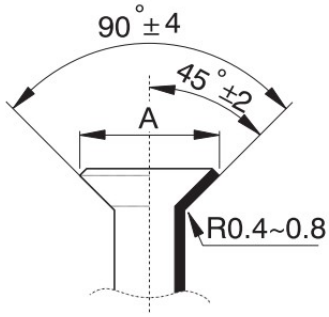


Fig. 27 — Flare Form

6. Place the flaring tool on 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.

Table 9 — Piping Extension Beyond Flare Form

Pipe Gauge	Tightening Torque	Flare Dimensions (A) (Unit: In/mm)		Flare Shape
Ø1/4" (Ø6.35)	18-20 N.m (180-200kgf.com)	0.33 /8.4	0.37 /8.7	
Ø3/8" (Ø9.52)	32-39 N.m (320-390kgf.cm)	0.52/ 13.2	0.53/ 13.5	
Ø1/2" (Ø12.7)	49-59 N.m (490-590kgf.cm)	0.64/ 16.2	0.65/ 16.5	

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

Step 4 – Connect The Pipes

Connect the copper pipes to the indoor unit first, then connect them to the outdoor unit. 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 to connect.

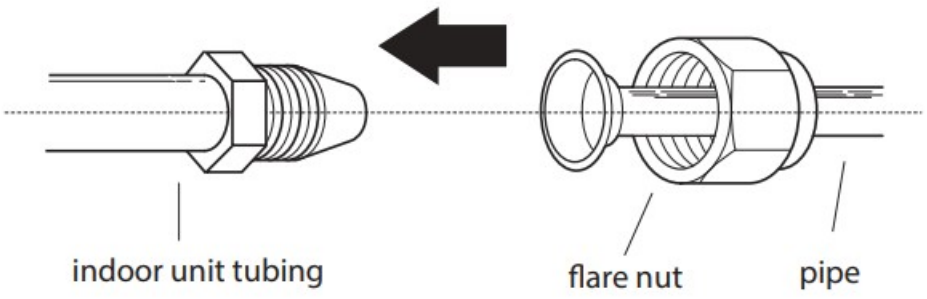


Fig. 28 — Align the Pipes

3. Tighten the flare nut as tight as possible by hand.

4. Use an adjustable wrench, 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 9 on page 14.

   NOTE: Use an adjustable wrench and a torque wrench when connecting or disconnecting pipe to or from the unit.

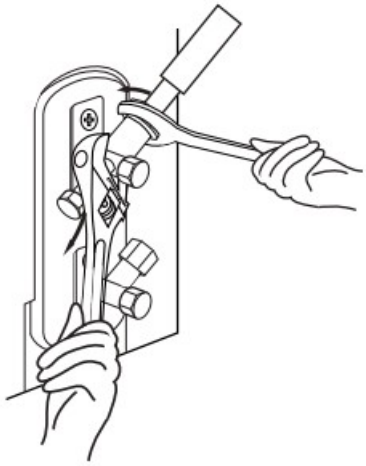


Fig. 29 — Torque fittings

CAUTION

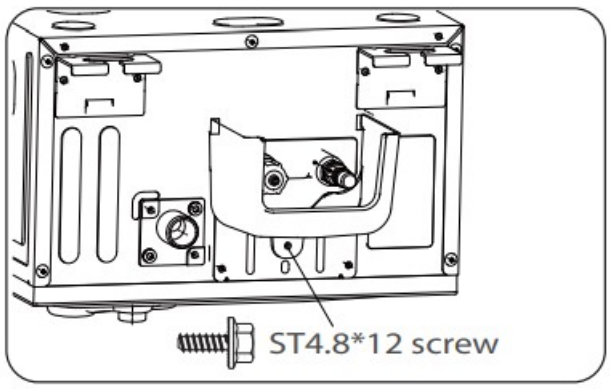
Be sure to wrap the insulation around the piping. Direct contact with the bare piping may result in burns or frostbite.

Ensure the pipe is properly connected. Over-tightening may damage the bell mouth and under tightening may lead to leakage.

NOTE: Carefully bend the tubing in the middle. DO NOT bend the tubing more than 90 degrees or more than three times.

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 the signal cable with other wires. While bundling these items 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 outdoor unit valves.
9. Secure the tubing cover (supplied in Accessories box) to the indoor unit by a screw.



NOTE:
Two ST4.8*12 screws are supplied, one of which is a spare.

Fig. 30 — ST4.8#12 Screws

10. Open the stop valves of the outdoor unit to start the refrigerant flow between the indoor and outdoor unit.

⚠ **CAUTION**

Ensure there is no refrigerant leak after installation completion.
If a leak exists, ventilate the area immediately and evacuate the system.

Step 5 – Panel Installation – Ceiling Prep

Use the following steps to prepare the ceiling.

1. Drill a 16.93”x51.18” (430 mm x 1300 mm) hole into the ceiling based on the layout of the installation board.

   The center of the ceiling opening should match the center of the body of the indoor unit.

   NOTE: To prevent vibrations, reinforce the ceiling where necessary.
2. Once the ceiling is cut, remove the installation board.

Step 6 – Panel Installation

Model A

NOTE: The air grille received by the customer is not tightened by the wire rope, however is specifically designed to be loose for easy installation.

1. Grab air grille by hand and pull it out slowly in the direction of the arrow.

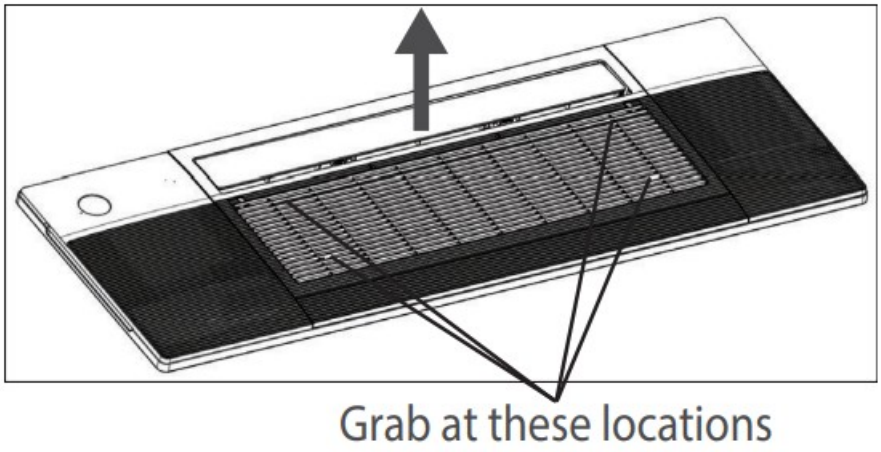


Fig. 31 — Panel Installation

2. Pull the panel grille out of the panel, secure the cassette panel to the one-way cassette with the two plastic **straps.**

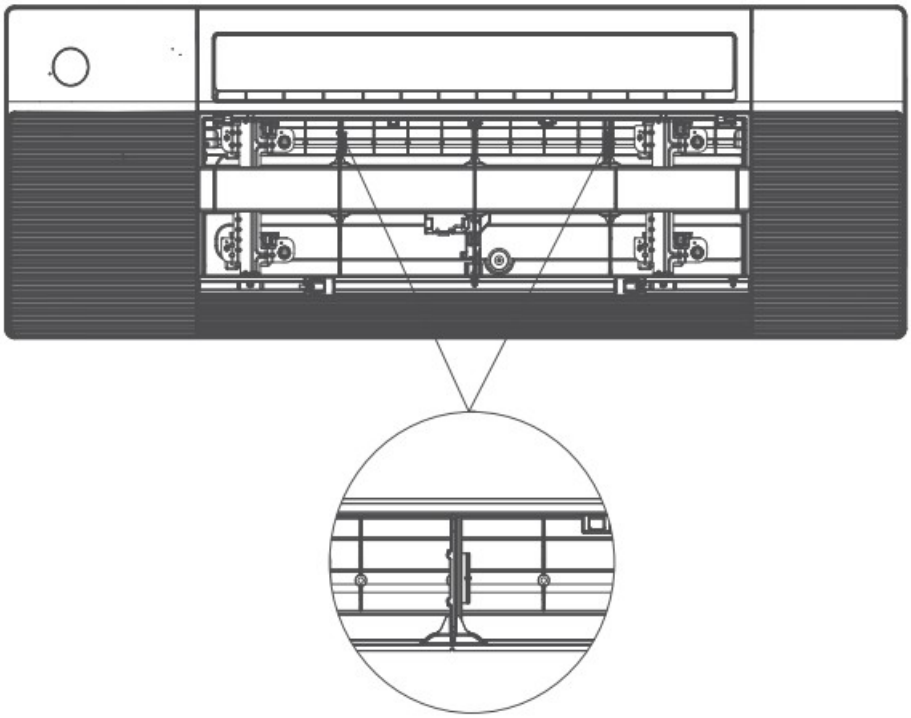
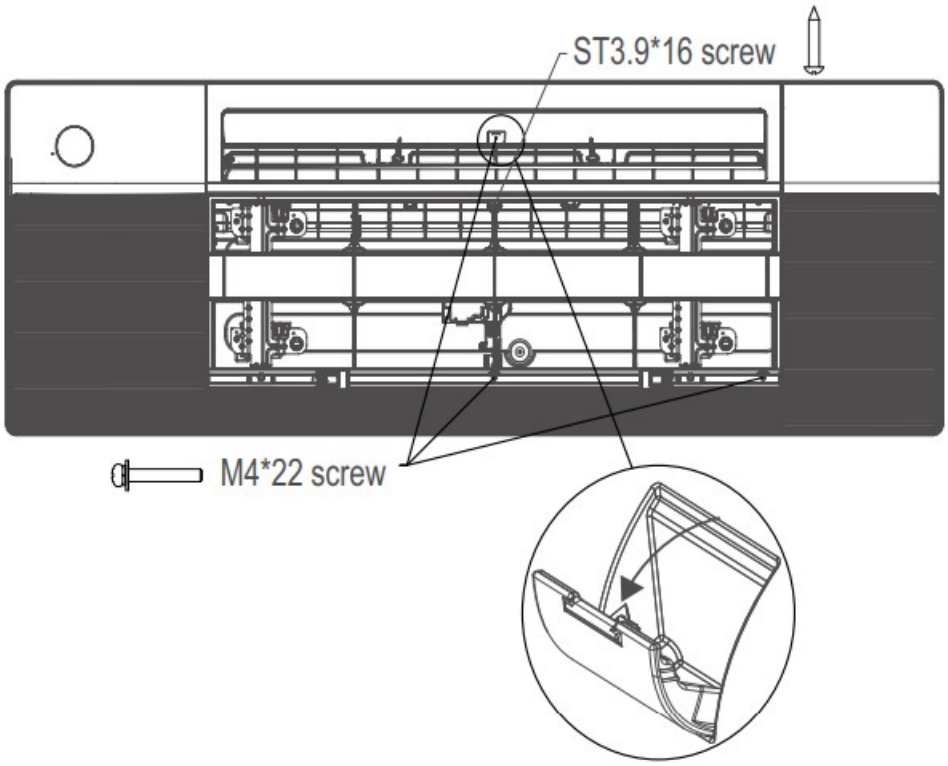


Fig. 32 — Panel Installation

NOTE: The corresponding colors or pins are connected to each other.

3. Manually rotate the louver, secure the panel to the cassette with 3×M4*22 screws and a ST3.9*16 screw.



NOTE

Eight M4*22 screws are supplied, two of which are spares.

Two ST3.9*16 screws are supplied, one of which is a spare.

Before securing the screw, open the screw cover.

After securing the screw, close the cover.

Fig. 33 — Panel Installation

4. Open the two covers on both sides of the panel and secure the panel to the cassette with 3× M4*22 screws.

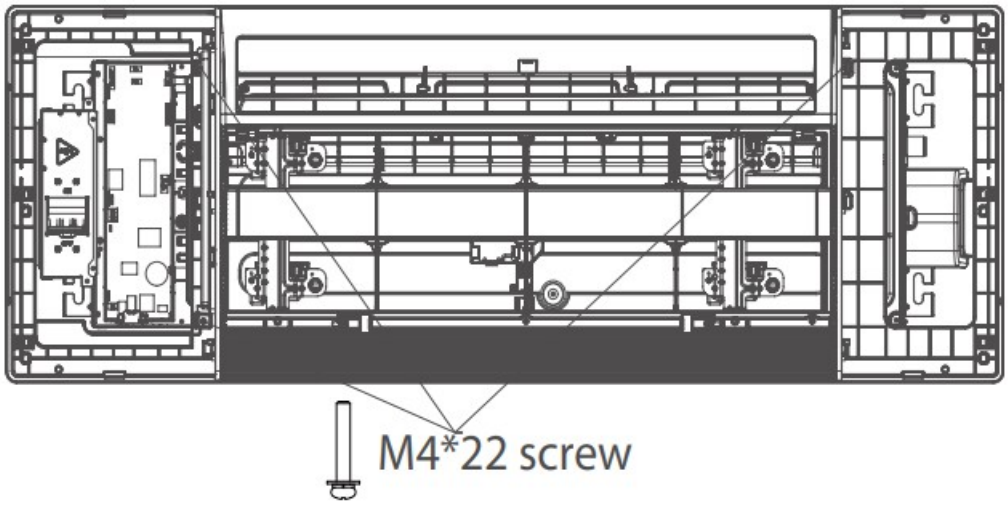


Fig. 34 — Panel Installation

5. Connect the display board to the main control board, up to four wires are required to connect.

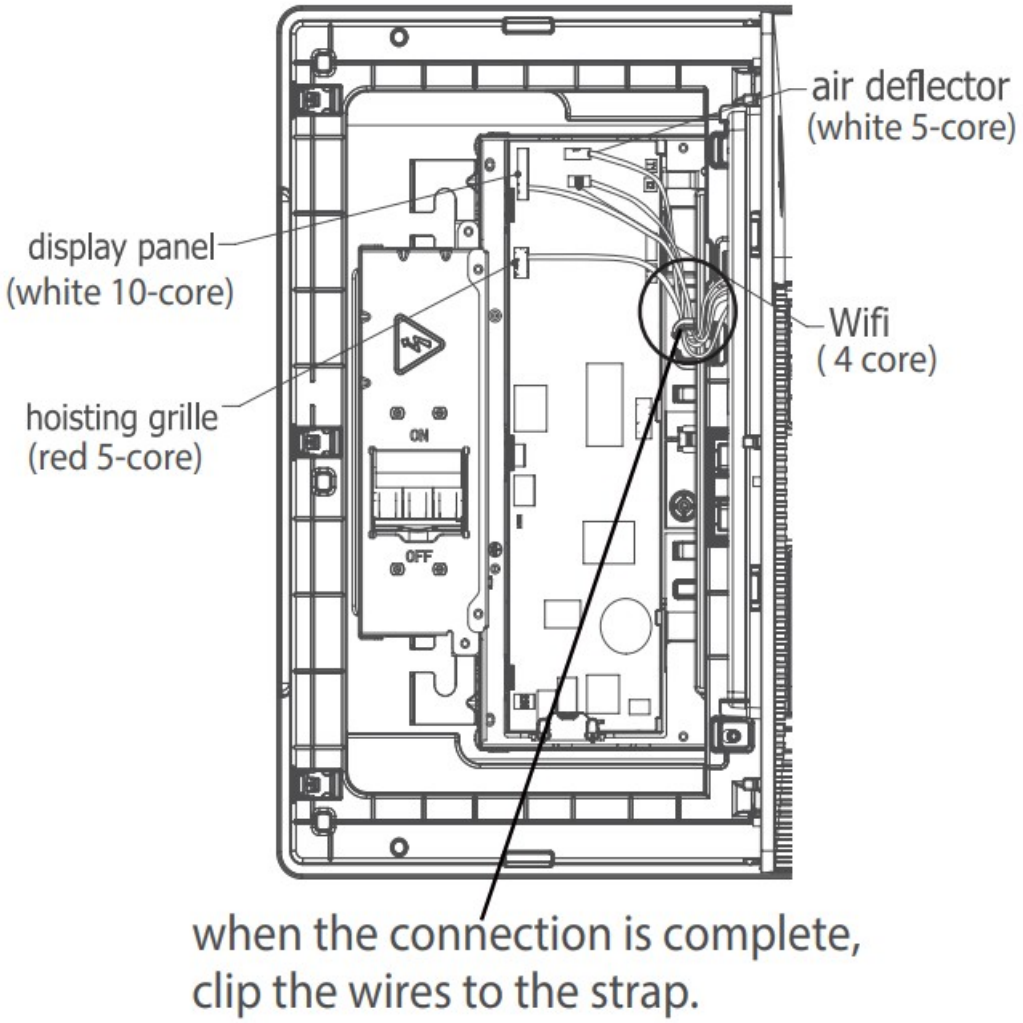


Fig. 35 — Panel Installation

6. Install the control box cover and turn the disconnect switch to ON, then close the two plastic covers on both sides of the panel.

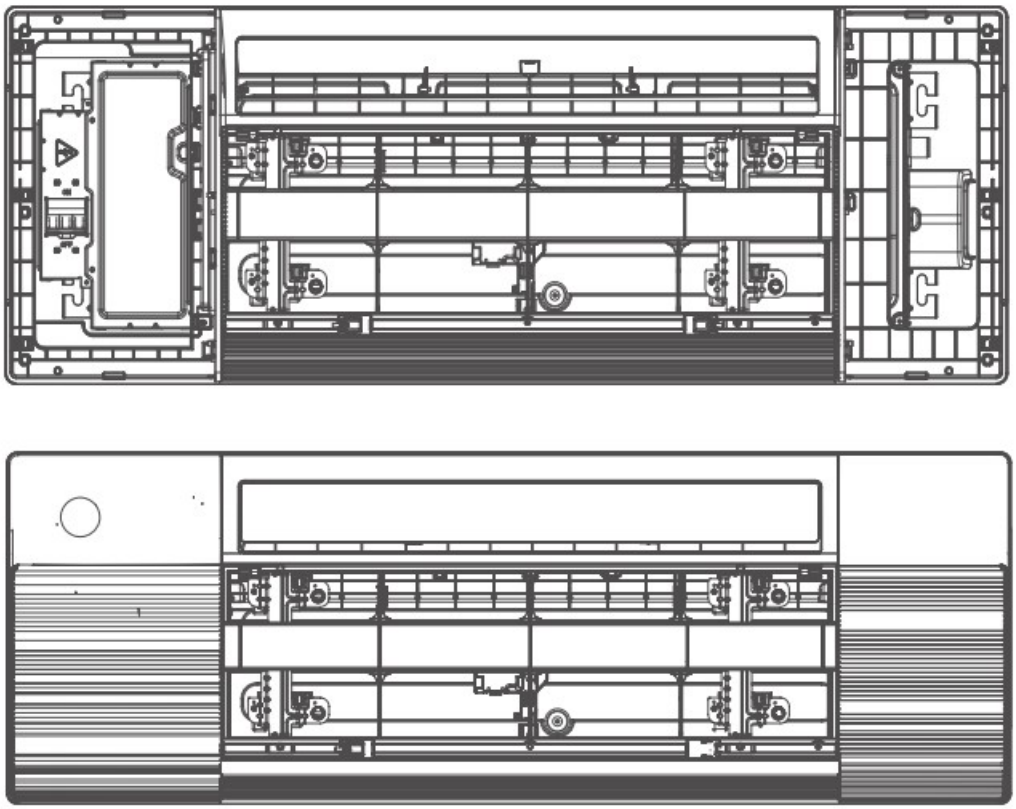


Fig. 36 — Panel Installation

7. During the test-run process, the display illuminates and the air grille raises automatically.

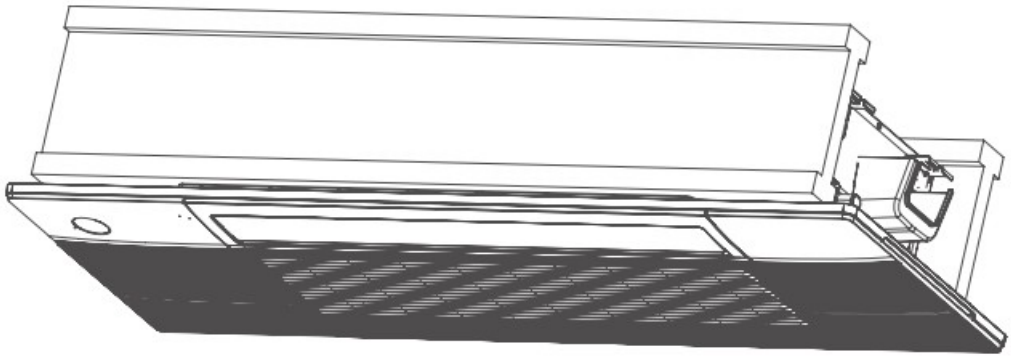


Fig. 37 — Panel Installation

Model B

1. Press the circular position to open the two screw covers, then remove the two screws.

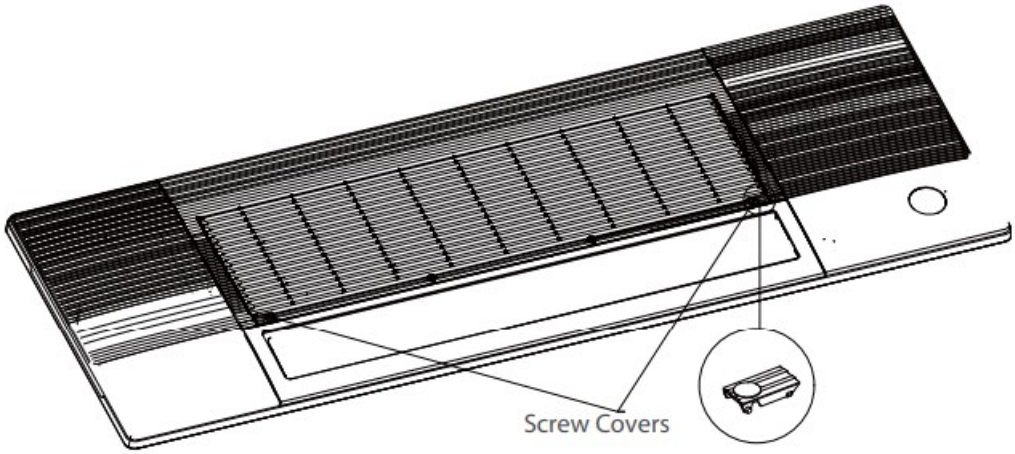


Fig. 38 — Panel Installation

2. Hold and open the air grille, then push both latches to the middle to unlock the air grille.

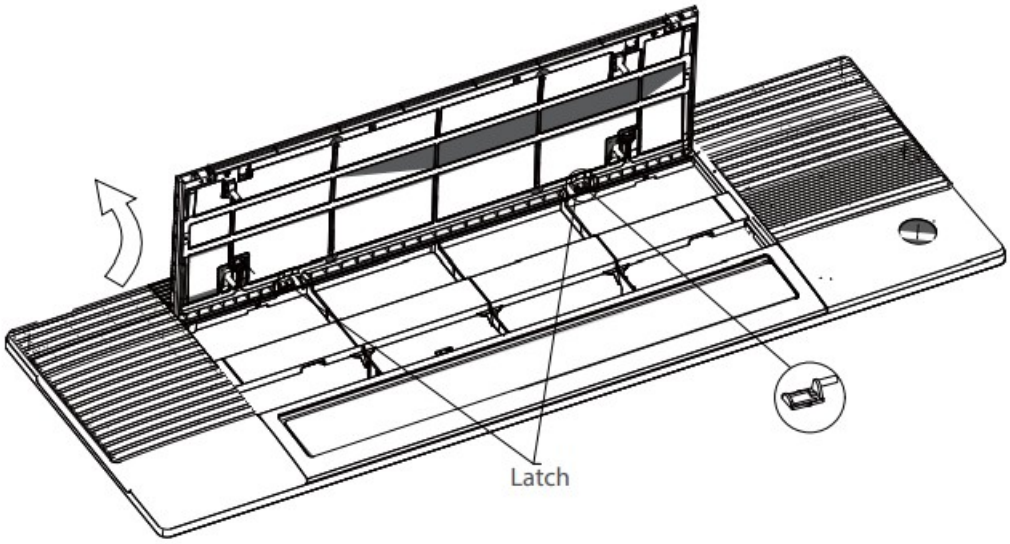


Fig. 39 — Panel Installation

3. Remove the panel grille from the panel, secure the cassette panel to the one-way cassette with the two plastic straps.

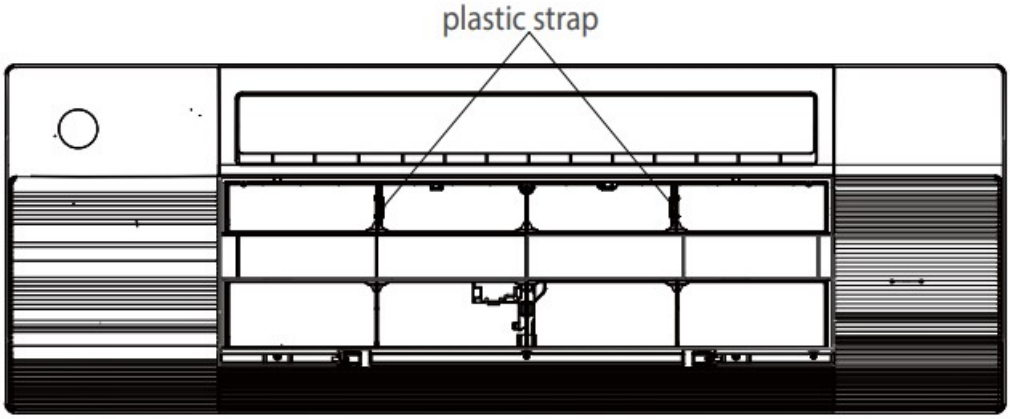
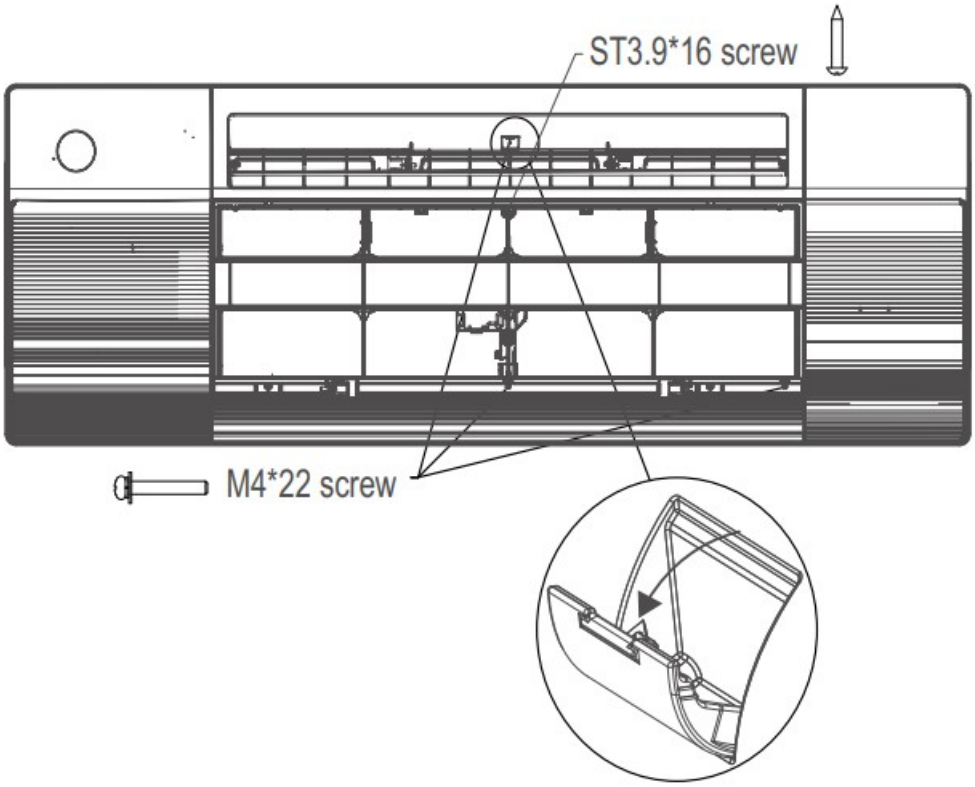


Fig. 40 — Panel Installation

4. Manually rotate the louver, secure the panel to the cassette with 3×M4*22 screws and a ST3.9*16 screw.



NOTE:

Eight M4*22 screws are supplied, two of which are spares.

Two ST3.9*16 screws are supplied, one of which is a spare.

Before securing the screw, open the screw cover.

After securing the screw, close the cover.

Fig. 41 — Panel Installation

5. Open the two covers on both sides of the panel, secure the panel to the cassette with 3× M4*22 screws.

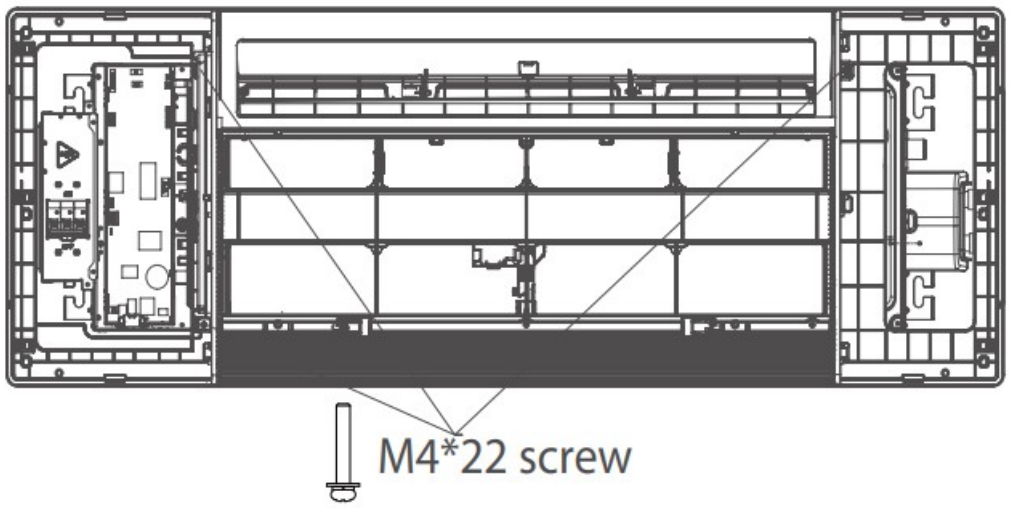


Fig. 42 — Panel Installation

6. Connect the display board to the main control board, up to four wires are required to make the connection.

   NOTE: The corresponding colors are corresponding pins are connected to each other.

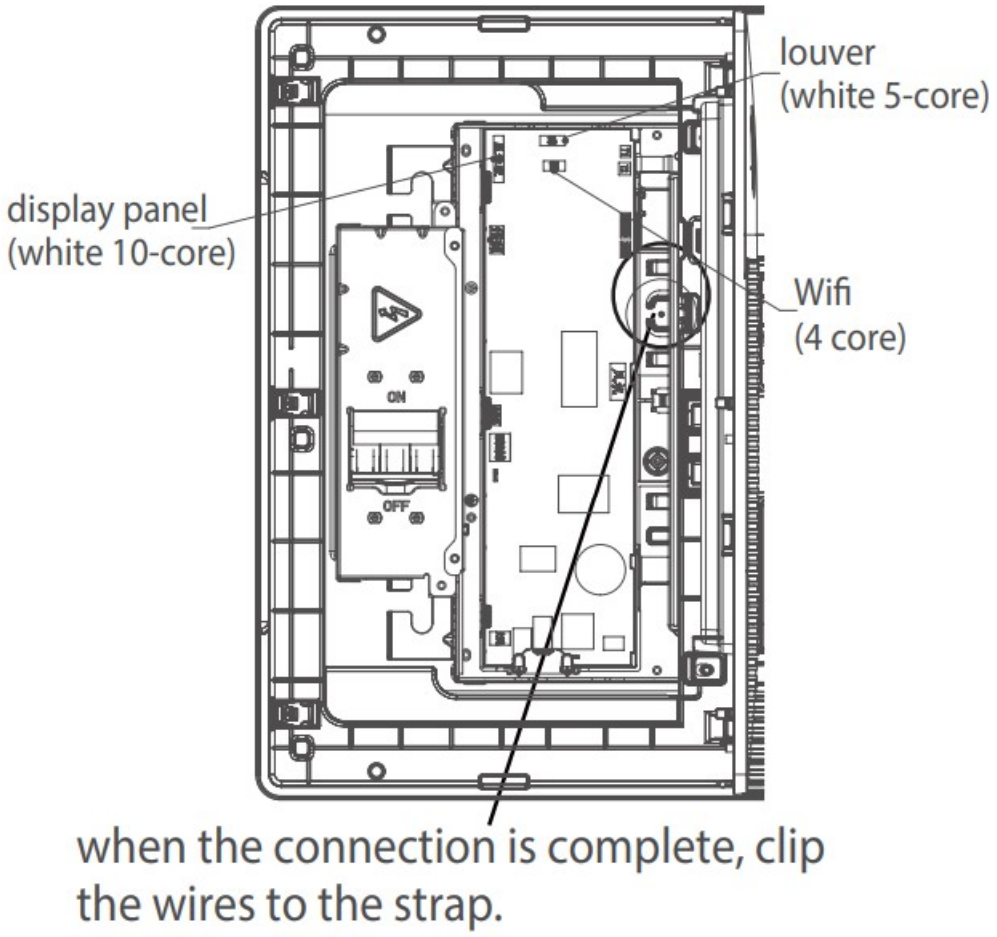


Fig. 43 — Panel Installation

when the connection is complete, clip the wires to the strap.

Fig. 43 — Panel Installation

7. Install the control box cover and set the disconnect switch to ON, then close the two plastic covers on both sides of the panel.

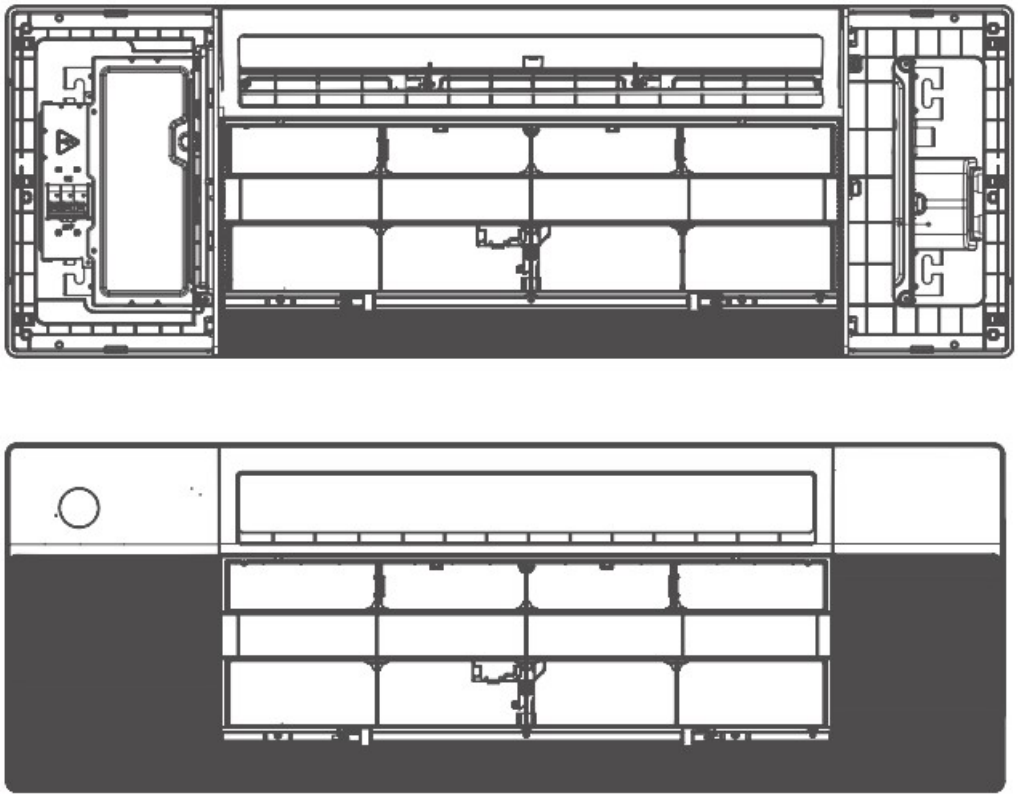


Fig. 44 — Panel Installation

8. Re-install the air grille by pushing the latches to lock it and secure the two screws, then close the two screw covers.

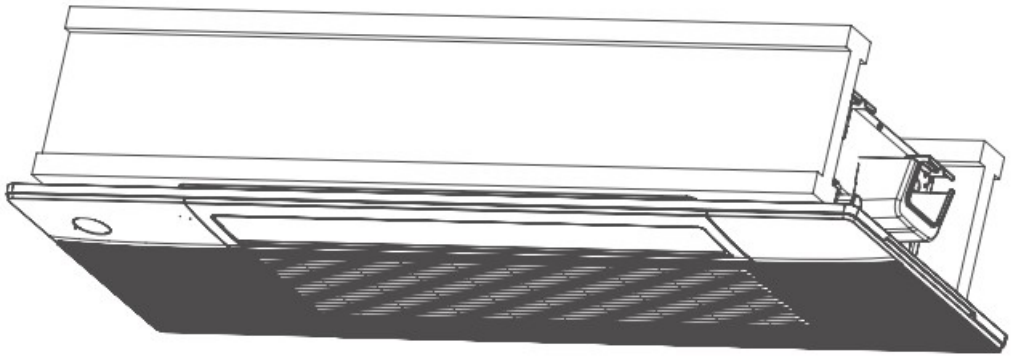


Fig. 45 — Panel Installation

OPTIONAL PARTS INSTALLATION

Wi-Fi Dongle Installation

Use the following steps below to install the Wi-Fi dongle.

NOTE: If you choose this configuration, it is recommended that the installation of the wireless dongle be performed during the panel installation.

1. Remove the Wi-Fi dongle protective cap.

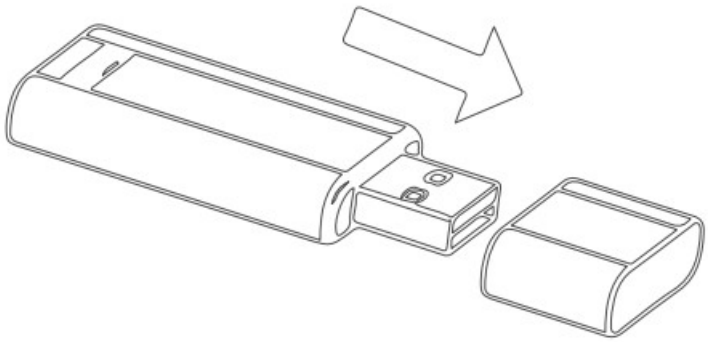


Fig. 46 — Wi-Fi Dongle Installation

2. Open the cover with the display panel, loosen the screw and remove the cover.

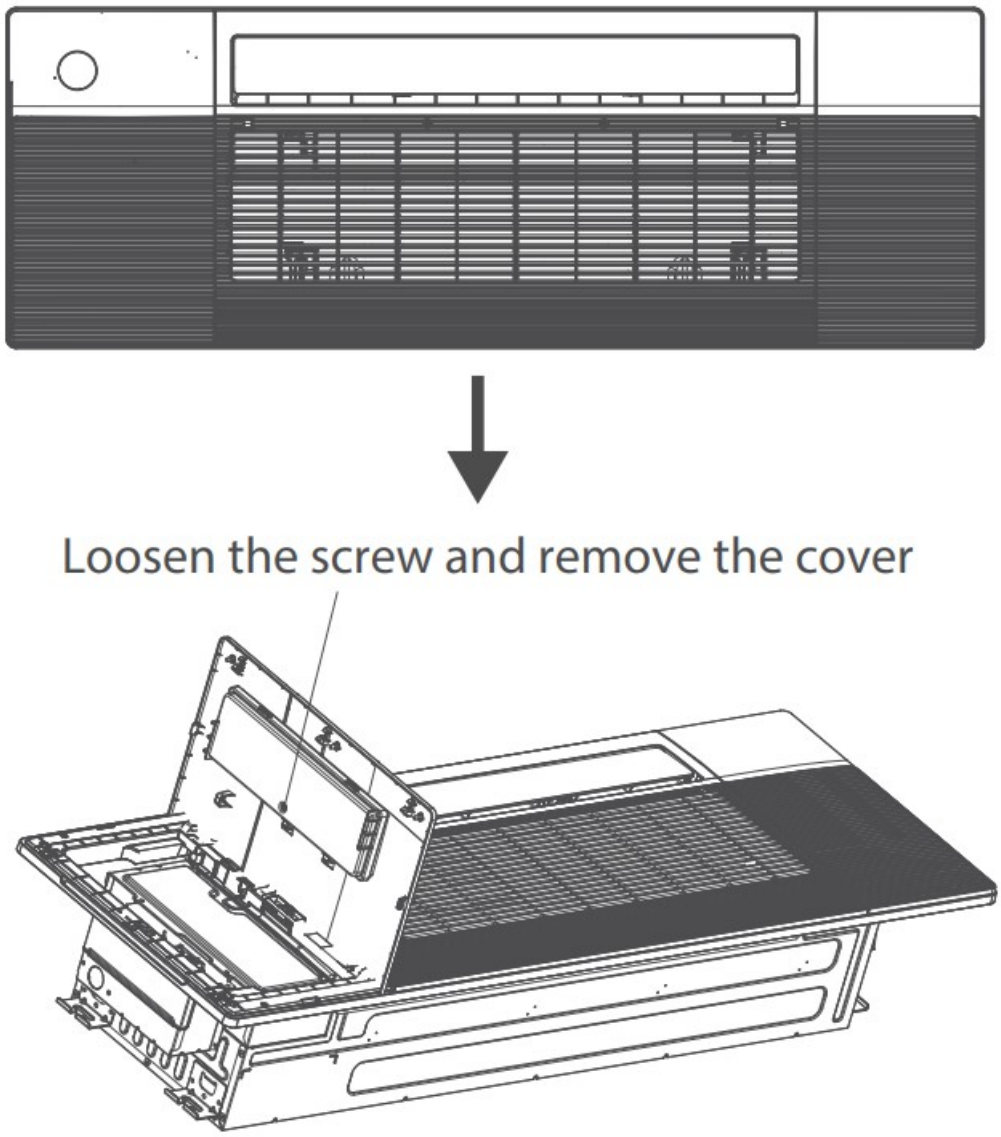


Fig. 47 — Wi-Fi Dongle Installation

3. Open the front panel and insert the Wi-Fi dongle into the reserved interface.

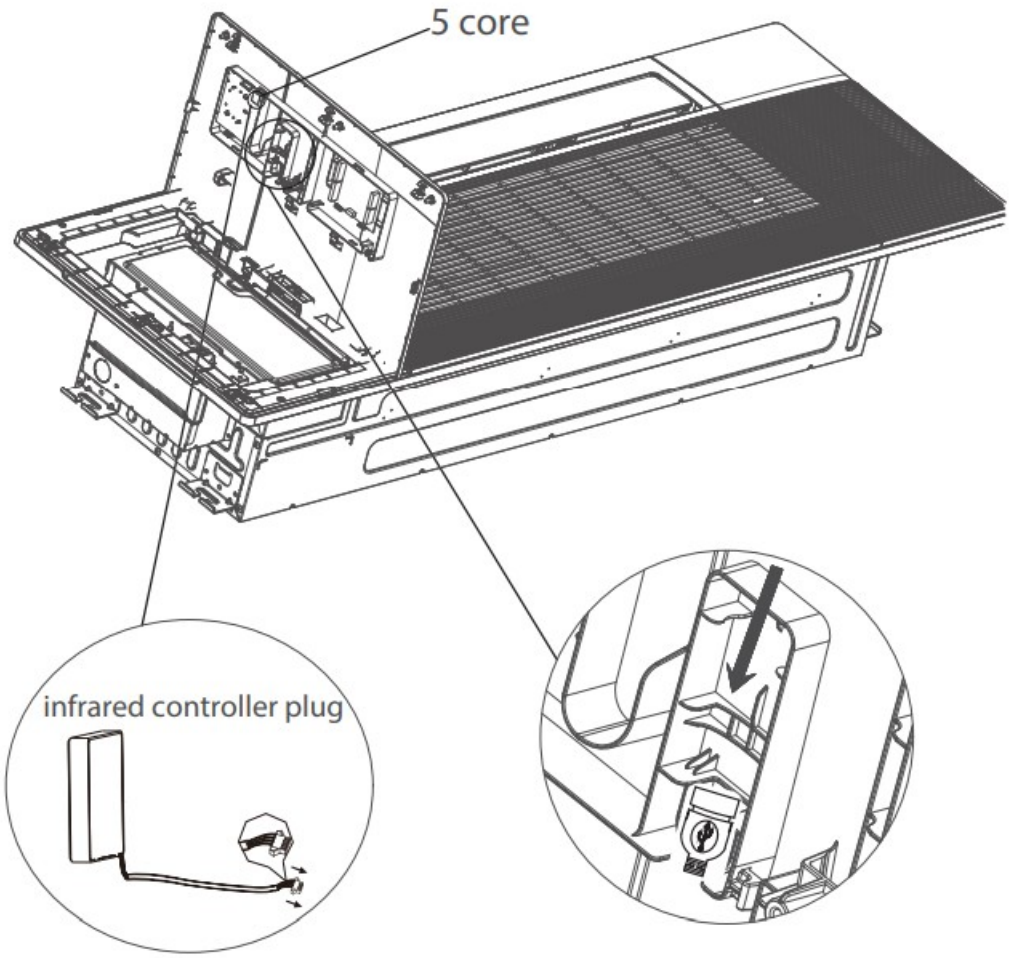


Fig. 48 — Wi-Fi Dongle Installation

⚠ **WARNING**
This interface is only compatible with the wireless dongle (Wi-Fi dongle) provided by the manufacturer.

ELECTRICAL CONNECTIONS

NOTE: Before performing any electrical work, read these regulations.

1. All wiring must comply with local and national electrical codes, regulations, and must be installed by a licensed electrician
2. All electrical connections must be made according to the Electrical Connection Diagram located on the indoor and outdoor unit panels.
3. It there is a serious safety issue with the power supply, stop work immediately. Resolve the issue before proceeding with the installation.
4. Power voltage should be 90-110% of the rated voltage. An insufficient power supply can cause a malfunction, electrical shock or fire.
5. If connecting power to fixed wiring, a surge protector and main power switch should be installed.
6. If connecting power to fixed wiring, a switch or a circuit breaker that disconnects all poles and has a contact separation of at least 1/ 8in(3mm) must be incorporated in the secured wiring. The qualified technician must use an approved circuit breaker or switch.
7. Only connect the unit to an individual branch circuit outlet. Do not connect another appliance to that outlet.

8. Properly ground the air conditioner.
9. Every wire must be firmly connected. Loose wiring can cause the terminal to overheat, resulting in product malfunction and possible fire.
10. DO NOT let the wires to touch or rest against the refrigerant tubing, the compressor, or any moving parts within the unit.
11. To avoid an electrical shock, refrain from touching the electrical components shortly after the power supply has been turned on.

    After turning off the power, always wait at least ten minutes before touching electrical components.
12. Ensure you do not cross electrical wiring with signal wiring. Doing so may cause distortion and interference.
13. The unit must be connected to the main outlet. Normally the power supply must have a impedance of 32 ohms.
14. No other equipment should be connected to the same power circuit.
15. Connect the outdoor wires before connecting the indoor wires.

⚠ **WARNING**

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

NOTE: In North America, the appliance should be wired according to NEC and CEC requirements.

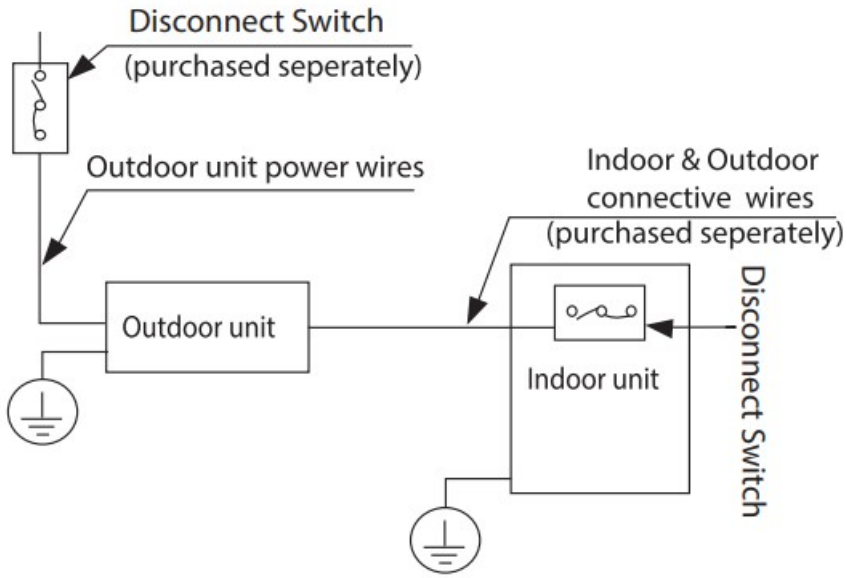
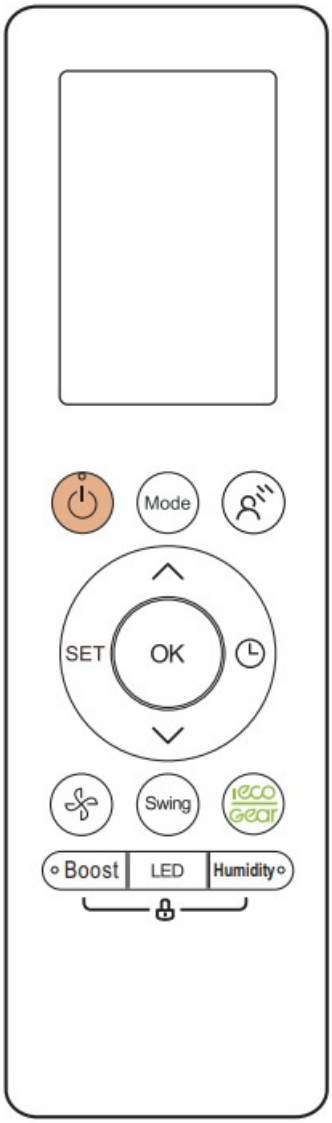


Fig. 49 — Disconnect Switch and Connective Wires

WIRELESS REMOTE CONTROL HOLDER INSTALLATION



1. Use the two screws supplied with the wireless remote control to attach the mounting bracket to the wall in a location selected by the customer and within operating range.
2. Install the batteries in the remote control.
3. Place the remote control into the remote control mounting bracket.

NOTE: For remote control operation, refer to the remote control's owners manual.

OPTIONAL WIRED WALL-MOUNTED REMOTE CONTROL INSTALLATION

NOTE: For setup instructions, refer to the Wired Controller
Installation Manual (KSACN0701AAA).
SYSTEM CHECKS

1. Conceal the tubing where possible.
2. Ensure the drain tube slopes downward along its entire length.
3. Ensure all tubing and connections are properly insulated.
4. Fasten tubes to the outside wall, when possible.
5. Seal the hole through which the cables and tubing pass.

INDOOR UNIT

1. Do all remote control buttons function properly?
2. Do the display panel lights work properly?
3. Does the air deflection louver function properly?
4. Does the drain work?

Explain Following Items To Customer (with the aid of the Owner's Manual):

1. How to turn the air conditioner on and off; selecting COOLING, HEATING and other operating modes; setting a desired temperature; setting the timer to automatically start and stop the air conditioner operation; and all other features of the remote control and display panel.
2. How to remove and clean the air filter.
3. How to set the air deflection louver.
4. Explain care and maintenance.
5. Present the owner's manual and installation instructions to customer.

TROUBLESHOOTING

For ease of service, the systems are equipped with diagnostic code display LEDs on both the indoor and outdoor units. The indoor diagnostic display is a combination of flashing LEDs on the display panel or the front of the unit. Some indoor units display error codes specifying failure modes in the outdoor units. If possible, always check the diagnostic codes displayed on the indoor unit first.
The diagnostic codes displayed in the indoor and outdoor units are listed in Table 10.

INDOOR UNIT DIAGNOSTIC GUIDES

Table 10 — Indoor Unit Diagnostic Codes

DISPLAY	MALFUNCTION AND PROTECTION INDICATION
EH00	Indoor EEPROM malfunction
EH0A	Indoor EEPROM parameter error
EL01	Communication malfunction between indoor and outdoor units
EL11	Communication malfunction between main unit and secondary units
EH12	Main unit or secondary units malfunction
EH03	Indoor fan speed malfunction
EC50	Outdoor temperature sensor error
EC51	Outdoor EEPROM malfunction
EC52	Condenser coil temperature sensor(T3) malfunction
EC53	Outdoor ambient temperature sensor(T4) malfunction

EC54	Outdoor unit exhaust temperature sensor error
EC05	Outdoor Temperature Sensor Error or EEPROM Error
EC0d	Outdoor unit malfunction or Protection
EH60	Indoor Room Temperature Sensor T1 Error
EH61	Indoor Evaporator coil Temperature Sensor T2 Error
EHbA	Communication malfunction between external fan module and indoor unit
EH3A	External fan DC bus voltage is too low protection door unit
EH3b	External fan DC bus voltage is too high fault
EC07	Outdoor DC fan speed malfunction
EH0b	Indoor PCB and display board communication error
EL0C	Refrigerant leakage detection
EH0E	Indoor water level warning Error
FH07	Communication malfunction between indoor unit and auto-lifting panel
FH0P	WIFI dongle self-check malfunction
FL09	New and old platform match malfunction
PH11	Over low voltage protection of indoor unit
PH12	Over high voltage protection of indoor unit
PC00	Inverter module (IPM) protection
PC01	Over high voltage or over low voltage protection
PC02	High temperature protection of compressor top/ IPM Temperature protection
PC04	Inverter compressor drive Error
PC60	Discharge high temperature Error
PC03	Low pressure protection
PC0L	Low temperature protection of outdoor unit
—-	Indoor units mode conflict

NOTE: The digital tube shows that DF / FC is in normal operation state, not fault or protection.
For additional diagnostic information, refer to the service manual.

DUCTLESS START-UP CHECKLIST – Single Zone

Installation Data

Site Address:_____

City:_____

State:_____

Zip Code:_____

Installing Contractor:_____

Contractor Contact #: ( ) _____-_____

Job Name:_____

Start-up Date:_____

Distributor:_____

System Details

UNITS	MODEL NO.	SERIAL NO.	CONTROLLER
OUTDOOR UNIT			
INDOOR UNIT A			

Are the outdoor unit and indoor unit compatible?

Wiring Electrical

Wire Size and Type Used? AWG:_____ TYPE:_____

Are there any breaks, splices, wire nuts or butt connectors between the outdoor unit and the indoor unit?Was the wiring from the outdoor unit port to the correct indoor unit verified?

YES:_____ NO:_____

YES:_____ NO:_____

YES:_____ NO:_____

REMARKS:_____

Voltage Check

Wiring: Single Zone

Outdoor Unit Disconnect	1(L1):GND		Outdoor Unit Terminal Block	1(L1):GND		**NOTES:**_____
	2(L2):GND			2(L2):GND		
	1(L1):L2(2)			1(L1):2(L2)		
Indoor Unit Voltage Check @ Outdoor Unit	1(L1):GND		Indoor Unit Voltage Check @ Indoor Unit	1(L1):GND		**NOTES:**_____
	2(L2):GND			2(L2):GND		
	1(L1):2(L2)			1(L1):2(L2)		
	2(L2):3(S)			2(L2):3(S)		

Ductless Start-Up Checklist (CONT)

Piping

Leak Check:

System held 500 psig (max. 550psi) for a minimum of 30 minutes using dry nitrogen.
YES:_____ NO:_____
Evacuation Method:

- Was the Triple Evacuation Method used as outlined in the installation manual?
- Was the Deep Vacuum Method used as outlined in the installation manual?
- Did the System Hold 500 microns for 1 hour?
- Does the line set match the diameter of the evaporator connections?
- For Conventional Fan Coils, does the line set match the outdoor unit size?

YES:_____ NO:_____
YES:_____ NO:_____
YES:_____ NO:_____
YES:_____ NO:_____
YES:_____ NO:_____
Single Zone Piping:
Has the liquid pipe length been measured and the additional charge calculated?
Size:_____ Length:_____ Charge:_____
NOTES:

PORT	**LIQUID SIZE**		**SUCTION SIZE**		**LENGTH**	**CHARGE**	**NOTES:_____**
A							

Performance Check

For 1:1 Single Zone Systems: Adjust the set-point to create an operational call for the desired testing operation. Allow the system to run for a minimum of 10 min. and record the following details: (Operational data recorded on applicable heads with the wireless remote controller's Point Check function)										
UNIT	**SET-POINT**	**MODE**	**T1**	**T2**	**T3**	**T4**	**Tb**	**Tp**	**Th**	**LA/Lr**
A										

NOTE:

- T1 – Ambient Space Temperature Sensor
- T2 – IDU Coil Temperature Sensor
- T3 – Outdoor Coil Temperature Sensor
- T4 – Outdoor Ambient Temperature
- Tb – Suction Line Temperature @PMV
- Tp – Discharge Temperature Sensor
- Th – IPM Board Temperature
- LA/Lr – PMV Position

Error Codes
Were there any error codes present at start-up?
YES:_____ NO:_____

Indoor Unit Error Code:		**Notes:**
Outdoor Unit Error Code:		
Wall Controller:		
24V Interface:		

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Manufacturer reserves the right to change, at any time,
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Documents / Resources

	bryant 40MCCAQ One Way Cassette Ductless Split Unit System [pdf] Instruction Manual 6K, 40MCCAQ One Way Cassette Ductless Split Unit System, One Way Cassette Ductless Split Unit System, Cassette Ductless Split Unit System, Ductless Split Unit System, Split Unit System

References

- User Manual

Manuals+, Privacy Policy