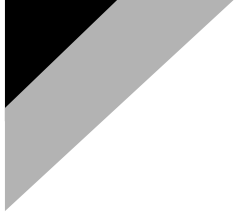
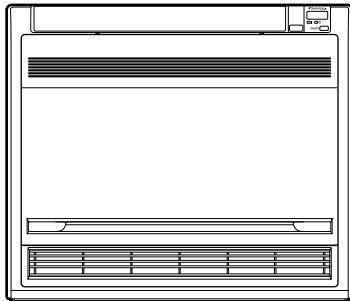


DAIKIN



INSTALLATION MANUAL

R410A, R32 Split Series



Models

R410A

FVXS25FV1B

FVXS35FV1B

FVXS50FV1B

R32

FVXM25FV1B

FVXM35FV1B

FVXM50FV1B

CE - DECLARATION-OF-COMFORMITY
CE - KONFORMITÄTSERKLÄRUNG
CE - DECLARATION-DE-CONFORMITE
CE - CONFORMITEITS/VERKLARING

CE - DECLARACAO-DE-CONFORMIDADE
CE - DICHIARAZIONE-DI-CONFORMITA
CE - ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ

CE - DECLARACÃO-DE-CONFORMIDADE
CE - ЗАЯВЛЕНИЕ-О-СОПОБЕТСТВИИ
CE - ÖPFLYDELSESERKLÄRING
CE - FÖRSÄKRAN-OM-ÖVERENSÄMMEELSE

CE - ERKLÆRING OM-SAMSVAR
CE - ИЛМОИТУС-ЙΗДЕНМІКАІСУДЕСТА
CE - DEKLARACJA-ZGODNOŚCI
CE - DECLARAȚIE-DE-CONFORMITATE

CE - IZJAVA-O-USKLADENOSTI
CE - MEGFELELŐSÉG-NYILATKOZAT
CE - DEKLARACJA-ZGODNOŚCI
CE - DECLARAȚIE-DE-CONFORMITATE

CE - IZJAVA O SKLADNOSTI
CE - VASTAVUSDEKLARATSIOON
CE - ДЕКЛАПАЦІЯ-ЗА-СЪОТБЕТСТВІЕ
CE - ÜYÜMLÜLÜK-BİLDİRİSİ

CE - ATTIKTIES-DEKLARACUA
CE - ATBILSTĪBAS-DEKLARACUA
CE - VYHLÁŠENIE-ZHODY
CE - ÜYÜMLÜLÜK-BİLDİRİSİ

DAIKIN INDUSTRIES, LTD.

- 01 000 declares under its sole responsibility that the air conditioning models to which this declaration relates:
02 001 erklärt auf seine alleinige Verantwortung daß die Modelle der Klimaanlage für die diese Erklärung bestimmt ist:
03 002 déclare sous sa seule responsabilité que les appareils d'air conditionné visés par la présente déclaration:
04 003 verklaart hierbij op eigen exclusieve verantwoordelijkheid dat de airconditioning units waarop deze verklaring betrekking heeft:
05 004 declara bajo su única responsabilidad que los modelos de aire acondicionado a los cuales hace referencia la declaración:
06 005 dichiara sotto sua responsabilità che i condizionatori modello a cui è riferita questa dichiarazione:
07 006 δηλώνει ότι η αποκλειστική της ευθύνη ότι το ποσό των κλιματιστικών ορυκτών στο οποίο αναφέρεται η παρούσα δήλωση;
08 007 δηλώνει ότι η αποκλειστική της ευθύνη ότι το ποσό των κλιματιστικών ορυκτών στο οποίο αναφέρεται η παρούσα δήλωση;
09 008 заявляет, исключительно под свою ответственность, что модели кондиционеров воздуха, к которым относится настоящее заявление:
10 009

FVXS25FV1B, FVXS35FV1B, FVXS50FV1B

01 are in conformity with the following standard(s) or other normative document(s), provided that these are used in accordance with our instructions:

02 werden folgenden Normen) oder einem anderen Normdokument oder -dokumenten entsprecht/entsprechen, unter der Voraussetzung, daß sie gemäß unseren Anweisungen eingesetzt werden:

03 sont conformes à laux normes) ou autre(s) document(s) normatif(s), pour autant qu'ils soient utilisés conformément à nos instructions:
04 conform de volgende normen) of één of meer andere bindende documenten zijn, op voorwaarde dat ze worden gebruikt overeenkomstig onze instructies:

05 están en conformidad con la(s) siguiente(s) norma(s) u otro(s) documento(s) normativo(s), siempre que sean utilizados de acuerdo con nuestras instrucciones:

06 sono conformi all(e) seguente(i) standard(i) o altro(i) documento(i) a carattere normativo, a patto che vengano usati in conformità alle nostre istruzioni:

07 είναι σύμφωνα με το(α) ακόλουθο(α) πρότυπο(α) ή άλλο(α) έγγραφο(α) κανονισμών, υπό την προϋπόθεση ότι χρησιμοποιούνται σύμφωνα με τις οδηγίες μας:

EN60335-2-40,

- 01 following the provisions of:
02 gemäß den Vorschriften der:
03 conformément aux stipulations des:
04 overeenkomstig de bepalingen van:
05 seguindo las disposiciones de:
06 secondo le prescrizioni per:
07 με τη(ν) των διατάξεων των:
08 de acordo com o previsto em:
09 в соответствии с положениями:

- 19 ob upoštevajući določil:
20 vastarakti nölele:
21 enačbami klavzura na:
22 sklopih nudištil, pakištili:
23 enverojti prasitos, kas notikats:
24 orizavajus ustanovnia:
25 būsimi ksuilama ygun olarik:

- 01 Note * delineate nei <A> e giudici positivamente da secondo il Certificato <C> .
02 Hinweis * wie in der <A> aufgeführt und von positiv beurteilt, gemäß Zertifikat <C> .
03 Remarque * tel que défini dans <A> et jugé positivement par conformément au Certificat <C> .
04 Bemerk * zoals vermeld in <A> en positief beoordeeld door overeenkomstig Certificat <C> .
05 Nota * como se establece en <A> y es valorado positivamente por de acuerdo con el Certificado <C> .
06 Nota * delimitat nei <A> e giudici positivamente da secondo il Certificato <C> .
07 Hinweis * wie in der <A> aufgeführt und von positiv beurteilt, gemäß Zertifikat <C> .
08 Nota * tel que défini dans <A> et jugé positivement par conformément au Certificat <C> .
09 Примечание * как указано в <A> и в соответствии с положительным решением согласно Сертификату <C> .
10 Remark * como se establece en <A> y es valorado positivamente por de acuerdo con el Certificado <C> .

- 10 000 erklærer under enensvar, at klimaanlægsmodelerne, som denne deklaration vedrører:
11 001 erklærer i egenskap av hrvudansvarig, att luftkonditioneringsmodellerna som berörs av denna deklaration innebär att:
12 002 erklærer et fullstendig ansvar for at de luftkonditioneringsmodeller som berøres av denne deklarasjon innebærer at:
13 003 ilmoittaa yksinomaan omalla vastuullaan, että täällä ilmoitukseen tarkoitettui ilmastointilaitteiden mallit:
14 004 prohlásuje ve své plné odpovědnosti, že modely klimatizace, k nimž se tato prohlášení vztahuje:
15 005 izjavljuje pod isključivo vlastitom odgovornosću da su modeli klima uređaja na koje se ova izjava odnosi:
16 006 teljes felelősséggel kijelenti, hogy a klímaberendezés modellek, melyekre e nyilatkozat vonatkozik:
17 007 deklarije na visioj, wyłączać odpowiedzialność, że modele klimatyzatorów, których dotyczy niniejsza deklaracja:
18 008 deklará pe proprie răspundere că aparatele de aer condiționat la care se referă această declarație:

08 estão em conformidade com a(s) seguinte(s) norma(s) ou outro(s) documento(s) normativo(s), desde que estes sejam utilizados de acordo com as nossas instruções:

09 соответствуют следующим стандартам или другим нормативным документам, при условии их использования согласно нашим инструкциям:

10 overholder følgende standard(er) eller andet/andre tekningsreguleringe dokument(er), forudsat at disse anvendes i henhold til vore instrukser:

11 respektive utstrunng å utdri i överensstämmelse med och följ följande standard(er) eller andra normgivande dokument, under förutsättning att användning sker i överensstämmelse med våra instruktioner:

12 respektive utstyr er i overensstemmelse med følgende standard(er) eller andre normgivende dokument(er), under forutsetting av at disse brukes i henhold til våre instruksjoner:

13 vastavast seiravaan standardin ja muiden ohjeellisten dokumenttien vaatimuksia edellyttäen, että niitä käytetään ohjeidemme mukaisesti:

14 za predpokladu, že jsou využívány v souladu s našimi pokyny, odpovídají následujícím normám nebo normativním dokumentům:

15 u skladu sa slijedećim standardom(na) ili drugim normativnim dokumentom(na), uz uvjet da se oni koriste u skladu s našim uputama:

16 meglejetele az alábbi szabvány(ok)nak vagy egyéb irányadó dokumentum(ok)nak, ha azokat ellátás szerint használják:
17 spełniają wymogi następujących norm i innych dokumentów normalizacyjnych, pod warunkiem że używane są zgodnie z naszymi instrukcjami:

18 sunt în conformitate cu următorii (următoare) standarde (sau alte documente) normative), cu condiția ca acestea să fie utilizate în conformitate cu instrucțiunile noastre:
19 sklaži z naslednjimi standardi in drugim normativi, pod pogojem, da se uporabljajo v skladu z našimi navodili:

20 on vastavusse järgmistele standarditele või teiste normatiivsete dokumentidega, kui need kasutatakse vastavalt meie juhenditele:
21 съответстват на следните стандарти или други нормативни документи, при условие, че се използват съгласно нашите инструкции:

22 atlika žemiau nurodytų standartų ir (arba) kitų norminių dokumentų su sąlyga, kad yra naudojami pagal mūsų nurodymus:
23 tad, ja liechi atbilstoši rozbraja noradjumam, atbilst sekjošiem standartem un citiem normatīviem dokumentiem:

24 su v zborde s nasledovny(m)i normo(ami) alebo iný(m)i normatívnym(i) dokumentom(ami), za predpokladu, že sa používajú v súlade s našim rávkodom:

25 ünnih, tähtsalmatmaza gire kulanlmaza ksuilylva asgajdki standartlar ve norm belitten belgetele uyumludur:

- 01 Directives, as amended.
02 Direktiven, gemäß Änderung.
03 Directives, telles que modifiées.
04 Richtlijnen, zoals geamendeerd.
05 Directives, según lo emendado.
06 Direktive, come da modifica.
07 Önyvűk, ömcs éyov "toronotóbsi.
08 Directivas, conforme alteração em.
09 Direktive, cu amendamentele respective.
10 Direktiver, med senere ændringer.
11 Direktiv, med foretagne ændringer.
12 Direktives, telles que modifiées.
13 Direktiveja, selasina kuin ne ovat muutetuna.
14 v päätien zneni.
15 Snjemice, kako je izmijenjeno.
16 irányelvek) és módosítások rendelkezéssel.
17 z pžnejšimj popravkami.
18 Direktivelor, cu amendamentele respective.

- 21 Забеламка * картo е изомрено с <A> и цепенo попокрено от согласно Сертификат <C> .
22 Pasiba * kaip nustatyta <A> ir kaip teigiamai nuspresta pagal Serifikatą <C> .
23 Piezīmēs * kā norādīts <A> un atbilstoši pozitīvajam vērtējamam secētam ar Serifikatu <C> .
24 Poznámka * ako bolo uvedené v <A> s pozitívne zistené v súlade s overčodnim <C> .
25 Not * gōre trafilamti olumti olarik degenerindidgi ghu.

<A>	DAIKIN.TCF.015 K1/07-2007
	KEMA Quality B.V.
<C>	74736-KRQ/ENC97-4957



Shinri Sada
Manager Quality Control Department
1st. of Nov. 2008

Shinri Sada

Shinri Sada
Manager Quality Control Department
1st. of Nov. 2008

DAIKIN INDUSTRIES, LTD.
Umeda Center Bldg., 2-4-12, Nakazaki-Nishi,
Kita-ku, Osaka, 530-8323 Japan

Safety Precautions



Read the precautions in this manual carefully before operating the unit.



Models FVXM are filled with R32.

- Read these Safety Precautions carefully to ensure correct installation.
- This manual classifies the precautions into WARNING and CAUTION.
Be sure to follow all the precautions below: they are all important for ensuring safety.

⚠ WARNING Failure to follow any of WARNING is likely to result in such grave consequences as death or serious injury.

⚠ CAUTION Failure to follow any of CAUTION may result in grave consequences in some cases.

- The following safety symbols are used throughout this manual:

 Be sure to observe this instruction.	 Be sure to establish an earth connection.	 Never attempt.
--	---	--

- After completing installation, conduct a trial operation to check for faults and explain to the customer how to operate the air conditioner and take care of it with the aid of the operation manual.
- The original instructions are written in English. Other languages are translations of the original instructions.

WARNING

- Ask your dealer or qualified personnel to carry out installation work.
Do not attempt to install the air conditioner yourself. Improper installation may result in water leakage, electric shocks or fire.
- Install the air conditioner in accordance with the instructions in this installation manual.
Improper installation may result in water leakage, electric shocks or fire.
- Make sure installation, servicing, maintenance and repair comply with instruction from Daikin and with applicable legislation (for example national gas regulation) and are executed only by authorised persons.
- Be sure to use only the specified accessories and parts for installation work.
Failure to use the specified parts may result in the unit falling, water leakage, electric shocks or fire.
- Install the air conditioner on a foundation strong enough to withstand the weight of the unit.
A foundation of insufficient strength may result in the equipment falling and causing injury.
- Electrical work must be performed in accordance with relevant local and national regulations and with instructions in this installation manual. Be sure to use a dedicated power supply circuit only.
Insufficiency of power circuit capacity and improper workmanship may result in electric shocks or fire.
- Use a cable of suitable length.
Do not use tapped wires or an extension lead, as this may cause overheating, electric shocks or fire.
- Make sure that all wiring is secured, the specified wires are used, and that there is no strain on the terminal connections or wires.
Improper connections or securing of wires may result in abnormal heat build-up or fire.
- When wiring the power supply and connecting the wiring between the indoor and outdoor units, position the wires so that the control box lid can be securely fastened.
Improper positioning of the control box lid may result in electric shocks, fire or over heating terminals.
- If the supply cord is damaged, it must be replaced by the manufacturer, a service agent or similarly qualified persons in order to avoid a hazard.
- If refrigerant gas leaks during installation, ventilate the area immediately.
Toxic gas may be produced if the refrigerant comes into contact with fire. 
- After completing installation, check for refrigerant gas leakage.
Toxic gas may be produced if the refrigerant gas leaks into the room and comes into contact with a source of fire, such as a fan heater, stove or cooker. 
- When installing or relocating the air conditioner, be sure to bleed the refrigerant circuit to ensure it is free of air, and use only the specified refrigerant (R410A or R32 - based on unit specification. The refrigerant must not be interchanged).
The presence of air or other foreign matter in the refrigerant circuit causes abnormal pressure rise, which may result in equipment damage and even injury.
- During installation, attach the refrigerant piping securely before running the compressor.
If the refrigerant pipes are not attached and the stop valve is open when the compressor is run, air will be sucked in, causing abnormal pressure in the refrigeration cycle, which may result in equipment damage and even injury.
- During pump-down, stop the compressor before removing the refrigerant piping.
If the compressor is still running and the stop valve is open during pump-down, air will be sucked in when the refrigerant piping is removed, causing abnormal pressure in the refrigeration cycle, which may result in equipment damage and even injury.
- Be sure to earth the air conditioner.
Do not earth the unit to a utility pipe, lightning conductor or telephone earth lead. Imperfect earthing may result in electric shocks. 
- Be sure to install an earth leakage breaker.
Failure to install an earth leakage breaker may result in electric shocks or fire.

Safety Precautions

Make sure to provide for adequate measures in order to prevent that the outdoor unit be used as a shelter by small animals. Small animals making contact with electrical parts can cause malfunctions, smoke or fire. Please instruct the customer to keep the area around the unit clean.	
Do not use flammable gasses (hairsprays, insecticides etc.) near the unit. It could cause cracking, electric shocks or fire (only for R32 refrigerant).	⊘
Do not use benzine or thinner to wipe the unit. It could cause cracking, electric shocks or fire.	⊘

⚠ CAUTION	
Do not install the air conditioner at any place where there is a danger of flammable gas leakage. In the event of a gas leakage, build-up of gas near the air conditioner may cause a fire to break out.	⊘
Do not install in sealed, highly airtight spaces such as soundproof chambers and room which was sealed up the door (only for R32 refrigerant).	⊘
This unit is equipped with a refrigerant leak detector for safety. To be effective, the unit must be electrically powered at all times after installation, other than short service intervals (only for R32 refrigerant).	
This unit is equipped with electrically powered safety measures. To be effective, the unit must be electrically powered at all times after installation, other than short service intervals (only for R32 refrigerant).	
Do not install in places filled with smoke, gas, chemicals etc. There is a possibility that the sensors inside the indoor unit could detect these, and display a refrigerant leak abnormality (only for R32 refrigerant).	⊘
Only qualified personnel can handle, fill, purge and dispose of the refrigerant.	
While following the instructions in this installation manual, install drain piping to ensure proper drainage and insulate piping to prevent condensation. Improper drain piping may result in indoor water leakage and property damage.	
Tighten the flare nut according to the specified method such as with a torque wrench. If the flare nut is too tight, it may crack after prolonged use, causing refrigerant leakage.	
This appliance is intended to be used by expert or trained users in shops, in light industry and on farms, or for commercial and household use by lay persons.	
Sound pressure level is less than 70 dB(A).	

Accessories

Indoor unit (A) – (I)

(A) Mounting plate	1	(D) Insulation sheet	2	(G) AAA dry-cell batteries	2
(B) Titanium Apatite Deodorizing Filter	2	(E) Wireless remote controller	1	(H) Operation manual	1
(C) Drain hose	1	(F) Remote controller holder	1	(I) Installation manual	1

Operation Limits

Use the system in the following temperature and humidity ranges for safe and effective operation.

For combination with R410A outdoor unit refer to the following table:

Outdoor units		Cool	Heat	Dry
2MK(X)S40	Outdoor temperature	10~46°C DB	-10~24°C DB	10~46°C DB
	Indoor temperature	18~32°C DB	10~30°C DB	18~32°C DB
2MK(X)S50	Outdoor temperature	10~46°C DB	-15~24°C DB	10~46°C DB
	Indoor temperature	18~32°C DB	10~30°C DB	18~32°C DB
2MK(X)S52	Outdoor temperature	-10~46°C DB	-15~24°C DB	-10~46°C DB
	Indoor temperature	18~32°C DB	10~30°C DB	18~32°C DB
3~5MK(X)S	Outdoor temperature	-10~46°C DB	-15~24°C DB	-10~46°C DB
	Indoor temperature	18~32°C DB	10~30°C DB	18~32°C DB
RK(X)S	Outdoor temperature	-10~46°C DB	-15~24°C DB	-10~46°C DB
	Indoor temperature	18~32°C DB	10~30°C DB	18~32°C DB
Indoor humidity ≤80% ^(a)				

For combination with R32 outdoor unit refer to the following table:

Outdoor units		Cool	Heat	
RXM25~50	Outdoor temperature	-10~46°C DB	-15~24°C DB	-16~18°C WB
	Indoor temperature	18~32°C DB	10~30°C DB	
2MXM40~50	Outdoor temperature	-10~46°C DB	-15~24°C DB	-16~18°C WB
	Indoor temperature	18~32°C DB	10~30°C DB	
3~5MXM40~90	Outdoor temperature	-10~46°C DB	-15~24°C DB	-16~18°C WB
	Indoor temperature	18~32°C DB	10~30°C DB	
Indoor humidity ≤80% ^(a)				

DB: Dry bulb temperature

WB: Wet bulb temperature

^(a) To avoid condensation and water dripping out of the unit. If the temperature or the humidity is beyond these conditions, safety devices may be put in action and the air conditioner may not operate.

The setting temperature range of the remote controller is:

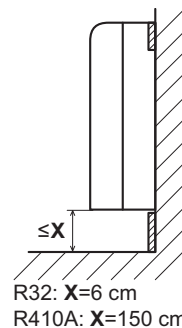
Cooling operation	Heating operation	AUTO operation
18-32°C	10-30°C	18-30°C

Choosing an Installation Site

- Do not install the unit more than **X** cm above the floor.
- Before choosing the installation site, obtain user approval.

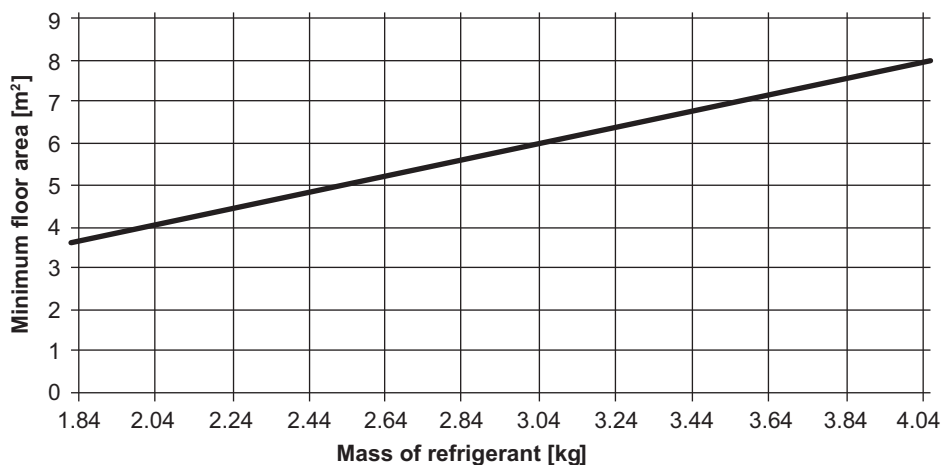
1. Indoor unit

- The indoor unit should be sited in a place where:
 - 1) the restrictions on installation specified in the indoor unit installation drawings are met,
 - 2) both air intake and exhaust have clear paths met,
 - 3) the unit is not in the path of direct sunlight,
 - 4) the unit is away from the source of heat or steam,
 - 5) there is no source of machine oil vapour (this may shorten indoor unit life),
 - 6) cool (warm) air is circulated throughout the room,
 - 7) the unit is away from electronic ignition type fluorescent lamps (inverter or rapid start type) as they may shorten the remote controller range,
 - 8) the unit is at least 1 metre away from any television or radio set (unit may cause interference with the picture or sound).
- Pipework shall be protected from physical damage, which could potentially happen during normal operation, service or maintenance.
- Pipework shall only be installed in a room smaller than the minimum size as defined in the table below if the pipes have no connecting joints and do not have bends with a centerline bend radius less than the minimum bend radius mentioned in chapter **6-2. Selection of copper and heat insulation materials** (only for R32 refrigerant).
- Floor area where the indoor unit will be installed shall be higher than minimum required floor area mentioned in table below (only for R32 refrigerant).



Minimum floor area for indoor unit.		Minimum floor area for indoor unit.	
m_c [kg]	A_{min} [m ²]	m_c [kg]	A_{min} [m ²]
0.70	No requirements.	2.44	4.82
0.76		2.54	5.01
0.86		2.64	5.21
0.96		2.74	5.41
1.06		2.84	5.61
1.16		2.94	5.80
1.26		3.04	6.00
1.36		3.14	6.20
1.46		3.24	6.40
1.56		3.34	6.59
1.66		3.44	6.79
1.76		3.54	6.99
1.84	3.63	3.64	7.19
1.94	3.83	3.74	7.38
2.04	4.03	3.84	7.58
2.14	4.22	3.94	7.78
2.24	4.42	4.04	7.98
2.34	4.62	4.14	8.17

Installation requirements for R32 units



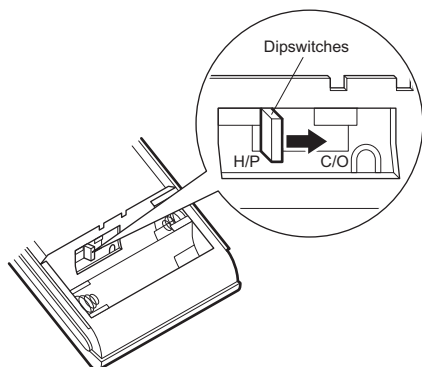
Choosing an Installation Site

2. Wireless remote controller

- 1) Turn on all fluorescent lamps in the room, if any, and find site where remote controller signals are properly received by the indoor unit (within 7m).
- 2) Make the dipswitch settings. Set according to the type of unit purchased by the customer. The default settings are on the heat pump side.

- **For cooling only**

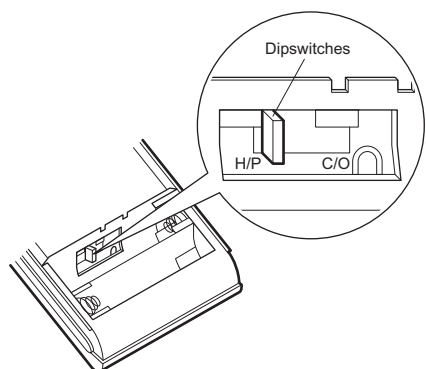
Set the dipswitches on the cooling only side.



- **For heat pump**

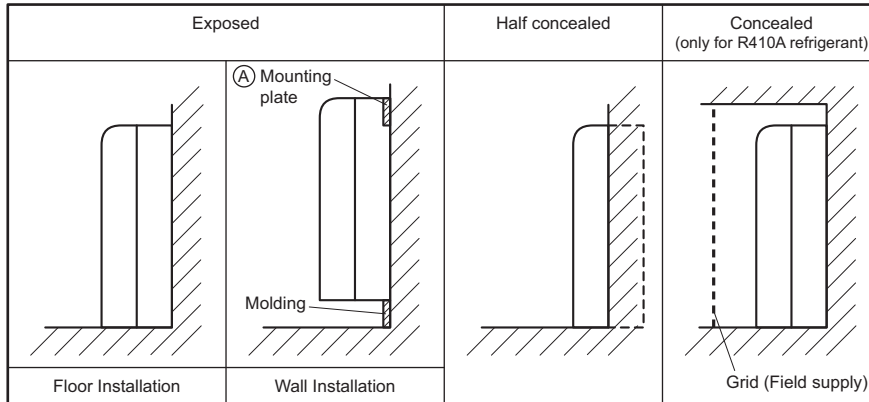
Check that the dipswitches are on the heat pump side.

If they are set on the cooling only side, move them to the heat pump side.

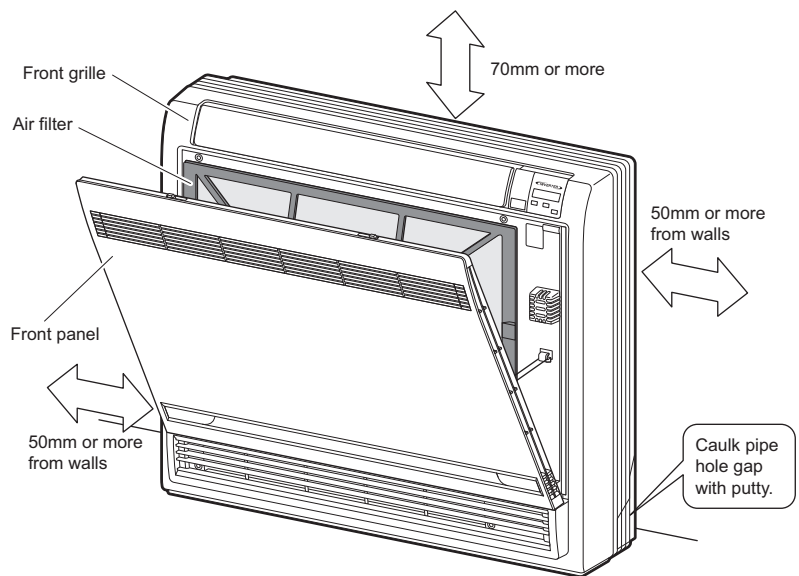
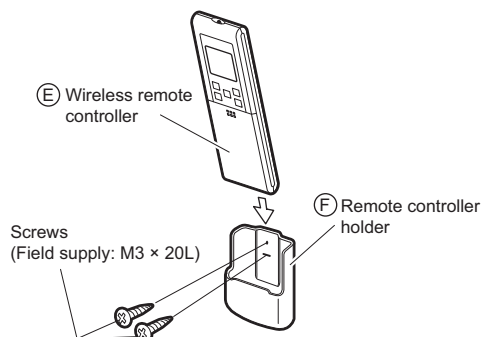
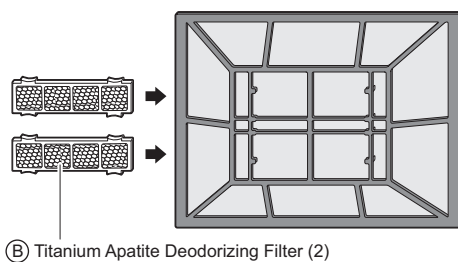
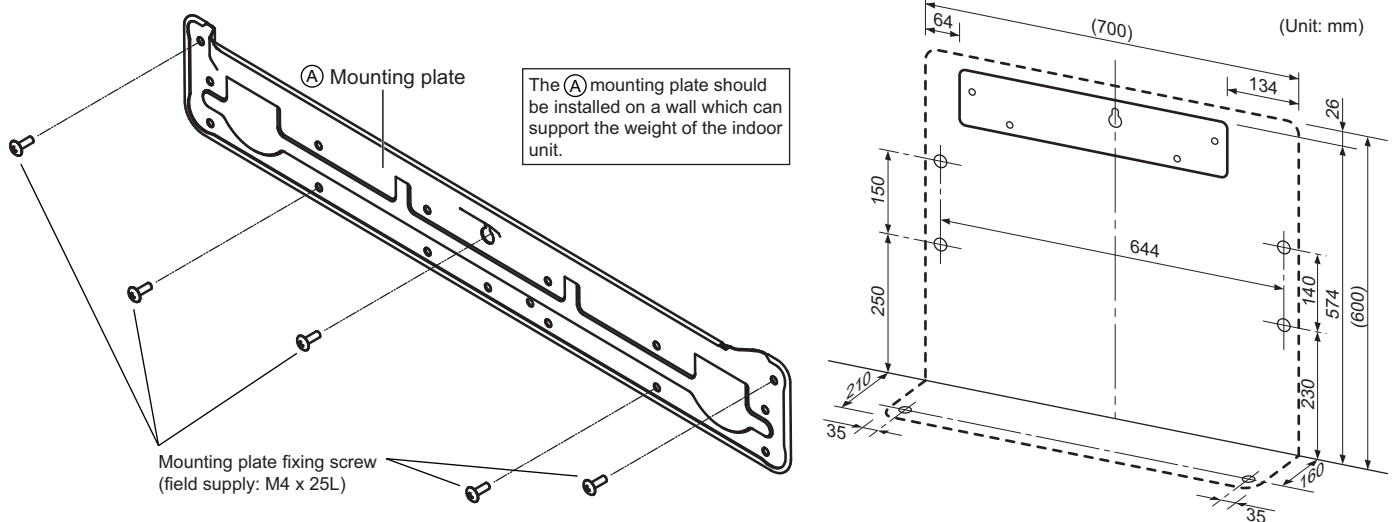


Indoor Unit Installation Drawings

The indoor unit may be mounted in any of the three styles shown here.



Location for securing the installation panel.



⚠ WARNING

- Only use accessories, optional equipment and spare parts made or approved by DAIKIN.
- Installation shall be done by an installer, the choice of materials and installation shall comply with the applicable legislation. In Europe, the EN378 is the applicable standard that shall be used.

Preparation before Installation

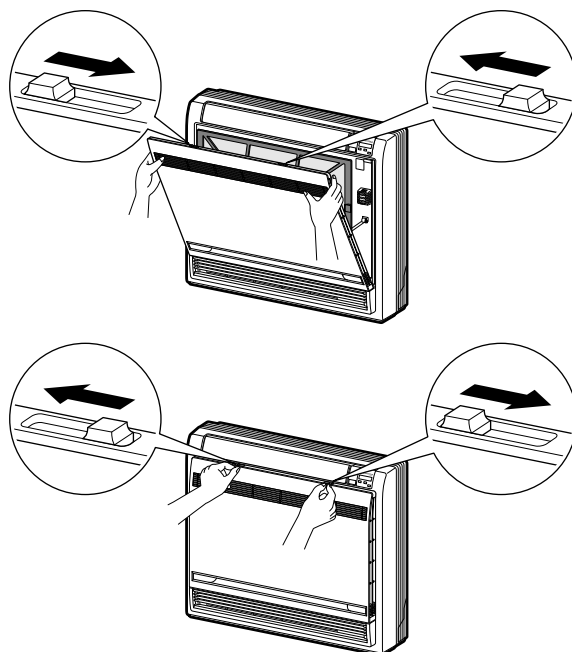
1. Removing and installing front panel

• Removal method

- 1) Slide until the 2 stoppers click into place.
- 2) Open the front panel forward and undo the string.
- 3) Remove the front panel.

• Installation method

- 1) Attach the front grille and front panel after pulling the string around them.
- 2) Close the front panel and slide until the stoppers click outside.



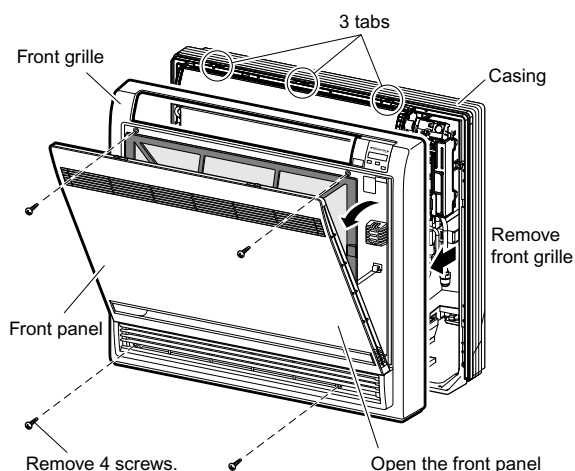
2. Removing and installing front grille

• Removal method

- 1) Open the front panel.
- 2) Remove the 4 screws and remove the front grille while pulling it forward (3 tabs).

• Installation method

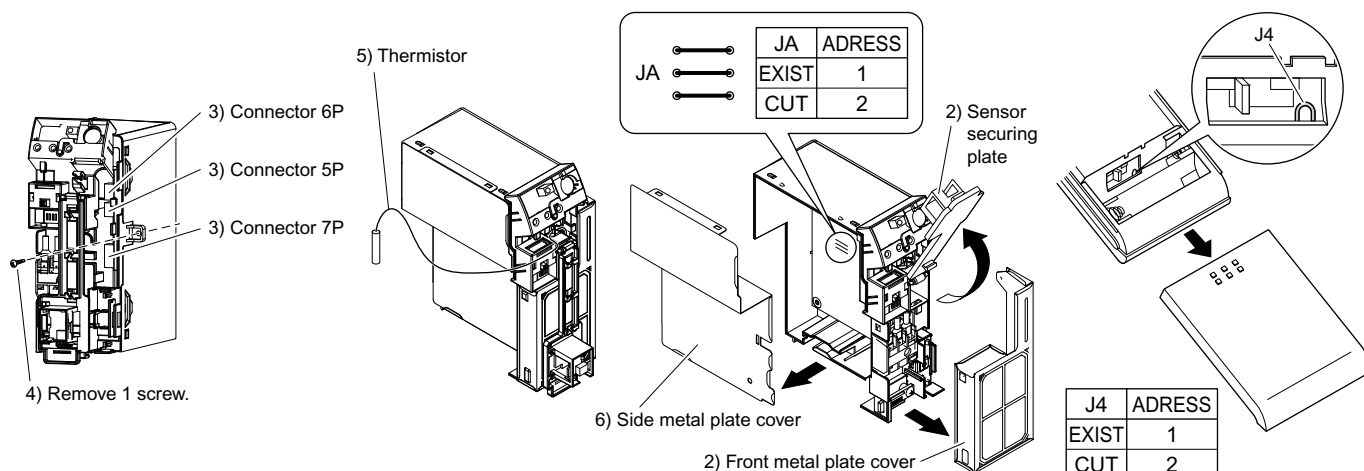
- 1) Secure the front grille with the 4 installation screws (3 tabs).
- 2) Return the front panel to the original position.



3. How to set the different addresses

When two indoor units are installed in one room, the two wireless remote controllers can be set for different addresses.

- 1) Remove the front grille.
- 2) Lift the sensor securing plate and remove the front metal plate cover.
- 3) Remove connectors 5P, 6P, and 7P.
- 4) Remove the electric box (1 screw).
- 5) Remove the thermistor.
- 6) Remove the side metal plate cover (7 tabs).
- 7) Cut the address jumper (JA) on the printed circuit board.
- 8) Cut the address jumper (J4) in the remote controller.

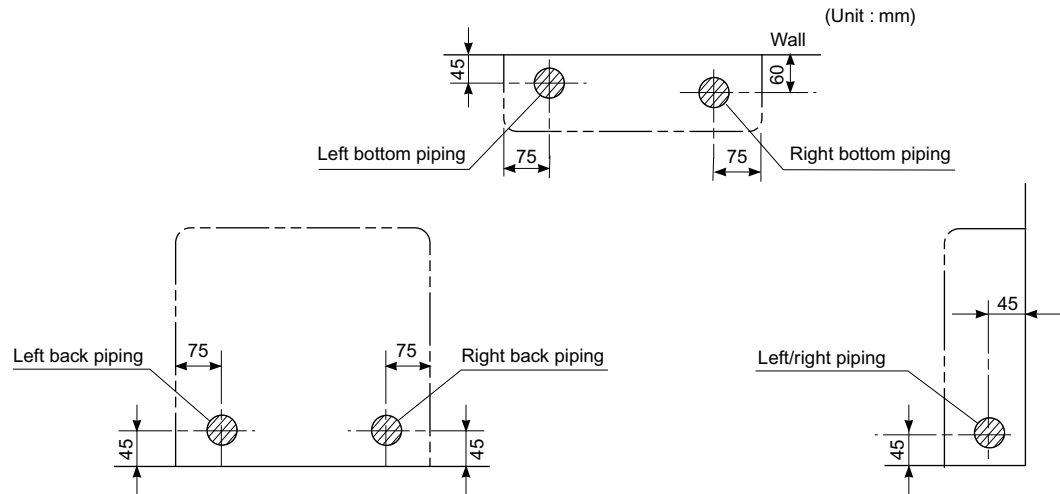


Indoor Unit Installation (1)

Exposed installation

1. Refrigerant piping

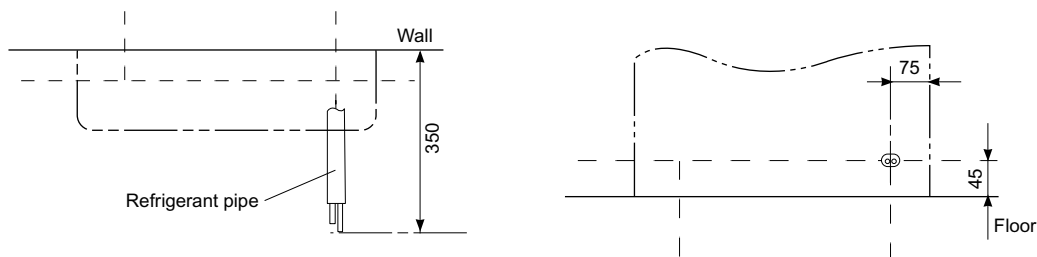
- 1) Drill a hole (65mm in diameter) in the spot indicated by the  symbol in the illustration as below.
- 2) The location of the hole is different depending on which side of the pipe is taken out.
- 3) For piping, see **6. Connecting the refrigerant pipe**, under **Indoor Unit Installation (1)**.
- 4) Allow space around the pipe for a easier indoor unit pipe connection.



CAUTION

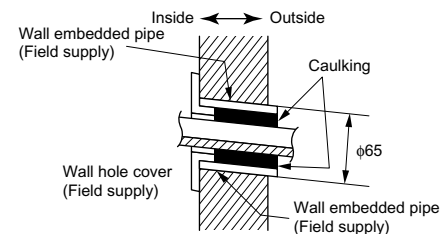
Min. allowable length

- The suggested shortest pipe length is 2.5m, in order to avoid noise from the outdoor unit and vibration. (Mechanical noise and vibration may occur depending on how the unit is installed and the environment in which it is used.)
- See the installation manual for the outdoor unit for the maximum pipe length.
- For multi-connections, see the installation manual for the multi-outdoor unit.



2. Boring a wall hole and installing wall embedded pipe

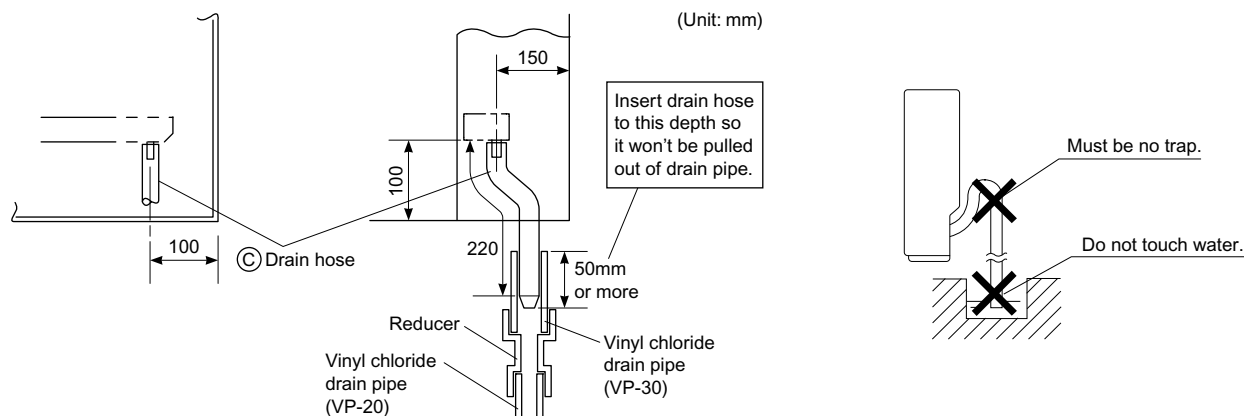
- For walls containing metal frame or metal board, be sure to use a wall embedded pipe and wall cover in the feed-through hole to prevent possible heat, electrical shock, or fire.
- Be sure to caulk the gaps around the pipes with caulking material to prevent water leakage.
 - 1) Bore a feed-through hole of 65mm in the wall so it has a down slope toward the outside.
 - 2) Insert a wall pipe into the hole.
 - 3) Insert a wall cover into wall pipe.
 - 4) After completing refrigerant piping, wiring, and drain piping, caulk pipe hole gap with putty.



Indoor Unit Installation (1)

3. Drain piping

- 1) Use commercial rigid polyvinyl chloride pipe (general VP 20 pipe, outer diameter 26mm, inner diameter 20mm) for the drain pipe.
- 2) The drain hose (outer diameter 18mm at connecting end, 220mm long) is supplied with the indoor unit. Prepare the drain pipe picture below position.
- 3) The drain pipe should be inclined downward so that water will flow smoothly without any accumulation. (Should not be trap.)
- 4) Insert the drain hose to this depth so it won't be pulled out of the drain pipe.
- 5) Insulate the indoor drain pipe with 10mm or more of insulation material to prevent condensation.
- 6) Remove the air filters and pour some water into the drain pan to check the water flows smoothly.



CAUTION

Use polyvinyl chloride adhesive agent for gluing. Failure to do so may cause water leakage.

4. Installing indoor unit

4-1. Preparation

- Open the front panel, remove the 4 screws and dismount the front grille while pulling it forward.
- Follow the procedure below when removing the slit portions.

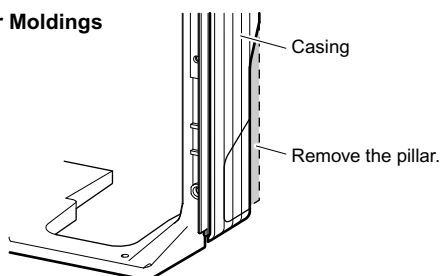
■ For Moldings

- Remove the pillars. (Remove the slit portions on the bottom frame using nippers.)

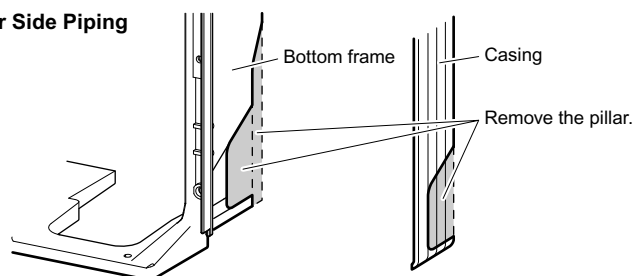
■ For Side Piping

- Remove the pillars.
 - 1) Remove the 7 screws.
 - 2) Remove the upper casing (2 tabs).
 - 3) Remove the left and right casings (2 tabs on each side).
 - 4) Remove the slit portions on the bottom frame and casings using nippers.
 - 5) Return by following the steps in reverse order (3 > 2 > 1).

For Moldings



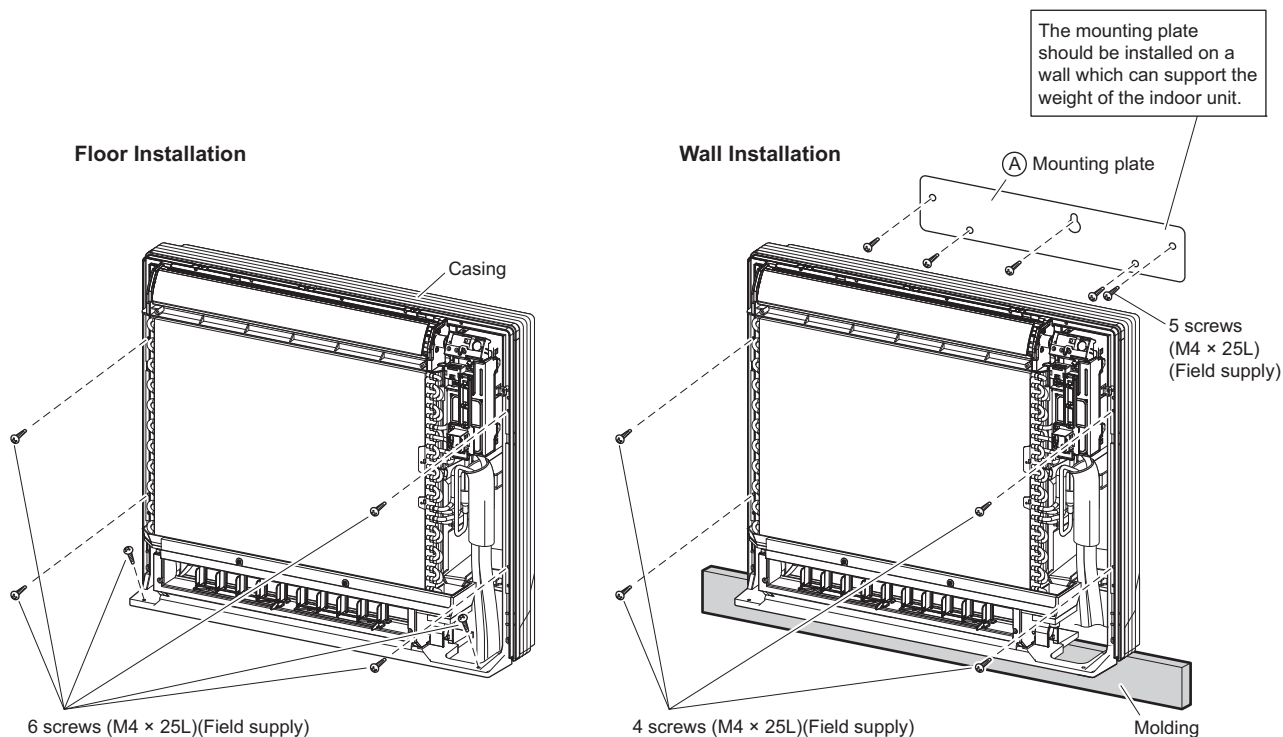
For Side Piping



Indoor Unit Installation (1)

4-2. Installation

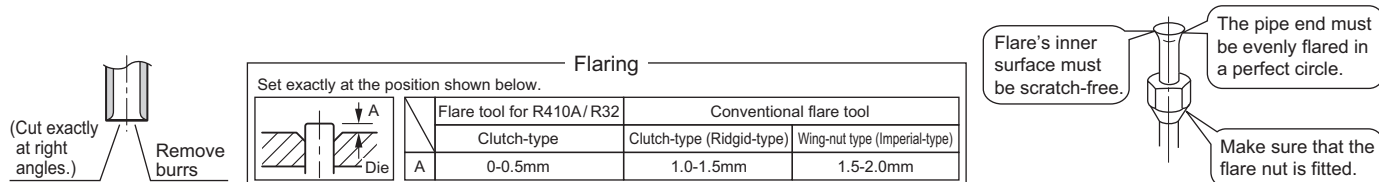
- Secure using 6 screws for floor installations. (Do not forget to secure to the rear wall.)
- For wall installations, secure the (A) mounting plate using 5 screws and the indoor unit using 4 screws. Do not install the unit more than 6 cm above the floor (only for R32 refrigerant).
- The mounting plate should be installed on a wall which can support the weight of the indoor unit.
 - 1) Temporarily secure the mounting plate to the wall, make sure that the panel is completely level, and mark the boring points on the wall.
 - 2) Secure the mounting plate to the wall with screws.



- 3) Once refrigerant piping and drain piping connections are complete, fill in the gap of the through hole with putty. A gap can lead to condensation on the refrigerant pipe, and drain pipe, and the entry of insects into the pipes.
- 4) Attach the front panel and front grille in their original positions once all connections are complete.

5. Flaring the pipe end

- 1) Cut the pipe end with a pipe cutter.
- 2) Remove burrs with the cut surface facing downward so that the chips do not enter the pipe.
- 3) Fit the flare nut on the pipe.
- 4) Flare the pipe.
- 5) Check that the flaring is properly made.



⚠ WARNING

- 1) Do not use mineral oil on flared part.
- 2) Prevent mineral oil from getting into the system as this would reduce the lifetime of the units.
- 3) Never use piping which has been used for previous installations. Only use parts which are delivered with the unit.
- 4) Do never install a drier to this R410A or R32 unit in order to guarantee its lifetime.
- 5) The drying material may dissolve and damage the system.
- 6) Protect or enclose the refrigerant tubing to avoid mechanical damage.
- 7) Incomplete flaring may cause refrigerant gas leakage.

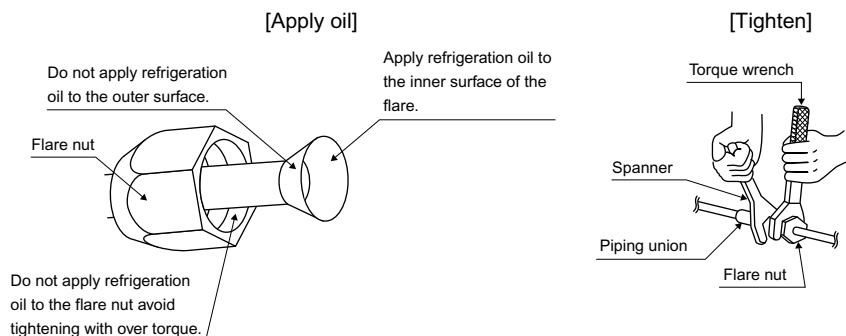
Indoor Unit Installation (1)

6. Connecting the refrigerant pipe

⚠ CAUTION

- 1) Use the flare nut fixed to the main unit. (To prevent cracking of the flare nut by aged deterioration.)
- 2) To prevent gas leakage, apply refrigeration oil only to the inner surface of the flare. (Use refrigeration oil for R410A or R32.)
- 3) Use torque wrenches when tightening the flare nuts to prevent damage to the flare nuts and gas leakage.

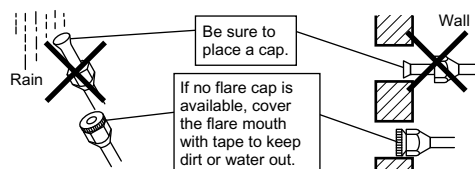
Align the centres of both flares and tighten the flare nuts 3 or 4 turns by hand. Then tighten them fully with the torque wrenches.



Flare nut tightening torque		
Gas side		Liquid side
25/35 class	50 class	25/35/50 class
3/8 inch	1/2 inch	1/4 inch
32.7-39.9N·m (333-407kgf·cm)	49.5-60.3N·m (505-615kgf·cm)	14.2-17.2N·m (144-175kgf·cm)

6-1. Caution on piping handling

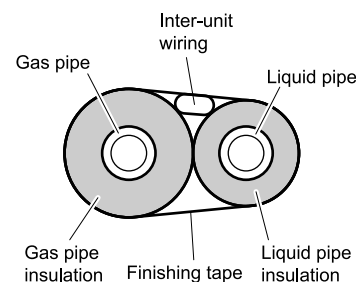
- 1) Protect the open end of the pipe against dust and moisture.
- 2) All pipe bends should be as gentle as possible. Use a pipe bender for bending.



6-2. Selection of copper and heat insulation materials

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

- 1) Insulation material: Polyethylene foam
Heat transfer rate: 0.041 to 0.052W/mK (0.035 to 0.045kcal/(mh°C))
Refrigerant gas pipe's surface temperature reaches 110°C max.
Choose heat insulation materials that will withstand this temperature.



- 2) Be sure to insulate both the gas and liquid piping and to provide insulation dimensions as below.

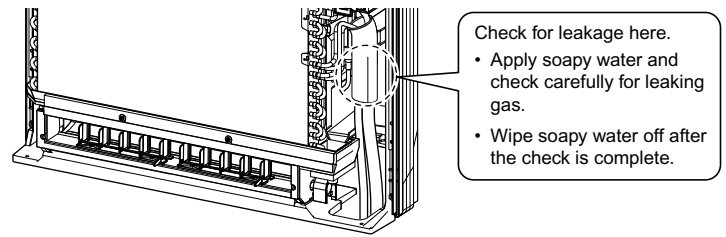
Gas side		Liquid side	Gas pipe thermal insulation		Liquid pipe thermal insulation
25/35 class	50 class		25/35 class	50 class	
O.D. 9.5mm	O.D. 12.7mm	O.D. 6.4mm	I.D. 12-15mm	I.D. 14-16mm	I.D. 8-10mm
Minimum bend radius			Thickness 10mm Min.		
30mm or more	40mm or more	30mm or more			
Thickness 0.8mm (C1220T-O)					

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

Indoor Unit Installation (1)

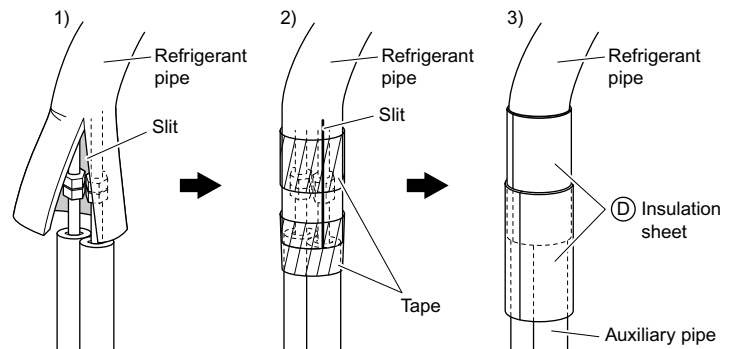
7. Checking for gas leakage

- 1) Check for leakage of gas after air purging.
- 2) See the sections on air purges and gas leak checks in the installation manual for the outdoor unit.



8. Attaching the connection pipe

- Attach the pipe after checking for gas leakage, described above.
- 1) Cut the insulated portion of the on-site piping, matching it up with the connecting portion.
 - 2) Secure the slit on the refrigerant piping side with the butt joint on the auxiliary piping using the tape, making sure there are no gaps.
 - 3) Wrap the slit and the butt joint with the included (D) insulation sheet, making sure there are no gaps.

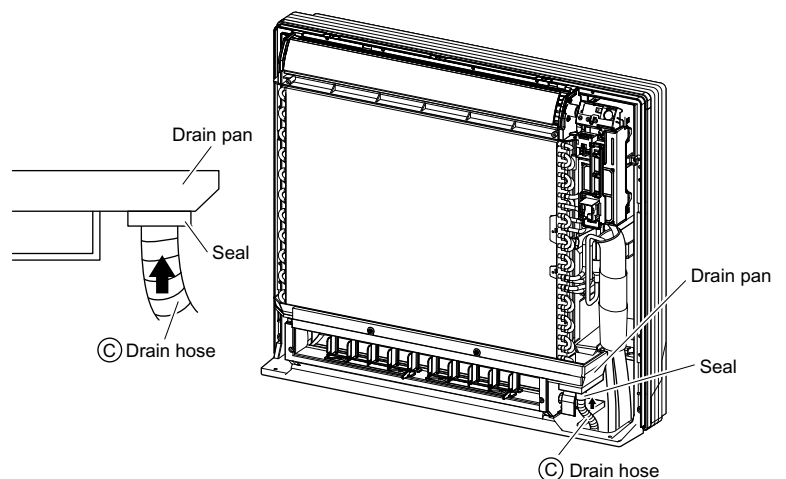


⚠ CAUTION

- 1) Insulate the joint of the pipes securely.
Incomplete insulation may lead to water leakage.
- 2) Push the pipe inside so it does not place undue force on the front grille.

9. Connecting the drain hose

Insert the supplied (C) drain hose into the socket of the drain pan.
Fully insert the drain hose until it adheres to a seal of the socket.

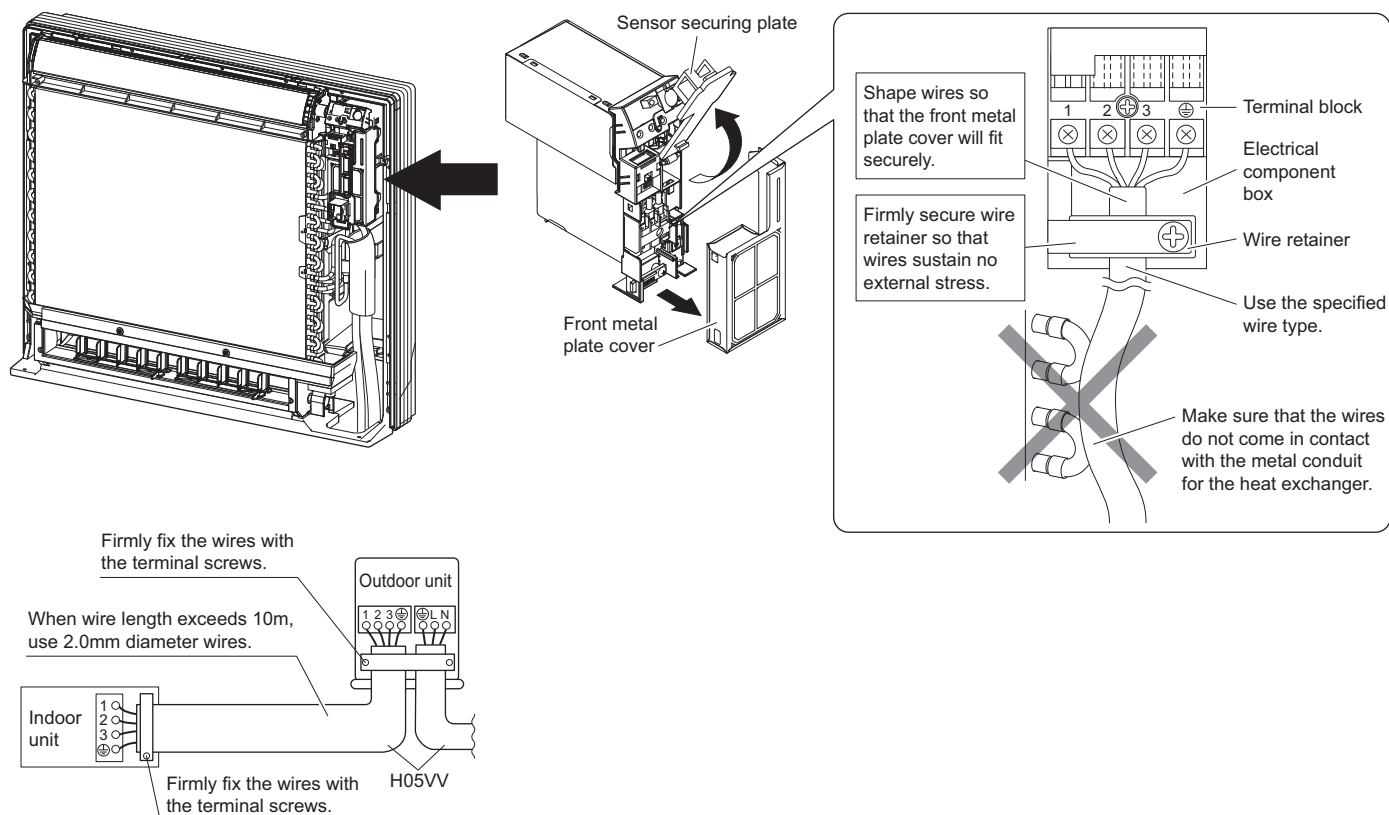


Indoor Unit Installation (1)

10. Wiring

With a Multi indoor unit , install as described in the installation manual supplied with the Multi outdoor unit.

- Lift the sensor securing plate, remove the front metal plate cover, and connect the branch wiring to the terminal block.
- 1) Strip wire ends (15mm).
 - 2) Match wire colours with terminal numbers on indoor and outdoor unit's terminal blocks and firmly screw wires to the corresponding terminals.
 - 3) Connect the earth wires to the corresponding terminals.
 - 4) Pull wires to make sure that they are securely latched up, then retain wires with wire retainer.
 - 5) Make sure that the wires do not come in contact with the metal conduit for the heat exchanger.
 - 6) In case of connecting to an adapter system. Run the remote controller cable and attach the S21. (Refer to 11. When connecting to an HA system.)



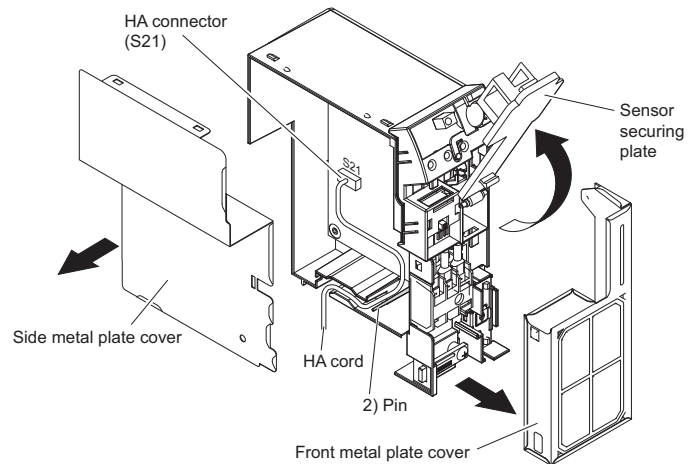
⚠ WARNING

- 1) Do not use tapped wires, stranded wires, extension cords, or starburst connections, as they may cause overheating, electrical shock, or fire.
- 2) Do not use locally purchased electrical parts inside the product. (Do not branch the power for the drain pump, etc., from the terminal block.) Doing so may cause electric shock or fire.
- 3) Do not connect the power wire to the indoor unit. Doing so may cause electric shock or fire.
- 4) Use an all-pole disconnection type breaker with at least 3mm between the contact point gaps.

Indoor Unit Installation (2)

11. When connecting to an HA system

- 1) Remove the electric box. (See 3. How to set the different addresses on page 7.)
- 2) Cut off the pins using a nipper.
- 3) Wire as shown in the diagram and connect the connection cord to the S21 connector.
- 4) Attach the side metal plate cover and thermistor sensor and return the electric box to its previous state.
- 5) Attach connectors 5P, 6P, and 7P.
- 6) Replace the front metal plate cover and the sensor securing plate.

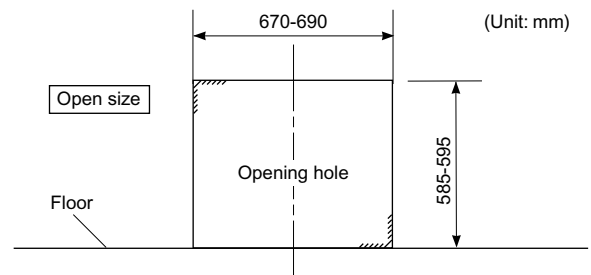


Half concealed installation

Only items peculiar to this installation method are given here. See **Exposed Installation** for additional instructions.

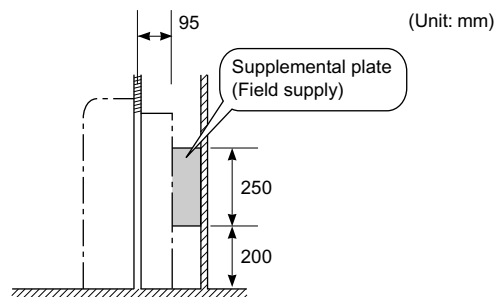
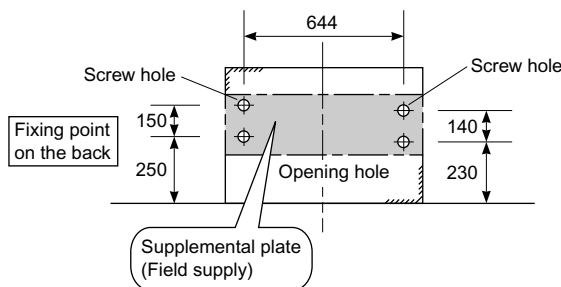
1. Wall hole

- Drill a wall hole of the size shown in the illustration on the right.



2. Installation of supplemental plate for attaching main unit

- The rear of the unit can be fixed with screws at the points shown in the illustration as below. Be sure to install the supplemental plate in accordance with the depth of the inner wall.



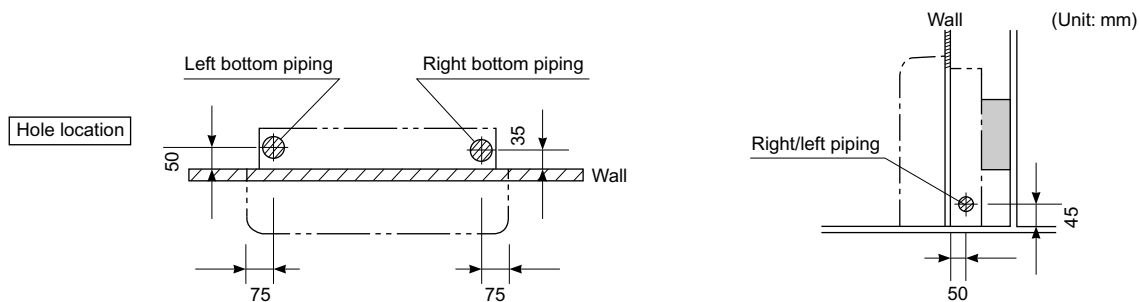
⚠ CAUTION

- 1) The supplemental plate for installing the main unit must be used, or there will be a gap between the unit and the wall.

Indoor Unit Installation (2)

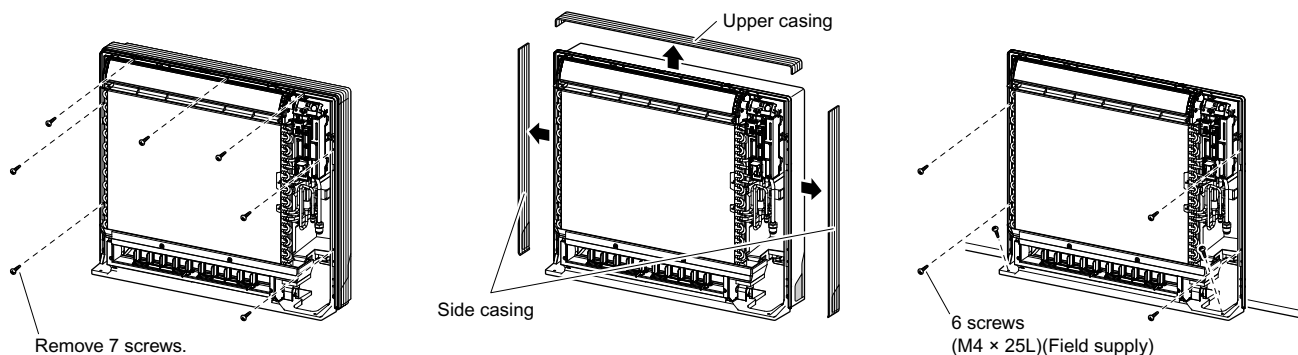
3. Refrigerant piping

See 1. Refrigerant piping under Indoor Unit Installation (1)



4. Installing indoor unit

- 1) Remove the front grille.
- 2) Remove 7 screws.
- 3) Remove the upper casing (2 tabs).
- 4) Remove the side casings (2 tabs on each side).
- 5) Attach the indoor unit to the wall and secure using screws in 6 locations (M4 × 25L).



CAUTION

- 1) Use drain pan edge for horizontal projection of the indoor unit.
- 2) Install the indoor unit flush against wall.

NOTE:

For refrigerant piping, Boring a wall hole and installing wall embedded pipe, drain piping, installing indoor unit, flaring the pipe end, connecting the refrigerant pipe, checking for gas leakage, attaching the connection pipe, connecting the drain hose, wiring, when connecting to an HA system, see Exposed Installation.

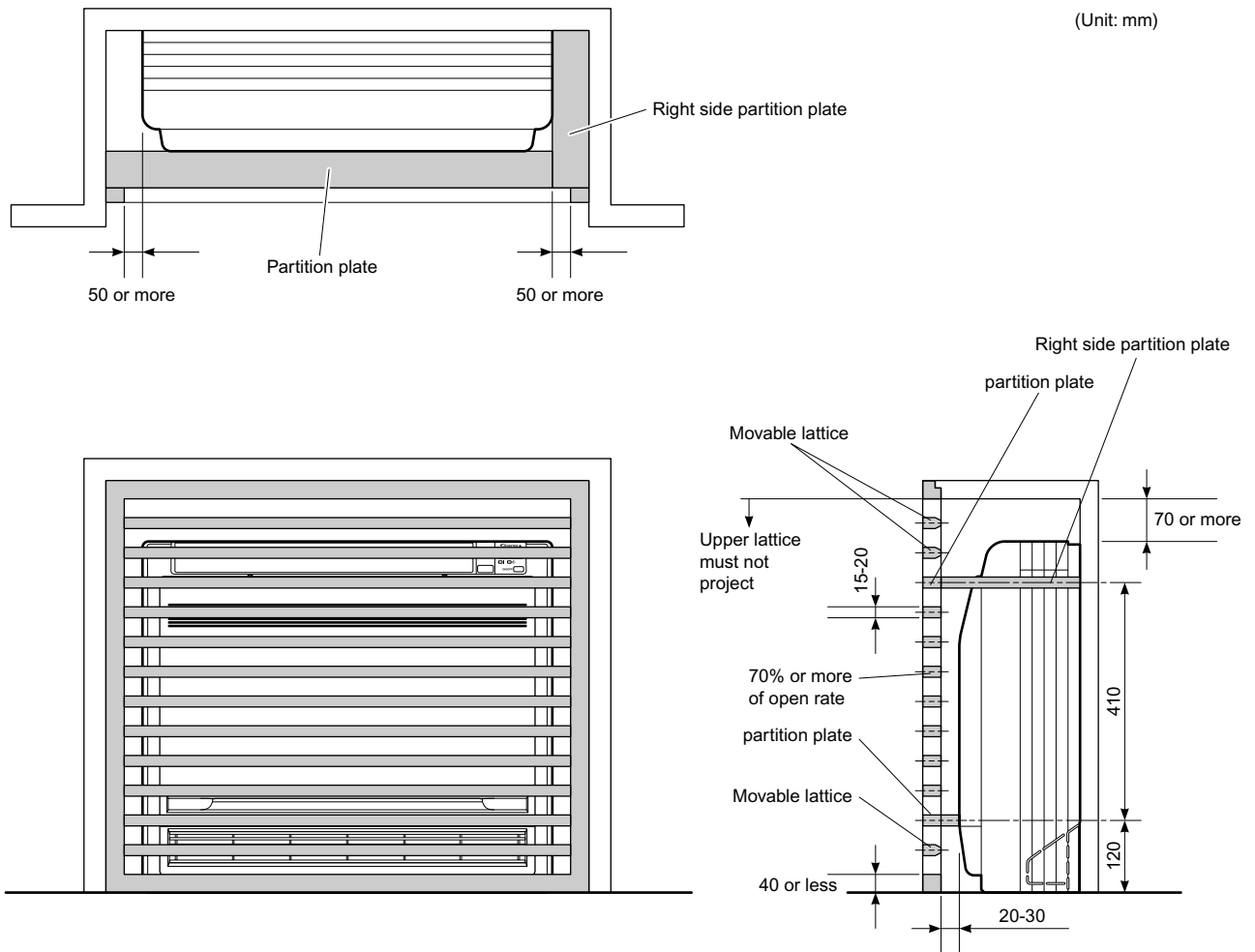
Indoor Unit Installation (3)

Concealed installation (only for R410A refrigerant)

Only items peculiar to this installation method are given here. See **Exposed Installation** for additional instructions.

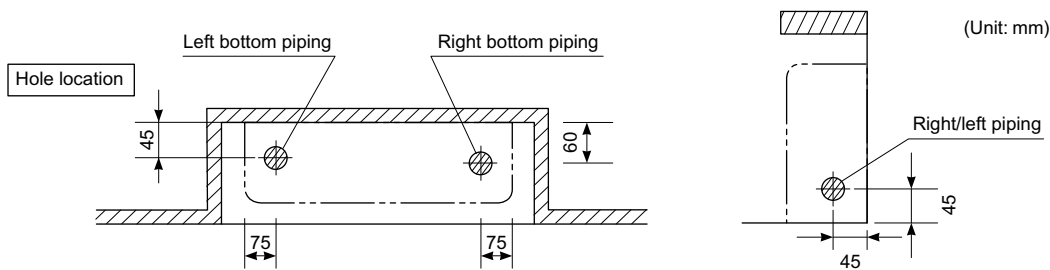
Install the unit according to the instructions below. Failure to do so may cause lead to both cooling and heating failure and the condensation inside the house.

- 1) Allow enough space between the main unit and ceiling not to obstruct the flow of cool/warm air.
- 2) Place a partition plate between outlet and inlet sections.
- 3) Place a partition plate on the right side.
- 4) Change the upward-blow limit switch.
- 5) Use a movable lattice at the air outlet to allow the adjustment of cool/warm air flow direction.
- 6) Lattice size should be 70% or more of open rate.



Indoor Unit Installation (3)

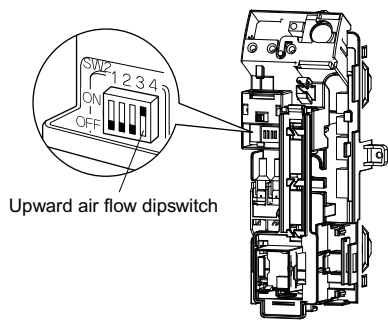
1. Refrigerant piping



2. Changing upward air flow dipswitch

Change the upward air flow dipswitch (SW2-4) to ON to limit the upward air flow.

- 1) Remove the front grille.
- 2) Switch the dipswitch (SW2-4) on the PCB in the electrical equipment box to ON.



• How to set and use the switch

Switch number	SW2-4
Set function	Upward air flow limit
ON ↑ OFF	ON ↑ OFF
Use	Switch to on for embedded units
Factory setting	OFF

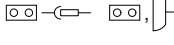
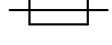
⚠ CAUTION

Be sure to turn on the upward air flow switch. Failure to do so may cause incomplete cooling/heating and formation of condensation inside the house.

NOTE:

For refrigerant piping, Boring a wall hole and installing wall embedded pipe, drain piping, installing indoor unit, flaring the pipe end, connecting the refrigerant pipe, checking for gas leakage, attaching the connection pipe, connecting the drain hose, wiring, when connecting to an HA system, see Exposed Installation.

Unified Wiring Diagram Legend

Unified Wiring Diagram Legend					
For applied parts and numbering refer to the wiring diagram sticker supplied on the unit. Part numbering is realized by Arabic numbers in ascending order for each part and is represented in the overview below by symbol ^{***} in the part code.					
	:	CIRCUIT BREAKER		:	PROTECTIVE EARTH
	:	CONNECTION		:	PROTECTIVE EARTH (SCREW)
	:	CONNECTOR		:	RECTIFIER
	:	EARTH		:	RELAY CONNECTOR
	:	FIELD WIRING		:	SHORT CIRCUIT CONNECTOR
	:	FUSE		:	TERMINAL
	:	INDOOR UNIT		:	TERMINAL STRIP
	:	OUTDOOR UNIT		:	WIRE CLAMP
BLK : BLACK	GRN : GREEN	PNK : PINK	WHT : WHITE		
BLU : BLUE	GRY : GREY	PRP, PPL : PURPLE	YLW : YELLOW		
BRN : BROWN	ORG : ORANGE	RED : RED			
A*P	:	PRINTED CIRCUIT BOARD	PS	:	SWITCHING POWER SUPPLY
BS*	:	PUSH BUTTON ON / OFF, OPERATION SWITCH	PTC*	:	THERMISTOR PTC
BZ, H*O	:	BUZZER	Q*	:	INSULATED GATE BIPOLAR TRANSISTOR (IGBT)
C*	:	CAPACITOR	Q*DI	:	EARTH LEAK CIRCUIT BREAKER
AC*, CN*, E*, HA*, HE, HL*, HN*, HR*, MR*_A, MR*_B, S*, U, V, W, X*A	:	CONNECTION, CONNECTOR	Q*L	:	OVERLOAD PROTECTOR
D*, V*D	:	DIODE	Q*M	:	THERMO SWITCH
DB*	:	DIODE BRIDGE	R*	:	RESISTOR
DS*	:	DIP SWITCH	R*T	:	THERMISTOR
E*H	:	HEATER	RC	:	RECEIVER
F*U, FU* (FOR CHARACTERISTICS REFER TO PCB INSIDE YOUR UNIT)	:	FUSE	S*C	:	LIMIT SWITCH
FG*	:	CONNECTOR (FRAME GROUND)	S*L	:	FLOAT SWITCH
H*	:	HARNESS	S*NPH	:	PRESSURE SENSOR (HIGH)
H*P, LED*, V*L	:	PILOT LAMP, LIGHT EMITTING DIODE	S*NPL	:	PRESSURE SENSOR (LOW)
HAP	:	LIGHT EMITTING DIODE (SERVICE MONITOR GREEN)	S*PH, HPS*	:	PRESSURE SWITCH (HIGH)
HIGH VOLTAGE	:	HIGH VOLTAGE	S*PL	:	PRESSURE SWITCH (LOW)
IES	:	INTELLIGENT EYE SENSOR	S*T	:	THERMOSTAT
IPM*	:	INTELLIGENT POWER MODULE	S*W, SW*	:	OPERATION SWITCH
K*R, KCR, KFR, KHuR	:	MAGNETIC RELAY	SA*	:	SURGE ARRESTOR
L	:	LIVE	SR*, WLU	:	SIGNAL RECEIVER
L*	:	COIL	SS*	:	SELECTOR SWITCH
L*R	:	REACTOR	SHEET METAL	:	TERMINAL STRIP FIXED PLATE
M*	:	STEPPER MOTOR	T*R	:	TRANSFORMER
M*C	:	COMPRESSOR MOTOR	TC, TRC	:	TRANSMITTER
M*F	:	FAN MOTOR	V*, R*V	:	VARISTOR
M*P	:	DRAIN PUMP MOTOR	V*R	:	DIODE BRIDGE
M*S	:	SWING MOTOR	WRC	:	WIRELESS REMOTE CONTROLLER
MR*, MRCW*, MRM*, MRN*	:	MAGNETIC RELAY	X*	:	TERMINAL
N	:	NEUTRAL	X*M	:	TERMINAL STRIP (BLOCK)
n = *	:	NUMBER OF PASSES THROUGH FERRITE CORE	Y*E	:	ELECTRONIC EXPANSION VALVE COIL
PAM	:	PULSE-AMPLITUDE MODULATION	Y*R, Y*S	:	REVERSING SOLENOID VALVE COIL
PCB*	:	PRINTED CIRCUIT BOARD	Z*C	:	FERRITE CORE
PM*	:	POWER MODULE	ZF, Z*F	:	NOISE FILTER

Trial Operation and Testing

1. Trial operation and testing

1-1 Measure the supply voltage and make sure that it falls in the specified range.

1-2 Trial operation should be carried out in either cooling or heating mode.

■ For Heat pump

- In cooling mode, select the lowest programmable temperature; in heating mode, select the highest programmable temperature.

1) Trial operation may be disabled in either mode depending on the room temperature.

Use the remote controller for trial operation as described below.

2) After trial operation is complete, set the temperature to a normal level (26°C to 28°C in cooling mode, 20°C to 24°C in heating mode).

3) For protection, the system disables restart operation for 3 minutes after it is turned off.

■ For Cooling only

- Select the lowest programmable temperature.

1) Trial operation in cooling mode may be disabled depending on the room temperature.

Use the remote controller for trial operation as described below.

2) After trial operation is complete, set the temperature to a normal level (26°C to 28°C).

3) For protection, the unit disables restart operation for 3 minutes after it is turned off.

1-3 Carry out the test operation in accordance with the Operation Manual to ensure that all functions and parts, such as louver movement, are working properly.

- The air conditioner requires a small amount of power in its standby mode. If the system is not to be used for some time after installation, shut off the circuit breaker to eliminate unnecessary power consumption.
- If the circuit breaker trips to shut off the power to the air conditioner, the system will restore the original operation mode when the circuit breaker is opened again.

1-4 After trial operation, when the fan of indoor unit is spinning and the operation light is flashing, there is a risk of refrigerant leakage, so please ventilate the room, and contact your dealer (only for R32 refrigerant).

Trial Operation from Remote Controller

1) Press ON/OFF button to turn on the system.

2) Press TEMP (2 locations) and MODE at the same time.

3) Press MODE button twice.

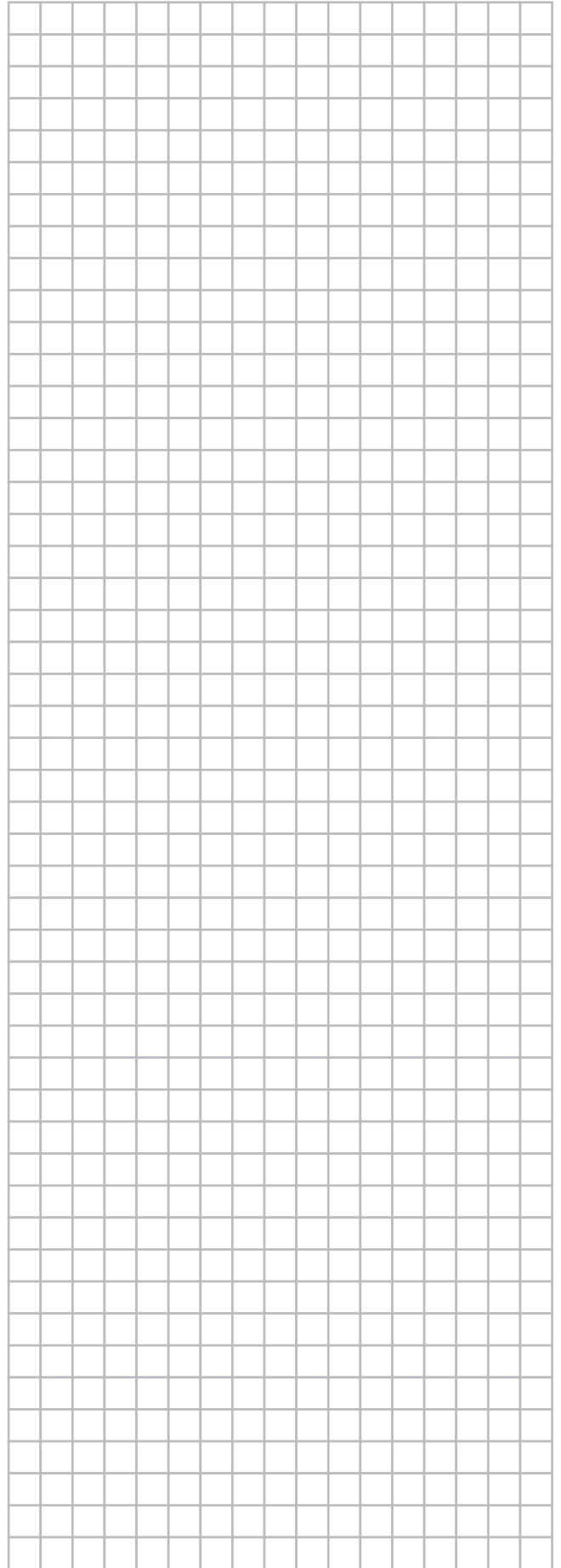
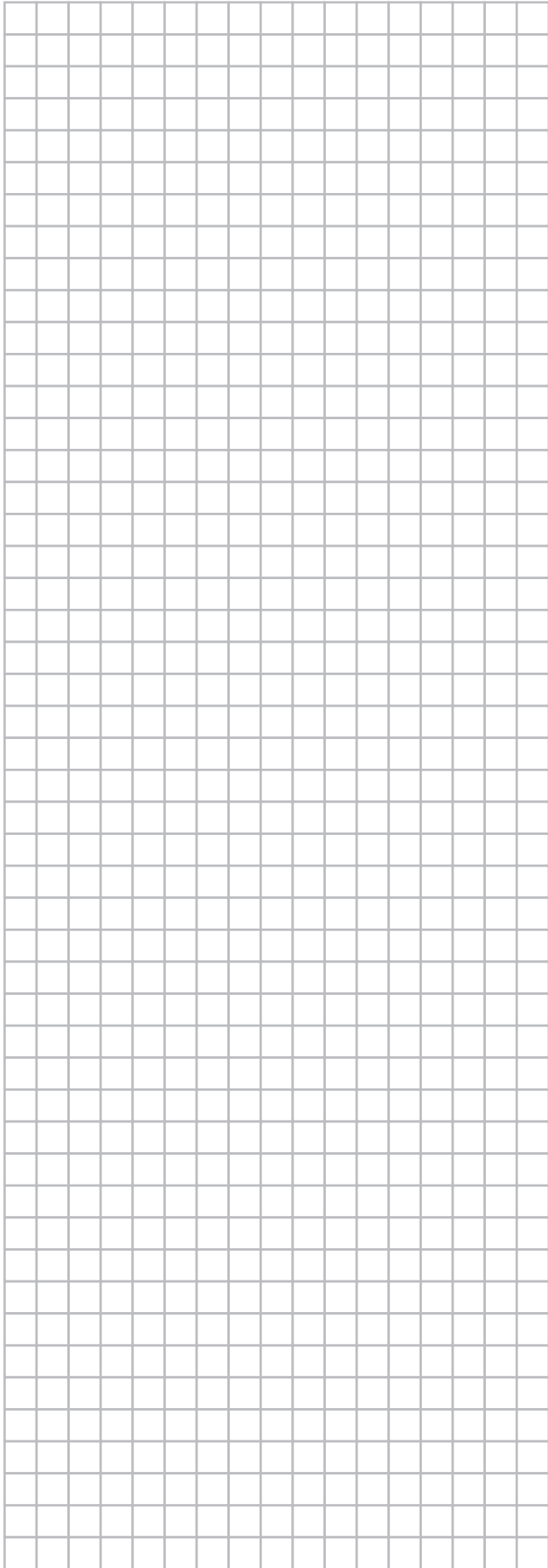
("T" will appear on the display to indicate that Trial Operation mode is selected.)

4) Trial run mode terminates in approx. 30 minutes and switches into normal mode. To quit a trial operation, press ON/OFF button.

5) After trial operation, when the fan of indoor unit is spinning and the operation light is flashing, there is a risk of refrigerant leakage, so please ventilate the room, and contact your dealer (only for R32 refrigerant).

2. Test items

Test Items	Symptom	Check
Indoor and outdoor units are installed properly on solid bases.	Fall, vibration, noise	
No refrigerant gas leaks.	Incomplete cooling/heating function	
Refrigerant gas and liquid pipes and indoor drain hose extension are thermally insulated.	Water leakage	
Draining line is properly installed.	Water leakage	
System is properly earthed.	Electrical leakage	
The specified wires are used for inter-unit wiring connections.	Inoperative or burn damage	
Indoor or outdoor unit's air intake or exhaust has clear path of air. Stop valves are opened.	Incomplete cooling/heating function	
Indoor unit properly receives remote controller commands.	Inoperative	



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Two-dimensional bar code is a code
for manufacturing.

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