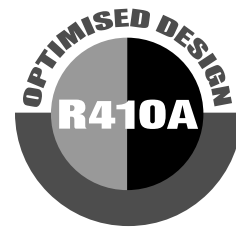
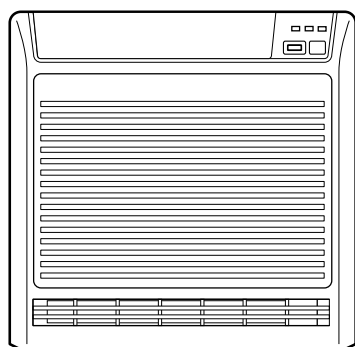


DAIKIN



INSTALLATION MANUAL

R410A Split Series



Models

FVXS25BVMB FVKS25BVMB

FVXS35BVMB FVKS35BVMB

FVXS50BVMB FVKS50BVMB

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 раздельной установкой

Русский

CE - DECLARATION-OF-COMFORMITY
CE - KONFORMITÄTSERKLÄRUNG
CE - DECLARATION-DE-COMFORMITE
CE - KONFORMITEITSVERKLARING

CE - DECLARACION-DE-COMFORMIDAD
CE - DICHIARAZIONE-DI-COMFORMITA
CE - ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ

CE - DECLARACIÓN-DE-COMFORMIDADE
CE - ЗАЯВЛЕНИЕ-О-СООТВЕТСТВИИ
CE - ILMUUTUS-YHDENMUKAISUUDESTA
CE - PROHLÁSENÍ-O-SHOĐĚ

CE - FÖRSÄKRAN-OM-ÖVERENSSTÄMMELSE
CE - ERKLÄRUNG OM-SÄMVAR
CE - ILMUUTUS-YHDENMUKAISUUDESTA
CE - PROHLÁSENÍ-O-SHOĐĚ

CE - IZJAVA-O-USKLABENOSTI
CE - MEGFELELŐSÉG-NYILATKOZAT
CE - DEKLARACJA-ZGODNOSCİ

CE - DECLARATION-DE-COMFORMITATE
CE - IZJAVA O SKLADNOSTI
CE - VASTAVUSDEKLARATSIOON

CE - ДЕКЛАРАЦИЯ-ЗА-СООТВЕТСТВИЕ
CE - АТТИΚΙΤΗΣ-ΔΕΚΛΑΡΑЦΙΑ
CE - АТІБІЛІСТІБАС-ДЕКЛАРАЦІА
CE - VYHLÁSENIE-ZHODY

DAIKIN INDUSTRIES, LTD.

- 01 00 declares under its sole responsibility that the air conditioning models to which this declaration relates:
- 02 01 erklärt auf seine alleinige Verantwortung daß die Modelle der Klimaanlage für die diese Erklärung bestimmt ist:
- 03 02 déclare sous sa seule responsabilité que les appareils de climatisation visés par la présente déclaration:
- 04 04 verklaart hierbij op eigen aansprakelijkheid dat de airconditioning units waaraan deze verklaring betrekking heeft:
- 05 05 dichiara бага sua unica responsabilità che i suoi modelli de aire acondicionado a los cuales hace referencia la declaración:
- 06 06 dichiara sotto sua responsabilità che i condizionatori modello a cui è riferita questa dichiarazione:
- 07 07 δηλώνει με αποκλειστική της ευθύνη ότι τα προϊόντα των κλιματιστικών συσκευών στα οποία αναφέρεται η παρούσα δήλωση:
- 08 08 deklariē sob sava ekskluzīva atbildībā par to, ka modeļi de ar kondicionāto a que esta deklarācija se referē:

FVXS250BVB, FVKS350BVB, FVXS250BVB, FVXS350BVB, FVXS250BVB, FVKS350BVB, FVXS250BVB, FVXS350BVB, FVXS250BVB

- 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 der/den folgenden Norm(en) oder einem anderen Normdokument oder -dokumenten entsprechend/sprechen, unter der Voraussetzung, daß sie gemäß unseren Anweisungen eingesetzt werden:
- 03 sont conformes à la(s) 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 bindende documenten zijn, op voorwaarde dat ze worden gebruikt overeenkomstig onze instructies:
- 05 están en conformidad con la(s) siguiente(s) norma(s) u otro(s) documento(s) normativo(s), siempre que sean utilizados de acuerdo con nuestras instrucciones:
- 06 sono conformi all(i) seguente(i) standard(i) o altro(i) documento(i) a carattere normativo, a patto che vengano usati in conformità alle nostre istruzioni:
- 07 είναι σύμφωνα με τον(α) ακόλουθο(α) πρότυπο(α) ή άλλο(α) έγγραφο(α) κανονιστικό, υπό την προϋπόθεση ότι χρησιμοποιούνται σύμφωνα με τις οδηγίες μας:

EN60335-2-40,

- 01 following the provisions of:
- 02 gemäß den Vorschriften über:
- 03 conformément aux stipulations des:
- 04 overeenkomstig de bepalingen van:
- 05 siguientes las disposiciones de:
- 06 secondo le prescrizioni per:
- 07 με την προϋπόθεση των διατάξεων των:
- 08 de acordo com o previsto em:

- 09a соответствии с положениями:
- 10 under lagtelese at bestemmelserne i:
- 11 enligt villkoren i:
- 12 gilt i henhold til bestemmelserne i:
- 13 nõudrite tähtaartemääräksä:
- 14 za dodženi nastaveni predpisu:
- 15 prema odredbama:
- 16 követeli alapján:

- 17 zgodnie z postanowieniami Dyrektywy:
- 18 in una predefinitor:
- 19 oo uuesti määratlust:
- 20 vastavalt määratlusele:
- 21 enligt bestämmelserna i:
- 22 laikantis nustatytų pateiktamų:
- 23 leģrojot prasības, kas noteiktas:
- 24 ordzárvelajúc, istanovenián:

- 09 09a заявляет, исключительно под свою ответственность, что модели кондиционеров воздуха, к которым относится настоящее заявление:
- 10 09b erklærer under eneansvar, at klimaanlegsmodelerne, som denne deklaration inndebar:
- 11 09c déclare sous sa seule responsabilité, que les appareils de climatisation visés par la présente déclaration:
- 12 09d verklaart hierbij op eigen aansprakelijkheid dat de airconditioning units waaraan deze verklaring betrekking heeft:
- 13 09e dichiara бага sua única responsabilità che i suoi modelli de aire acondicionado a los cuales hace referencia la declaración:
- 14 09f dichiara sotto sua responsabilità che i condizionatori modello a cui è riferita questa dichiarazione:
- 15 09g δηλώνει με αποκλειστική της ευθύνης ότι τα προϊόντα των κλιματιστικών συσκευών στα οποία αναφέρεται η παρούσα δήλωση:
- 16 09h deklariē sob sava ekskluzīva atbildībā par to, ka modeļi de ar kondicionāto a que esta deklarācija se referē:

- 17 09i deklariē na västria, izvještajna odgovornostiš, že modele klimatizatorov, ktorých dočyva niniešza deklaracija:
- 18 09j deklariē pe proprie răspundere că aparatele de aer condiționat la care se referă această declarație:
- 19 09k z tvo odgovornosti izjavljaj, da so modeli klimatskih naprav, na katere se izjava nanaša:
- 20 09l kieltab oma täieliku vastutuse e, et käesoleva deklaratsiooni alla kuuluvad kliimasüsteemide mudelid:
- 21 09m deklariira na oiaq otvoroost, že modeleni klimatitšna instalatsija, za koma se otkaziva tam deklaratsija:
- 22 09n visška savo atsakomybę skelbia, kad oro kondicionavimo prietaisų modeliai, kuriems yra otkazima ši deklaracija:
- 23 09o ar njihii atbildību apliecina, ka tālāk uzskaitito modeļu gaisa kondicionēšanai, uz kuriem attiecas šī deklarācija:
- 24 09p vyhlasuje na vlastnu zodpovednost, že tieto klimatizačné modely, na ktoré sa vzťahuje táto vyhlásenie:

- 15 u skladu sa sledjedom standardom(i)mi ili drugim normativnim dokumentom(i)ma, uz uvjet da se oni koriste u skladu s našim uputama:
- 16 megfelelőnek az alábbi szabvány(ok)nak vagy egyéb irányadó dokumentum(ok)nak, ha azokat előírás szerint használják:
- 17 spełnia wymagania następujących norm i innych dokumentów normalizacyjnych, pod warunkiem że są używane są zgodnie z naszymi instrukcjami:
- 18 sunt în conformitate cu umitator (umiditate) standarde(i) sau alte(i) documente(i) normative, cu condiția ca acestea să fie utilizate în conformitate cu instrucțiunile noastre:
- 19 skladni z nasledjimi standardi in drugim normativ, pod pogojem, da se uporabijo u skladu z našimi navodili:
- 20 on vastustus jätmissi standardi (teiga või teiste normaliseeritud dokumentidega, kui need kasutatakse vastavalt meie juhendile):
- 21 соответствует на следящие стандарты или други нормативны документы, при условии, че се използват съгласно нашите инструкции:
- 22 atitinka žemiau nurodytus standartus ir (arba) kitus norminius dokumentus su sąlyga, kad yra naudojami pagal mūsų nurodymus:
- 23 tad, ja leičoti atitilsti razišaji nurodijumam, atitisi sąlygostem standartiem ar citiem normatīviem dokumentiem:
- 24 su u zbrobe s nasledjovnjimi normom(i)mi) alebo inými) normatívnymi) dokumentom(i)mi, za predpokladu, že sa používajú v súlade s našimi návodom:

- 09 Директиве со еским поправкам:
- 10 Direktivet, med senere ændringer:
- 11 Direktiv, med foretagne ændringer:
- 12 Direktivet, zoals geamendard:
- 13 Direktiiv, sellärsine kuin ne ovat muuttelutuna.
- 14 Direktiive, come da modifica:
- 15 Sprijemica, kako je izmijenjeno:
- 16 tārtipveks, kā tātmodiatsik retveksēsēt:

- 17 Uwaga *
- 18 Noit *
- 19 Opozbita *
- 20 Märkus *
- 21 Zabeležka *
- 22 Passata *
- 23 Piezīmes *
- 24 Poznámka *

zgodnie z archiwalna dokumentacija konstrukcija Daikin.TCF015, pozylujvna opinia KEIMA
 iSwadectwem 74736-KRO/EIHC97-4957.

conform celor stabilite în Dosarul tehnic de construcție Dalkin.TCF015 și apreciate pozitiv de KEIMA în conformitate cu Certificatul 74736-KRO/EIHC97-4957.

kol je dođobeno tehnični map Dalkin.TCF015 in odobreno s strani KEIMA v skladu s certifikatom 74736-KRO/EIHC97-4957.

regu on inalditud tehniliss dokumentatsioon Dalkin.TCF015 ja teeks kindud KEIMA järg vastavalt sertifikaatile 74736-KRO/EIHC97-4957.

варто е заложено в Арха за техническа конструкция Dalkin.TCF015 u oцeнено положително от KEIMA съгласно Сертификат 74736-KRO/EIHC97-4957.

kap nurodyta techninėje konstrukcijos byoje Dalkin.TCF015 ir patvirtinta KEIMA pagal pažymėjimą 74736-KRO/EIHC97-4957.

kā noteikts tehniskajā dokumentācijā Dalkin.TCF015, atbilstoš KEIMA pozitīvajam lēmumam ko apliecina sertifikāts 74736-KRO/EIHC97-4957.

ako je to stanoveno v Súborné technické konstrukcie Dalkin.TCF015 a kladne posúdené KEIMA podľa Certifikatu 74736-KRO/EIHC97-4957.

01 Directives, as amended:

02 Direktiven, gemäß Änderung:

03 Directives, telles que modifiées:

04 Richtlijnen, zoals geamendard:

05 Directivas, según lo emmendado:

06 Directive, come da modifica:

07 Обявление, како је измјенјено:

08 Directivas, conforme alteração em:

- 09 Примечание *
- 10 Bemærk *
- 11 Information *
- 12 Merk *
- 13 Huom *
- 14 Pozremlia *
- 15 Napomena *
- 16 Megjegyzés *

как указано в Досье технического попование Dalkin.TCF015 и в соответствии с положительным решением KEIMA согласно Сертификату 74736-KRO/EIHC97-4957.

som anført den Tekniske Konstruktionsfil Dalkin.TCF015 og positiv vurderet af KEIMA i henhold til Certificat 74736-KRO/EIHC97-4957.

untersøgten är utförd i enlighet med den Tekniska Konstruktionsfilen Dalkin.TCF015 som positivt utvärdes av KEIMA vilket också framgår av Certifikat 74736-KRO/EIHC97-4957.

certifikat 74736-KRO/EIHC97-4957.

jeika on esialty tehnilises Asakirjassa Dalkin.TCF015 ja jalka KEIMA on hyväksynyt Sertifikatin 74736-KRO/EIHC97-4957

jak bylo uvedeno v souboru technické konstrukce Dalkin.TCF015 a pozitivně zjišeno KEIMA v souladu s ovedením 74736-KRO/EIHC97-4957.

sako je očišeno u Dajepce u tehničkoj konstrukciji Dalkin.TCF015 pozitivno ocjenjeno od strane KEIMA prema Certificatu 74736-KRO/EIHC97-4957.

ajz Dalkin.TCF015 mülzaski konstrukciós dokumentáció alapján, alz KEIMA gazdita a megfelelést ajz 74736-KRO/EIHC97-4957 tanúsítvány szerint.

as set out in the Technical Construction File Dalkin.TCF015 and judged positively by KEIMA according to the Certificate 74736-KRO/EIHC97-4957.

wie in der Technischen Konstruktionsakte Dalkin.TCF015 aufgeführt und von KEIMA positiv ausgezeichnet gemäß Zertifikat 74736-KRO/EIHC97-4957.

tel que stipulé dans le Fichier de Construction Technique Dalkin.TCF015 et jugé positivement par KEIMA conformément au Certificat 74736-KRO/EIHC97-4957.

zoals vermeld in het Technisch Constructiebestand Dalkin.TCF015 en in orde beoordeeld door KEIMA overeenkomstig Certificat 74736-KRO/EIHC97-4957.

tal como se expone en el Archivo de Construcción Técnica Dalkin.TCF015 y juzgado positivamente por KEIMA según el Certificado 74736-KRO/EIHC97-4957.

delineato nel File Tecnico di Costruzione Dalkin.TCF015 e giudicato positivamente da KEIMA secondo il Certificato 74736-KRO/EIHC97-4957.

ómsk vermeldt mo ot Avyso Technické konstrukciji Dalkin.TCF015 kon pozitívno posúdeno od KEIMA súhlasom je to potvrdením 74736-KRO/EIHC97-4957.

tal como estabelecido no Ficheiro Técnico de Construção Dalkin.TCF015 e com o parecer positivo de KEIMA de acordo com o Certificado 74736-KRO/EIHC97-4957.



Yoshiaki Hirata
 Manager Quality Control Department
 Shiga, 1st of Aug. 2004

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 WARNINGS and CAUTIONS.
Be sure to follow all the precautions below: they are all important for ensuring safety.

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

⚠ CAUTIONSFailure 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.
--	---	--

- 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.

WARNINGS

- 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 interconnecting 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. 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.

CAUTIONS

- 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.

Accessories

Indoor unit (A) – (K)

(A) Drain hose	1	(E) Wireless remote controller	1	(I) Air purifying filter	1
(B) Protection bushes	2	(F) Remote controller holder	1	(J) Operation manual	1
(C) Heat insulation tube	1	(G) AAA dry-cell batteries	2	(K) Installation manual	1
(D) Clamp materials	4	(H) Photocatalytic deodorizing filter	1		

Choosing a Site

- Before choosing the installation site, obtain user approval.

1. Indoor unit

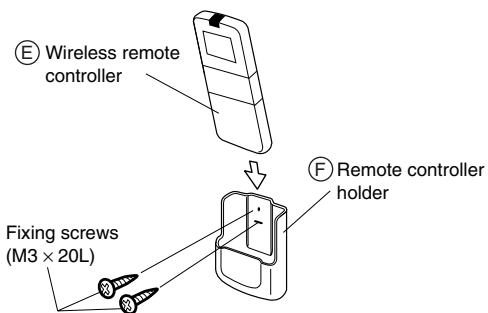
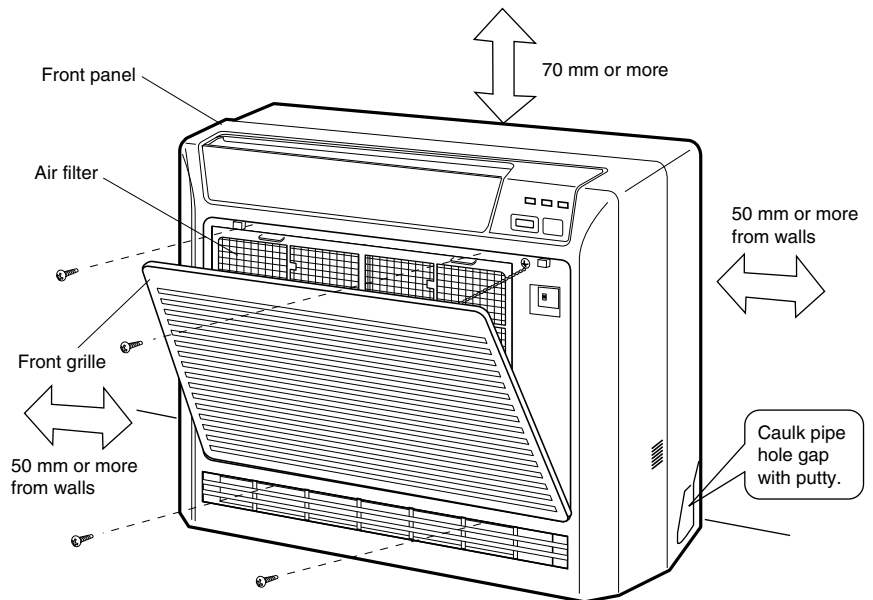
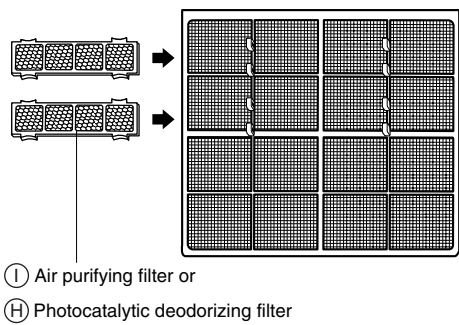
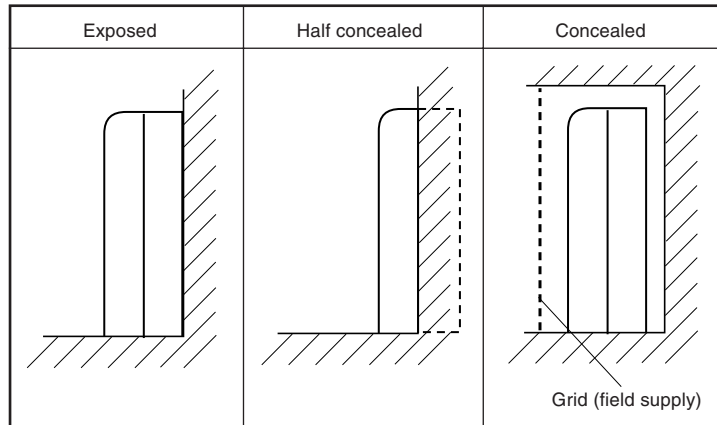
- The indoor unit should be sited in a place where:
 - 1) The restrictions on installation specified in the indoor unit installation drawings are met, both air inlet and outlet have clear paths met,
 - 2) The unit is not in the path of direct sunlight,
 - 3) The unit is away from the source of heat or steam,
 - 4) There is no source of machine oil vapour (this may shorten indoor unit life.)
 - 5) Cool or hot air is circulated throughout the room,
 - 6) The unit is away from electronic ignition type fluorescent lamps (inverter or rapid start type) as they may shorten the remote control range, and the unit is at least 1 m away from any television or radio set (unit may cause interference with the picture or sound).

2. Remote controller

- 1) Turn on all fluorescent lamps in the room, if any, and find site where remote control signals are properly received by the indoor unit (within 7 m).

Indoor Unit Installation Drawings


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

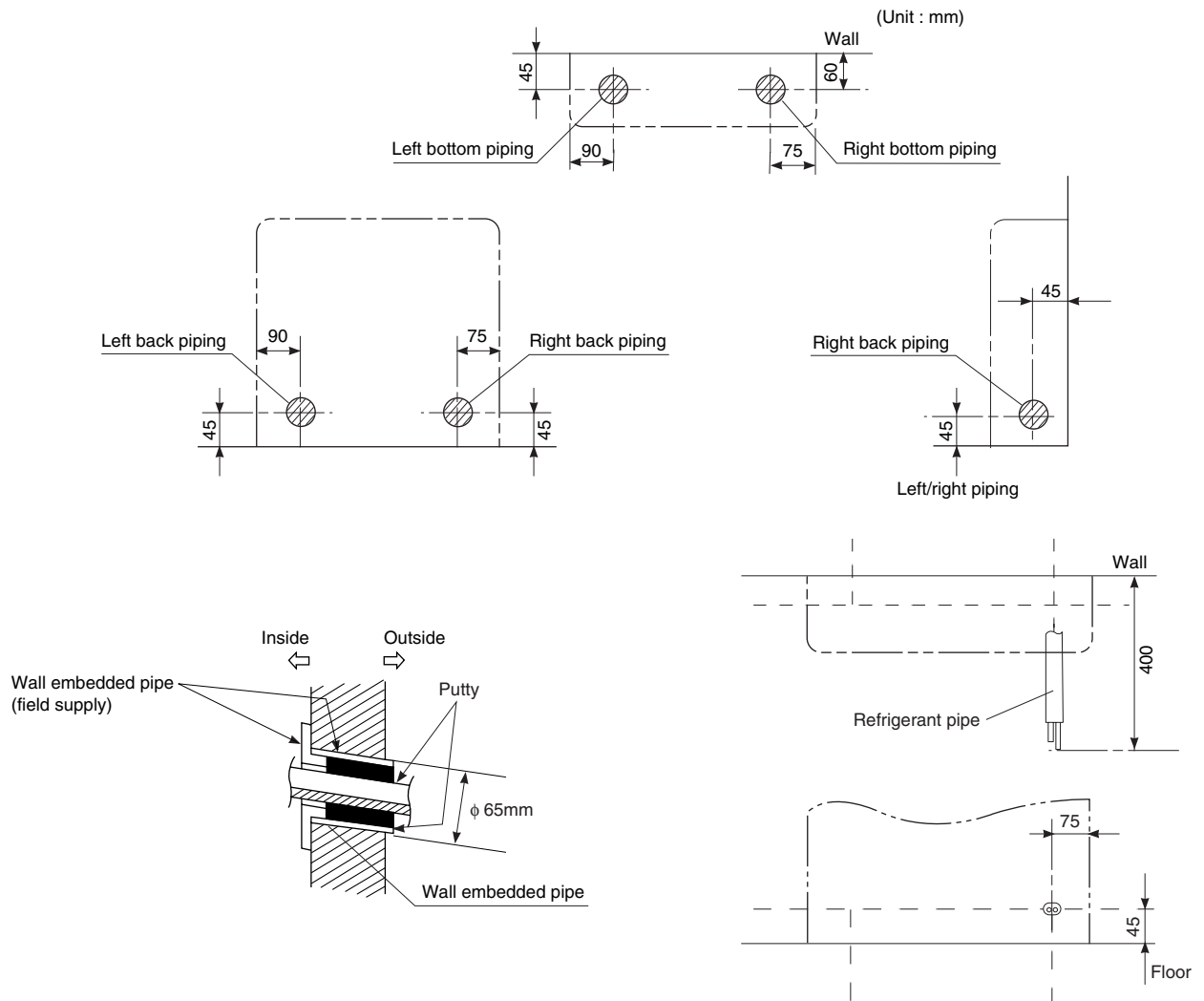


Installing Indoor Unit (1)

Exposed installation

1. Refrigerant piping

- 1) Drill a hole (65 mm in diameter) in the spot indicated by the  symbol in the illustration as below.
- 2) The location of the hole is different depending on which side of the pipe is taken out.
- 3) For piping, see **5. Connecting the refrigerant pipe**, under **Installing Indoor Unit (1)**.
- 4) Allow space around the pipe for a easier indoor unit pipe connection.
Seal the pipe end completely with a cap or tape to keep dust or moisture out.



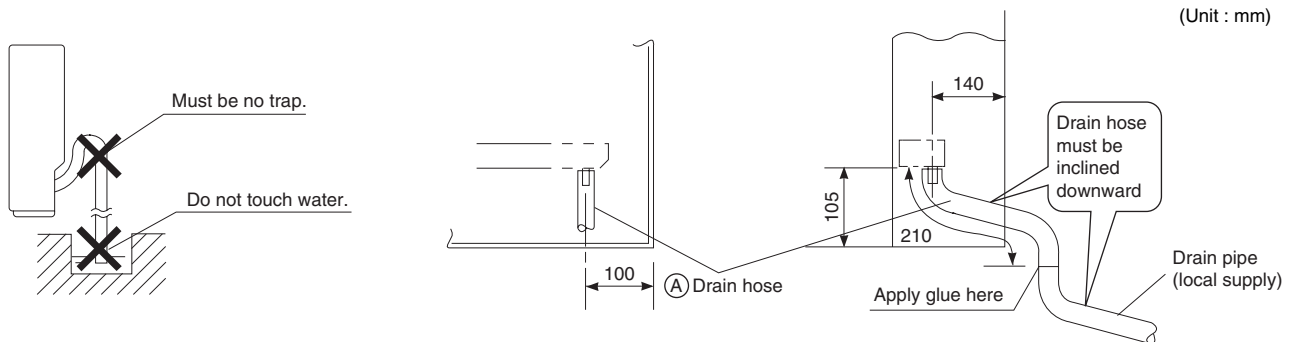
Caution

Be sure to caulk the gaps around the pipes with putty. Failure to do so may cause water leakage.

Installing Indoor Unit (1)

2. Drain piping

- 1) Use commercial rigid polyvinyl chloride pipe (general VP 20 pipe, outer diameter 26 mm, inner diameter 20 mm) for the drain pipe.
- 2) The drain pipe should be **inclined downward** so that water will flow smoothly without any accumulation. (Should not be trap.)
- 3) The drain hose (outer diameter 18 mm at connecting end, 210-mm long) is supplied with the indoor unit. Prepare the drain pipe picture below position.
- 4) **Insulate the indoor drain pipe with 10 mm or more of insulation material to prevent condensation.**
- 5) When piping is complete, **make sure the unit drain properly**, and then seal completely with tape to keep dust out.

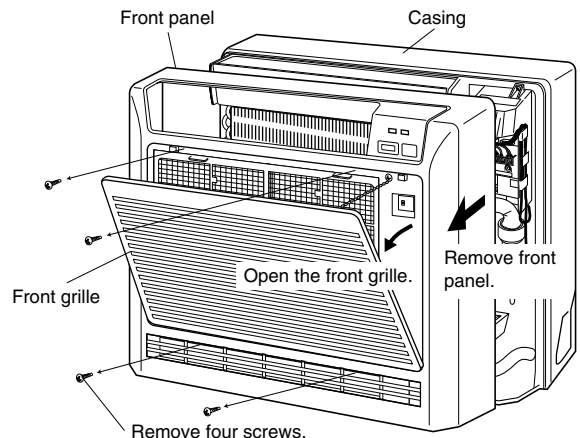


⚠ Caution

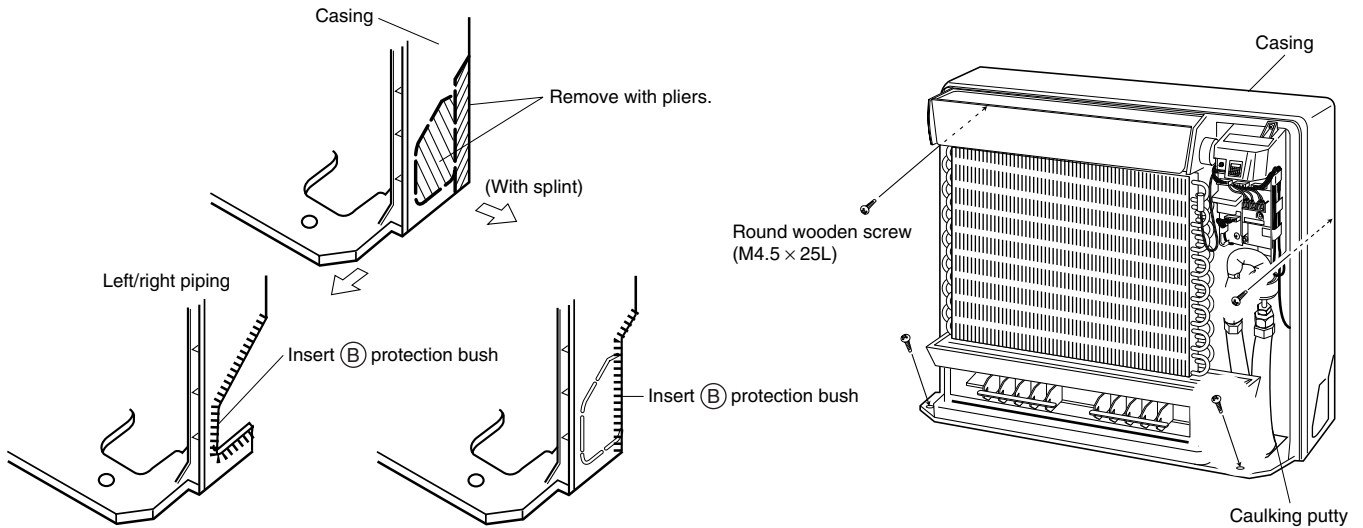
Use polyvinyl chloride adhesive agent for gluing. Failure to do so may cause water leakage.

3. Installing indoor unit

- 1) Preparation
 - Open the front grille, remove the four screws and dismount the front panel.
 - Remove the slit section of the casing with pliers if there is a splint. (Both right and left). Cut the supplied protection bushes (B) to an appropriate length and place it into the removed section. (Both right and left)
 - Put the protection bushes (B) into the right and left pipes in the same manner.
- 2) Installation
 - After installing the indoor unit, fix it to the floor and wall with the supplied four round wood screws (M4.5 × 25 L).
For horizontal projection of the indoor unit, use the top plate of the casing.



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

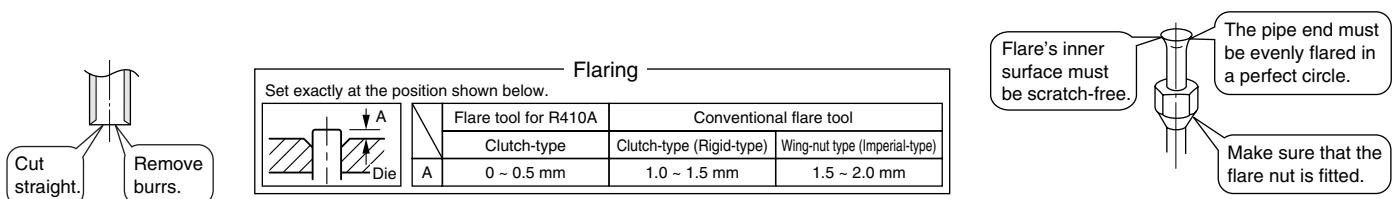


4. Flaring the pipe end

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

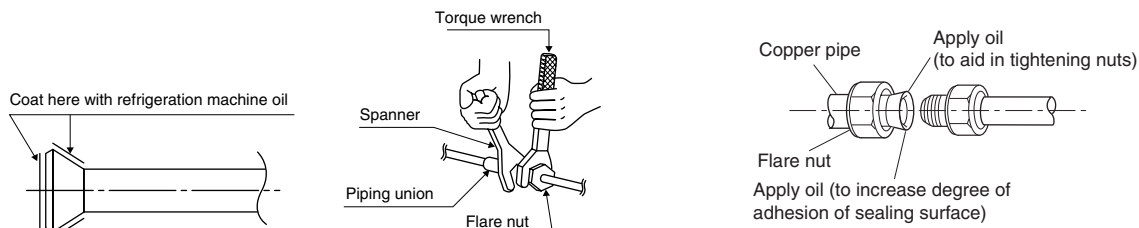
Warning

- 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.
- Be sure to perform flaring properly.



5. Connecting refrigerant pipe

- Use torque wrenches when tightening the flare nuts to prevent damage to the flare nuts and gas leaks.



- 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.

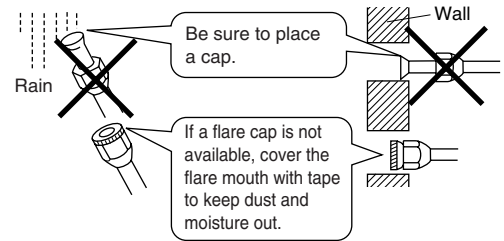
Installing Indoor Unit (1)

3) To prevent gas leakage, apply refrigeration machine oil on both inner and outer surfaces in the flare.

	Flare nut tightening torque		Valve lid tightening torque	
	Gas side	Liquid side	Gas side	Liquid side
2.5-3.5 kw	(9.5 mm) 32.7 to 39.9 Nm (333 to 407 kgf-cm)	(6.4 mm) 14.2 to 17.2 Nm (144 to 175 kgf-cm)	(9.5 mm) 21.6 to 27.4 Nm (220 to 280 kgf-cm)	(6.4 mm) 21.6 to 27.4 Nm (220 to 280 kgf-cm)
5.0 kw	(12.7 mm) 49.5 to 60.3 Nm (505 to 615 kgf-cm)		(12.7 mm) 48.1 to 59.7 Nm (490 to 610 kgf-cm)	

5-1. Cautions for Pipe Handling

- 1) Protect the open end of the pipe from dust and moisture. Attach a cap or tape the opening.
- 2) Ensure that the inside of the pipe is from dust and moisture.
- 3) All pipe bends should be as gentle as possible.
Use a pipe bender for bending.
(Bending radius should be 30 mm to 40 mm or larger.)



5-2. Selecting Copper Pipes and Heat Insulation Material

When using commercial copper pipes and fittings may be used provided that the following conditions are observed.

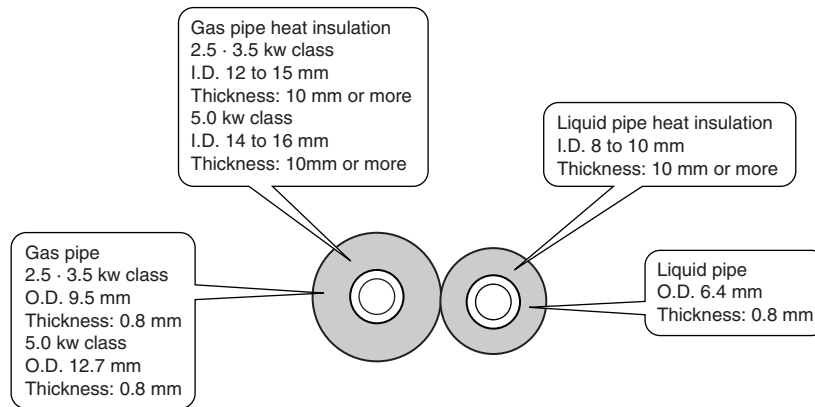
Be sure to insulate both liquid and gas pipes.

Observe the following points for insulation.

- Insulate gas pipe and liquid pipe separately.
- Heat insulation material:

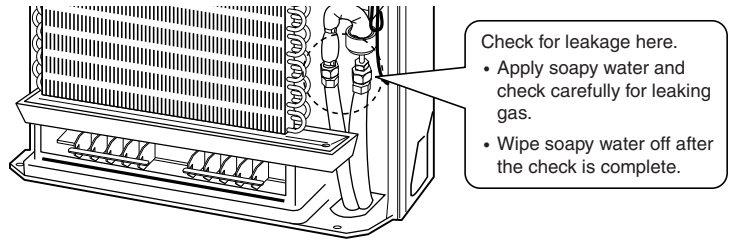
Polyethylene foam

Heat transfer rate 40 to 52 w/mK (Choose heat insulation materials that will withstand this temperature at 110°C).



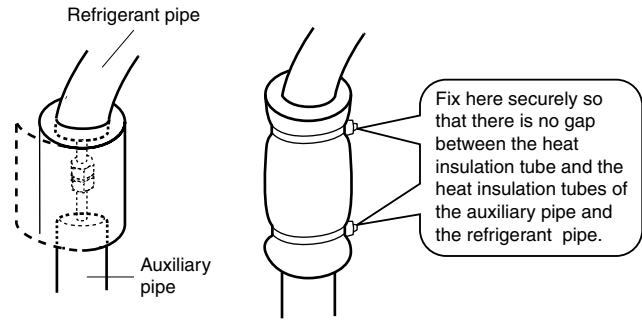
6. Checking for Gas Leakage

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



7. Attaching the Connection Pipe

- Attach the pipe after checking for gas leakage, described above.
 - Insulate liquid and gas pipe connection parts separately.
- 1) Cut the supplied heat insulation tube (C) to the appropriate length.
 - 2) Place the tube (C) over the heat insulation tube of the auxiliary pipe and refrigerant pipe, and fix using the heat insulation tape.
 - 3) Fix the tube with the clamp materials (D).



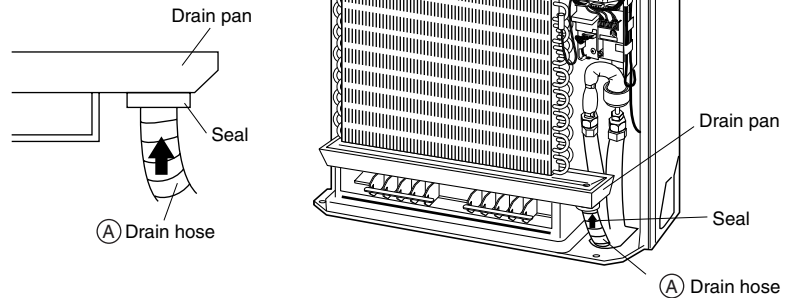
⚠ Caution

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

8. Connecting the Drain Hose

Insert the supplied drain hose (A) into the socket of the drain pan.

Fully insert the drain hose until it adheres to a seal of the socket.



Installing Indoor Unit (1)

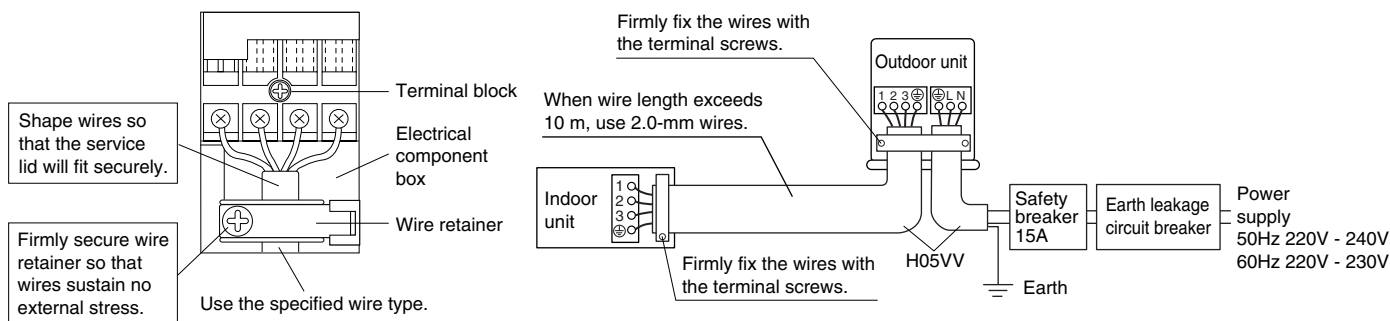
9. Wiring

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

Warning

- 1) For wiring, use a cable long enough to cover the entire distance without requiring a splice.
- 2) Do not use an extension cord. Do not put other loads on the power supply. Incomplete or improper electrical work may cause abnormal heat generation, electric shock or fire.
- 3) Electrical work should be carried out in accordance with the installation manual and national safety standards and codes of practice.
- 4) 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.

- 1) Strip wire ends (15 mm).
- 2) Match wire colours with terminal numbers on the terminal blocks and fully insert the wire into the terminal.
- 3) Connect the earth wires to the corresponding terminals.
- 4) Pull wires to make sure that they are securely attached, then retain wires with wire retainer.
- 5) Arrange wires so that the front panel fits securely.
 - For grounding of the indoor unit, installing two indoor units in one room, and installing thin remote controller and adaptor system, see OPTION.



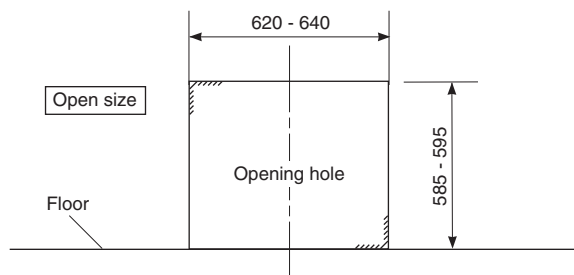
Installing Indoor Unit (2)

Half concealed Installation

Only items peculiar to this installation method are given here. See Projecting installation for additional instructions.

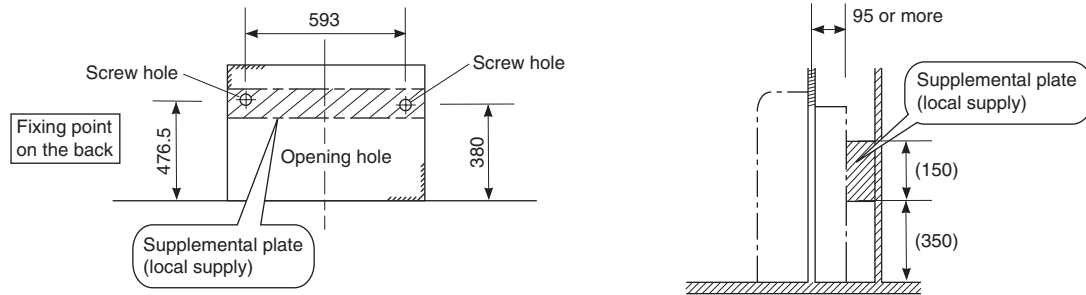
1. Wall hole

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



2. Installation of supplemental plate for attaching main unit

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

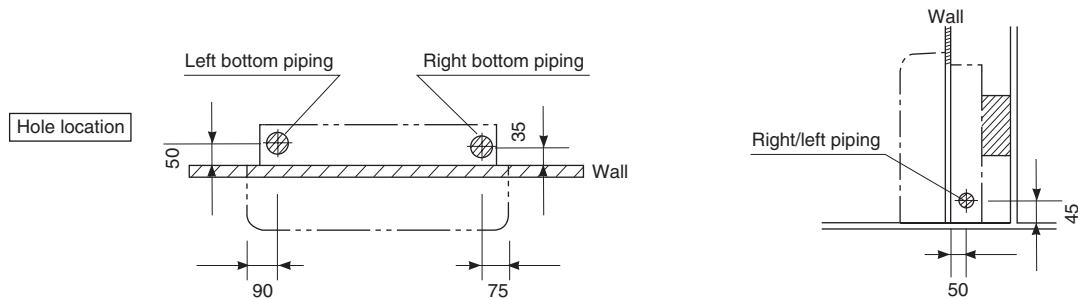


⚠ Caution

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

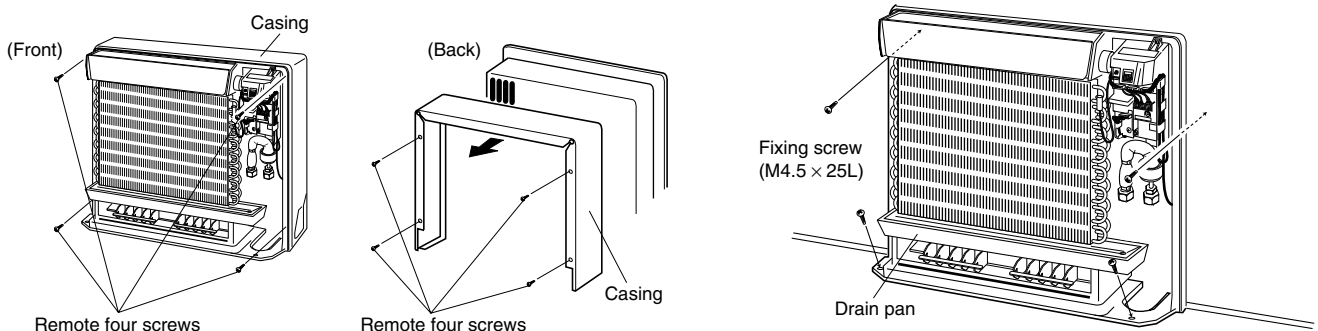
3. Refrigerant piping

See 1. Refrigerant Piping under Installing Indoor Unit (1)



4. Installing the indoor unit

- Remove the front panel. (See 3. Installing indoor unit, under Installing Indoor Unit (1).)
- Remove the casing.
 - Remove the four screws on the front side.
 - Remove the four screws on the back and remove casing.
- Install the indoor unit.
 - After installing the indoor unit into the wall opening hole, fix it to the floor and splint on the back with the four fixing screw (M4.5 × 25 L).



⚠ Caution

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

Note:

For refrigerant piping, drain piping, installing indoor unit, flaring, connecting refrigerant pipe, checking gas leakage, connected pipe finish connecting drain hose, wiring and installing remote controller, see Exposed Installation.

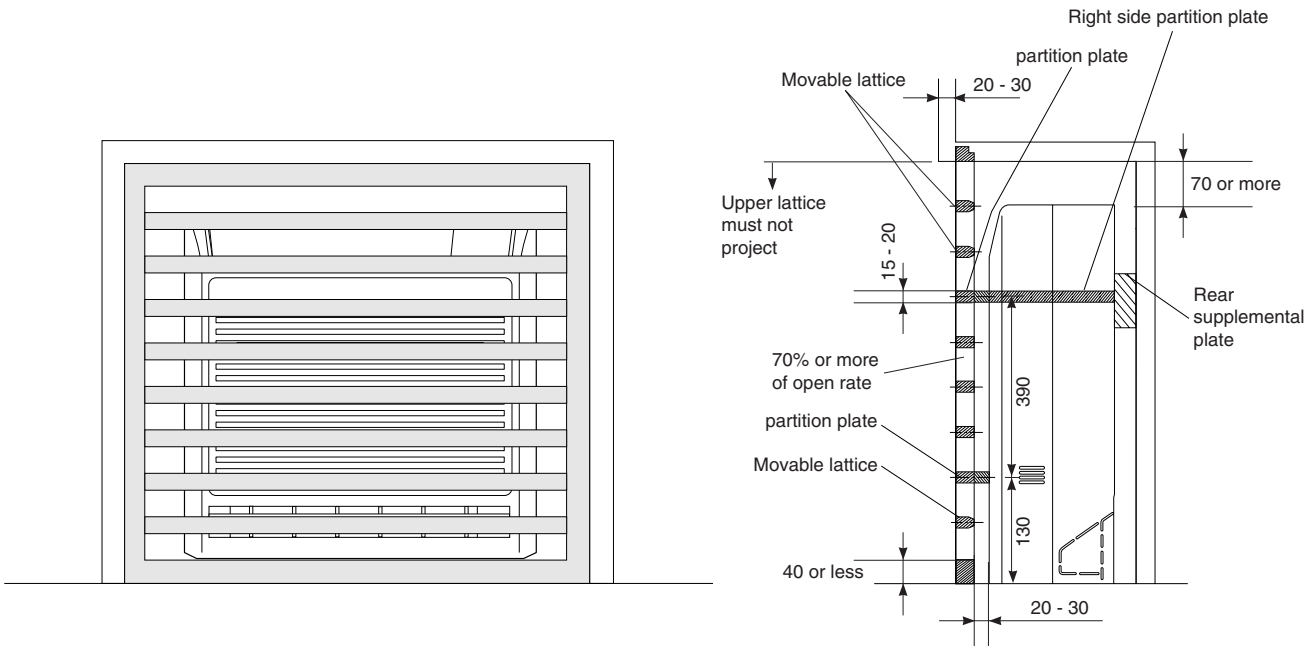
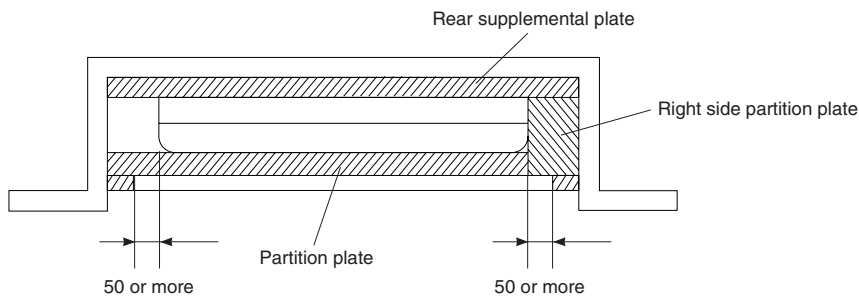
Installing Indoor Unit (3)

Concealed Installation

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

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

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

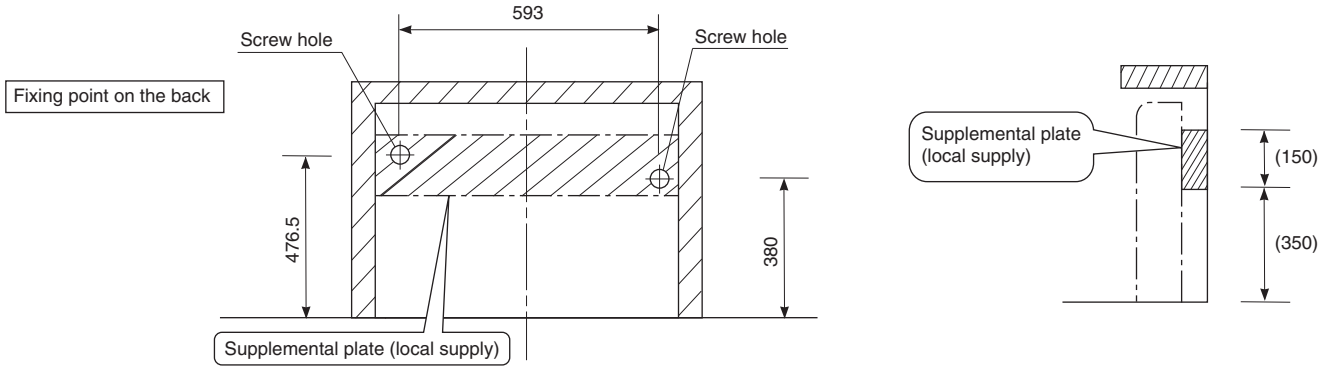


1. Installation of Supplemental Plate for Unit

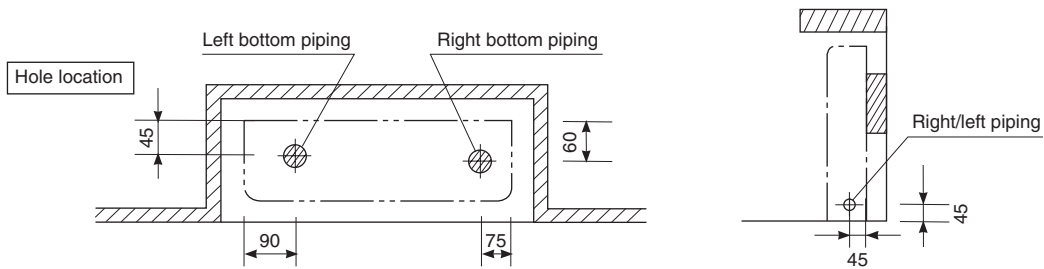
- The rear of the unit can be fixed with screws at the points shown in the illustration as below. Be sure to install the supplemental plate according to the depth.

⚠ Caution

The supplemental plate for installing the main unit must be used, or there will be a gap between the unit and the wall. This can lead to incomplete cooling/heating.



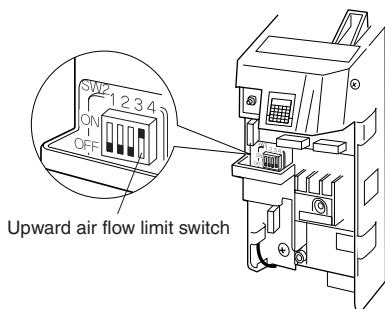
2. Refrigerant Piping



3. Changing Upward air flow Limit Switch

Change the upward air flow limit switch (SW2-4) to On to limit the upward air flow.

- Remove the front panel. (See 3. Installing the indoor unit, under Installing Indoor Unit (1).)
- Switch the limit switch (SW2-4) on the PCB in the electrical equipment box to On.



• How to set and use the switch

Switch number	SW2-1-3	SW2-4
Set function	—	Upward air flow limit
ON	—	On
OFF	—	Off
Use	—	Switch to on for embedded units
Factory setting	—	Off

⚠ Caution

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

Note:

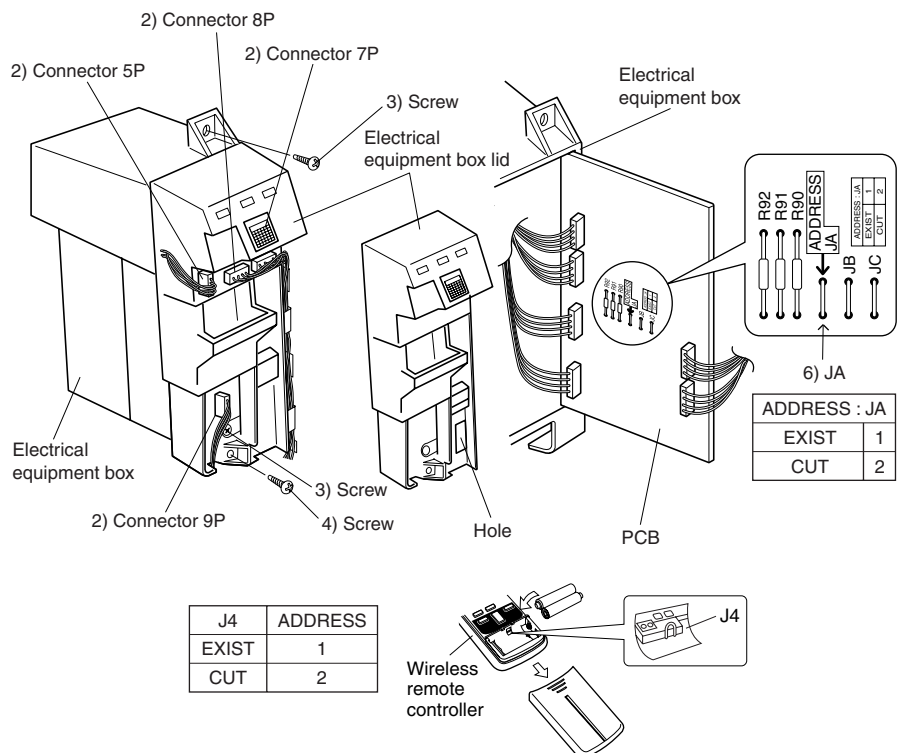
For refrigerant piping drain piping, Installing indoor unit, flaring, connecting refrigerant pipe, checking gas leakage, connected pipe finish connecting drain hose, wiring and installing remote controller, see Exposed Installation.

Option

1. How to set the different addresses

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

- 1) Remove the front panel (See 3. **Installing indoor unit**, under **Installing Indoor Unit (1).**)
- 2) Remove connectors 5P, 7P, 8P and 9P on the lid of electrical equipment box and then remove the lead cord from claw on the lid.
- 3) Remove two screws and remove the electrical equipment.
- 4) Remove one screw and open the electrical equipment box lid.
- 5) Pull out the PCB from the electrical equipment box.
- 6) Cut the jumper JA.
- 7) Close the electrical equipment box lid and fix it with the screw removed in Step 4).
- 8) Insert the electrical equipment box into the main unit and fix it with two screws removed in Step 3).
- 9) Connect the four connectors and hook on the claw as the manner of the lead cord.
- 10) Pull out the remote controller cable with connecting cable from the indoor unit.

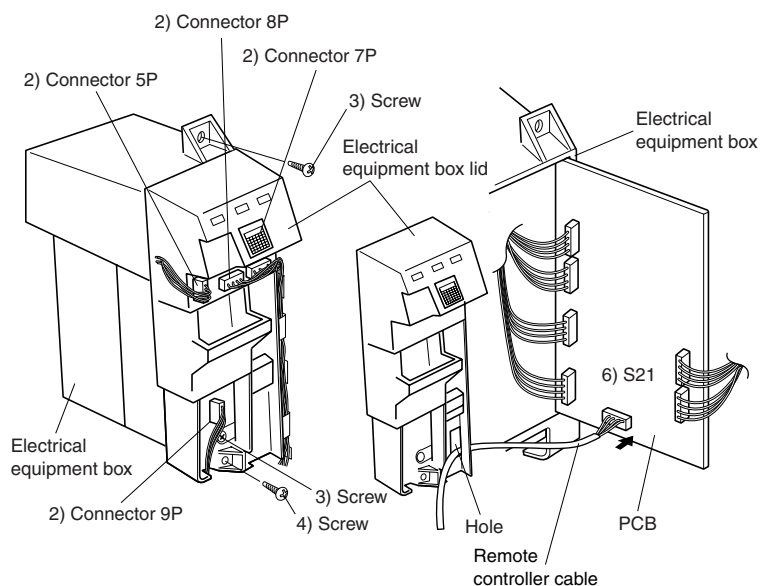


Wireless remote controller

- Cut the jumper J4.

2. Connecting to an Adapter System

- 1) Remove the front panel (See 3. **Installing indoor unit**, under **Installing Indoor Unit (1).**)
- 2) Remove connectors 5P, 7P, 8P and 9P on the lid of electrical equipment box and then remove the lead cord from claw on the lid.
- 3) Remove two screws and remove the electrical equipment.
- 4) Remove one screw and open the electrical equipment box lid.
- 5) Pull out the PCB from the electrical equipment box.
- 6) Run the remote control cable through the hole under the lid in the electrical box and attach to the S21 connector. Reinstall the PCB back to its original position in the electrical box.
- 7) Close the electrical equipment box lid and fix it with the screw removed in Step 4).
- 8) Insert the electrical equipment box into the main unit and fix it with two screws removed in Step 3).
- 9) Connect the four connectors and hook on the claw as the manner of the lead cord.
- 10) Pull out the remote controller cable with connecting cable from the indoor unit.



Trial Operation and Testing

1. Trial Operation and Testing.

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

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

■ For Heat pump

- In cooling mode, select the lowest programmable temperature; in heating mode, select the highest programmable temperature.
 - 1) Trial operation may be disabled in either mode depending on the room temperature. Use the remote control for trial operation as described below.
 - 2) After trial operation is complete, set the temperature to a normal level (26°C to 28°C in cooling mode, 20°C to 24°C in heating mode).
 - 3) For protection, the system disables restart operation for 3 minutes after it is turned off.

■ For Cooling only

- Select the lowest programmable temperature.
 - 1) Trial operation in cooling mode may be disabled depending on the room temperature. Use the remote control for trial operation as described below.
 - 2) After trial operation is complete, set the temperature to a normal level (26°C to 28°C).
 - 3) For protection, the unit disables restart operation for 3 minutes after it is turned off.

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

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

Trial Operation from Remote Controller

- 1) Press ON/OFF button to turn on the system.
- 2) Simultaneously press center of TEMP button and MODE button.
- 3) Press MODE button twice.
(“7” will appear on the display to indicate that Trial Operation mode is selected.)
- 4) Trial run mode terminates in approx. 30 minutes and switches into normal mode. To quit a trial operation, press ON/OFF button.

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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