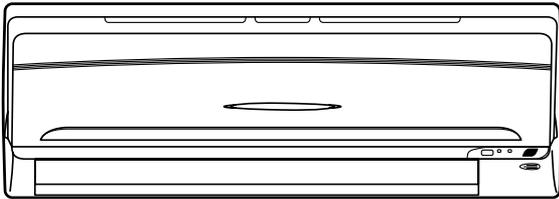


DAIKIN

INSTALLATION MANUAL

R410A Split Series



Models

FTYN25DV3B

FTYN35DV3B

FTYN25DAV3B

FTYN35DAV3B

FTN25DV3B

FTN35DV3B

FTN25DAV3B

FTN35DAV3B

Installation manual
R410A Split series

English

Installationsanleitung
Split-Baureihe R410A

Deutsch

Manuel d'installation
Série split R410A

Français

Montagehandleiding
R410A Split-systeem

Nederlands

Manual de instalación
Serie Split R410A

Español

Manuale d'installazione
Serie Multiambienti R410A

Italiano

Εγχειρίδιο εγκατάστασης
διαιρούμενης σειράς R410A

Ελληνικά

Manual de Instalação
Série split R410A

Portugues

Руководство по монтажу
Серия R410A с отдельной установкой

Русский

Montaj kılavuzları
R410A Split serisi

Türkçe

CE - DECLARATION-OF-CONFORMITY
CE - KONFORMITÄTSEKHLARUNG
CE - DECLARATION-DE-CONFORMITE
CE - CONFORMITEITSVERKLARING

DAIKIN INDUSTRIES, LTD.

- 01 declares under its sole responsibility that the air conditioning models to which this declaration relates;
- 02 erklärt auf seine alleinige Verantwortung daß die Modelle der Klimaanlage für die diese Erklärung bestimmt ist;
- 03 déclare sous sa seule responsabilité que les appareils d'air conditionné visés par la présente déclaration;
- 04 verklaart hierbij op eigen exclusieve verantwoordelijkheid dat de airconditioning units waarop deze verklaring betrekking heeft;
- 05 declara bajo su única responsabilidad que los modelos de aire acondicionado a los cuales hace referencia la declaración;
- 06 δηλώνει υπό την αποκλειστική του ευθύνη ότι τα προϊόντα των κλιματιστικών ομαδιών στα οποία αναφέρεται η παρούσα δήλωση;
- 07 заявляє про виключну свою відповідальність, що моделі кондиціонерів повітря, к которым отнесена настоящая заявленіє;
- 08 declara sub sua exclusivă responsabilitate că ea modele de aer condiționat a que esta declarată a que este;
- 09 заявляет, исключительно под свою ответственность, что модели кондиционеров воздуха, к которым отнесены настоящие заявления;

FTYN25DV3B, FTYN35DV3B, FTYN35DAV3B, FTYN35DAV3B, FTN25DV3B, FTN25DV3B, FTN35DAV3B, RYN25DV3B, RYN35DV3B, RYN35DAV3B, RYN35DAV3B, RN25DV3B, RN25DV3B, RN35DAV3B, RN35DAV3B

- 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 entspricht/entsprechen, unter der Voraussetzung, daß sie gemäß unseren Anweisungen eingesetzt werden;
- 03 sont conformes à la(ux) norme(s) ou autre(s) document(s) normatif(s) pour autant qu'ils soient utilisés conformément à nos instructions;
- 04 conform de volgende norm(en) of één of meer andere technische 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 al(l) seguente(i) standard(i) o altro(i) document(i) a carattere normativo, a patto che vengano usati in conformità alle nostre istruzioni;

07 эти модели соответствуют следующим стандарт(ам) и/или другим нормативным документам(ам), при условии их использования согласно нашим инструкциям;

EN60335-2-40,

- 01 following the provisions of:
- 02 gemäß den Vorschriften der:
- 03 conformément aux stipulations des:
- 04 overeenkomstig de bepalingen van:
- 05 siguiendo las disposiciones de:
- 06 secondo le prescrizioni per:
- 07 по условиям, описанным в:
- 08 de acordo com o previsto em:
- 09 в соответствии с положениями:

- 19 de gebruiker van de:
- 20 vaststelt de:
- 21 het volgende:
- 22 de volgende:
- 23 de volgende:
- 24 de volgende:
- 25 de volgende:

- 01 Note * as set out in the Technical Construction File **Daikin.TCF.020** and judged positively by **KEIMA** according to the Certificate **9595-HKROE/CN39-4476**.
- 02 Hinweis * wie in der Technischen Konstruktionsakte **Daikin.TCF.020** aufgeführt und von **KEIMA** positiv ausgedeutet gemäß Zertifikat **9595-HKROE/CN39-4476**.
- 03 Remarque * tel que stipulé dans le Fichier de Construction Technique **Daikin.TCF.020** et jugé positivement par **KEIMA** conformément au Certificat **9595-HKROE/CN39-4476**.
- 04 Bemerk * zoals vermeld in het Technisch Constructiedossier **Daikin.TCF.020** en in orde bevonden door **KEIMA** overeenkomstig Certificaat **9595-HKROE/CN39-4476**.
- 05 Nota * tal como se expone en el Archivo de Construcción Técnica **Daikin.TCF.020** y juzgado positivamente por **KEIMA** según el Certificado **9595-HKROE/CN39-4476**.
- 06 Nota * delimitato nel File Tecnico di Costruzione **Daikin.TCF.020** a giudizio positivamente da **KEIMA** secondo il Certificato **9595-HKROE/CN39-4476**.
- 07 Змістовий * опис проведеної згідно з Архівом Технічної Конструкції **Daikin.TCF.020** та кваліфікації техніки **KEIMA** відповідно до Положення **9595-HKROE/CN39-4476**.
- 08 Nota * tal como estabelecido no Ficheiro Técnico de Construção **Daikin.TCF.020** e com o parecer positivo de **KEIMA** de acordo com o Certificado **9595-HKROE/CN39-4476**.
- 09 Примечание * как указано в Досье технического задания **Daikin.TCF.020** и в соответствии с положительным решением **KEIMA** согласно Сертификату **9595-HKROE/CN39-4476**.

CE - DECLARAÇÃO-DE-CONFORMIDADE
CE - ЗАРЯВЛЕНІЕ-О-СОТВѢТСТВИИ
CE - OPEYDELSERKLERING
CE - FÖRSÄKRAN-OM-ÖVERENSÄMMEELSE

CE - ERKLÄRUNG-OM-SÄMVISVAR
CE - ИЛМОИТУС-ЙHDENMUKAISUJUESTA
CE - DEKLARACJA-ZGODNOSCI
CE - DECLARAȚIE-DE-CONFORMITATE

CE - ZJAWA O SKLADENOSCI
CE - VASTAVUSEDEKLARATSIOON
CE - DEKLARACIJA-ZGODNOSCI
CE - DEKLARACIJA-ZGODNOSCI

CE - ZJAWA O SKLADENOSCI
CE - VASTAVUSEDEKLARATSIOON
CE - DEKLARACIJA-ZGODNOSCI
CE - DEKLARACIJA-ZGODNOSCI

CE - ATTIKITIES-DEKLARACIA
CE - ATBILSTIBAS-DEKLARACIA
CE - VYHLÁSENIE-ZHODY
CE - UYUMULULUK-BILDIRISI

- 10 erklærer under eneansvar, at klimaanlægmodelerne, som denne deklaration vedrører;
- 11 ④ deklarerar i regjerskap, at klimaanleggmodellerna, som denne deklarasjon vedrører;
- 12 ④ erklærer i fullendigt ansvar for at de luftkonditioneringsmodeller som berøres af denne deklaration imødeber at:
- 13 ④ erklærer i fulleindigt ansvar for at de luftkonditioneringsmodeller som berøres af denne deklaration imødeber at:
- 14 ④ ilmoittaa yksinomaan omalla vastuullaan, että tämän ilmastuksen tarkoitamat ilmastointilaitteiden mallit:
- 15 ④ prohlašuje ve své plné odpovědnosti, že modely klimatizace, k nimž se tato prohlášení vztahuje;
- 16 ④ izjavlja pod izključivo vlastitom odgovornostjo, da su modeli klima uređaja na koje se ova izjava odnosi;
- 17 ④ teljes felelősséggel kijelenti, hogy a klimatberendezés modellek, melyekre e nyilatkozat vonatkozik;
- 18 ④ deklare pe propria 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 anden/andre retningsgivende dokument(er), forudsat at disse anvendes i henhold til vore instrukser;
- 11 respektive utstilling är utförd i överensstämmelse med och följer följande standard(er) eller andra normgivande dokument, under förutsättning att användning sker i överensstämmelse med våra instruktioner;
- 12 respektive usŭr er i overensstemmelse med følgende standard(er) eller andre normgivende dokument(er), under forutsetting av at disse brukes i henhold til våre instruksjoner;
- 13 istavtar searveien standarden ja muiden õhjelistet dokumentien vastamiseks edellytäten, että niitä käytetään ohjeiden mukaisesti;
- 14 za predložaku, že sou využívají v souladu s našimi pokyny, odpovídají následujícími normám nebo normativním dokumentům;
- 15 u skladu sa sledjećim standardom(na) ili drugim normativnim dokumentom(na), uz uvjet da se oni se koriste u skladu s našim uputama;

Low Voltage 73/23/EEC Machinery Safety 98/37/EEC Electromagnetic Compatibility 89/336/EEC *

- 10 Bemerk * som antori, den Tekniske Konstruktionsfil **Daikin.TCF.020** og positivt vurderet af **KEIMA**, i henhold til Certifikat **9595-HKROE/CN39-4476**.
- 11 Information * uenstemningen er udført i henhold til den Tekniske Konstruktionsfil **Daikin.TCF.020** som positivt inngas av **KEIMA** i henhold til Certifikat **9595-HKROE/CN39-4476**.
- 12 Merk * framgår av Certifikat **9595-HKROE/CN39-4476**.
- 13 Huom * jotka on esitetty Teknisessä Asiakirjassa **Daikin.TCF.020** ja jotka **KEIMA** on hyväksynyt.
- 14 Poznámka * jak bylo uvedeno v souboru technické konstrukce **Daikin.TCF.020** a pozitivně zjišeno **KEIMA** v souladu s osvědčením **9595-HKROE/CN39-4476**.
- 15 Napomena * kako je izloženo u Dosezi o tehničkoj konstrukciji **Daikin.TCF.020** pozitivno odjeljeno od strane **KEIMA** prema Certifikatu **9595-HKROE/CN39-4476**.
- 16 Megjegyzés * a(z) **Daikin.TCF.020** műszaki konstrukciós dokumentációjának alapján, a(z) **KEIMA** igazolta a megfelelést az **9595-HKROE/CN39-4476** tanúsítvány szerint.
- 17 Uwaga * zgodnie z archiwem dokumentacji konstrukcyjnej **Daikin.TCF.020** pozytywna opinia **KEIMA**.
- 18 Nota * conform celor stabilite în Dosezi tehnice de construcție **Daikin.TCF.020** și apreciate pozitiv de **KEIMA** în conformitate cu Certificatul **9595-HKROE/CN39-4476**.

- 19 ④ z vse odgovornosti izjavlja, da so modeli klimatskih naprav, na katere se izjava nanaša;
- 20 ④ kimilato oma täieliku vastutuse, et käsitsete deklaratsioonid alla kuuluvad klimaseadmete mudelid;
- 21 ④ deklariir na savo otvorochnoe, et modelnye klimatichna instalatsiya, za korige se otnosat zaya deklarasii;
- 22 ④ visítke savo áskonyne sebia, kad oio kondicionavnimo preiasu modeliai, kuriems yra laikoma ši deklaracija;
- 23 ④ ar plinu atbildību apliecinā, ka tālāk uzskaitīto modeļu gaisa kondicionēšanai, uz kuriem attiecas šī deklarācija;
- 24 ④ vyhlásuje na vlastní zodpovednost, že tieto klimatizačné modely, na ktoré sa vzťahuje toto vyhlásenie;
- 25 ④ lamamen kendi sorumluluğunda olnak izare bu bilirimini ilgili ölçüde, klima modellerinin aşğıdaki gibi ödöğünü beyan eder;

- 16 megfelelnek az alábbi szabvány(ok)nak vagy egyéb irányítvány dokumentum(ok)nak, ha azokat előírás 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) standard(e) sau al(e) document(e) normative, cu condiția ca acestea să fie utilizate în conformitate cu instrucțiunile noastre;
- 19 skladu z naslednjih standardi in drugimi normativi, pod pogojem, da se uporabljajo v skladu z našimi navodili;
- 20 on vastavuses järgmise(l)le standard(ile)ga või teise normaliseeritud dokumentiga, kui need kasutatakse vastavalt meie juhenditele;
- 21 съответстват на следните стандарти или други нормативни документи, при условие, че се използват съгласно нашите инструкции;
- 22 allina kemiau nurodūtus standartus ir (arba) kitus norminius dokumentus su sąlyga, kad yra naudojami pagal mūsų nurodymus;
- 23 tad, ja teidi atbilstošā ražotāja norādījumiem, atbilst serkšotiem standartiem un citiem normatīviem dokumentiem;
- 24 su u zlože s nasledovno(y)mi normo(y)ma) alebo in(y)mi normatívn(y)mi dokumento(y)ma), za predpokladu, že sa používajú v súlade s našimi návodmi;
- 25 ürünü, ilatimlarımızda göre kullanılması koşulluyla aşğıdaki standartlar ve norm belirlen beğletere uyumludur;

- 10 Direktiver, as amended;
- 11 Direktiv, med foretagne ændringer;
- 12 Direktivev, belles que modifiées;
- 13 Direktiveja, salāšāra kulin ne ovat muuttuluna;
- 14 v platnem znēni;
- 15 Spomenice, kako je izmijeneno;
- 16 iranyelv(ek) és módosítás(ok) rendelkezései;
- 17 zloženie s nasledovno(y)mi normo(y)ma) alebo in(y)mi normatívn(y)mi dokumento(y)ma), za predpokladu, že sa používajú v súlade s našimi návodmi;
- 18 Direktivelor, cu amendamentele respective;

- 19 Opomba * kol je dobočeno v tehnični mapi **Daikin.TCF.020** in odobreno s strani **KEIMA** v skladu s certifikatom **9595-HKROE/CN39-4476**.
- 20 Märkus * nagu on päätatud tehnilise dokumentatsioon **Daikin.TCF.020** ja heaks kiitnud **KEIMA** järgi vastavalt sertifikaadile **9595-HKROE/CN39-4476**.
- 21 Zabeleška * kako je zloženo v Akta za tehničko konstrukciji **Daikin.TCF.020** i odušeno pozitivno od **KEIMA** sukladno certifikatu **9595-HKROE/CN39-4476**.
- 22 Pastaba * kaip nurolyta techninėje konstrukcijos byloje **Daikin.TCF.020** ir patvirtinta **KEIMA** pagal pažymėjimą **9595-HKROE/CN39-4476**.
- 23 Píazimes * ka norēkts tehniskā dokumentācija **Daikin.TCF.020**, atbilstoši **KEIMA** pozitīvajam īēnumam ko aplēcina sertifikats **9595-HKROE/CN39-4476**.
- 24 Poznámka * ako je stanoveno v soubore technické konstrukce **Daikin.TCF.020** a kladně posouzeno **KEIMA** podľa Certifikátu **9595-HKROE/CN39-4476**.
- 25 Not * **Daikin.TCF.020** tehnik Yap Dusayışında belirtilmiş gibi ve **9595-HKROE/CN39-4476** sertifikasına göre **KEIMA** tarafından olumlu olarak değerlendirilmiştir.



Ch. Murata

Noboru Murata
Manager Quality Control Department
Shiga, 1st of Nov. 2005

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

Safety Precautions

- 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 in some cases result in grave consequences.

- The following safety symbols are used throughout this manual:

 Be sure to observe this instruction.	 Be sure to establish an earth connection.	 Never attempt.
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- After completing installation, test the unit to check for installation errors. Give the user adequate instructions concerning the use and cleaning of the unit according to the Operation Manual.

 WARNING	
• Installation should be left to the dealer or another professional. Improper installation may cause water leakage, electrical shock, or fire.	
• Install the air conditioner according to the instructions given in this manual. Incomplete installation may cause water leakage, electrical shock, or fire.	
• Be sure to use the supplied or specified installation parts. Use of other parts may cause the unit to come to lose, water leakage, electrical shock, or fire.	
• Install the air conditioner on a solid base that can support the unit's weight. An inadequate base or incomplete installation may cause injury in the event the unit falls off the base.	
• Electrical work should be carried out in accordance with the installation manual and the national electrical wiring rules or code of practice. Insufficient capacity or incomplete electrical work may cause electrical shock or fire.	
• Be sure to use a dedicated power circuit. Never use a power supply shared by another appliance.	
• For wiring, use a cable long enough to cover the entire distance with no connection. Do not use an extension cord. Do not put other loads on the power supply, use a dedicated power circuit. (Failure to do so may cause abnormal heat, electric shock or fire.)	
• Use the specified types of wires for electrical connections between the indoor and outdoor units. Firmly clamp the inter-connecting wires so their terminals receive no external stresses. Incomplete connections or clamping may cause terminal overheating or fire.	
• After connecting interconnecting and supply wiring be sure to shape the cables so that they do not put undue force on the electrical covers or panels. Install covers over the wires. Incomplete cover installation may cause terminal overheating, electrical shock, or fire.	
• If any refrigerant has leaked out during the installation work, ventilate the room. (The refrigerant produces a toxic gas if exposed to flames.)	
• After all installation is complete, check to make sure that no refrigerant is leaking out. (The refrigerant produces a toxic gas if exposed to flames.)	
• When installing or relocating the system, be sure to keep the refrigerant circuit free from substances other than the specified refrigerant (R410A), such as air. (Any presence of air or other foreign substance in the refrigerant circuit causes an abnormal pressure rise or rupture, resulting in injury.)	
• During pump-down, stop the compressor before removing the refrigerant piping. If the compressor is still running and the shut-off valve is open during pump-down, air will be sucked in when the refrigerant piping is removed, causing abnormal pressure in the freezer cycle which will lead to breakage and even injury.	
• During installation, attach the refrigerant piping securely before running the compressor. If the compressor is not attached and the shut-off valve is open during pump-down, air will be sucked in when the compressor is run, causing abnormal pressure in the freezer cycle which will lead to breakage and even injury.	
• Be sure to establish an earth. Do not earth the unit to a utility pipe, arrester, or telephone earth. Incomplete earth may cause electrical shock, or fire. A high surge current from lightning or other sources may cause damage to the air conditioner.	
• Be sure to install an earth leakage breaker. Failure to install an earth leakage breaker may result in electric shocks, or fire.	

 CAUTION	
• Do not install the air conditioner in a place where there is danger of exposure to inflammable gas leakage. If the gas leaks and builds up around the unit, it may catch fire.	
• Establish drain piping according to the instructions of this manual. Inadequate piping may cause flooding.	
• Note for installing the outdoor unit. (For heat pump model only.) In cold area where the outside air temperature keep below or around freezing-point for a few days, the outdoor unit's drain may freeze. If so, it is recommended to install an electric heater in order to protect drain from freezing.	
• Tighten the flare nut according to the specified method such as with a torque wrench. If the flare nut is tightened too hard, the flare nut may crack after a long time and cause refrigerant leakage.	
• 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.	

Accessories

Indoor unit (A) – (L) , **Outdoor unit** (M)

(A) Mounting plate	1	(E) Remote controller holder	1	(J) Thermistor cable (8m)*1	1
(B) Mounting plate fixing screw M4 × 25L	6	(F) Fixing screw for remote controller holder M3 × 20L	2	(K) Operation manual	1
(C) Titanium Apatite Photocatalytic Air-Purifying Filter	2	(G) AAA dry-cell batteries	2	(L) Installation manual	1
(D) Wireless remote controller	1	(H) Indoor unit fixing screw M4 × 12L	2	(M) Drain plug (Heat pump-Models)	1

*1 The thermistor cable is attached to the indoor unit.

Choosing a Site

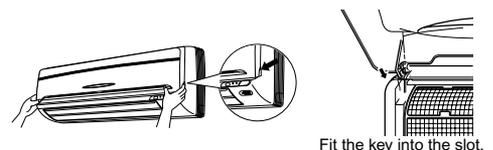
- Before choosing the installation site, obtain user approval.

<p>Indoor unit</p> <p>The indoor unit should be sited in a place where:</p> <ul style="list-style-type: none"> • the restrictions on installation specified in the indoor unit installation drawings are met, • both air intake and exhaust have clear paths met, • the unit is not in the path of direct sunlight, • the unit is away from the source of heat or steam, • there is no source of machine oil vapour (this may shorten indoor unit life), • cool (heat) air is circulated throughout the room, • the unit is away from electronic ignition type fluorescent lamps (inverter or rapid start type) as they may shorten the remote control range, • the unit is at least 1 metre away from any television or radio set (unit may cause interference with the picture or sound). 	<p>Outdoor unit</p> <p>The outdoor unit should be sited in a place where:</p> <ul style="list-style-type: none"> • the restrictions on installation specified in the outdoor unit installation diagram are met, • drain water causes no trouble or problem in particular, • both air intake and exhaust have clear paths of air (they should be free of snow in snowy districts), • the unit is in a clear path of air but not directly exposed to rain, strong winds, or direct sunlight, • there is no fear of inflammable gas leakage, • the unit is no directly exposed to salt, sulfidized gases, or machine oil vapour (they may shorten outdoor unit life), • operation noise or hot air flow does not cause trouble to neighbours, • the unit is at least 3 metres away from any television or radio antenna. <p>Wireless remote controller</p> <ul style="list-style-type: none"> • Turn on all the fluorescent lamps in the room, if any, and find the site where remote controller signals are properly received by the indoor unit (within 7 metres).
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Installation Tips

How to remove the front panel.

- Hook fingers on the panel protrusions on the left and right of the main body, and open until the panel stops.
- Slide the front panel sideways to disengage the rotating shaft.
- Then pull the front panel toward you to remove it.

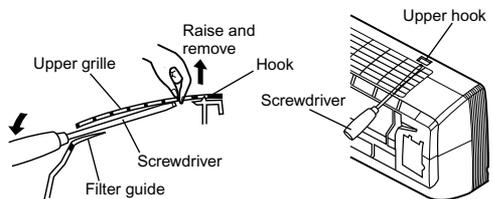


How to attach the front panel.

- Align the tabs of the front panel with the grooves, and push all the way in.
- Then close slowly.
- Push the center of the lower surface of the panel firmly to engage the tabs.

How to remove the front grille.

- Open the front panel.
- Remove the screws (2 pcs) on the front grille.
- Pull the lower part of the front grille toward you, then remove the front grille completely. (There are 2 hooks on the upper part.)
If it is difficult to remove, open the front grille and raise the top grid, using a screwdriver, to unhook the hooks.



How to attach the front grille.

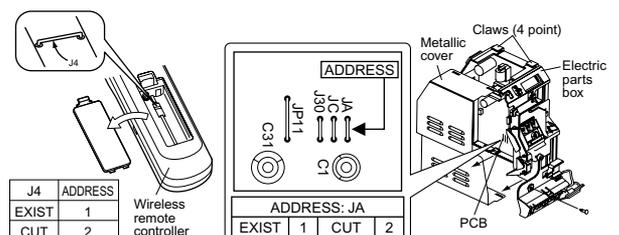
- Attach the front grille to the bottom frame, and lock the upper hooks (2points) securely.
- Tighten the screws (2 pcs) on the front grille.
- Attach the front panel and close the front panel.

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.

PCB in the indoor unit.

- Remove the front panel.
- Remove the electric parts box (1-screw).
- Slide the metallic cover to remove it. (4-claws on the electric parts box)
- Cut the jumper JA on PCB.



Wireless remote controller.

- Cut the jumper J4.

Indoor/Outdoor Unit Installation Drawings

■ How to attach the indoor unit.
 Hook the claws of the bottom frame to the mounting plate.
 If the claws are difficult to hook, remove the front grille.

■ How to remove the indoor unit.
 Push up the marked area (at the lower part of the front grille) to release the claws. If it is difficult to release, remove the front grille.

A Mounting plate
B M4 × 25L

The mounting plate should be installed on a wall which can support the weight of the indoor unit.

30mm or more from ceiling
 50mm or more from walls (on both sides)

Cut thermal insulation pipe to an appropriate length and wrap it with tape, making sure that no gap is left in the insulation pipe's cut line.
 Wrap the insulation pipe with the finishing tape from bottom to top.

Caulk pipe hole gap with putty.

Service lid
This service lid is an open/close type.

- Remove the screws on the service lid.
- Slide the service lid leftward.
- Rotate the service lid upward.

Model	25	35
Min. allowable length	3m	
Max. allowable length	15m	
Additional charge of refrigerant	20g/m	
Max. allowable length without additional charge	7.5m	10m
Max. allowable height	10m	
Gas pipe	O.D. 9.5mm	
Liquid pipe	O.D. 6.4mm	

* Be sure to add the proper amount of additional refrigerant. Failure to do so may result in reduced performance.

C Titanium Apatite Photocatalytic Air-Purifying Filter (2)
 Titanium Apatite Photocatalytic Air-Purifying Filter
 Filter frame
 Tab
 Air filter

J Thermistor cable
 Use optional kit when extending the thermistor cable.

Before screwing the remote controller holder to the wall, make sure that control signals are properly received by indoor unit.

If there is a lot of vibration with outdoor unit installations such as wall-mounted installations, use anti-vibration rubber, etc., for the outdoor unit.

In sites with poor drainage, use block bases for outdoor unit. Adjust foot height until the unit is leveled. Otherwise, water leakage or pooling of water may occur.

Where there is a danger of the unit falling, use foot bolts, or wires.

Allow space for piping and electrical servicing.

D Wireless remote controller
E Remote controller holder
F M3 × 20L

250mm from wall
 470 (Foot bolt-hole centres)
 115 (From unit's side)
 288 (Foot bolt-hole centres)

Service lid
■ How to remove the service lid.

- Remove the screw on the service lid.
- Slide the lid downward to remove it.

■ How to attach the service lid.

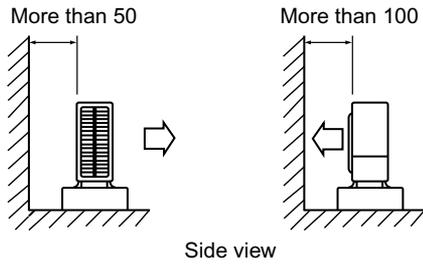
- Insert the upper part of the service lid into the outdoor unit to install.
- Tighten the screws.

unit: mm

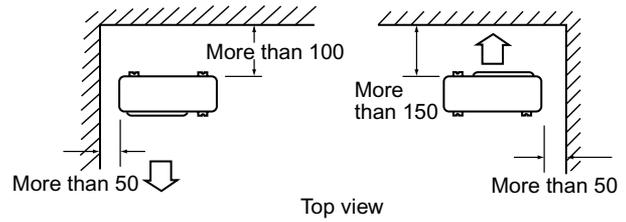
Outdoor Unit Installation Guidelines

- Where a wall or other obstacle is in the path of outdoor unit's intake or exhaust airflow, follow the installation guidelines below.

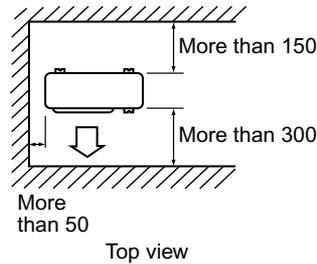
Wall facing one side



Walls facing two sides



Walls facing three sides

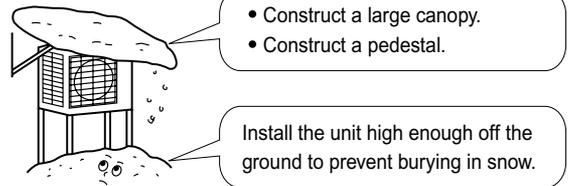


Unit: mm

⚠ CAUTION

When operating the air conditioner in a low outdoor ambient temperature, be sure to follow the instructions described below.

- To prevent exposure to wind, install the outdoor unit with its suction side facing the wall.
- Never install the outdoor unit at a site where the suction side may be exposed directly to wind.
- To prevent exposure to wind, it is recommended to install a baffle plate on the air discharge side of the outdoor unit.
- In heavy snowfall areas, select an installation site where the snow will not affect the unit.

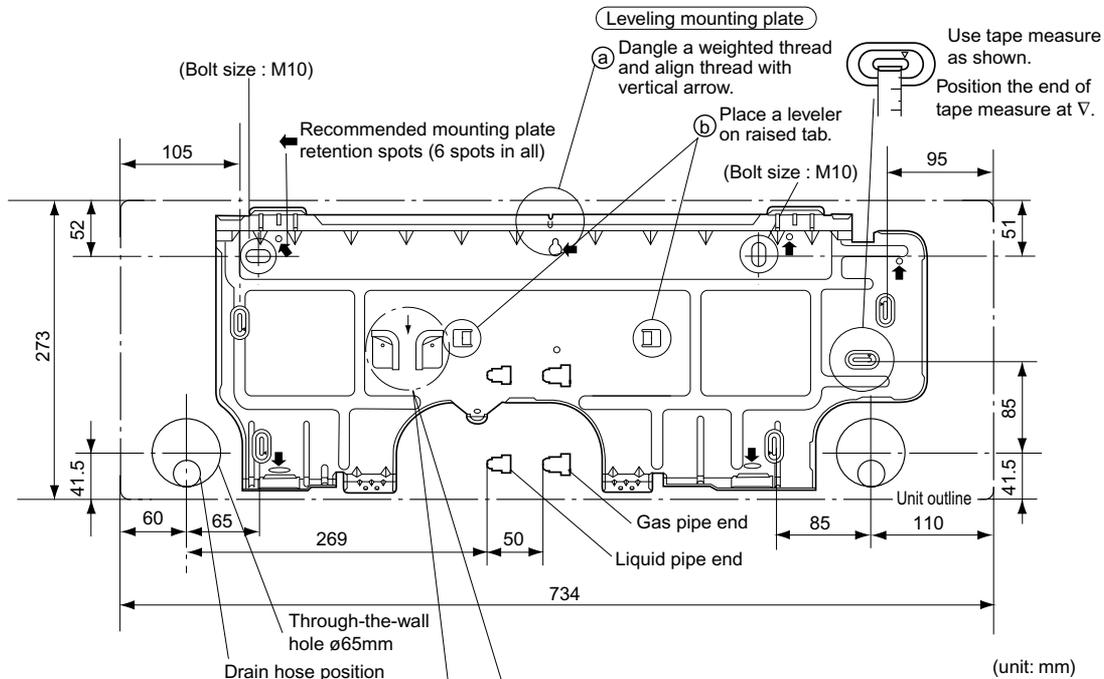


Indoor Unit

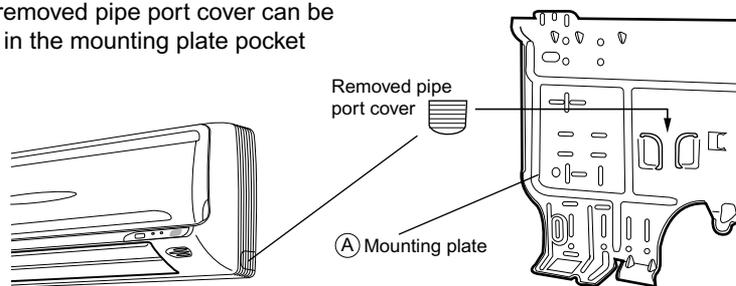
1. Installing the mounting plate.

- 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.

Recommended mounting plate retention spots and Dimensions

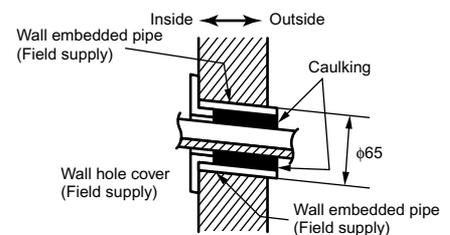


* The removed pipe port cover can be kept in the mounting plate pocket



2. Boring a wall hole and installing wall embedded pipe.

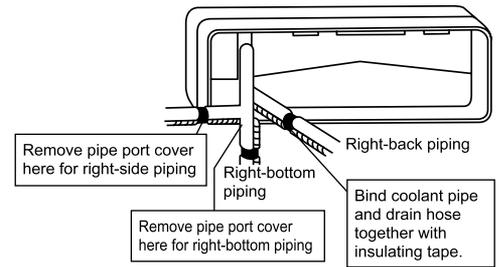
- For walls containing metal frame or metal board, be sure to use a wall embedded pipe and wall cover in the feed-through hole to prevent possible heat, electrical shock, or fire.
- Be sure to caulk the gaps around the pipes with caulking material to prevent water leakage.
- 1) Bore a feed-through hole 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.



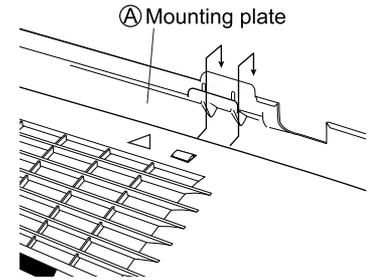
3. Installing indoor unit.

3-1. Right-side, right-back, or right-bottom piping.

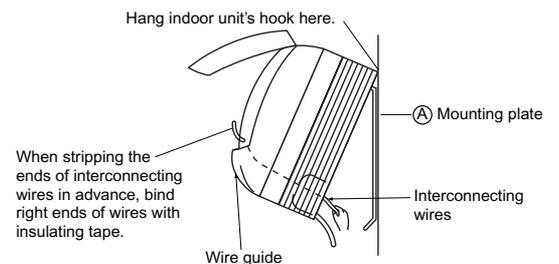
- 1) Attach the drain hose to the underside of the refrigerant pipes with adhesive vinyl tape.
- 2) Wrap the refrigerant pipes and drain hose together with insulation tape.



- 3) Pass the drain hose and refrigerant pipes through the wall hole, then set the indoor unit on the mounting plate hooks by using the \triangle markings at the top of the indoor unit as a guide.

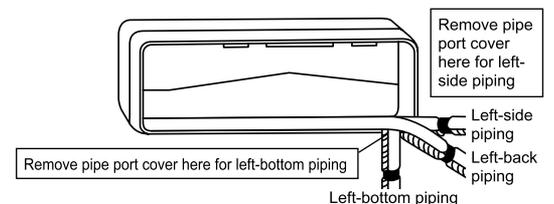


- 4) Open the front panel, then open the service lid. (Refer to Installation Tips)
- 5) Pass the interconnecting wires from the outdoor unit through the feed-through wall hole and then through the back of the indoor unit. Pull them through the front side. Bend the ends of tie wires upward in advance for easier work. (If the interconnecting wire ends are to be stripped first, bundle wire ends with adhesive tape.)
- 6) Press the indoor unit's bottom panel with both hands to set it on the mounting plate hooks. Make sure the wires do not catch on the edge of the indoor unit.



3-2. Left-side, left-back, or left-bottom piping.

- 1) Attach the drain hose to the underside of the refrigerant pipes with adhesive vinyl tape.

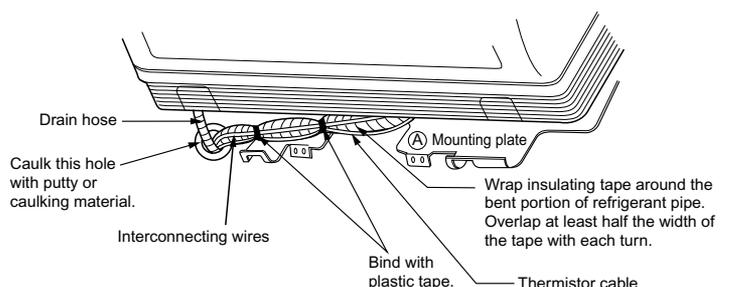


- 2) Be sure to connect the drain hose to the drain port in place of a drain plug.

How to set drain plug



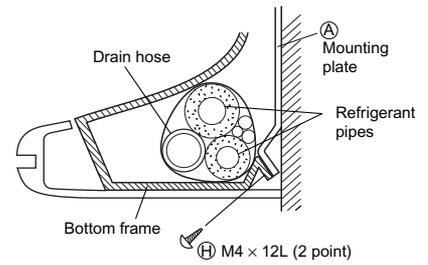
- 3) Shape the refrigerant pipe along the pipe path marking on the mounting plate.
- 4) Pass drain hose and refrigerant pipes through the wall hole, then set the indoor unit on mounting plate hooks, using the \triangle markings at the top of indoor unit as a guide.
- 5) Pull in the interconnecting wires.
- 6) Connect the inter-unit piping.



Indoor Unit

Note:

- 1) Wrap the refrigerant pipes and drain hose together with insulation tape as right figure, in case of setting the drain hose through the back of the indoor unit.
- 2) If it difficult to fix the claws of the bottom frame on the catches of the mounting plate.
Secure indoor unit to the mounting plate with screws (M4 × 12L).

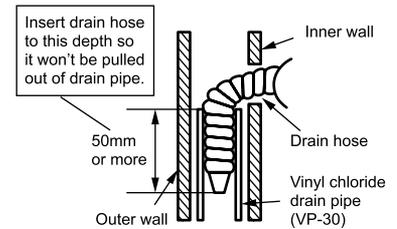


3-3. Wall embedded piping.

Follow the instructions given under

Left-side, left-back, or left-bottom piping

- 1) Insert the drain hose to this depth so it won't be pulled out of the drain pipe.



4. Wiring.

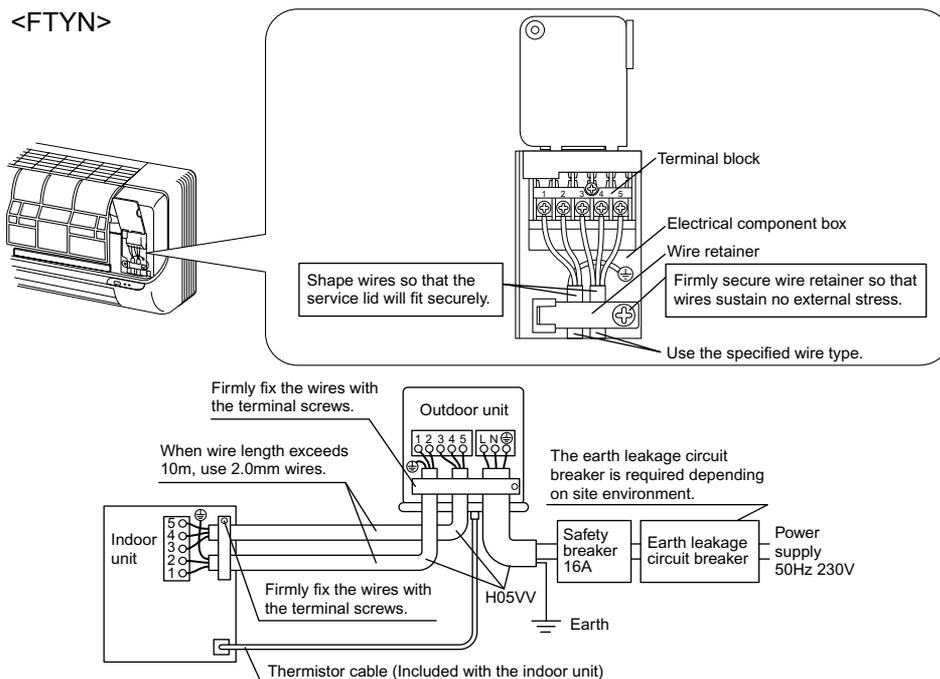
⚠ WARNING

- 1) Do not use tapped wires, stand 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) Be sure to install an earth leak detector. (Failure to install an earth leakage breaker may result in electric shocks.)
- 4) When wiring indoor and outdoor units, always connect terminals together having the same numbers.
Should any terminal be connected to another terminal that has a different number, the air conditioner may stop running, or the fuse on the indoor or outdoor unit may blow out.
(See the electric wiring diagram included with the product for details on the fuse specifications.)

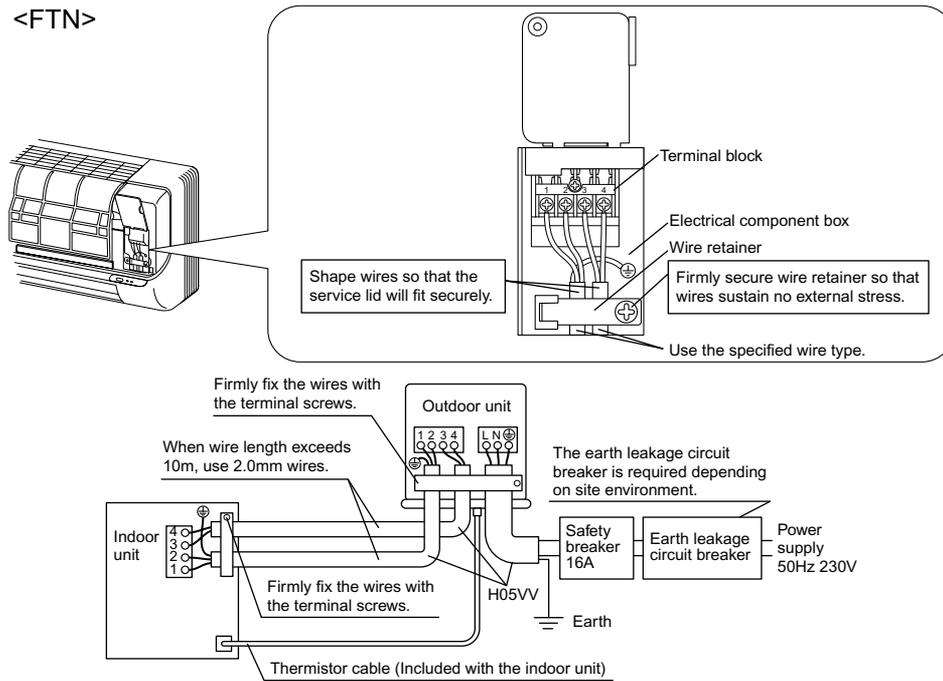
- Do not turn ON the safety breaker until all work is completed.

- 1) Strip wire ends (15mm).
- 2) Match wire colours with terminal numbers on indoor and outdoor units' 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) Shape the wires so that the service lid fits securely, then close service lid.

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5. Thermistor cable.

The thermistor cable is secured to the indoor unit.

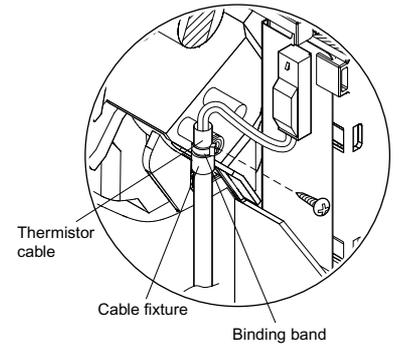
If performing the wiring after removing the thermistor cable, follow the procedure outlined below.

Removing the Thermistor Cable

- 1) Remove the front grille. (Refer to the Installation Tips.)
- 2) Remove the connector.
- 3) Remove the screw (1 pcs) securing the cable fixture and then remove the thermistor cable.

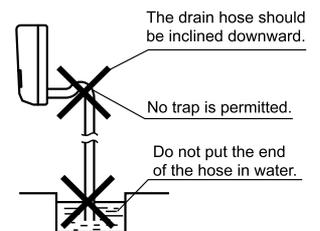
Attaching the Thermistor Cable

- 1) Secure the thermistor cable using the cable fixture. (1 screw)
- 2) Connect the connector after the thermistor cable has been secured.

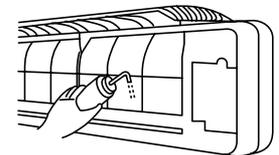


6. Drain piping.

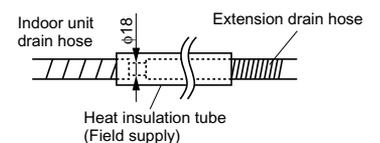
- 1) Connect the drain hose, as described right.



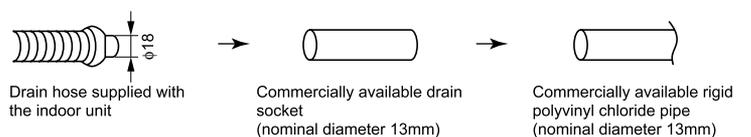
- 2) Remove the air filters and pour some water into the drain pan to check the water flows smoothly.



- 3) When drain hose requires extension, obtain an extension hose commercially available. Be sure to thermally insulate the indoor section of the extension hose.



- 4) When connecting a rigid polyvinyl chloride pipe (nominal diameter 13mm) directly to the drain hose attached to the indoor unit as with embedded piping work, use any commercially available drain socket (nominal diameter 13mm) as a joint.



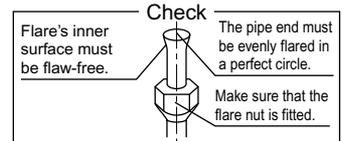
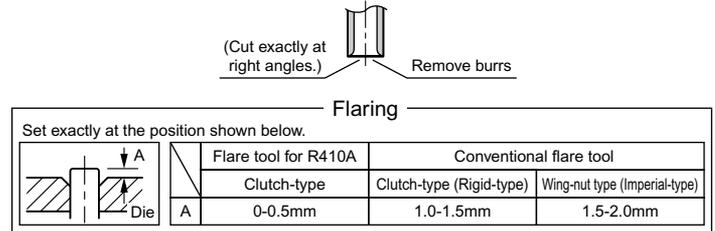
Outdoor Unit

1. Installing outdoor unit.

- For outdoor unit installation, see **Choosing a Site** **Outdoor unit** and **Indoor/Outdoor Unit Installation Drawings**.

2. Flaring the pipe end.

- Cut the pipe end with a pipe cutter.
- Remove burrs with the cut surface facing downward so that the chips do not enter the pipe.
- Put the flare nut on the pipe.
- Flare the pipe.
- Check that the flaring is properly made.



⚠ WARNING

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

3. Refrigerant piping.

- 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.
 - Use torque wrenches when tightening the flare nuts to prevent damage to the flare nuts and escaping gas.
- To prevent gas leakage, apply refrigeration machine oil on both inner and outer surfaces of the flare. (Use refrigeration oil for R410A)

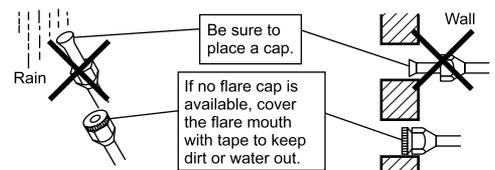
Flare nut tightening torque	
Gas side	Liquid side
3/8 inch	1/4 inch
32.7-39.9N • m (333-407kgf • cm)	14.2-17.2N • m (144-175kgf • cm)

Valve cap tightening torque	
Gas side	Liquid side
3/8 inch	1/4 inch
21.6-27.4N • m (220-280kgf • cm)	21.6-27.4N • m (220-280kgf • cm)

Service port cap tightening torque	10.8-14.7N • m (110-150kgf • cm)
------------------------------------	-------------------------------------

3-1. Caution on piping handling.

- Protect the open end of the pipe against dust and moisture.
- All pipe bends should be as gentle as possible. Use a pipe bender for bending. (Bending radius should be 30 to 40mm or larger.)



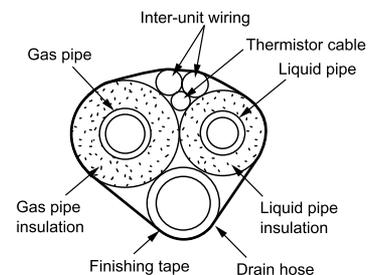
3-2. Selection of copper and heat insulation materials.

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

- 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.
- 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		25/35 class	
O.D. 9.5mm	O.D. 6.4mm	I.D. 12-15mm	I.D. 8-10mm
Thickness 0.8mm		Thickness 10mm Min.	

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



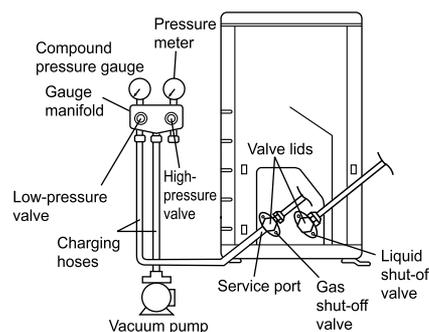
4. Purging air and checking gas leakage.

- When piping work is completed, it is necessary to purge the air and check for gas leakage.

⚠ WARNING

- 1) Do not mix any substance other than the specified refrigerant (R410A) into the refrigeration cycle.
- 2) When refrigerant gas leaks occur, ventilate the room as soon and as much as possible.
- 3) R410A, as well as other refrigerants, should always be recovered and never be released directly into the environment.
- 4) Use a vacuum pump for R410A exclusively. Using the same vacuum pump for different refrigerants may damage the vacuum pump or the unit.

- If using additional refrigerant, perform air purging from the refrigerant pipes and indoor unit using a vacuum pump, then charge additional refrigerant.
- Use a hexagonal wrench (4mm) to operate the shut-off valve rod.
- All refrigerant pipe joints should be tightened with a torque wrench at the specified tightening torque.



1) Connect projection side (on which worm pin is pressed) of charging hose (which comes from gauge manifold) to gas shut-off valve's service port.



2) Fully open gauge manifold's low-pressure valve (Lo) and completely close its high-pressure valve (Hi). (High-pressure valve subsequently requires no operation.)



3) Do vacuum pumping and make sure that the compound pressure gauge reads -0.1MPa (-76cmHg)*1.



4) Close gauge manifold's low-pressure valve (Lo) and stop vacuum pump. (Keep this state for a few minutes to make sure that the compound pressure gauge pointer does not swing back.)*2.



5) Remove covers from liquid shut-off value and gas shut-off valve.



6) Turn the liquid shut-off valve's rod 90 degrees counterclockwise with a hexagonal wrench to open valve. Close it after 5 seconds, and check for gas leakage. Using soapy water, check for gas leakage from indoor unit's flare and outdoor unit's flare and valve rods. After the check is complete, wipe all soapy water off.



7) Disconnect charging hose from gas shut-off valve's service port, then fully open liquid and gas shut-off valves. (Do not attempt to turn valve rod beyond its stop.)



8) Tighten valve lids and service port caps for the liquid and gas shut-off valves with a torque wrench at the specified torques.

*1. Pipe length vs. vacuum pump run time

Pipe length	Up to 15 metres	More than 15 metres
Run time	Not less than 10 min.	Not less than 15 min.

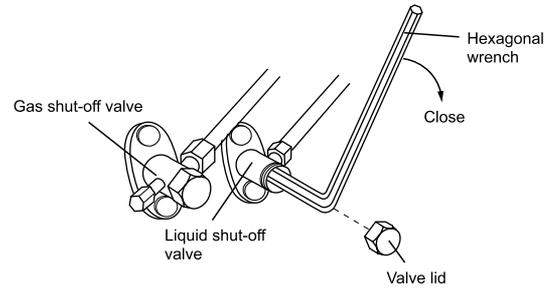
*2. If the compound pressure gauge pointer swings back, refrigerant may have water content or a loose pipe joint may exist. Check all pipe joints and retighten nuts as needed, then repeat steps 2) through 4).

Outdoor Unit

5. Pump down operation.

In order to protect the environment, be sure to pump down when relocating or disposing of the unit.

- 1) Remove the valve lid from liquid shut-off valve and gas shut-off valve.
- 2) Carry out forced cooling operation.
- 3) After five to ten minutes, close the liquid shut-off valve with a hexagonal wrench.
- 4) After two to three minutes, close the gas shut-off valve and stop forced cooling operation.

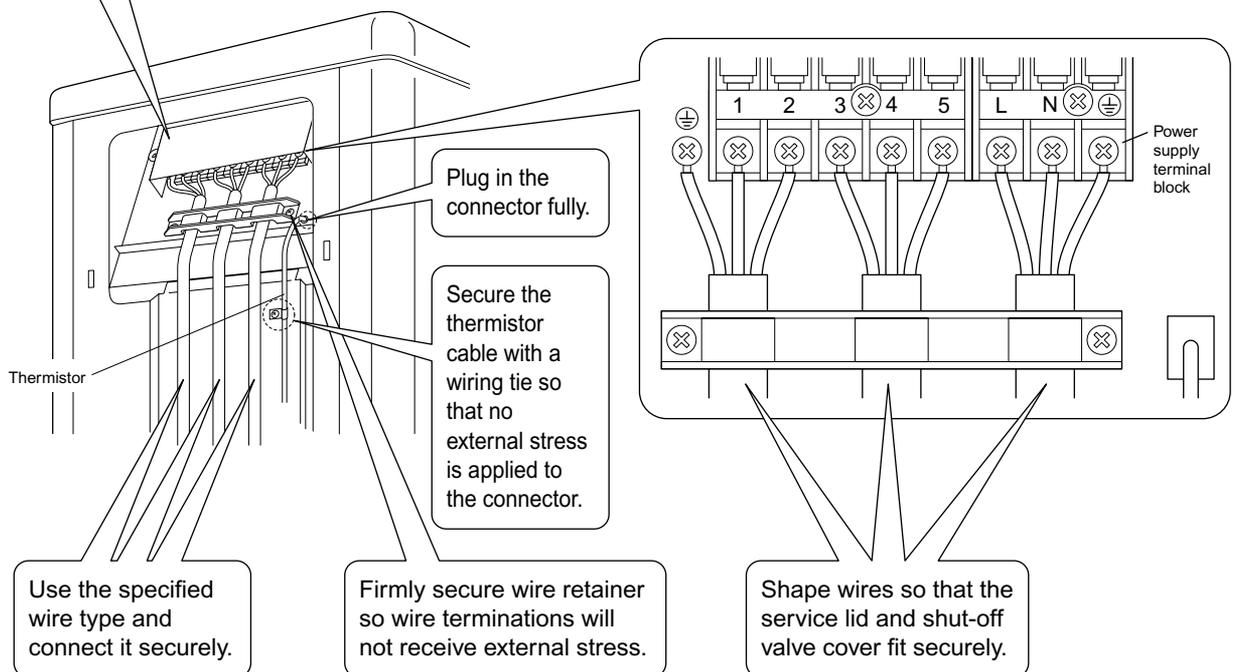
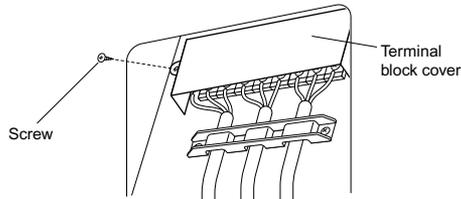


6. Wiring.

- For interconnecting wire connections, see **Indoor Unit, 4 Wiring.**

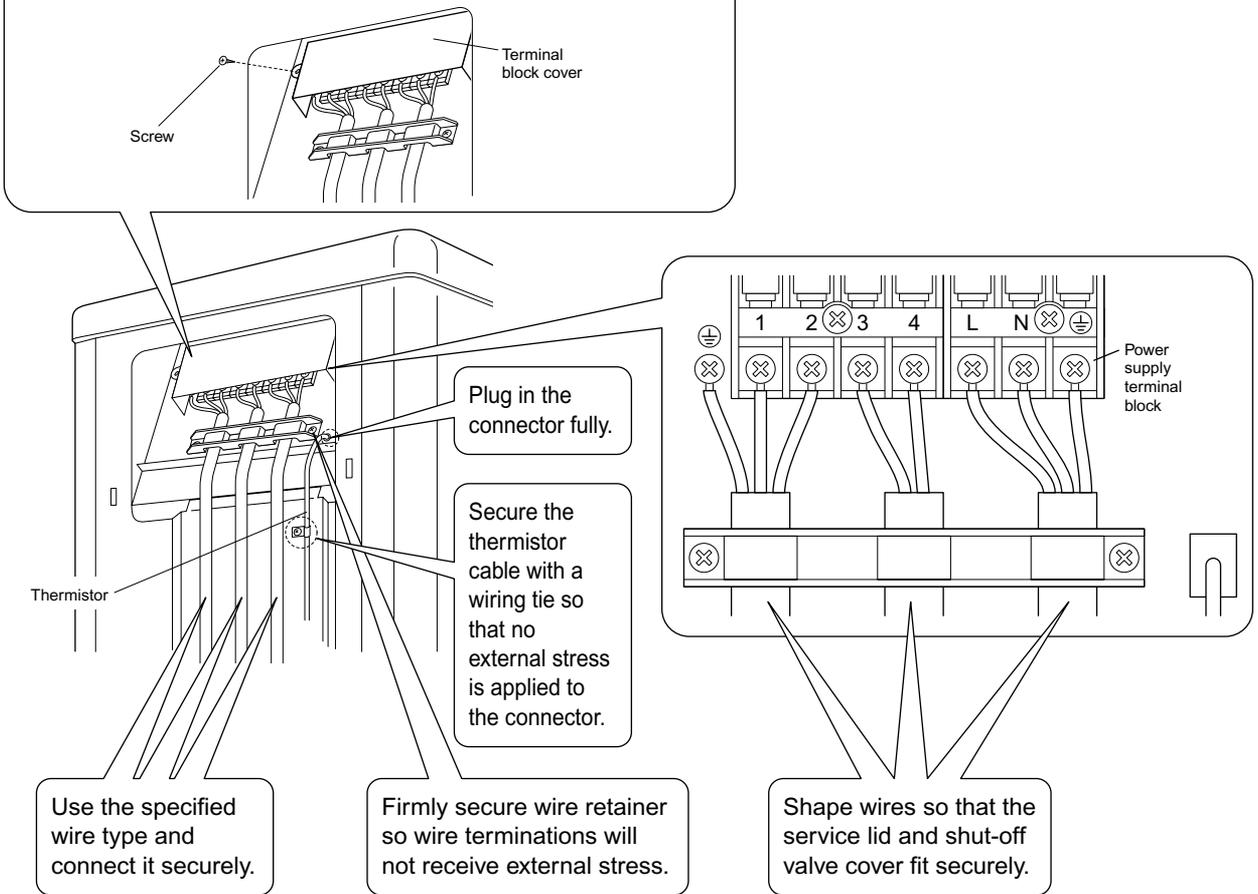
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To connect the wires, remove the screw and pull up the terminal block cover. After the wiring is complete, return the cover to its original location and secure with the screws.



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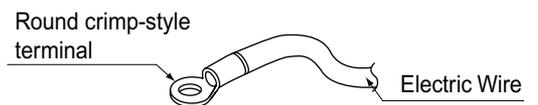
To connect the wires, remove the screw and pull up the terminal block cover.
After the wiring is complete, return the cover to its original location and secure with the screws.



Observe the notes mentioned below when wiring to the power supply terminal board.

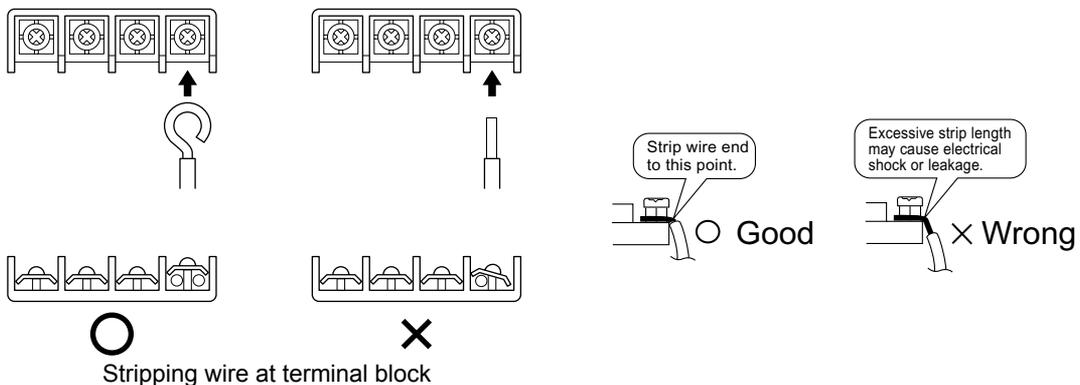
Precautions to be taken for power supply wiring.

(Use a round crimp-style terminal for connection to the power supply terminal board. In case it cannot be used due to unavoidable reasons, be sure to observe the following instruction.)



⚠ CAUTION

When connecting the connection wires to the terminal board using a single core wire, be sure to perform curling. Problems with the work may cause heat and fires.

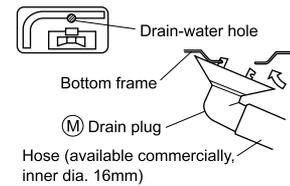


- Pull the wire and make sure that it does not disconnect. Then fix the wire in place with a wire stop.

Outdoor Unit

7. Drain work.

- 1) Use drain plug (M) for drainage.
- 2) If the drain port is covered by a mounting base or floor surface, place additional foot bases of at least 30mm in height under the outdoor unit's feet.
- 3) In cold areas, do not use a drain hose with the outdoor unit.
(Otherwise, drain water may freeze, impairing heating performance.)



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.
 - 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.
 - 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.
- 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.

2. Test items.

Test Items	Symptom (diagnostic display on RC)	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 interconnecting wire connections.	Inoperative or burn damage	
Indoor or outdoor unit's air intake or exhaust has clear path of air. Shut-off valves are opened.	Incomplete cooling/heating function	
Indoor unit properly receives remote control commands.	Inoperative	

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