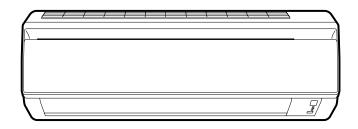


INSTALLATION MANUAL

R410A Split Series



Models FTYN25GXV1B FTYN35GXV1B 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

Montaj kılavuzları R410A Split serisi

Türkçe

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

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

CE - DECLARAÇÃO-DE-CONFORMIDADE CE - 3AABJIEHÚE-O-COOTBETCTBUU CE - OPFYLDELSESERKLÆRING CE - FÖRSÄKRAN-OM-ÖVERENSTÄMMELSE

CE - ERKLÆRING OM-SAMSVAR CE - ILMOITUS-YHDENMUKAISUUDESTA CE - PROHLÅŠENÍ-O-SHODĚ

CE - IZJAVA-O-UŞKLABENOSTI CE - MEGFELELÖSÉGI-NYILATKOZAT CE - DEKLARACJA-ZGODNOŠCI CE - DECLARAŢIE-DE-CONFORMITATE

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

CE - ATITIKTIES-DEKLARACIJA CE - ATBILSTIBAS-DEKLARĀCIJA CE - VYHLÁSENIE-ZHODY CE - UYUMLULUK-BILDIRISI

DAIKIN INDUSTRIES, LTD.

02 💿 erklärt auf seine alleinige Verantwortung daß die Modelle der Klimageräte für die diese Erklärung bestimmt ist: 01 @ declares under its sole responsibility that the air conditioning models to which this declaration relates:

04 (w.) verklaart hierbij op eigen exclusieve verantwoordelijkheid dat de airconditioning units waarop deze verklaring betrekking heeft: 03 (F) déclare sous sa seule responsabilité que les appareils d'air conditionné visés par la présente déclar ation:

65 E. declara baja su única responsabilidad que los modelos de aire acondicionado a los cuales hace referencia la declaración.
66 O dichiara sotto sua responsabilità che i condizionatori modello a cui è riferita questa dichiarazione:

07 📾 δηλώνει με αποκλειστική της ευθύνη ότι τα μοντέλα των κλιματιστικών συσκευών στα οποία αναφέρεται η παρούσα δήλωση:

09 🙉 заявляет, исключительно под свою ответственность, что модели кондиционеров воздуха, к которым относится настоящее заявление: 08 🕑 declara sob sua exclusiva responsabilidade que os modelos de ar condicionado a que esta declaração se refere:

FTYN25GXV1B, FTYN35GXV1B, RYN25GXV1B, RYN35GXV1B

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

02 der/den 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 la/aux 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 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 nuestras instrucciones:

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

αήπφωνα με τις οδηγίες μας:

EN60335-2-40,

10 under iagttagelse af bestemmelserne i: 02 gemäß den Vorschriften der:

03 conformement aux stipulations des:

04 overeenkomstig de bepalingen van:

05 siguleind is ad stiposiciones de:

06 secondo le prescrizioni per:

07 pr. priport yav dout/ξεων vav:

08 de acordo соп о previste en:

09 в соответствим с положеннями: 01 following the provisions of:

23 ievērojot prasības, kas noteiktas: 22 laikantis nuostatų, pateikiamų: 21 следвайки клаузите на: 24 održiavajúc ustanovenia: 12 gitt i henhold til bestemmelsene i: 14 za dodržení ustanovení předpisu: 13 noudattaen määräyksiä: 15 prema odredbama: 11 enligt villkoren i: 16 követi a(z):

19 ob upoštevanju določb:

vastavalt nõuetele:

25 bunun koşullarına uygun olarak:

17 zgodnie z postanowieniami Dyrektyw: 18 în urma prevederilor:

as set out in OYLR&D-047-EMC, OYLR&D-048-EMC and judged positively by INTERTEK SEMKO according to the Reference No. 70940211, 70940212.

01 Note

*

tel que stipulé dans OYLR&D-047-EMC, OYLR&D-048-EMC et jugé positivement par INTERTEK SEMKO conformément aux références No. 70940211, 70940212. zoals vermeld in OYLR&D-047-EMC, OYLR&D-048-EMC en in orde bevonden door INTERTEK SEMKO overeenkomstig Referentienummer 709402T1, 709402T2. wie in OYLR&D-047-EMC, OYLR&D-048-EMC autgeführt und von INTERTEK SEMKO positiv ausgezeichnet gemäß Referenz Nr. 70940271, 70940272. 03 Remarque * 02 Hinweis* 04 Bemerk*

Delineato in OYLR&D-047-EMC, OYLR&D-048-EMC e giudicato positivamente da INTERTEK SEMKO secondo il Riferimento n° 70940211, 70940212. tal como se expone en OYLR&D-047-EMC, OYLR&D-048-EMC y juzgado positivamente por INTERTEK SEMKO según el Nº de referencia 709402T1, 709402T2. 05 Nota* 06 Nota*

tal como estabelecido em OYLR&D-047-EMC, OYLR&D-048-EMC e com o parecer positivo de ках указано в **ОYLR&D-047-EMC**, **ОYLR&D-048-EMC** и в соответствии с положительным решением **INTERTEK SEMKO** соотласно **регистрационному номеру 70940211**, **70940212**. όπως προσδιορίζεται στο **ΟΥLR&D-047-ΕΜC, ΟΥLR&D-048-ΕΜC** και κρίνεται θετικά από το **INTERTEK SEMKO** σύμφωνα με τον Α**ρ. Αναφοράς 70940211, 70940212.** INTERTEK SEMKO de acordo com a Referência No. 709402T1, 709402T2. 09 Примечание σ Σημείωση * 08 Nota*

zgodnie z OYLR&D-047-EMC, OYLR&D-048-EMC oraz pozytywną opinią INTERTEK SEMKO o

nr. referencyjnym 709402T1, 709402T2.

17 Uwaga *

. Notă

conform celor stabilite în OYLR&D-047-EMC, OYLR&D-048-EMC și apreciate pozitiv de INTERTEK SEMKO în conformitate cu Nr. de referință 70940271, 70940272.

jak było uvedeno v **OYLR&D-047-EMC, OYLR&D-048-EMC** a pozitivně zjištěno **INTERTEK** SEMKO v souladu s **odkazem č. 709402T1, 709402T2.**

jotka on esitetty asiakirjoissa OYLR&D-047-EMC, OYLR&D-048-EMC ja jotka INTERTEK SEMKO on hyväksynyt viitenumerojen 709402T1, 709402T2 mukaisesti.

utrustningen är utförd i enlighet med OYLR&D-047-EMC, OYLR&D-048-EMC som positivt intygas av INTERTEK SEMKO vilket också framgår av Referensnr 70940211, 70940212.

i henhold til Henvisningsnr. 709402T1, 709402T2.

11 Information *

12 Merk * 13 Huom*

10 Bemærk*

som det fremkommer i **OYLR&D-047-EMC, OYLR&D-048-EMC** og gjennom positiv bedømmelse av **INTERTEK SEMKO** ifølge **Referansenr. 70940211, 70940212**.

kako je navedeno u **OYLR&D-047-EMC, OYLR&D-048-EMC** i kako je pozitivno procijenio INTERTEK SEMKO u skladu s referentnim br. 709402T1, 709402T2.

15 Napomena* 16 Megjegyzés *

14 Poznámka*

a(z) OYLR&D-047-EMC, OYLR&D-048-EMC alapján, a(z) INTERTEK SEMKO igazolta a megfelelést a(z) 70940211, 70940212 Hivatkozási szám szerint.

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 ислољѕования согласно нашим acordo com as nossas instruções:

10 overholder følgende standard(er) eller andetlandre retningsgivende dokument(er), forudsat at disse anvendes i henhold til vore instrukser:

11 respektive utrustning 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 utstyr er i overensstemmelse med følgende standard(er) eller andre normgivende dokument(er), under forutssetning av at

disse brukes i henhold til våre instrukser:

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

15 u skladu sa slijedećim standardom(ima) ili drugim normativnim dokumentom(ima), uz uvjet da se oni koriste u skladu s našim uputama: 14 za předpokladu, že jsou využívány v souladu s našími pokyny, odpovídají následujícím normám nebo normativním dokumentům:

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

21 съответстват на следните стандарти или други нормативни документи, при условие, че се използват съгласно нашите 19 skladní z naslednjimi standardí in drugimi normatíki, pod pogojem, da se uporabljajo v skladu z našími navodili: 20 on vastavuses järgmist(je standardite)ga või teiste normatiivsele dokumentidaga, kui neid kasutatakse vastavatt meie juhenditele: инструкции:

18 sunt în conformitate cu următorul (următoarele) standard(e) sau alt(e) document(e) normativ(e), cu condiția ca acestea să fie utilizate în

conformitate cu instrucțiunile noastre

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

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

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:

11 💿 deklarerar i egenskap av huvudansvarig, att luftkonditioneringsmodellerna som berörs av denna deklaration innebär att:

10 ® erklærer under eneansvar, at klimaanlægmodellerne, som denne deklaration vedrører:

12 (ii) erklærer et fullstendig ansvar for at de luftkondisjoneringsmodeller som berøres av denne deklarasjon innebærer at:

13 🕪 ilmoittaa yksinomaan omalla vastuullaan, että tämän ilmoituksen tarkoittamat ilmastointilaitteiden mallit: 15 (FB) izjavljuje pod isključivo vlastitom odgovornošću da su modeli klima uređaja na koje se ova izjava odnosi:

14 @ 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:

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

16 (F.) teljes felelőssége tudatában kijelenti, hogy a klímaberendezés modellek, melyekre e nyilatkozat vonatkozik:

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

23 🕟 ar pilnu atbildību apliecina, ka tālāk uzskaitīto modeļu gaisa kondicionētāji, uz kuriem attiecas šī deklarācija:

24 🕸 vyhlasuje na vlastnú zodpovednosť, že tieto klimatizačné modely, na ktoré sa vzťahuje toto vyhlásenie:

24 sú v zhode s nasledovnou(ými) normou(ami) alebo iným(i) normatívnym(i) dokumentom(ami), za predpokladu, že sa používajú v súlade 22 atlinka žemiau nuodytus slandartus ir (arba) kitus nominius dokumentus su sątyga, kad yra naudojami pagal mūsų nurodymus. 23 tad, ja lietoti atbilstoši ražotaja norādijumiem, atbilst sekojošiem standartiem un citiem normativiem dokumentiem:

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 Machinery Safety 98/37/EEC

 07 Οδηγιών, όπως έχουν τροποποτηθεί.
 08 Directivas, conforme alteração em.
 09 Директив со всеми поправками. som anført i OYLR&D-047-EMC, OYLR&D-048-EMC og positivt vurderet af INTERTEK SEMKO

25 Değiştirilmiş halleriyle Yönetmelikler.

16 irányelv(ek) és módosításaik rendelkezéseit.

15 Smjernice, kako je izmijenjeno. 17 z późniejszymi poprawkami.

14 v platném znění.

05 Directivas, según lo enmendado. 06 Direttive, come da modifica. 03 Directives, telles que modifiées. 04 Richtlijnen, zoals geamendeerd.

02 Direktiven, gemäß Änderung.

01 Directives, as amended.

18 Directivelor, cu amendamentele respective.

Direktiivejä, sellaisina kuin ne ovat muutettuina.

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.

Direktīvās un to papildinājumos.

24 Smernice, v platnom znení.

Nagu kehtestatud OYLR&D-047-EMC, OYLR&D-048-EMC ja positiivselt otsustatud INTERTEK SEMKO poolt vastavalt viidetele nr. 709402T1, 709402T2. kot določeno v OYLR&D-047-EMC, OYLR&D-048-EMC in odobreno s strani INTERTEK SEMKO v zvezi z referenčnima št. 709402T1, 709402T2. 19 Opomba* 20 Märkus*

както е заложено в **ОYLR&D-047-ЕМС, ОYLR&D-048-ЕМС** и в съответствие с положителното решение на INTERTEK SEMKO съгласно Референтен № 70940211, 70940212. kaip nurodyta OYLR&D-047-EMC, OYLR&D-048-EMC ir patvirtinta INTERTEK SEMKO pagal dokumentus Nr 709402T1, 709402T2. 21 Забележка* 22 Pastaba *

ako je to stanovené v OYLR&D-047-EMC,OYLR&D-048-EMC a kladne posúdené INTERTEK SEMKO podľa odkazom č. 709402T1,709402T2 kā noteikts OYLR&D-047-EMC, OYLR&D-048-EMC atbilstoši INTERTEK SEMKO pozitīvajam lēmumam, ko apliecina Norādēm Nr. 709402T1, 709402T2. 24 Poznámka* 23 Piezīmes*

OYLR&D-047-EMC, OYLR&D-048-EMC de belirildiği gibi ve Referans No. 709402T1,709402T2'ye göre INTERTEK SEMKO tarafından olumlu olarak değerlendirilmiştir. 25 Not*

Manager Quality Control Department Shiga, 1st of Nov. 2007 Noboru Murata

DAIKIN INDUSTRIES, LTD. Umeda Center Bldg., 2- 4-12, Nakazaki-Nishi 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.

MARNING......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.



 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.

MARNING

- 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 stop 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 stop 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.
- 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) - (K), Outdoor unit (L)



A Mounting plate 1 B Refrigerant charge label		C Air-Purifying Filter with		G Indoor unit fixing screw M4 × 12L	
		bacteriostatic, virustatic function	2	(H) Thermistor cable (8m)*1	1
Contains fluorinated greenhouse gases covered by the Kyoto Protocol R410A ②= kg ②= kg ①+②= kg	1	(D) Wireless remote controller	1	(J) Operation manual	1
		(E) Remote controller holder	1	(K) Installation manual	1
		(F) AAA dry-cell batteries	2	(L) Drain plug	1

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

Choosing a Site

Before choosing the installation site, obtain user approval.

Indoor unit

The indoor unit should be sited in a place where:

- 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).

Outdoor unit

The outdoor unit should be sited in a place where:

- 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.

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 7 metres).

Installation Tips

Removing and installing front panel.

Removal method

- 1) Place your fingers in the indentations on the main unit (one each on the left and right sides), and open the panel until it stops.
- Continue to open the front panel further while sliding the panel to the right and pulling it toward you in order to disengage the rotating shaft on the left side. To disengage the rotating shaft on the right side, slide the panel to the left while pulling it toward you.

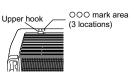
Installation method

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.

Removing and installing front grille.

Removal method

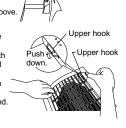
- 1) Remove front panel to remove the air filter.
- 2) Remove the screws (2) from the front grille.
- 3) In front of the OOO mark of the front grille, there are 3 upper hooks. Lightly pull the front grille toward you with one hand, and push down on the hooks with the fingers of your other hand.



panel into the groove Lightly pull the front grille toward you with one hand, and push down on the hooks with the fingers of your other hand (3 locations)

Rotating shaft

Push the rotating



ndentations on

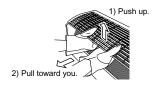
When there is no work space because the unit is close to ceiling

Be sure to wear protection gloves.

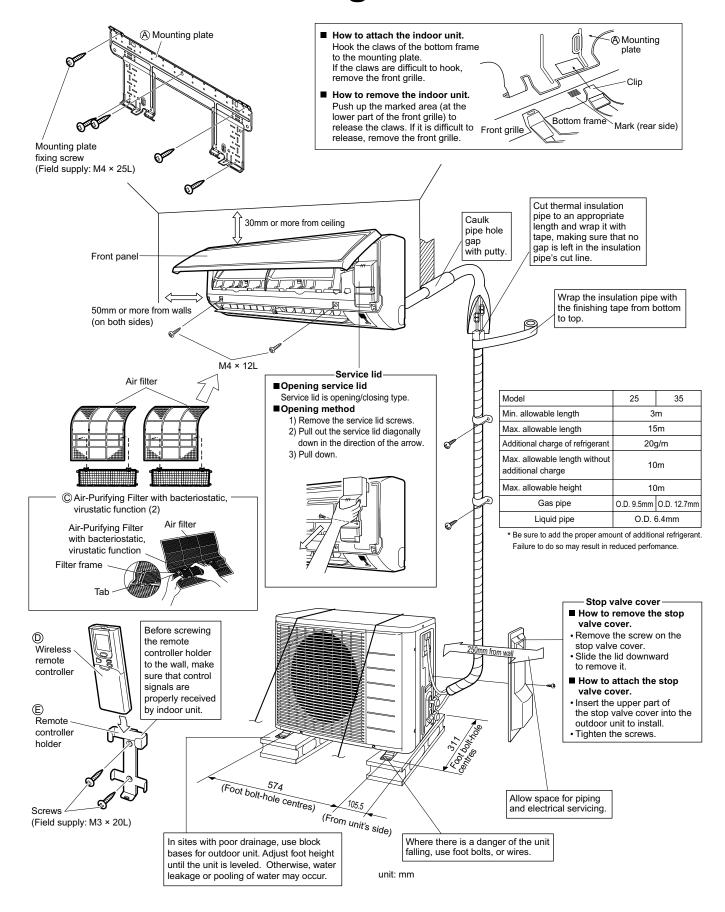
Place both hands under the center of the front grille, and while pushing up, pull it toward you.

Installation method

- 1) Install the front grille and firmly engage the upper hooks (3 locations).
- 2) Install 2screws of the front grille.
- 3) Install the air filter and then mount the front panel.

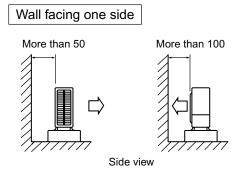


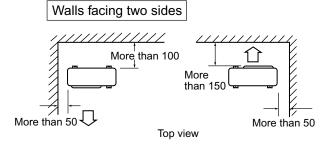
Indoor/Outdoor Unit Installation Drawings

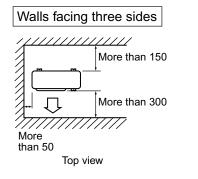


Outdoor Unit Installation Guidelines

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



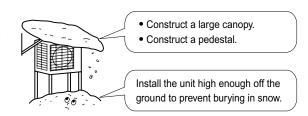




⚠ CAUTION

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

- 1) To prevent exposure to wind, install the outdoor unit with its suction side facing the wall.
- 2) 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.



Unit: mm

⚠ CAUTION

In the case of using a mount and installing the outdoor unit on the wall or roof, attach vibration absorbers (e.g., vibration isolation rubbers and springs) between the legs of the outdoor unit and the mount (4 portions).



Important information regarding the refrigerant used

This product contains fluorinated greenhouse gases covered by the Kyoto Protocol. Do not vent gases into the atmosphere.

Refrigerant type: R410A

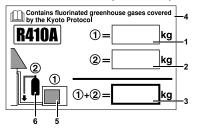
GWP⁽¹⁾ value: **1975** (1) GWP = global warming potential

Please fill in with indelible ink.

- ① the factory refrigerant charge of the product,
- ② the additional refrigerant amount charged in the field and
- ① + ② the total refrigerant charge

on the refrigerant charge label supplied with the product.

The filled out label must be adhered in the proximity of the product charging port (e.g. onto the inside of the stop valve cover).



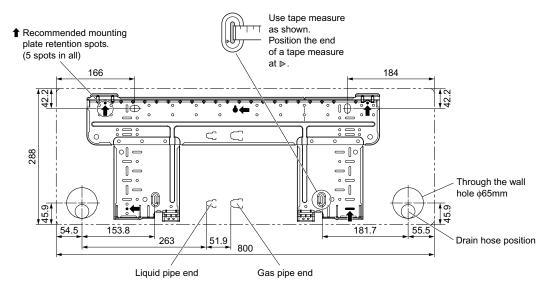
- 1 factory refrigerant charge of the product: see unit name plate
- 2 additional refrigerant amount charged in the field
- 3 total refrigerant charge
- Contains fluorinated greenhouse gases covered by the Kyoto Protocol
- 5 outdoor unit
- 6 refrigerant cylinder and manifold for charging

Indoor Unit

1. Installing the mounting plate.

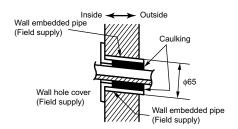
- The mounting plate should be installed on a wall which can support the weight of the indoor unit.
 - 1) Temporarily secure the mounting plate to the wall, make sure that the panel is completely level, and mark the boring points on the wall.
 - 2) Secure the mounting plate to the wall with screws.

Recommended mounting plate retention spots and Dimensions



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.
 - 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.
 - After completing refrigerant piping, wiring, and drain piping, caulk pipe hole gap with putty.



Indoor Unit

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 ∆ markings at the top of the indoor unit as a guide.
- Mounting plate

Right-bottom piping

Remove pipe port cover

here for right-bottom piping

Right-back piping

Bind coolant pipe and drain hose

together with

insulating tape

Right-side piping

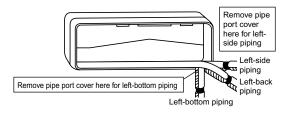
Remove pipe port cover here for right-side piping

- 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.

When stripping the ends of interconnecting wires in advance, bind right ends of wires with insulating tape. Wire guide

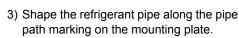
3-2. Left-side, left-back, or left-bottom piping.

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

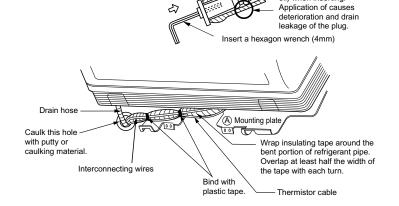


Do not apply lubricating oil (refrigerant machine oil) when inserting.

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



- 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.



How to set drain plug



Note:

- 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.
- 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).

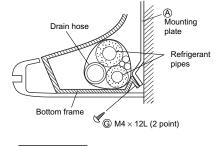
3-3. Wall embedded piping.

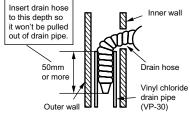
Follow the instructions given under

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

1) Insert the drain hose to this depth so it wont be pulled out of the drain pipe.

4. Wiring.



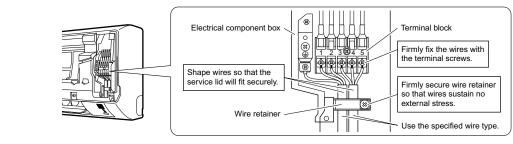


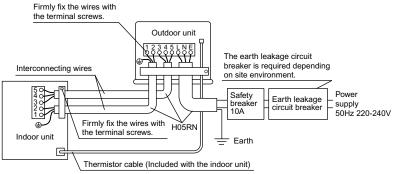
MARNING

- 1) Do not use tapped wires, stand wires, extensioncords, or starbust connections, as they may cause overtheating, 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).
 - 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.





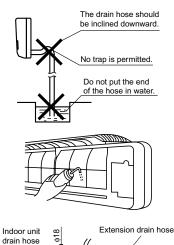
Specification for field wire

opcomoducii ici iicid iiiic						
		Wire	Size (mm²)	Number of core		
Intercor	nnecting wires	H05RN	1.0	4		
Powers	supply wire	HUSKIN	1.5	3		

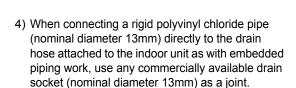
Indoor Unit

5. 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.



Heat insulation tube (Field supply)





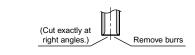
Outdoor Unit

1. Installing outdoor unit.

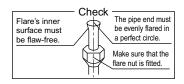
• For outdoor unit installation, see Choosing a Site Outdoor unit and Indoor/Outdoor Unit Installation Drawings.

2. Flaring the pipe end.

- 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.



Set exactly at the position shown below.					
A		Flare tool for R410A	Conventional flare tool		
		Clutch-type	Clutch-type (Rigid-type)	Wing-nut type (Imperial-type)	
ZZZ ZZZDie	Α	0-0.5mm	1.0-1.5mm	1.5-2.0mm	



MARNING

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

3. Refrigerant piping.

- 1) 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	liantial aida				
25 class	35 class	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)			

Valve cap tightening torque					
Gas	liantial atala				
25 class	35 class	Liquid side			
3/8 inch 1/2 inch		1/4 inch			
21.6-27.4N • m	48.1-59.7N • m	21.6-27.4N • m			
(220-280kgf • cm)	(490-610kgf • cm)	(220-280kgf • cm)			

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

place a cap

available, cover th

tape to keep dirt or

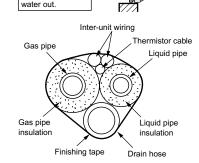
If no flare cap is

3-1. Caution on piping handling.

- 1) Protect the open end of the pipe against dust and moisture.
- 2) All pipe bends should be as gentle as possible. Use a pipe bender for bending.
 - (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:
- 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
25 class	35 class	Liquid Side	25 class	35 class	thermal insulation
O.D. 9.5mm	O.D. 12.7mm	O.D. 6.4mm	I.D. 12-15mm	I.D. 14-16mm	I.D. 8-10mm
Thickness 0.8mm			Thickness 10mm Min.		

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

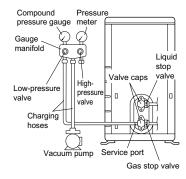
Outdoor Unit

4. Purging air and checking gas leakage.

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

MARNING

- 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 stop valve rod.
- All refrigerant pipe joints should be tightened with a torque wrench at the specified tightening torque.



1) Connect projection side of charging hose (which comes from gauge manifold) to gas stop valve's service port.



 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.



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 stop valve and gas stop valve.



6) Turn the liquid stop 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 stop valve's service port, then fully open liquid and gas stop valves. (Do not attempt to turn valve rod beyond its stop.)



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

*1. Pipe length vs. vacuum pump run time

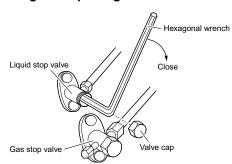
Pipe length	Up to 15 metres	More than 15 metres
Run time	Not less than 10 min.	Not less than 15 min.

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

5. Pump down operation.

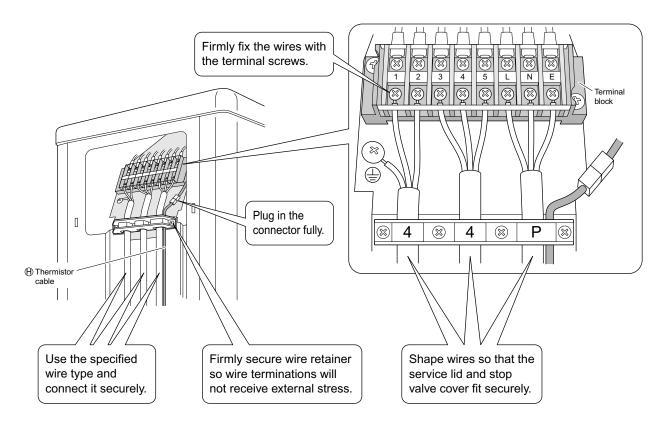
In order to protect the environment, be sure to pump down when relocating or disposing of the unit.

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



6. Wiring.

· For interconnecting wire connections, see Indoor Unit, 4 Wiring.



Outdoor Unit

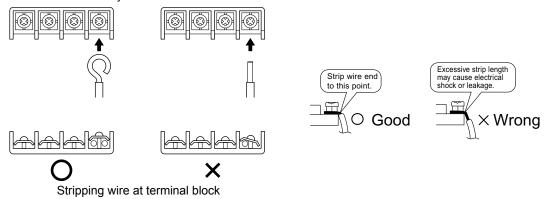
Observe the notes mentioned below when wiring to the terminal block. Precautions to be taken for power supply wiring.

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





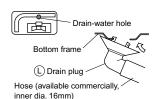
When connecting the connection wires to the terminal block using a single core wire, be sure to perform curling. Problems with the work may cause heat and fires.



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

7. Drain work.

- 1) Use drain plug (L) 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. Stop valves are opened.	Incomplete cooling/heating function	
Indoor unit properly receives remote control commands.	Inoperative	
Thermistor cable is plugged in the connector fully.	Inoperative	

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