



DAIKIN ROOM AIR CONDITIONER

INSTALLATION MANUAL

R410A Split Series



Installation manual
Installationsanleitung
Manuel d'installation
Installatiehandleiding
Manual de instalación
Manuale di installazione
Εγχειρίδιο εγκατάστασης
Μαnual de instalação
Руководство по монтажу
Montaj kılavuzları

MODELS

FTXG25JV1BW FTXG25JV1BS FTXG35JV1BW FTXG35JV1BS CTXG50JV1BW CTXG50JV1BS

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

.

- DECLARACION-DE-CONFORMIDAD - DICHIARAZIONE-DI-CONFORMITA - ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ

CE - DECLARAÇÃO-DE-CONFORMIDADE CE - 3AABJIEHИE-O-COOTBETCTBИИ CE - OPFYLDELSESERKLÆRING CE - FÖRSÄKRAN-OM-ÖVERENSTÄMMELSE

CE - ERKLÆRING OM-SAMSVAR CE - ILMOITUŞ-YHDENMUKAISUUDESTA CE - PROHLÁŠENÍ-O-SHODĚ

CE - IZJAVA-O-UŞKLAĐENOSTI CE - MEGFELELŐSÉGI-NYILATKOZAT CE - DEKLARACJA-ZGODNOŚCI CE - DECLARAŢIE-DE-CONFORMITATE

CE - IZJAVA O SKLADNOSTI CE - VASTAVUSDEKLARATSIOON CE - ДЕКЛАРАЦИЯ-3A-CЪOTBETCTBИE

CE - ATTIKTIES-DEKLARACIJA CE - ATBILSTIBAS-DEKLARĀCIJA CE - VYHLASENIE-ZHODY CE - UYUMLULUK-BILDIRĪSI

DAIKIN INDUSTRIES, LTD

01 @ declares under its sole responsibility that the air conditioning models to which this declar ation relates:

© erklärt auf seine alleinige Verpansumly ruda die Modelle der Klimagerike für die diese Erklärung bestimmt list.
 © erklärt auf seine alleinige Verpansumly ruda die Modelle der Klimagerike für die diese Erklärung bestimmt list.
 © declare sous sa seule responsabilité que les appareils d'air conditionné visés par la présente déclar ation.
 © declare baja su unita responsabilité que les nodels des la monditionne units waanop daze verklaring berterkting heelt:
 ⑤ declare baja su unita responsabilité de la models de la conditionand units waanop daze verklaring berterkting heelt:
 ⑥ G. dichiara sous aur esponsabilité he i condizionator in models a cui el riferta questa dichiarazione.
 Ø G. dichiarazione su ersponsabilité de la condizionator in w. Auturntrixivo voncessivo von ondo avvogestra η παρούσο δή/kuom;
 Ø G. declara sob sua exclusiva responsabilidade que os modelsos de ar condicionado a que esta declaração se referer.

09 🝩 заявляет, исключительно под свою ответственность, что модели кондиционеров воздуха, к которым относится настоящее заявление:

® erklærer under eneansvar, at klimaanlægmodellerne, som denne deklaration vedrorer:
 ® deklarerar i egenskap av huvudansvarig, att luftkonditioneringsmodellerna som berörs av denna deklaration innebär att:
 ® erklærer et fullstendig ansvar for at de luftkondisjoneringsmodeller som berøres av denne deklarasjon innebærer at:
 ® ilmolitta yksinomaan omalla vastuuljaan, että lämän ilmoltuksen tarkolitamat ilmasiointilaitteiden mallit:

15 🙉 izjavljuje pod isključivo vlastitom odgovornošću da su modeli klima uređaja na koje se ova izjava odnosi: 14 Œ prohlašuje ve své plné odpovědnosti, že modely klimatizace, k nimž se toto prohlášení vztahuje:

17 🖭 deklaruje na własną i wyłączną odpowiedzialność, że modele klimatyzatorów, których dotyczy niniejsza deklaracja: 16 (H.) teljes felelőssége tudatában kijelenti, hogy a klímaberendezés modellek, melyekre e nyilatkozat vonatkozik:

18 (ne) declară pe proprie răspundere că aparatele de aer condiționat la care se referă această declarație:

20 🖘 kinnitab oma täielikul vastutusel, et käesoleva deklaratsiooni alla kuuluvad kliimaseadmete mudelid: 19 🐵 z vso odgovornostjo izjavlja, da so modeli klimatskih naprav, na katere se izjava nanaša:

21 (во декларира на своя отговорност, че моделите климатична инсталация, за които се отнася тази декларация:

22 🗷 visiška savo alsakomybe skelbia, kad oro kondicionavimo prietaisų modeliai, kuriems yra taikoma ši deklaracija:

W. explinu atbildību apliecina, ka tātāk uzskaitīto modeļu gaisa kondiciorētāji, uz kuriem attiecas šī dektarācija:
 Wesvirlasuje na viastnú zodpovednost, že tieto klimatizačné modely, na ktoré sa vzfahuje toto vyhlásenie:

25 🙉 tamamen kendi sorumluluğunda olmak üzere bu bildirinin ilgili olduğu klima modellerinin aşağıdaki gibi olduğunu beyan eder.

FTXG25JV1BW, FTXG25JV1BS, FTXG35JV1BW, FTXG35JV1BS, CTXG50JV1BW, CTXG50JV1BS

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

02 deriden folgenden Norm(en) oder einem anderen Normdokument oder -dokumenten entspricht/entsprechen, unter der Voraussetzung,

daß sie gemäß unseren Anweisungen eingesetzt werden: 03 sont conformes à lataux norme(s) ou autre(s) document(s) normatif(s), pour aufant qu'ils solent utilisés conformément à nos instructions. 04 conform de volgende norm(en) of één of meer andere bindende documenten zijn, op voorwaarde dat ze worden gebruikt overeenkomstig

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: onze instructies:

06 sono conformi al(i) seguente(i) standard(s) o altro(i) documento(i) a carattere normativo, a patto che vengano usati in conformità alle

07 είναι σύμφωνα με τοίο) ακόλουθοίο) πρότυποία) ή άλλο έγγραφοία) κανονισμών, υπό την προϋπόθεση ότι χρησμοποιούνται σύμφωνα με τις οδηγίες μας: nostre istruzioni:

08 estão em conformidade com a(s) seguinte(s) norma(s) ou outro(s) documento(s) normativo(s), desde que estes sejam utilizados de 09 соответствуют следующим стандартам или другим нормативным документам, при условии их использования согласно нашим acordo com as nossas instruções:

11 respektive utrustning är utförd i överensstämmelse med och följer följande standard(er) eller andra normgivande dokument, under 10 overholder følgende standard(er) eller andet/andre retningsgivende dokument(er), forudsat at disse anvendes i henhold til vore instrukser:

12 respektive utstyr er i overensstemmelse med følgende standard(er) eller andre normgivende dokument(er), under forutssetning av at förutsättning att användning sker i överensstämmelse med våra instruktioner: disse brukes i henhold til våre instrukser:

13 vastaavat seuraavien standardien ja muiden ohjeellisten dokumenttien vaatimuksia edellyttäen, että niitä käytetään ohjeidemme

mukaisesti:

14 za předpokladu, že jsou využívány v souladu s našími pokyny, odpovídají následujícím normám nebo normatívním dokumentům: 15 u skladu sa slijedečím standardom(ima) ili drugím normatívním okukmentom(ima), uz uvjet da se oni koriste u skladu s naším uputama:

17 spełniają wymogi następujących norm i innych dokumentów normalizacyjnych, pod warunkiem że używane są zgodnie z naszymi 18 sunt în conformitate cu următorul (următoarele) standard(e) sau alt(e) document(e) normativ(e), cu condiția ca acestea să fie utilizate în 16 megfelelnek az alábbi szabvány(ok)nak vagy egyéb irányadó dokumentum(ok)nak, ha azokat előírás szerint használják: instrukcjami:

21 съответстват на следните стандарти или други нормативни документи, при условие, че се използват съгласно нашите 20 on vastavuses järgmis(t)e standardi(te)ga või teiste normatiivsete dokumentidega, kui neid kasutatakse vastavalt meie juhenditele: 19 skladni z naslednjimi standardi in drugimi normativi, pod pogojem, da se uporabljajo v skladu z našimi navodili: conformitate cu instrucțiunile noastre

24 sú v zhode s nasledovnou(ými) normou(ami) alebo iným(i) normatívnym(i) dokumentom(ami), za predpokladu, že sa používajú v súlade 22 atitinka žemiau nurodytus standartus ir (arba) kitus norminius dokumentus su salyga, kad yra naudojami pagal mūsų nurodymus: 23 tad. ja lietoti atbilstoši ražotāja norādījumiem, atbilst sekojošiem standartiem un citiem normatīviem dokumentiem: инструкции:

25 ürünün, talimatlarımıza göre kullanılması koşuluyla aşağıdaki standartlar ve norm belirten belgelerle uyumludur. s našim návodom:

> Electromagnetic Compatibility 2004/108/EC Low Voltage 2006/95/EC

> > 23 ievērojot prasības, kas noteiktas: 24 održiavajúc ustanovenia: 25 bunun koşullarına uygun olarak:

17 zgodnie z postanowieniami Dyrektyw:

18 în urma prevederilor:

22 laikantis nuostatu, pateikiamu;

21 следвайки клаузите на: 19 ob upoštevanju določb:

20 vastavalt nõuetele:

10 under iagttagelse af bestemmelserne i:

12 gitt i henhold til bestemmelsene i: 14 za dodržení ustanovení předpisu:

11 enligt villkoren i

01 following the provisions of: 02 gemäß den Vorschriften der: 03 conformément aux stipulations des:

EN60335-2-40

13 noudattaen määräyksiä:

15 prema odredbama:

16 követi a(z):

Od overeenkomstig de bepalingen van:
OS siguiendo las disposiciones de:
OS secondo le prescrizioni per:
OY με τήριση των διατάξεων των:
OS de acourdo com o previsio en:
O9 в соответствии с положениями:

a(z) <A> alapján, a(z) igazolta a megfelelést, a(z) <C> tanúsítvány szerint. 16 Megjegyzés* 17 Uwaga* 18 Notă* enligt <A> och godkäntsav enligt Certifikatet <C>.

Information *

=

delineato nel <A> e giudicato positivamente

06 Nota *

as set out in <a>A> and judged positively by <a>B> wie in der <A> aufgeführt und von positiv beurteilt gemäß Zertifikat <C>.

Note *

according to the Certificate <C>.

da secondo il Certificato <C>.

* Σημείωση

08 Nota*

tel que défini dans <A> et évalué positivement par zoals vermeld in <A> en positief beoordeeld door

03 Remarque * 02 Hinweis*

04 Bemerk*

Nota *

 conformément au Certificat <C>. overeenkomstig Certificaat <C>.

19 Opomba* Märkus * 2 jak bylo uvedeno v <A> a pozitívně zjištěno v souladu s osvědčením <C>. jotka on esitetty asiakirjassa <A> ja jotka on kako je izloženo u <A> i pozitivno ocijenjeno od strane prema Certifikatu <C>. som det fremkommer i <A> og gjennom positiv bedømmelse av ifølge Sertifikat <C>. hyvāksynyt Sertifikaatin <C> mukaisesti. 14 Poznámka * Napomena * 12 Merk * 13 Huom *

positivo de de acordo com o Certificado <C> όπως καθορίζεται στο <Α> και κρίνεται θετικά από το <Β> σύμφωνα με το Πιστοποιητικό <C> . tal como estabelecido em <A> e com o parecer

Kak vkasaho B < A> и B соответствии с

09 Примечание

som anført i <A> og positivt vurderet af i положительным решением <В> согласно

10 Bemærk*

como se establece en <A> y es valorado positivamente por de acuerdo con el

Certificado <C>.

nenhold til Certifikat < Свидетельству «С>

23 Piezīmes * Poznámka * 22 Pastaba* 7 kot je določeno v <A> in odobreno s strani v zgodnie z dokumentacją <A>, pozytywną opinią i Świadectwem <C>. nagu on näidatud dokumendis <A> ja heaks kiidetud järgi vastavalt sertifikaadile <C>. aşa cum este stabilit în <A> şi apreciat pozitiv de în conformitate cu Certificatul <C> skladu s certifikatom <C>.

kaip nustatyta <A> ir kaip teigiamai nuspręsta

pagal Sertifikata <C>.

ako bolo uvedené v <A> a pozitívne zistené v súlade s osvedčením <C>. kā norādīts <A> un atbilstoši pozitīvajam <A>'da belirtildiği gibi ve <C> Sertifikasına vērtējumam saskanā ar sertifilkātu <C>. göre tarafından olumlu olarak değerlendirildiği gibi. * ₽

23

<a>< A> DAIKIN.TCF.015 M14/09-2009 KEMA Quality B.V.

25 Değiştirilmiş halleriyle Yönetmelikler.

16 irányelv(ek) és módosításaik rendelkezéseit.

15 Smjernice, kako je izmijenjeno.

05 Directivas, según lo enmendado.
06 Direttive, come da modifica.
07 Οδηγιών, όπως έχουν τροποποιηθεί.

02 Direktiven, gemāß Ānderung. 03 Directives, telles que modifiées. 04 Richtlijnen, zoals geamendeerd.

Directives, as amended.

08 Directivas, conforme alteração em.

09 Директив со всеми поправками.

14 v platném znění.

18 Directivelor, cu amendamentele respective

както е изложено в <А> и оценено

21 Забележка *

положително от съгласно

Сертификата <С>

17 z późniejszymi poprawkami.

Direktiivejä, sellaisina kuin ne ovat muutettuina.

Direktīvās un to papildinājumos.

24 Smernice, v platnom znení.

21 Директиви, с техните изменения.

19 Direktive z vsemi spremembami.

10 Direktiver, med senere ændringer. 11 Direktiv, med företagna ändringar. 12 Direktiver, med foretatte endringer

20 Direktiivid koos muudatustega. 22 Direktyvose su papildymais. <C> 74736-KRQ/EMC97-4957

DAIKIN

3SB64418-8B

Manager Quality Control Department Shinri Sada

3.12.2009

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

Safety Precautions

- The precautions described herein are classified as WARNING and CAUTION. They both contain important information regarding safety. Be sure to observe all precautions without fail.
- Meaning of WARNING and CAUTION notices

NARNING Failure to follow these instructions properly may result in personal injury or loss of life.

CAUTION Failure to observe these instructions properly may result in property damage or personal injury, which may be serious depending on the circumstances.

The safety marks shown in this manual have the following meanings:

Be sure to follow the instructions.

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.

♠ 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.
- 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 refrigerant gas leaks during installation, ventilate the area immediately.

Toxic gas may be produced if the refrigerant comes into contact with fire.

0

- 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).
 - 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 compressor is 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.

1

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.

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.



- 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.

Accessories

Indoor unit (A) - (J),

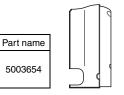


A Mounting plate	1	© Remote controller holder	1	G Operation manual H Installation	1
B Titanium apatite photocatalytic air-purifying filter	2	(alkaline)	2	manual Description The paper pattern is placed between the last page and the inner	
© Wireless remote controller	1	F Indoor unit fixing screw (M4 × 12L)	2	side of the back cover. See page 10 for the usage of the paper pattern.) Left-bottom Right-bottom	1

Service Parts

- · Obtain service parts as necessary.
- If a service part is required, obtain and install the part indicated by the part number corresponding to the unit's model name.

K Side cover for right-side piping						(L) Side cover for left-side piping		
Model name	Part name	Model name	Part name			Model name	Part name	Model nam
FTXG25JV1BW FTXG35JV1BW CTXG50JV1BW	5003651	FTXG25JV1BS FTXG35JV1BS CTXG50JV1BS	5003653)	} [FTXG25JV1BW FTXG35JV1BW CTXG50JV1BW	5003652	FTXG25JV1 FTXG35JV1 CTXG50JV1



Model name

FTXG25JV1BS FTXG35JV1BS

CTXG50JV1BS

♠ CAUTION -

• (K) Side cover for right-side piping is labeled with information concerning applicable safety standards. When replacing the right-side cover with (k) side cover for right-side piping, install the cover securely without removing this labeling.

Choosing an Installation Site

• Before choosing the installation site, obtain user approval.

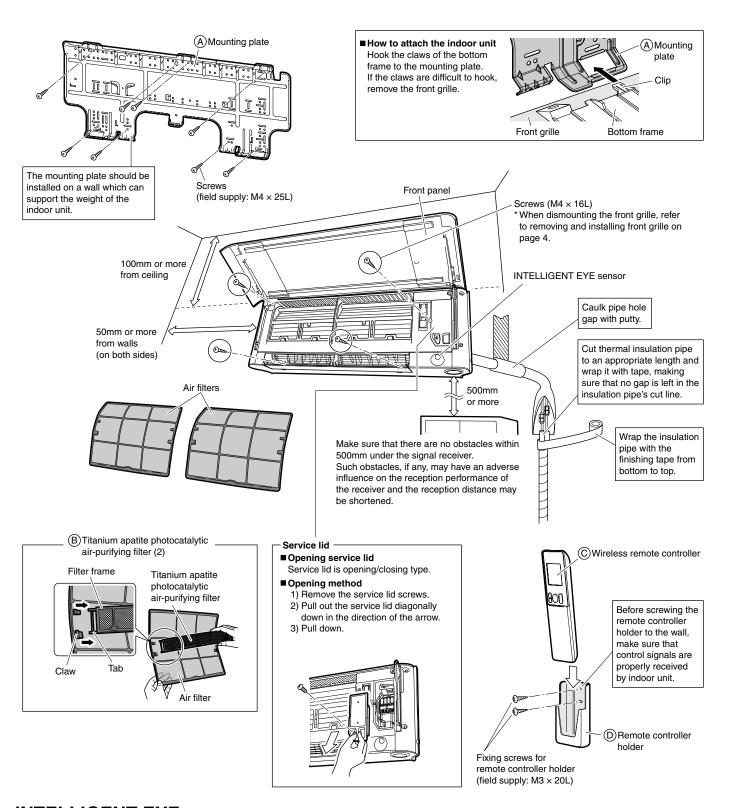
Indoor unit

- 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 inlet and air outlet 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 1m away from any television or radio set (unit may cause interference with the picture or sound),
 - 9) install at the recommended height (1.8m),
- 10) no laundry equipment is located.

Wireless remote controller

• 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 6m).

Indoor Unit Installation Drawings



INTELLIGENT EYE sensor

CAUTION

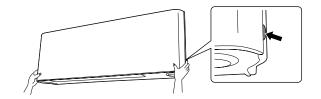
- Do not hit or violently push the INTELLIGENT EYE sensor. This can lead to damage and malfunction.
- Do not place large objects near the sensor. Also keep heating units or humidifiers outside the sensor's detection area.

Preparation before Installation

1. Removing and installing front panel

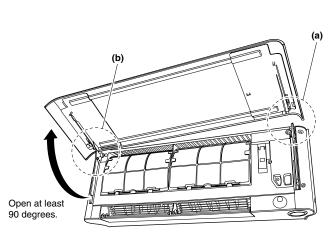
Removal method

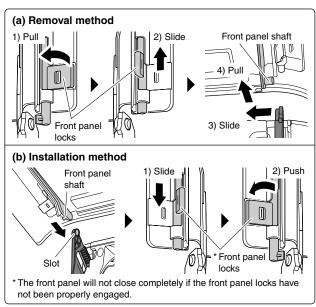
- Hook fingers on the indentations on the left and right sides of the indoor unit, and open the front panel to a position higher than the horizontal level.
- 2) Raise the front panel lock tabs on the left and right sides, and slide the front panel locks upward.
- 3) Remove the panel shafts on both sides from the shaft holes, and dismount the front panel.



Installation method

- 1) Insert the panel shafts on both sides of the front panel into the shaft holes.
- 2) Slide the front panel locks downward, and secure the front panel locks with the tabs laid outward.
- 3) Close the front panel after checking that the front panel is securely mounted.

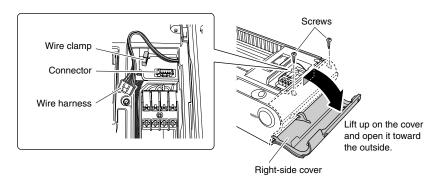


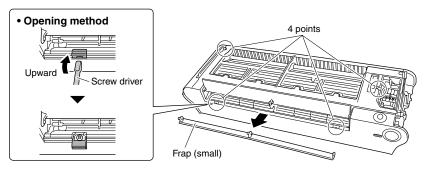


2. Removing and installing front grille

Removal method

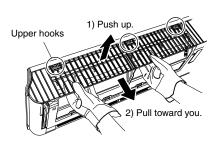
- 1) Remove the front panel and air filters.
- 2) Remove the service lid. (Refer to the opening method on page 3.)
- Disconnect the wire harness from the wire clamp, and remove the wire harness from the connector.
- 4) Remove the right-side cover. (2 screws)
- 5) Rotate the flap (large) and dismount the flap (small).
- 6) Open the 2 screw covers, and remove 4 screws from the front grille.





Preparation before Installation

- 7) Wear protection gloves and insert both hands under the front grille as shown in the illustration.
- 8) Remove the front grille from the 3 upper hooks by pushing up the top side of the front grille, pull the front grille toward you by holding both ends of the front grille, and dismount the front grille.

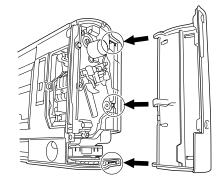


CAUTION

• Be sure to wear protection gloves.

Installation method

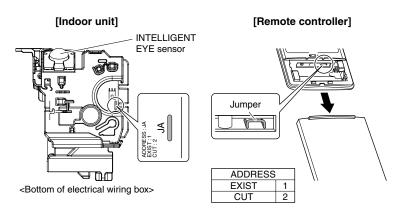
- 1) Install the front grille and firmly engage the upper hooks (3 locations).
- 2) Install 4 screws of the front grille, and close the 2 screw covers.
- 3) Mount the flap (small) and return the flaps to the previous positions.
- 4) Attach the right-side cover. (Refer to figure.)
- 5) Attach the wire harness to the connector and secure the wire harness with the wire clamp.
- 6) Install the air filter and then mount the front panel.



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.

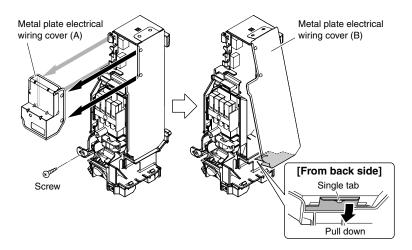
- Remove the front panel and front grille.
 (4 screws)
- Cut the address jumper (JA) on the printed circuit board.
- 3) Cut the address jumper in the remote controller.



4. When connecting to an HA system (wired remote controller, central remote controller etc.)

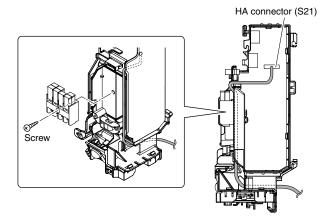
Removal methods of metal plate electrical wiring covers

- Remove the front panel and front grille.
 (4 screws)
- 2) Remove the electrical wiring box. (1 screw)
- 3) Remove the 4 tabs and dismount the metal plate electrical wiring cover (A).
- 4) Pull down the hook on the metal plate electrical wiring cover (B), and remove a single tab.
- 5) Remove the 2 tabs on the top part and dismount the metal plate electrical wiring cover (B).



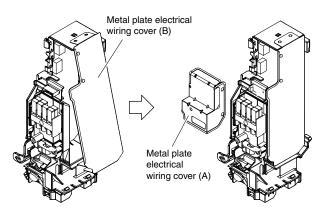
Attachment methods of connection cord

- Remove the metal plate electrical wiring cover.
 (Refer to the Removal methods of metal plate electrical wiring covers.)
- 2) Attach the connection cord to the S21 connector and pull the harness out through the notched part in the figure.
- 3) Replace the electrical wiring cover as it was, and pull the harness around, as shown in the figure.



Attachment methods of metal plate electrical wiring covers

- 1) Hook the top part of the metal plate electrical wiring cover (B) on the 2 tabs.
- 2) Press in the hook on the bottom to catch a single tab, and mount the metal plate electrical wiring cover (B).
- 3) Insert the connector into the hole, and hook and mount the metal plate electrical wiring cover (A) onto the 4 tabs.

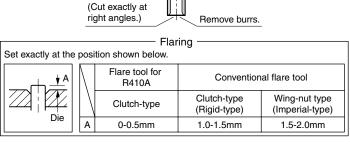


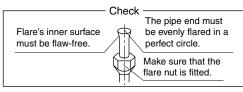
Refrigerant Piping Work

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

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) Put the flare nut on the pipe.
- 4) Flare the pipe.
- 5) 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.

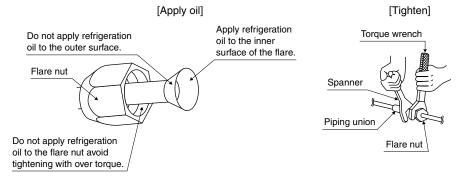
Refrigerant Piping Work

2. Refrigerant piping

CAUTION

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

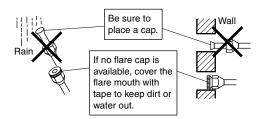
Align the centres of both flares and tighten the flare nuts 3 or 4 turns by hand. Then tighten them fully with the torque wrenches.



Flare nut tightening torque					
Gas side Liquid side					
3/8 inch	1/2 inch	1/4 inch			
32.7-39.9N•m (330-407kgf•cm)	49.5-60.3N•m (505-615kgf•cm)	14.2-17.2N•m (144-175kgf•cm)			

2-1. Caution on piping handling

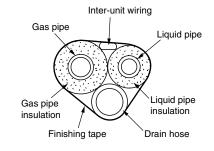
- 1) Protect the open end of the pipe against dust and moisture.
- All pipe bends should be as gentle as possible. Use a pipe bender for bending.



2-2. 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	O.D. 6.4mm	25/35 class	50 class	I.D. 8-10mm
O.D. 9.5mm	O.D. 12.7mm	O.D. 6.4IIIII	I.D. 12-15mm	I.D. 14-16mm	1.D. 0-10111111
Minimum bend radius				Thickness 10mm Min.	
30mm or more	40mm or more	30mm or more			
Thickness 0.8mm (C1220T-O)					

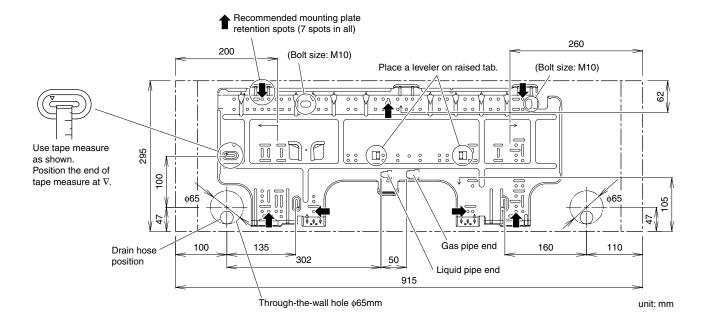
3) Use separate thermal insulation pipes for gas and liquid refrigerant pipes.

Indoor Unit Installation

1. Installing the mounting plate

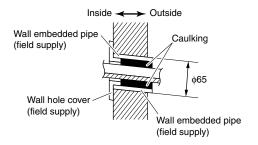
- The mounting plate should be installed on a wall which can support the weight of the indoor unit.
 - 1) Temporarily secure the mounting plate to the wall, make sure that the unit is completely level, and mark the boring points on the wall.
 - 2) Secure the mounting plate to the wall with screws.

Recommended mounting plate retention spots and dimensions



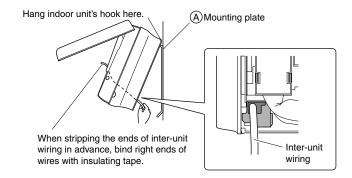
2. Boring a wall hole and installing wall embedded pipe

- 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. Inter-unit wiring

- 1) Open the front panel, then remove the service lid.
- 2) Pass the inter-unit wiring 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 for easier work in advance. (If the inter-unit wiring ends are to be stripped first, bundle wire ends with adhesive tape.)
- 3) Press the bottom frame of the indoor unit 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.



Indoor Unit Installation

4. Laying piping, hoses, and wiring

- The recommended installation method is back piping.
- When performing side piping (b), refer to 5. Side piping on page 10. In the case of bottom piping (c), refer to 6. Bottom piping on page 10.

4-1. Right-back piping

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

(a)	Back piping	Normal installation	Refer to page 9
(b)	Side piping	Service parts use	Refer to page 10
(c)	Bottom piping	Paper pattern use	Refer to page 10

Bind refrigerant pipe and drain hose together with adhesive vinyl tape.

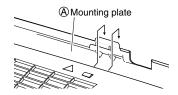
(b)

(a)

(c)

Left side

3) Pass the inter-unit wiring, 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.



Drain hose

4-2. Left-back piping

How to replace the drain plug and drain hose

Replacing onto the left side

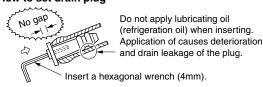
- 1) Remove the insulation fixing screw on the right and remove the drain hose.
- 2) Remove the drain plug on the left side and attach it to the right side.
- Insert the drain hose and tighten with included insulation fixing screw.
 - * (Forgetting to tighten this may cause water leakages.)

The drain hose attachment position * The drain hose is on the back of the unit. Left side Front side of unit Attachment on the left side Insulation fixing screw Insulation fixing screw

- 1) Replace the drain plug and drain hose.
- 2) Attach the drain hose to the underside of the refrigerant pipes with adhesive vinyl tape.
- Be sure to connect the drain hose to the drain port in place of a drain plug.

How to set drain plug

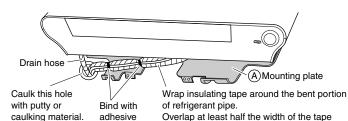
vinyl tape.



- 4) Shape the refrigerant pipe along the pipe path marking on the mounting plate.
- 5) Pass drain hose and refrigerant pipes through the wall hole, then set the indoor unit on mounting plate hooks, using the ∆ markings at the top of indoor unit as a guide.

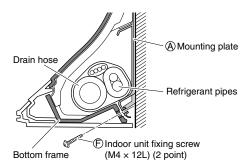
Drain hose

- 6) Pull in the inter-unit wiring.
- 7) Connect the inter-unit piping.
- 8) 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.



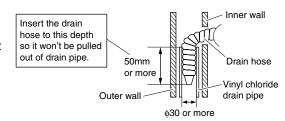
with each turn.

9) While exercising care so that the inter-unit wiring do not catch indoor unit, press the bottom edge of indoor unit with both hands until it is firmly caught by the mounting plate hooks. Secure indoor unit to the mounting plate with indoor unit fixing screws (M4 × 12L).



4-3. Wall embedded piping

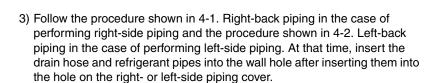
Follow the instructions given under left-back piping. Insert the drain hose to this depth so it won't be pulled out of the drain pipe.

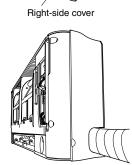


5. Side piping

• Right-side or left-side piping

- 1) Dismount the right- or left-side cover. (2 screws)
- 2) Mount the K side cover for right-side piping (service parts) or the L side cover for left-side piping (service parts).





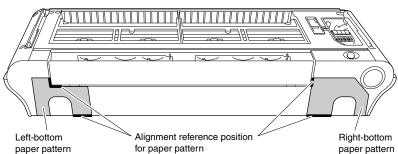
Lift up on the cover and open it toward the outside.

6. Bottom piping

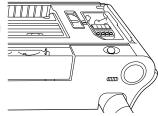
• Right-bottom or left-bottom piping

- Separate the paper pattern along the cut line and draw a line along the paper pattern after aligning it with the reference position of the bottom frame of the unit. The paper pattern is placed between the last page and the inner side of the back cover.
- 2) Cut out the grille along the lines and open a hole for bottom piping.

[How to use the paper pattern]



3) Follow the procedure shown in 4-1. Right-back piping in the case of performing right-bottom piping and the procedure shown in 4-2. Left-back piping in the case of performing left-bottom piping. At that time, insert the drain hose and refrigerant pipes into the wall hole after inserting them into the piping hole opened.

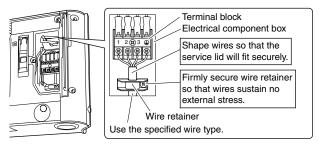


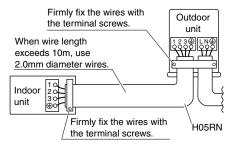
Indoor Unit Installation

7. Wiring

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

- 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) In case of connecting to an adapter system. Run the remote controller cable and attach the S21.
- 6) Shape the wires so that the service lid fits securely, then close service lid.

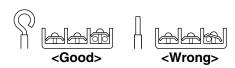




CAUTION

 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.



The drain hose should be inclined downward.

No trap is permitted.

Do not put the end of the hose in water.

№ WARNING

- Do not use tapped wires, stranded wires, extension cords, or starburst connections, as they may cause overheating, electrical shock, or fire.
- 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.

the indoor unit

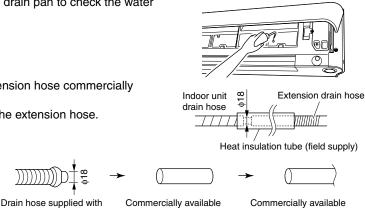
• Do not connect the power wire to the indoor unit. Doing so may cause electric shock or fire.

8. 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.
- 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.



drain socket

(nominal diameter 13mm)

rigid polyvinyl chloride pipe

(nominal diameter 13mm)

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. 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.
- 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.

Trial operation from remote controller

- 1) Press "ON/OFF" button to turn on the system.
- 2) Press "TEMP" button (2 locations) and "MODE" button at the same time.
- 3) Press "TEMP" button and select " 7-".
- 4) Press "MODE" button.
- 5) Trial operation terminates in approx. 30 minutes and switches into normal mode. To quit a trial operation, press "ON/OFF" button.

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 inter-unit wiring connections.	Inoperative or burn damage	
Indoor or outdoor unit's air inlet or air outlet has clear path of air. Stop valves are opened.	Incomplete cooling/heating function	
Indoor unit properly receives remote control commands.	Inoperative	

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