

INSTALLATION MANUAL

Split System Air Conditioner

FVA71AMVEB FVA100AMVEB FVA125AMVEB FVA140AMVEB AVA125AMVE

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

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

CE - DECLARAÇÃO-DE-CONFORMIDADE CE - 3ARBJIEHIVE-O-COOTBETCTBUN CE - OVERENSSTEMMEL SESERKLÆRING CE - FÖRSÅKRAN-OM-ÖVERENSTAMMELSE

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

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

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IZJAVA O SKLADNOSTI VASTAVUSDEKLARATSIOON ДЕКЛАРАЦИЯ-3A-CЪОТВЕТСТВИЕ

CE - ATITIKTIES-DEKLARACIJA CE - ATBILSTĪBAS-DEKLARĀCIJA CE - VYHLÁSENIE-ZHODY CE - UYGUNLUK-BEYANI

Daikin Europe N.V.

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

03 f déclare sous sa seule responsabilité que les appareils d'air conditionné visés par la présente déclaration:

041 verklaart hierbij op eigen exdusieve verantwoordelijkheid dat de airoonditioning units waarop deze verklaring betrekking heeft: 05 e declara baja su única responsabilidad que los modelos de aire acondicionado a los cuales hace referencia la declaración:

07 g δηλώνει με αποκλειστική της ευθύνη ότι τα μοντέλα των κλιματιστικών συσκευών στα οποία αναφέρεται η παρούσα δήλωση: 08 p declara sob sua exclusiva responsabilidade que os modelos de ar condicionado a que esta declaração se refere: 06 i dichiara sotto sua responsabilità che i condizionatori modello a cui è riferita questa dichiarazione:

99 и заявляет, исключительно под свою ответственность, что модели кондиционеров воздуха, к которым относится настоящее заявление: 10 q erklærer under eneansvar, at klimaanlægmodellerne, som denne deklaration vedrører:

11 s deklarerar i egenskap av huvudansvarig, att luftkonditioneringsmodellerna som berörs av denna deklaration innebär att: 12 n erklærer et fullstendig ansvar for at de luftkondisjoneringsmodeller som berøres av denne deklarasjon, innebærer at: 13 jilmoittaa yksinomaan omalla vastuullaan, että tämän ilmoituksen tarkoittamat ilmastointilaitteiden mallit:

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

16 h teljes felelőssége tudatában kijelenti, hogy a klímaberendezés modellek, melyekre e nyilatkozat vonatkozik

17 m deklaruje na własną i wyłączną odpowiedzialność, że modele klimatyzatorów, których dotyczy niniejsza deklaracja: 18 r declară pe proprie răspundere că aparatele de aer condiţionat la care se referă această declaraţie:

19 o z vso odgovornostjo izjavlja, da so modeli klimatskih naprav, na katere se izjava nanaša:

21 в декларира на своя отговорност, че моделите климатична инсталация, за които се отнася тази декларация: 20 x kinnitab oma täielikul vastutusel, et käesoleva deklaratsiooni alla kuuluvad kliimaseadmete mudelid:

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

 k vyhlasuje na vlastnú zodpovednost, že tieto klimatizačné modely, na ktoré sa vzťahuje toto vyhlásenie:
 v v tamamen kendi sorumklučunda olmak úzere bu bildirnin ilgili oldučju klima modeljernin spagidaki gibi oldučjunu beyan eder: 23 v ar pilnu atbildību apliecina, ka tālāk uzskaitīto modeļu gaisa kondicionētāji, uz kuriem attiecas šī deklarācija:

FVA71AMVEB, FVA100AMVEB, FVA125AMVEB, FVA140AMVEB, AVA125AMVE,

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

acordo com as nossas instruções:

02 der/den folgenden Norm(en) oder einem anderen Normdokument oder -dokumenten entspricht/entsprechen, unter der Voraussetzung, daß sie gemäß unseren Anweisungen eingesetzt werden:

04 conform de volgende norm(en) of één of meer andere bindende documenten zijn, op voorwaarde dat ze worden gebruikt overeenkomstig 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: 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 nestras instrucciones:

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

13 vastaavat seuraavien standardien ja muiden ohjeellisten dokumenttien vaatimuksia edellyttäen, että niitä käytetään ohjeidemme 14 za předpokladu, že jsou využívány v souladu s našími pokyny, odpovídají následujícím normám nebo normativním dokumentům:

17 spelniają wymogi następujących nom 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 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

19 skladni z naslednjimi standardi in drugimi normativi, pod pogojem, da se uporabljajo v skladu z našimi navodili: conformitate cu instrucțiunile noastre: 10 overholder følgende standard(er) eller andet/andre retningsgivende dokument(er), forudsat at disse anvendes i henhold til vore

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

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: 11 respektive utrustning är utförd i överensstämmelse med och följer följande standard(er) eller andra normgivande dokument, under

инструкции

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:

instrukser:

disse brukes i henhold til våre instrukser:

22 atitinka žemiau nurodytus standartus ir (arba) kitus norminius dokumentus su sąlyga, kad yra naudojami pagal mūsų nurodymus: 23 tad., ja lietoti atbilstoši ražotāja norādījumiem, atbilst sekojošiem standartiem un citiem normatīviem dokumentiem:

24 sú v zhode s nasledovnou(ými) normou(ami) alebo iným(i) normatívnym(i) dokumentom(ami), za predpokladu, že sa používajú v súlade s našim návodom:

25 ürünün, talimatlanmıza göre kullanılması koşuluyla aşağıdaki standartlar ve nom belirten belgelerle uyumludur:

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

01 Directives, as amended.

Machinery 2006/42/EC ** Electromagnetic Compatibility 2014/30/EU * Low Voltage 2014/35/EU

23 ievērojot prasības, kas noteiktas:

22 laikantis nuostatų, pateikiamų:

21 следвайки клаузите на:

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

03 conformément aux stipulations des: 04 overeenkomstig de bepalingen van:

02 gemäß den Vorschriften der:

01 following the provisions of:

05 siguiendo las disposiciones de: 07 με τήρηση των διατάξεων των: 08 de acordo com o previsto em:

06 secondo le prescrizioni per:

11 enligt villkoren i:

13 noudattaen määräyksiä:

15 prema odredbama:

16 követi a(z):

20 vastavalt nõuetele:

19 ob upoštevanju določb:

10 under iagttagelse af bestemmelserne i:

25 bunun koşullarına uygun olarak:

17 zgodnie z postanowieniami Dyrektyw:

18 în urma prevederilor:

09 в соответствии с положениями:

24 održiavajúc ustanovenia:

07 Οδηγιών, όπως έχουν τροποιηθεί. 08 Directivas, conforme alteração em. 09 Директив со всеми поправками. 05 Directivas, según lo enmendado. 03 Directives, telles que modifiées. 04 Richtlijnen, zoals geamendeerd. 21 Забележка* 02 Direktiven, gemäß Änderung. 06 Direttive, come da modifica. a(z) <A> alapján, a(z) igazolta a megfelelést, a(z) <C> tanúsfivány szerint. zgodnie z dokumentacją <A>, pozytywną opinią | Świadectwem <C> 16 Megjegyzés*

25 Değiştirilmiş halleriyle Yönetmelikler.

16 irányelv(ek) és módosításaik rendelkezéseit. 18 Directivelor, cu amendamentele respective.

15 Smjemice, kako je izmijenjeno. 17 z późniejszymi poprawkamı.

14 v platném znění.

21 Директиви, с техните изменения

13 Direktiivejä, sellaisina kuin ne ovat muutettuina.

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

23 Direktīvās un to papildinājumos.

24 Smernice, v platnom znení.

19 Direktive z vsemi spremembami.

20 Direktiivid koos muudatustega. 22 Direktyvose su papildymais.

> 24 Poznámka * 23 Piezīmes * 22 Pastaba* . ĕ 22 kot je določeno v <A> in odobreno s strani 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>. v skladu s certifikatom <C>. 17 Uwaga* 19 Opomba

18 Notă*

otka on esitetty asiakirjassa <A> ja jotka on jak bylo uvedeno v <A> a pozitivně zjištěno

13 Huom* 12 Merk*

> positivo de de acordo com o Certificado <C>. tal como estabelecido em <A> e com o parecer

с положительным решением согласно som anført i <A> og positivt vurderet af i henhold til Certifikat <C>.

Свидетельству <С>

10 Bemærk*

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

Nota * 8

как указано в <А> и в соответствии

Примечание

nyvāksynyt Sertifikaatin <C> mukaisesti.

som det fremkommer i <A> og gjennom positiv

όπως καθορίζεται στο <Α> και κρίνεται θετικά από

07 Σημείωση*

wie in <A> aufgeführt und von positiv beurteilt

02 Hinweis* Note *

pemais Zertifikat <>>.

Nota *

8 ඉ

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

Remarque * Bemerk *

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

το <Β> σύμφωνα με το Πιστοποιητικό <C>.

enligt <A> och godkänts av enligt Certifikatet <C>.

11 Information *

delineato nel <A> e giudicato positivamente

Nota *

8

as set out in <A> and judged positively by

according to the Certificate <C>.

da secondo il Certificato <C>

bedømmelse av ifølge Sertifikat <C>.

kaip nustatyta <A> ir kaip teigiamai nuspręsta pagal Sertifikatą <C>. както е изложено в <А> и оценено положително

от <В> съпласно Сертификата <С>

kā norādīts <A> un atbilstoši pozitīvajam

vērtējumam saskaņā ar sertifikātu <C>

v súlade s osvedčením <C>.

DAIKIN.TCF.033A6/05-2017 2178265.0551-EMC DEKRA (NB0344) ô \$ ô tarafından olumlu olarak değerlendirildiği gibi. ako bolo uvedené v <A> a pozitívne zistené <A>'da belirtildiği gibi ve <C> Sertifikasına göre

> 07 ** Η Daikin Europe N.V. είναι εξουσιοδοτημένη να συντάξει τον Τεχνικό φάκελο κατασκευής. 08 ** A Daikin Europe N.V. está autorizada a compilar a documentação técnica de fabrico. 02 ** Daikin Europe N.V. hat die Berechtigung die Technische Konstruktionsakte zusammenzustellen.

10 ** Daikin Europe N.V. er autoriseret til at udarbejde de tekniske konstruktionsdata.

03* Dakin Europe N.V. est autorisé à complet le Dossier de Construction Technique.
04* Dakin Europe N.V. is bevoegd on het Technisch Constructledossier samen te stellen.
05* Dakin Europe N.V. está autorizado a compilar el Archivo de Construction Tecnica.
06* Dakin Europe N.V. è autorizzata a redigere il File Tecnico di Costruzione.

01 ** Daikin Europe N.V. is authorised to compile the Technical Construction File.

11 ** Daikin Europe N.V. är bemyndigade att sammanställa den tekniska konstruktionsfilen. Daikin Europe N.V. har tillatelse til å kompilere den Tekniske konstruksjonsfilen.

14 ** Společnost Daikin Europe N.V. má oprávnění ke kompilaci souboru technické konstrukce. 15** Daikin Europe N.V. je ovlašten za izradu Datoteke o tehničkoj konstrukciji. 13 ** Daikin Europe N.V. on valtuutettu laatimaan Teknisen asiakirjan. 09 ** Компания Daikin Europe N.V. уполномочена составить Комплект технической документации.

20 Märkus

kako je izloženo u <A> i pozitivno ocijenjeno

souladu s osvědčením <C>.

14 Poznámka * 15 Napomena*

od strane prema Certifikatu <C>.

17 ** Daikin Europe N.V. ma upowaźnienie do zbierania i opracowywania dokumentacji konstrukcyjnej 16 ** A Daikin Europe N.V. jogosult a műszaki konstrukciós dokumentáció összeállítására.

18 ** Daikin Europe N.V. este autorizat să compileze Dosarul tehnic de construcție.

21 ** Daikin Europe N.V. е оторизирана да състави Акта за техническа конструкция. 19 ** Daikin Europe N.V. je pooblaščen za sestavo datoteke s tehnično mapo. 20** Daikin Europe N.V. on volitatud koostama tehnilist dokumentatsiooni.

22 ** Daikin Europe N.V. yra įgaliota sudaryti šį techninės konstrukcijos failą, 23 ** Daikin Europe N.V. ir autorizēts sastādīt tehnisko dokumentāciju.

24 ** Spoločnosť Daikin Europe N.V. je oprávnená vytvoriť súbor technickej konštrukcie. Daikin Europe N.V. Teknik Yapı Dosyasını derlemeye yetkilidir.

Zandvoordestraat 300, B-8400 Oostende, Belgium DAIKIN EUROPE N.V.

3P471028-11C

DAIKIN

Shigeki Morita Director

Ostend, 1st of June 2017

UKCA - Safety declaration of conformity

Daikin Europe N.V.

declares under its sole responsibility that the products to which this declaration relates:

FVA71AMVEB, FVA100AMVEB, FVA125AMVEB, FVA140AMVEB, AVA125AMVE,

are in conformity with the following directive(s) or regulation(s), provided that the products are used in accordance with our instructions:

S.I. 2008/1597: Supply of Machinery (Safety) Regulations 2008** S.I. 2016/1101: Electrical Equipment (Safety) Regulations 2016 S.I. 2016/1091: Electromagnetic Compatibility Regulations 2016*

as amended

following the provisions of:

BS EN 60335-2-40,

* as set out in <A> and judged positively by according to the Certificate <C>.

<A> DAIKIN.TCF.033A6/05-2017

ô ô

** Daikin Europe N.V. is authorised to compile the Technical Construction File.

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SPLIT SYSTEM Air Conditioner

Installation manual

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This English text is the original instruction. Other languages are translations of the original instructions.

Read these instructions carefully before installation.

Keep this manual in a handy place for future reference.



This appliance is filled with R32.

1. SAFETY PRECAUTIONS

Please read these "SAFETY PRECAUTIONS" carefully before installing air conditioning equipment and be sure to install it correctly.

Meaning of WARNING and CAUTION notices.

Both are important notices for safety. Be sure to follow them.

WARNING 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.

After completing installation, conduct a test operation to confirm that the equipment operates without any problems Then, explain to the customer how to operate the equipment and take care of it following the operation manual. Ask the customer to store the installation manual along with the operation manual for future reference.

This air conditioner comes under the term "appliances accessible to the general public".



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.

- When installing the unit in a small room, take measures so that the refrigerant may not exceed the limiting concentration in the event of refrigerant leakage.
 - Contact your dealer for further information. If the refrigerant leaks and exceeds the limiting concentration, it may lead to oxygen deficiency.
- 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.
- 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.

 If a foundation does not have sufficient strength, the equipment may fall and cause injury.
- Carry out the required installation work in consideration of strong winds, typhoons or earthquakes. If the installation work is not properly carried out, the unit may fall down and cause accidents.
- The electrical work must be carried out by the qualified electrician in accordance with the local laws and regulations and this installation manual. Make sure to provide a dedicated power supply circuit and never connect additional wiring to the existing circuit.
 - An insufficient power supply capacity or improper electrical work may lead to electric shocks or fire.
- Be sure to earth the air conditioner.
- Do not earth the unit to a utility pipe, lightning conductor or telephone earth lead.
- Imperfect earthing may result in electric shocks 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.
- Be sure to switch off the unit before touching any electrical parts.
 - Touching a live part may result in electric shock.
- For wiring, use the specified wires and connect and fasten them firmly so that no external force from the wires may be applied to the terminal connections.
 - If the wires are not firmly connected and fastened, it may cause heating, fire or the like.
- Wiring for power supply and between the indoor and outdoor units must be properly laid and formed, and the control box lid must be firmly fastened so that the wiring may not push up the structural parts such as the lid.
 - If the lid is improperly fastened, it may cause electric shock or fire.
- If refrigerant gas leaks during installation, ventilate the area immediately.
 - Toxic gas may be produced if the refrigerant comes into contact with fire.
- · After completing installation, check for refrigerant gas leakage.
 - Toxic gas may be produced if the refrigerant gas leaks into the room and comes into contact with a source of fire, such as a fan heater, stove or cooker.
- Do not directly touch refrigerant that has leaked from refrigerant pipes or other areas, as there is a danger of frostbite.
- Do not use flammable gasses (hairsprays, insecticides etc.) near the unit.
- Do not use benzine or thinner to wipe the unit.
- It could cause cracking, electric shocks or fire (only for R32 refrigerant).
- Make sure installation, servicing, maintenance and repair comply with instructions from Daikin and with applicable legislation (for example national gas regulation) and are executed only by authorised persons.
- When installing or relocating the air conditioner, be sure to bleed the refrigerant circuit to ensure it is free of air, and use only the specified refrigerant (R410A or R32- based on unit specification. The refrigerant must not be interchanged).
 - The presence of air or other foreign matter in the refrigerant circuit causes abnormal pressure rise, which may result in equipment damage and even injury.
- If the supply cord is damaged, it must be replaced by the manufacturer, a service agent or similarly qualified persons in order to avoid a hazard.
- The appliance shall be stored so as to prevent mechanical damage and in a well-ventilated room without
 continuously operating ignition sources (example: open flames, an operating gas appliance or an operating
 electric heater) and have a room size as specified in chapter "SELECTING INSTALLATION SITE" on
 page 6 (only for R32 refrigerant).

−/N CAUTION

- This appliance is intended to be used by expert or trained users in shops, in light industry and on farms, or for commercial and household use by lay persons.
- Sound pressure level is less than 70 dB(A).
- Carry out drain piping properly following this installation manual and insulate the pipe to prevent condensation. Improper drain piping may result in indoor water leakage and property damage.
- Install the indoor and outdoor units, power cord and connecting wires at least 1 meter away from televisions or radios to prevent picture interference and noise.
 - (Depending on the incoming signal strength, a distance of 1 meter may not be sufficient to eliminate noise.)
- Install the indoor unit as far as possible from fluorescent lamps.
 - If a wireless kit is installed in a room where the electronic lighting type (inverter or rapid start types) fluorescent lamps exist, the transmitting distance of a remote controller may be shorter.
- Do not install the air conditioner in the following locations:
 - 1. Where there is a high concentration of mineral oil spray or vapour (e.g. a kitchen). Plastic parts may deteriorate and cause parts to fall off or water to leak.
 - 2. Where corrosive gas, such as sulphurous acid gas, is produced.

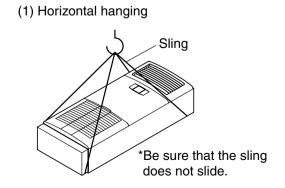
 Corrosion of copper pipes or brazed parts may occur and cause refrigerant leakage.
 - 3. Where there is a machine that generates electromagnetic wave and where voltage fluctuation often occurs such as a factory.
 - Control system may malfunction and as a result the unit may not properly operate.
 - 4. Where flammable gas may leak, where carbon fibre or ignitable dust is suspending in the air, or where volatile flammables such as paint thinner or gasoline are handled.
 - Operating the unit in such conditions may result in fire.
- The air conditioner is not intended for use in a potentially explosive atmosphere.
- Do not install in sealed, highly airtight spaces such as soundproof chambers and room which was sealed up the door (only for R32 refrigerant).
- Do not install in places filled with smoke, gas, chemicals etc.

 There is a possibility that the sensors inside the indoor unit could detect these, and display a refrigerant leak abnormality (only for R32 refrigerant).
- This unit is equipped with a refrigerant leak detector for safety. To be effective, the unit must be electrically powered at all times after installation, other than short service intervals (only for R32 refrigerant).
- This unit is equipped with electrically powered safety measures. To be effective, the unit must be electrically powered at all times after installation, other than short service intervals (only for R32 refrigerant).

2. BEFORE INSTALLATION

Do not exert pressure on the resin parts when opening the unit or when moving it after opening. Be sure to check in advance that the refrigerant to be used for installation is R32 or R410A. (If a wrong refrigerant is charged, the unit will not properly operate)

- For the installation of an outdoor unit, refer to the installation manual attached to the outdoor unit.
- Do not dispose of any parts necessary for installation until the installation is completed.
- Decide the route for carrying the unit to the installation site.
- When hanging the unit for lifting, use a sling of soft material (made of cloth, nylon, etc.) as shown below. (Refer to Fig. 1)



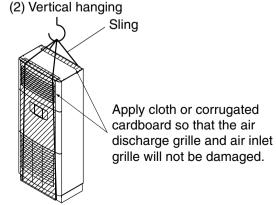


Fig. 1

2-1 PRECAUTIONS

- When selecting installation site, refer to the paper pattern (part of packaging material).
- Do not use the unit in locations where the salt content in the air is high such as beachfront, or where the voltage fluctuates such as factories, or where the base vibrates such as automobiles or marine vessels.
- Before opening the control box lid and performing the wiring operation, remove the static electricity charged to your body. Otherwise, electrical parts may be damaged.

2-2 ACCESSORIES

Check the following accessories are included with the unit.

Do not dispose of any parts necessary for installation until the installation is completed.

Name	(1) Bracket for installation	(3) Hole protection rubber	(4) Bush	Insulation for fitting
Quantity	1 set *1)	2 pcs.	1 pc.	1 each
				(5) For gas pipe
Shape				
·				
	(2) Screw (M4 × 10), 1 pc.			(6) For liquid pipe

Name	(7) Cover	(8) Clamp	(9) Installation pattern	(10) Dew proof material
Quantity	1 pc. *2)	5 pcs.	1 pc.	1 pc.
Shape			Also used as a packaging material	

Name	(11) Screws (M4 × 10)	(12) Screws (M5 × 12)	(13) Remote controller wiring	(Other)
Quantity	3 pcs. *2)	2 pcs.	1 pc. *2)	Operation manual Installation manual
Shape				*1) The bracket for installation is screwed onto the main unit (top plate). *2) These parts are used when the remote controller is installed in the main unit.

2-3 OPTIONAL ACCESSORIES

- The optional remote controller is required for this indoor unit.
- Select a remote controller from Table 1 according to customer request and install in an appropriate place. (For installation, follow the installation manual included with the remote controllers.)

Table 1

Remote controller			
Wired type	BRC1E53A7/BRC1E53B7/BRC1E53C7/BRC1D528 • Always use one of the following mandatory user interfaces for units using R32 refrigerant: BRC1H52K, BRC1H52S, BRC1H52W		

NOTE -

• If the customer wishes to use a remote controller that is not listed above, select a suitable remote controller after consulting catalogs and technical guide.

FOR THE FOLLOWING ITEMS, TAKE SPECIAL CARE DURING CONSTRUCTION AND CHECK AFTER INSTALLATION IS FINISHED.

1. Items to be checked after completion of work

Items to be checked	If not properly done, what is likely to occur	Check
Are the indoor unit and outdoor unit fixed firmly?	The unit may drop, vibrate or make noise.	
Is the installation of the indoor unit and the outdoor unit completed?	The unit may malfunction or the components may burn out.	
Is the gas leakage checked with the leakage test pressure written in the installation manual supplied with the outdoor unit?	It may result in insufficient cooling or heating.	
Is the unit fully insulated? (Refrigerant piping, drain piping)	Condensate water may drip.	
Does drainage flow smoothly?	Condensate water may drip.	
Does the power supply voltage correspond to that shown on the name plate?	The unit may malfunction or the components may burn out.	
Are wiring and piping correct?	The unit may malfunction or the components may burn out.	
Is the unit safely grounded?	It may result in electric shock.	
Is wiring size according to specifications?	The unit may malfunction or the components may burn out.	
Is something blocking the air outlet or inlet of either the indoor or outdoor units?	It may result in insufficient cooling or heating. (This can lead to malfunction or decreased performance due to decreased air volume.)	
Are refrigerant piping length and additional refrigerant charge noted down?	The refrigerant charge in the system is not clear.	

2. Items to be checked at time of delivery to customer.

* Also review the "1. SAFETY PRECAUTIONS"

Items to be checked	Check
Has the field setting done (as necessary)?	
Did you attach the control box lid, the air filter, and suction grille?	
Does the cold air (warm air) blow properly during the cooling (heating) operation?	
Did you explain about operations while showing the operation manual to your customer?	
Did you explain the cooling, heating, dry, and automatic cooling/heating operations described in the operation manual?	
Did you explain what the set airflow rate is when setting the airflow rate at thermostat off to the customer?	
Is the emergency switch (EMG.) of the printed circuit board turned ON? At delivery from the factory, it is set to normal (NORM).	
Is the suction thermistor installed at its original position (bell mouth) when the optional adapter installation box is installed?	
Did you hand the operation manual over to your customer? (Please hand over the installation manual as well.)	

Points for explanation about operations

Since the items with \triangle WARNING and \triangle CAUTION marks in the operation manual, if not observed, may cause injuries and/or material damages. Therefore, in addition to the general usage, it is necessary to explain them to the customer and also to ask the customers to thoroughly read them. Accordingly, it is necessary that you make a full explanation about the described contents and also ask your customers to read the operation manual.

2-4 NOTE TO THE INSTALLER

Be sure to instruct customers how to properly operate (especially cleaning filters, operating different functions, and adjusting the temperature) by having them carry out operations by themselves while reading the manual literally.

3. SELECTING INSTALLATION SITE

Do not exert pressure on the resin parts when opening the unit or when moving it after opening.

- (1) Select an installation site where the following conditions are fulfilled and that meets with your customer's approval.
- Where optimum air distribution can be ensured.
- Where the floor is strong enough to withstand the weight and vibration of the indoor unit.
- Make sure the floor is level. (Vibration and abnormal noise may be generated.)
- Where nothing blocks the air inlet and outlet, and where sufficient clearance for maintenance and service can be ensured. (Refer to Fig.2) (If not ensured, the capacity may drop due to short circuit.)
- · Where condensate can be properly drained.
- Where piping between indoor and outdoor units is possible within the allowable limit. (Refer to the installation manual for the outdoor unit.)



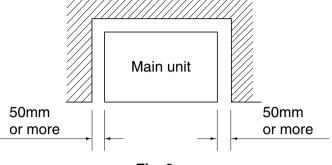


Fig. 2

- (2) Install the indoor and outdoor units, power cord and connecting wires at least 1 meter away from televisions or radios to prevent picture interference and noise. (Depending on the incoming signal strength, a distance of 1 meter may not be sufficient to eliminate noise.)
- (3) Investigate whether the installation location (such as the floor and wall) can withstand the weight of the unit and, if necessary, reinforce the location with such as beams before installation. To avoid vibration and abnormal noise, reinforce the location before installation.
- (4) Pipework shall be protected from physical damage.
- · Installation of pipework shall be kept to a minimum.
- The floor area of the room in which the appliance is installed, operated and stored MUST be larger than the minimum floor area dined in table below A (m²).

Minimum floor area

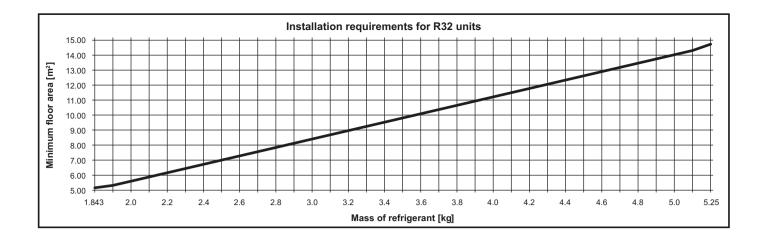
To determine the minimum floor area, refer to the table or the graph below.

(1) Depending on the amount of the refrigerant (m), the minimum floor area is (Amin).

INFORMATION:

- If the required exact value for the amount of the refrigerant (m) is not listed below, use the closest higher value.
- In case the total refrigerant charge in the system is >5.25 kg, refer to "To determine the minimum floor area" in the **General safety precautions** of your outdoor unit.

Minimum floor a	Minimum floor area for indoor unit.		ea for indoor unit.
m _c [kg]	A _{min} [m²]	m _c [kg]	A _{min} [m²]
≤1.842	No requirements.	3.5	9.81
1.843	5.16	3.6	10.09
1.9	5.32	3.7	10.37
2.0	5.60	3.8	10.65
2.1	5.88	3.9	10.93
2.2	6.16	4.0	11.21
2.3	6.44	4.1	11.49
2.4	6.72	4.2	11.77
2.5	7.01	4.3	12.05
2.6	7.29	4.4	12.33
2.7	7.57	4.5	12.61
2.8	7.85	4.6	12.89
2.9	8.13	4.7	13.17
3.0	8.41	4.8	13.45
3.1	8.69	4.9	13.73
3.2	8.97	5.0	14.01
3.3	9.25	5.1	14.29
3.4	9.53	5.25	14.71



4. INDOOR UNIT INSTALLATION

-∕\

WARNING

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

In Europe, the EN378 is the applicable standard that shall be used.

Instructions for equipment using R32 refrigerant

- Do NOT pierce or burn.
- Do NOT use means to accelerate the defrosting process or to clean the quipment, other than those recommended by the manufacturer.
- Be aware that R32 refrigerant does NOT contain an odour.

-∕•़\

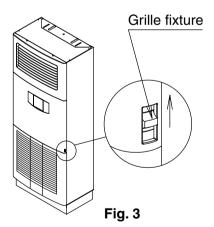
CAUTION -

- Do NOT re-use joints which have been used already.
- Joints made in installation between parts of refrigerant system shall be accessible for maintenance purposes.

(Fixing procedure)

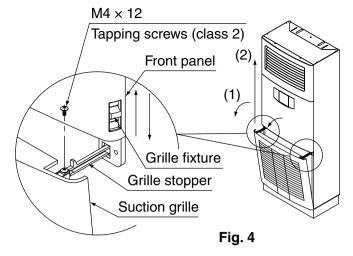
• Since the indoor unit is vertically tall, take measures to prevent the unit from falling down according to the following method.

1. Raise the grille fixture.



2. Detach the suction grille.

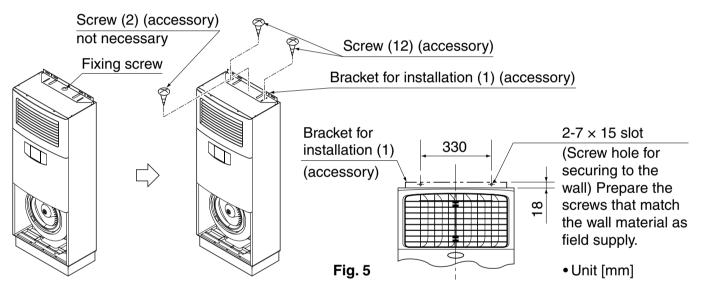
Remove the screws (R & L, total 2) locking the grille stopper. Then, (1) tilt the grille forward, and (2) lift upward.



3. For normal installation.

Remove the screw (2) fixing the bracket for installation (1) to the top panel. Change the mounting direction of the bracket as shown in the figure below and fix it to the top panel with the attached screws (12). Then, fix the bracket to the wall with the appropriate screws (field supply).

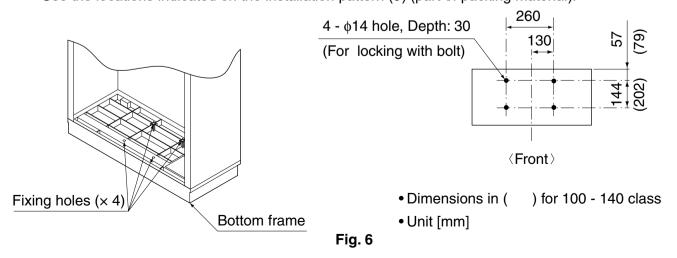
• Screws (2) are not used.



4. When installing the unit to a place where strength to earthquake is required.

In addition to the fixing method shown left, fix the bottom frame to the foundation with the anchor bolts (field supply). Four holes for anchor bolts are prepared on the bottom plate.

• Use the locations indicated on the installation pattern (9) (part of packing material).



5. Remove the cushion materials of the fan.

It may cause malfunction when operating while installed the cushion materials of the fan. (4 places)

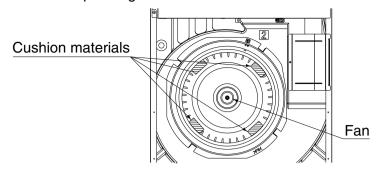


Fig. 7

(How to attach dew proof material (only when connected with the RZQSG71L and RZASG71))

• To make the work easy, set the upper 5 horizontal flaps upward and the lower 3 flaps downward. Then, attach the provided dew proof material (10) to the third horizontal flap from the bottom as shown in Fig.8. If the material is not attached to the correct place, dew condensation water may drip.

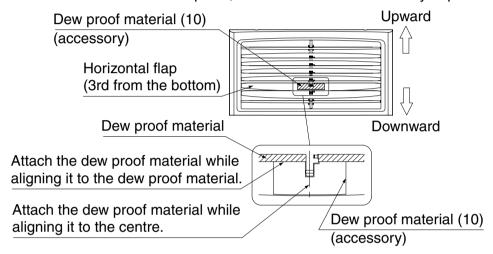


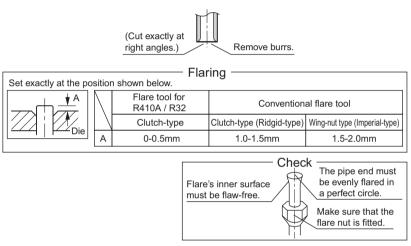
Fig. 8

5. REFRIGERANT PIPING WORK

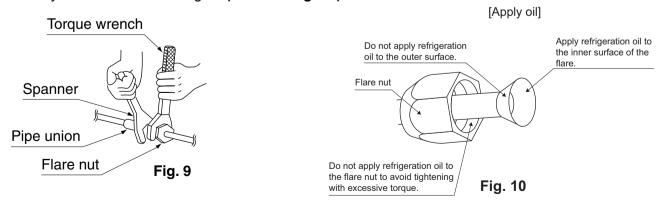
⟨Make sure to carry out thermal insulation in both gas and liquid piping. Incomplete insulation may result in water leakage. Thermal resistance of the insulation for gas piping must be 120°C or higher. In a high humidity environment, strengthen the refrigerant piping insulation. If insulation is insufficient, condensation may form on the insulation surface.⟩

-∕N CAUTION

- For flare connection use pipe cutter and flaring tools for R32/R410A.
- Protect or enclose the refrigerant tubing to avoid mechanical damage.
- · Apply ester oil or ether oil to the inside of the flare section before connecting.
- To prevent dust, moisture or other foreign matters from getting into the tube, either pinch the tube end or cover the end with tape.
- Do not allow anything other than the designated refrigerant to get mixed into the refrigerant circuit, such as air, etc. If any refrigerant gas leaks while working on the unit, ventilate the room thoroughly right away.
- Make sure refrigerant piping installation complies with applicable legislation. In Europe, EN378 is the applicable standard.



- · The outdoor unit is charged with refrigerant.
- The refrigerant piping can be taken out from the following side of the unit.
 - Left side, Right side, Back side, Bottom side
 - You must decide from which side you intend to take out the refrigerant piping.
- Be sure to use both a spanner and a torque wrench together as shown in the drawing, when connecting or disconnecting pipes to/from the unit. (Refer to Fig. 9)
 - *Using a tool other than a spanner can damage the head of the flare nut, and gas leakage can occur due to tightening failure.
- When connecting the flare nut, apply ester oil or ether oil to the inside of flared section, and turn the nut spin 3-4 times by hand before screwing in. (**Refer to Fig. 10**)



CAUTION -

Be careful not to damage the flare section.

Flare nut tightening torque				
Gas side				Liquid side
20, 25, 35 class	50, 60 class	71 R410A class	71 R32 class	1/4 inch
3/8 inch 1/2 inch 1/2 inch 5/8 inch				1/4 IIICH
32.7-39.9N • m	49.5-60.3N • m	49.5-60.3N • m	61.8-75.4N • m	14.2-17.2N • m
(330-407kgf • cm)	(505-615kgf • cm)	(505-615kgf • cm)	(630-770 kgf • cm)	(144-175kgf • cm)



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.



CAUTION

Overtightening may damage the flare and cause a refrigerant leakage.

When you do not have a torque wrench, use Table 2 as a rule of thumb.

When you keep on tightening the flare nut with a spanner, there is a point where the tightening torque suddenly increases.

From that point, further tighten and turn the flare nut the angle shown below. (Refer to Table 2)

After the work is finished, make sure to check that there is no leak.

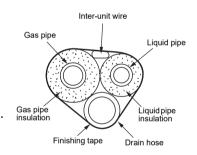
Unless you tighten as instructed, (if it is loosely tightened), it may lead to the refrigerant leakage (slow leak) and cause malfunction of the device (such as insufficient cooling or heating).

Table 2

Pipe size	Further tightening angle	Recommended arm length of tool
Ø9.5 (3/8")	60 to 90 degrees	Approx. 200mm
Ø15.9 (5/8")	30 to 60 degrees	Approx. 300mm

Selection of copper and heat insulation materials

- When using commercial copper pipes and fittings, observe the following:
- Insulation material: Polyethylene foam
 Heat transfer rate: 0.041 to 0.052W/mK (0.035 to 0.045kcal/mh°C)
 Refrigerant gas pipe's surface temperature reaches 110°C max.
 Choose heat insulation materials that will withstand this temperature.



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

Gas side	Liquid side
O.D. 15.9mm	O.D. 9.5mm
Minimum bend radius - 30mm or more	
Thickness 0.8mm (C1220T-O)	Thickness 0.5mm

Gas pipe thermal insulation	Liquid pipe thermal insulation
O.D. 15.9mm	LD. 10-14mm
I.D. 17-21mm	1.0. 10-1411111
Thickness≥13mm	Thickness≥10mm

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

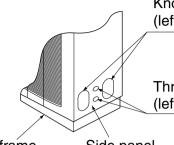
1. How to carry out refrigerant piping.

• Detach the pipe retainer. (Refer to Fig. 12)

(In case of left or right piping)

- 1. Open the knock out holes on the right (left) side panel. (Refer to Fig. 11)
- 2. Carry out piping (refrigerant and drain) and wiring (connecting outdoor and indoor units) through the holes on the side panel.

(See dimensions shown in Fig. 15, 16 for forming refrigerant piping.)



Knock out holes for piping (Select either one) (left and right side panels and rear panel)

* Put the attached hole protection rubber (3) (_____) after making the opening.

Through holes for wiring (Select either one) (left and right side panels)

* Put the attached bush (4) () after making the opening.

Bottom frame Side panel Fig. 11

(In case of rear piping)

- 1. Open the knock out holes on the rear panel. (Refer to Fig. 14)
- 2. Carry out piping (refrigerant and drain) and wiring (connecting outdoor and indoor units) through the holes on the rear panel.

(See dimensions shown in Fig. 15, 16 for forming refrigerant piping.)



CAUTION

In case of rear side piping, be careful not to damage fan motor lead wire.

When opening the knock out hole, be careful not to damage fan motor lead wire with the steel plate cut off. (Refer to Fig. 17).

(In case of downward piping)

- 1. Cut holes in the indicated area of the bottom frame. (Refer to Fig. 14)
- 2. Carry out piping (refrigerant and drain) and wiring (connecting outdoor and indoor units) through the holes on the bottom frame.

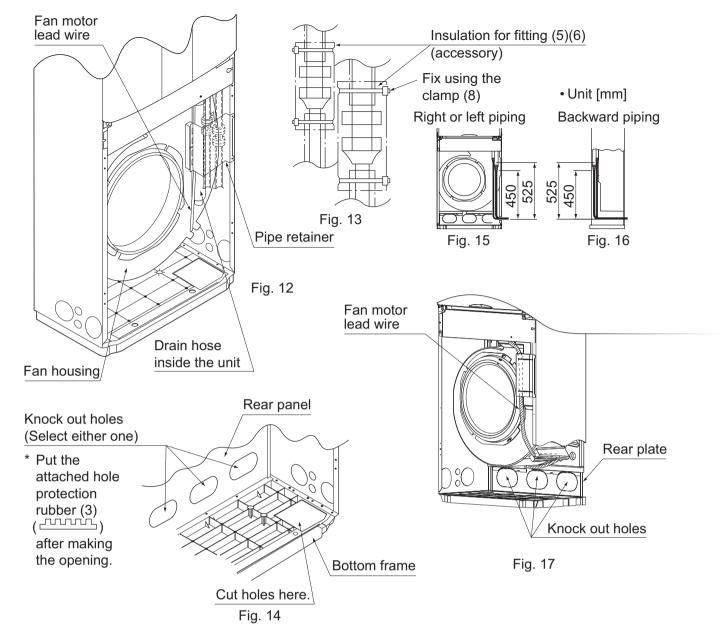


∕i\ CAUTION -

Be careful not to damage fan housing when piping.

Fan housing is made of foamed polystyrene.

Be careful not to damage the fan housing with pipe edge when installing indoor unit.



- After the refrigerant piping and electrical wiring work is completed, hold the refrigerant piping, the indoor unit drain hose, the wiring connecting the indoor and outdoor units and the earth wire with the piping retainer plate (Refer to Fig. 12). During this work the refrigerant piping entering into the indoor unit may come in contact with the suction grille. Therefore, make sure not to extend the refrigerant piping from the piping retainer plate.
 - (For electrical wiring work, see "8. ELECTRIC WIRING WORK".)
- After leakage check of piping connection is finished, carry out thermal insulation. (Refer to Fig. 13)
- Carry out thermal insulation of both liquid and gas pipes with the attached insulation for fitting (5) and (6). (Tighten both ends of the insulation for fitting (5) and (6) with the clamp (8).

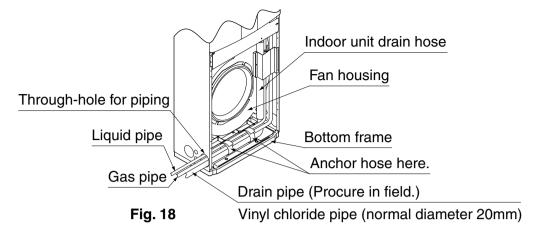
CAUTION

- Be sure to insulate any field piping all the way to the piping connection inside the unit. Any exposed piping may cause condensation or burns if touched, and also electrical shock or fire if the wiring is touched.
- · When performing the leakage test for the indoor unit and inter-unit piping after the indoor unit is installed, be sure to refer to the installation manual for the indoor unit or technical guide for the leakage test pressure and the refrigerant piping installation.
- Shortage of refrigerant due to air purge or forgetting the additional refrigerant charge may cause malfunction of the unit (does not sufficiently cool or heat). For installation of refrigerant piping, be sure to refer to the installation manual for the outdoor unit or the technical guide.

6. DRAIN PIPING WORK

1. Rig the drain piping.

Carry out drain piping to ensure proper drainage. Also, observe the following to prevent leaks.



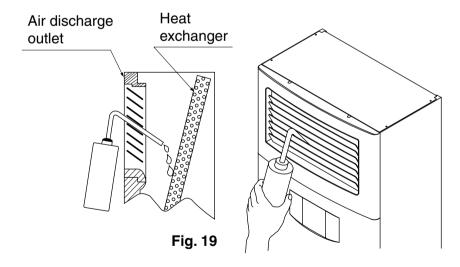
-∧

CAUTION

- To avoid force on the drain hose of the indoor unit, make sure to fix the drain pipe such as to bundle it to the refrigerant pipe as shown in Fig. 18. This is to prevent the drain pipe from coming off and/or avoid bad insulation. The drain pipe must be sloped downward with a gradient of 1/100 from the drain pipe connection in the unit.
- The drain pipe may be clogged if water accumulates in the drain pipe.
- Condensation on the pipe may occur and cause water leakage. Therefore, make sure to insulate the pipe at the following two places.
 - (1) All piping in the room and inside the unit.
 - (2) At the connection between the indoor unit drain hose and the field drain piping.

2. After the piping work is finished, check that drainage flows smoothly and the water does not leak from connections.

- Carefully pour approximately 1 liter of water through the air discharge outlet so that it falls directly onto the heat exchanger at an angle without splashing. (Refer to Fig. 19)
 - * If water is poured too fast or if water pressure is too high, the water will pass through the heat exchanger and drip on the fan motor below it.
 - * If water gets on the inner front wall, it will leak onto the floor.





CAUTION

- In order to prevent the pets from getting inside the unit, seal the pipe penetration hole with putty or heat insulating material (field supply).
- Drain piping connections
 Do not connect the drain piping directly to sewage pipes that smell of ammonia. The ammonia in the sewage might enter the indoor unit through the drain pipes and corrode the heat exchanger.

7. WHEN THE OPTIONAL REMOTE CONTROLLER (BRC1E model) IS USED AS A CONTROL PANEL

(Remote controllers except the optional BRC1E cannot be incorporated into the main unit.)

- The optional remote controller (BRC1E) can be incorporated into this unit and used as a control panel.
 - Open the remote controller, and connect the remote controller wiring (accessory).
 For wiring procedures, refer to the "remote controller installation manual".
 (There is no polarity for the remote controller wiring.)
 - Remove the upper case.
 Insert a flathead screwdriver into the concaved portion of the lower case (at 2 positions), and then remove the upper case.

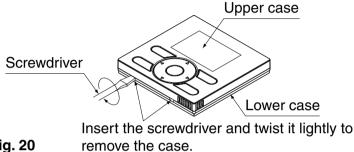


Fig. 20



- The printed circuit board of the remote controller is attached to the upper case. Be careful not to scratch the board with the screwdriver.
- Be careful not to adhere any dust or liquid to the printed circuit board of the removed upper case.
 - 2) Cut off the shaded part of the lower case, and then fix the case to the cover (7) using screws (11).

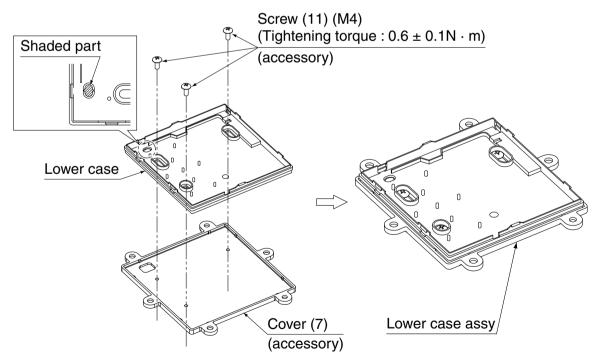
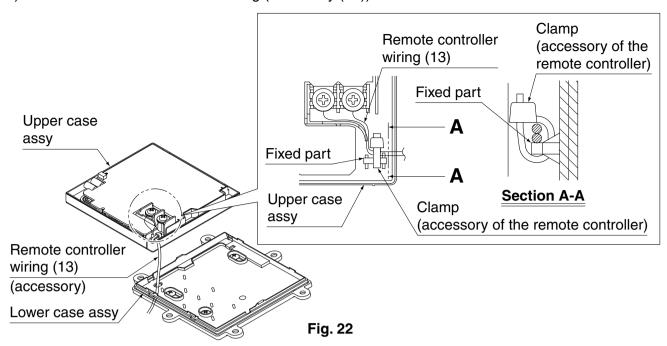
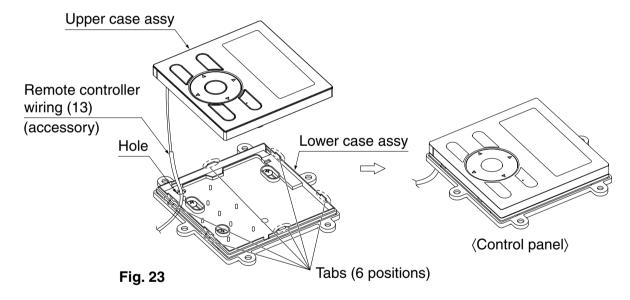


Fig. 21

3) Connect the remote controller wiring (accessory (13)).

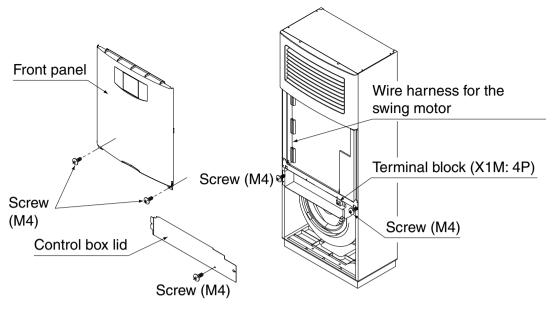


- 4) Fit and install the upper case in the lower case while aligning the tabs (6 positions) with the lower case.
 - Be careful so that the wiring may not be caught.
 - Remove the protection sheet attached to the upper case.



2. Remove the front panel, and then remove the back plate attached to the back side.

• When removing the front panel, to avoid dropping the panel, tightly hold the front panel while removing it.



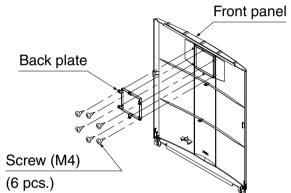
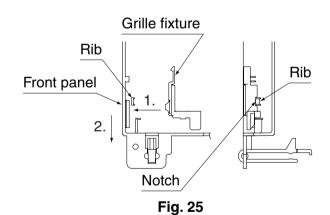


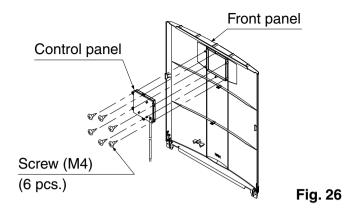
Fig. 24

NOTE -

- If the grille fixture comes off while removing the front panel, attach the grille fixture as shown below.
 - 1. Install the grille fixture while aligning its notch with the rib of the front panel.
 - 2. Lower the grille fixture.



3. Fix the control panel on the back side of the front panel.



4. Clip the remote controller wiring into the guide and notch. (Refer to Fig. 27)

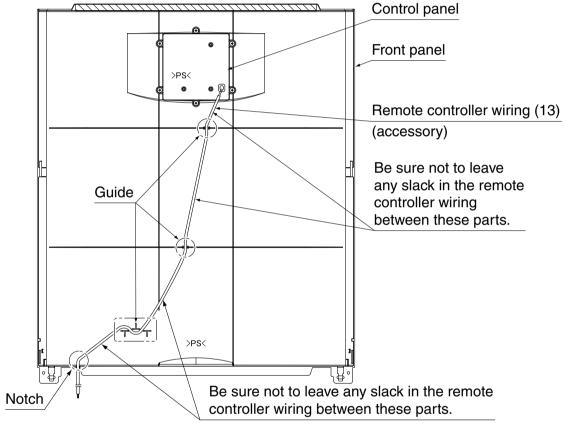


Fig. 27

5. Return the front panel to its original installation position.

6. Remove the control box lid, and then connect the remote controller wiring to terminals P1 and P2 (no polarity) of the terminal block (X1M).

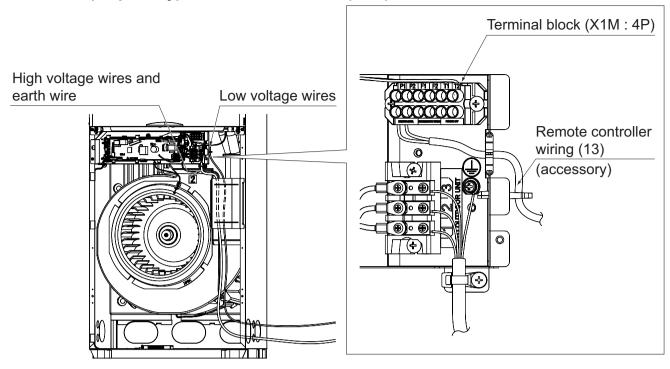


Fig. 28

8. ELECTRIC WIRING WORK

8-1 GENERAL INSTRUCTIONS

- Electric wiring work must be conducted by an electrician authorized by power companies (Only a licensed electrician is permitted to conduct electric work and earth connections.)
- All wiring must be performed by an authorized electrician.
- A circuit breaker capable of shutting down power supply to the entire system must be installed.
- Be sure to install an earth leakage circuit breaker in the outdoor unit.
 (Install the earth leakage circuit breaker to avoid electric shocks and fire.)
- The specified voltage for the wiring between the indoor and outdoor units and between the indoor units is 220-240V.
- Do not turn on the power supply (of the indoor unit) until all the installation work is completed.
- · Be sure to earth the air conditioner.
- Refer to the installation manual attached to the outdoor unit for the size of power supply electric wire connected to the outdoor unit, the capacity of the circuit breaker and switch, and wiring instructions.
- Do not connect the earth wire to gas pipes, plumbing pipes, lightning rods, or telephone earth wires.
 - Gas pipes: might cause explosions or fire if gas leaks.
 - Plumbing: no earth effect if hard vinyl piping is used.
 - Telephone earth wires or lightning rods: might cause abnormally high electric potential in the earth during lighting storms.
- For electric wiring work, refer also to "WIRING DIAGRAM" attached to the back side of the control box lid.
- Never connect the power supply wire to the terminal block for remote controller wire, or otherwise the entire system may be damaged.
- For remote controller wiring details, refer to the installation manual attached to the remote controller.
- Do not touch the printed circuit board assy during the wiring work. Otherwise, it may cause damage.
- Use an all-pole disconnection type breaker with at least 3 mm between the contact point gaps that provide full disconnection under overvoltage category III.

Unified Wiring Diagram Legend For applied parts and numbering, refer to the wiring diagram on the unit. Part numbering is by Arabic numbers in ascending order for each part and is represented in the overview below by symbol "*" in the part code. CIRCUIT BREAKER 1 PROTECTIVE EARTH CONNECTION PROTECTIVE EARTH (SCREW) CONNECTOR RECTIFIER EARTH RELAY CONNECTOR FIELD WIRING SHORT-CIRCUIT CONNECTOR FUSE TERMINAL TERMINAL STRIP INDOOR UNIT OUTDOOR UNIT WIRE CLAMP BLK : BLACK GRN : GREEN PNK PINK WHT : WHITE BLU : BLUE GRY : GREY PURPLE YLW : YELLOW : BROWN ORG : ORANGE RED A*P PRINTED CIRCUIT BOARD PS SWITCHING POWER SUPPLY BS* PUSHBUTTON ON/OFF, OPERATION SWITCH PTC* THERMISTOR PTC BUZZER INSULATED GATE BIPOLAR TRANSISTOR BZ. H*O Q* C* CAPACITOR (IGBT) AC*, CN*, E*, HA*, HE*, HL*, HN*, : CONNECTION, CONNECTOR EARTH LEAK CIRCUIT BREAKER HR*, MR*_A, MR*_B, S*, U, V, OVERLOAD PROTECTOR Ω*Ι W, X*A, K*R_* Q*M THERMO SWITCH D*, V*D DIODE R* RESISTOR DR* DIODE BRIDGE THERMISTOR R*T DS* DIP SWITCH RECEIVER E*H HEATER S*C LIMIT SWITCH F*U, FU* (FOR CHARACTERISTICS, FUSE S*L FLOAT SWITCH REFER TO PCB INSIDE YOUR UNIT) PRESSURE SENSOR (HIGH) S*NPH CONNECTOR (FRAME GROUND) S*NPI FG* PRESSURE SENSOR (LOW) S*PH, HPS* PRESSURE SWITCH (HIGH) H*P, LED*, V*L PILOT LAMP, LIGHT EMITTING DIODE S*PL PRESSURE SWITCH (LOW) LIGHT EMITTING DIODE (SERVICE MONITOR GREEN) HAP S*T THERMOSTAT HIGH VOLTAGE HUMIDITY SENSOR INTELLIGENT EYE SENSOR S*W. SW OPERATION SWITCH IES IPM* INTELLIGENT POWER MODULE SA*, F1S SURGE ARRESTOR K*R, KCR, KFR, KHuR, K*M MAGNETIC RELAY SR*, WLU SIGNAL RECEIVER LIVE SS* SELECTOR SWITCH COIL SHEET METAL TERMINAL STRIP FIXED PLATE I*R REACTOR TRANSFORMER T*R M* STEPPER MOTOR TC, TRC TRANSMITTER COMPRESSOR MOTOR V*, R*V VARISTOR DIODE BRIDGE M*F **FAN MOTOR** V*R M*P DRAIN PUMP MOTOR WRC WIRELESS REMOTE CONTROLLER SWING MOTOR M*S X* TERMINAL MR*, MRCW*, MRM*, MRN* MAGNETIC RELAY X*M TERMINAL STRIP (BLOCK) ELECTRONIC EXPANSION VALVE COIL Y*E REVERSING SOLENOID VALVE COIL NUMBER OF PASSES THROUGH FERRITE CORE n=* N=* Y*R, Y*S PAM PULSE-AMPLITUDE MODULATION Z*C FERRITE CORE PCB* PRINTED CIRCUIT BOARD ZF, Z*F NOISE FILTER PM* POWER MODULE

8-2 SPECIFICATIONS FOR FIELD WIRE

For the wiring of the outdoor unit, refer to the installation manual attached to the outdoor unit. Remote controller and transmission wiring are field supplied. (**Refer to Table 3**) Wiring specifications are shown on the condition that the wiring has a voltage drop of 2%.

Table 3

Component	Specification		
Wiring the units 4-core cable 1.5 mm²~2.5 mm² and applicable for 220~2 H05RN-F (60245 IEC 57) (NOTE 1)			
Remote controller cord	Vinyl cords with 0.75 to 1.25 mm ² sheath or cables (2-core wires) Maximum 500 m* H03VV-F (60227 IEC 52) (NOTE 2)		

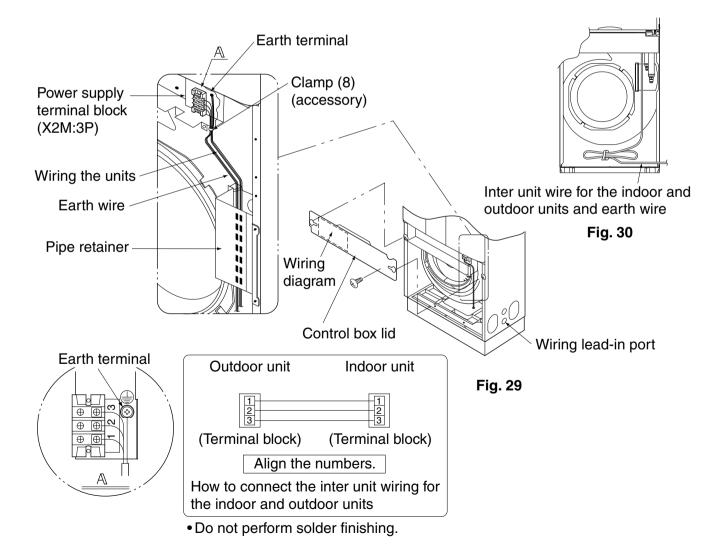
^{*}This will be the total extended length in the system when doing group control.

NOTE -

- 1. It shows the case when conduit pipes are used. When the conduit pipes are not used, use H07RN-F (60245 IEC 66).
- 2. Sheathed vinyl cord or cable (insulation thickness: 1mm or more)

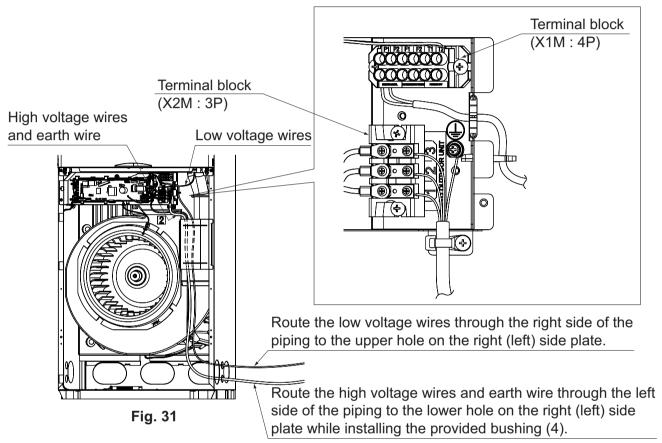
9. HOW TO CONNECT WIRINGS AND WIRING EXAMPLE

9-1 HOW TO CONNECT WIRINGS



Connecting methods of wiring between indoor and outdoor units, earth wiring, and remote controller wiring

- Detach the control box lid and pipe retainer as shown in the **Fig. 29** and connect the wires of matching numbers to the terminal block (X2M: 3P) on the right side of the unit. Connect the earth wire to the earth terminal. In doing this, draw the wiring into the unit through the hole for wiring, and fix it together with the earth wire using the clamp (8).
- Connect the remote controller wiring (field supply) to the terminals P1 and P2 (no polarity) of the terminal block (X1M: 4P), and guide the wiring to the outside of the unit using the route shown in the **Fig. 31**.
 - Pass the remote controller wiring inside the piping retainer plate.
 - Route the low voltage wires (remote controller wiring) 50mm or more away from the high voltage wires (interconnecting wires between the indoor and outdoor units) and earth wire so that they may not pass through the same place. (Refer to Fig. 31)



- During the wiring work, lay the electric wiring neatly so that the wires may not push the control box lid up. Also, fix the lid without sandwiching the wires between the box and the lid. (Sandwiching electric wires and/or having the lid float up may result in electric shock or fire.)
- Pass the interconnecting wires and the earth wires inside of the pipe pressing plate. Wires connecting the units and the earth wire to the pipe retainer. Keep the extra wires neatly at a location shown in the **Fig. 30**. The wires may come in contact with other parts such as the fan, and the indoor unit may be damaged.
- In order to prevent small creatures getting into the unit, seal the wiring outlet with putty or heat insulating material (field supply) leaving no clearance. (If small creatures, such as insects, get into the unit, the creatures may cause short circuiting in the control box.)

—<u></u> CAUTION

Use a round crimp-style terminal for connection to the power supply terminal block. (Refer to Fig. 32) In case it cannot be used due to unavoidable reasons, be sure to observe the following instructions.

- Do not connect wires of different gauge to the same power supply terminal. (Looseness in the connection may cause overheating.) (Refer to Fig. 33)
- In wiring, make certain that prescribed wires are used. Also, fix the wires so that external force may not be applied to the terminals.
- Use an appropriate screwdriver to tighten the terminal screws. Small screwdrivers damage the head of the screws and they cannot tighten the screws appropriately.

- If the terminal screws are tightened too hard, screws might be damaged.
- The tightening torque of each terminal screw is shown in the Table 4.
- When a stranded wire is used, do not perform solder finishing.

Table 4

Tightening torque (N·m)				
Terminal block for remote controller wiring	0.79~0.97			
Terminal block for wiring between units	1.18~1.44			
Earth terminal	1.18~1.44			

Round crimp-style terminal



Fig. 32

Connect wires of the same gauge to both side. (GOOD)



Do not connect wires of the same gauge to one side. (WRONG)



Fig. 33

Do not connect wires of different gauges. (WRONG)



9-2 WIRING EXAMPLE



CAUTION

Be sure to install an earth leakage breaker to the outdoor unit.

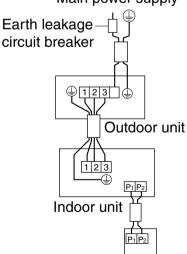
This is to avoid electric shocks or fire.

For the wiring of outdoor units, refer to the installation manual attached to the outdoor units. Confirm the system type.

- Pair type: 1 remote controller controls 1 indoor unit (standard system). (Refer to Fig. 34)
- Group control:1 remote controller controls up to 16 indoor units (All indoor units operate according to the remote controller). (Refer to Fig. 35)
- 2 remote controllers control: 2 remote controllers control 1 indoor unit. (Refer to Fig. 37)

Pair type

Main power supply



Remote controller (Optional accessory)

Fig. 34

Group control Main power supply Earth Earth Earth leakage leakage leakage circuit circuit circuit breaker breaker breaker 123 123 Outdoor unit Outdoor unit Outdoor unit 123 1 2 3 P₁ P₂ P₁ P₂ P₁ P₂ Indoor unit Indoor unit Indoor unit (Master)

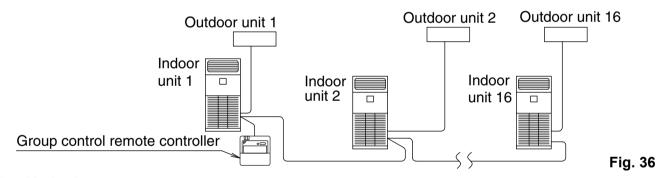
Fig. 35

(Optional accessory)

Group control remote controller

When implementing group control

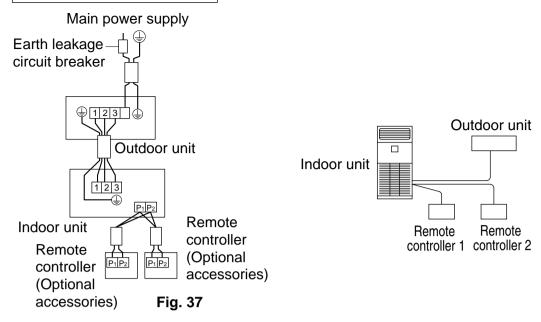
- When using as a pair unit, you may carry out simultaneous start/stop (group) control up to 16 units with the remote controller. (Refer to Fig. 36)
- In this case, all the indoor units in the group will operate in accordance with the group control remote controller.
- The body thermo is effective only for the indoor unit to which the remote controller is connected.



Wiring Method

- (1) Remove the control box lid. (Refer to "9. HOW TO CONNECT WIRINGS AND WIRING EXAMPLE".)
- (2) Lay crossover between the terminals (P1, P2) inside the control box for the remote controller. (There is no polarity.) (Refer to Fig. 35 and Table 3)

2 remote controllers control

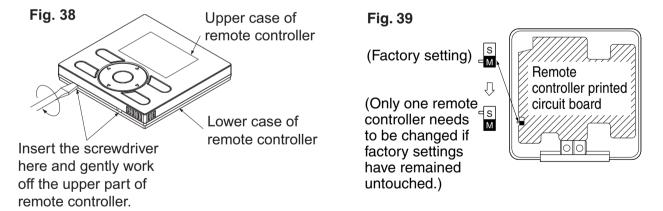


Two remote controllers control (Controlling 1 indoor unit by 2 remote controllers)

• When using 2 remote controllers, one must be set to "MAIN" and the other to "SUB".

MAIN/SUB CHANGEOVER

- If BRC1E type remote controller is used, see the manual attached to the remote controller. If the remote controller is a wired one, change the switch setting as follows:
- (1) Insert a flat screwdriver into the clearance between the upper case and the concave of the lower case and, remove the upper case. (2 places) (Printed circuit board is attached to the upper part of the remote controller.) (Refer to Fig. 38)
- (2) Turn the main/sub changeover switch on one of the two remote controller printed circuit boards to "S". (Leave the switch of the other remote controller set to "M".) (Refer to Fig. 39)



Wiring Method

- (3) Remove the control box lid (Refer to "9. HOW TO CONNECT WIRINGS AND WIRING EXAMPLE".)
- (4) Add wiring between the remote controller 2 (slave) and the terminal (P1, P2) of the terminal block (X1M) for the remote controller in the control box. (There is no polarity.) (Refer to Fig. 37 and Table 3)

NOTE

- 1. All transmission wiring except for the remote controller wires is polarized and must match the terminal symbol.
- 2. For group control remote controller, choose the remote controller that suits the indoor unit which has the most functions (as attached swing flap).

10. INSTALLATION OF SUCTION GRILLE

1. Hook the suction grille on the groove on the unit's bottom frame in the order of (1)→(2). (Refer to Fig. 40)

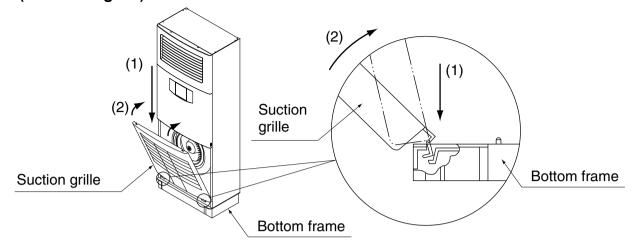


Fig. 40

- 2. Fit the grille stopper (front panel) into the groove on the suction grille and lock the grille down in its original place by screw. (Refer to Fig. 41)
 - * Be careful not to overtighten screws.
- 3. Check that the grille fixture is raised, and then close the suction grille. After closing the grille, lower the grille fixture. (Refer to Fig. 41)

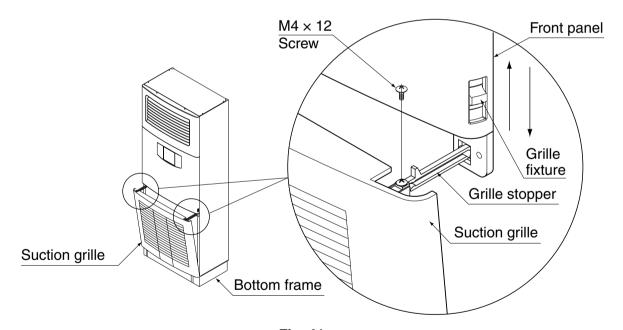


Fig. 41

11. FIELD SETTING

(Complete all the "Items to be checked after completion of work" (page 5).)

- Make sure that the installation and wiring work for the indoor and outdoor units is all completed.
- Make sure that the following items are all closed: the control box lid of the indoor unit and the outer board and piping cover of the outdoor unit.
 - <Field setting must be made from the remote controller and in accordance with installation conditions.>
- Setting can be made by changing the "Mode No.", "FIRST CODE NO." and "SECOND CODE NO.".
- For setting procedures and instructions, see the manual provided with the remote controller.
- The "Mode No." is normally set collectively for a group. In order to set each indoor unit individually and perform checks after the settings, specify the Mode No. in parenthesis.
- Do not perform settings that are not listed in the table.

11-1 SETTING AIR FILTER SIGN

- The filter sign that notifies you of the necessity for air filter cleaning is displayed on the LCD display of the remote controller.
- Change the SECOND CODE NO. below depending on the amount of dirt or dust in the room. (As the factory setting, the FIRST CODE NO. 1 is set to the SECOND CODE NO. "01" for the long time, and the FIRST CODE NO. 0 is set to the SECOND CODE NO. "01", air filter contamination light.) (Refer to Table 5)
 - Explain to the customer that filters need to be cleaned periodically to prevent clogging, and the time that is set.
- The periodical cleaning time for the filter can be shortened depending on the usage environment.

Table 5

Setting			FIRST	SECOND CODE NO.		
			CODE NO.	01	02	04
Cleaning time			1	For long time		For short time
Air Filter For long tin		10 (20)	0	Approx. 2,500 hours	Approx. 1,250 hours	
light/heavy	For short time			Approx. 200 hours	Approx. 100 hours	_

are the settings when shipped from the factory.

11-2 AIRFLOW SETTINGS WHEN THERMOSTAT IS OFF

- Set the flow rate according to the requirement of the environment after consultation with the customer. (Refer to Table 6)
- When the airflow is changed, explain the airflow rate setting to the customer.

Table 6

Setting	Mode No.	FIRST CODE NO.	SECOND CODE NO.	
Fan operation when thermostat	Normal	11 (21)	2	01
is OFF (Cooling/Heating)	Stop			02
Airflow rate when cooling	LL airflow rate	12 (22)	6	01
thermostat is OFF	Setting airflow rate	12 (22)	0	02
Airflow rate when heating	LL airflow rate	12 (22)	3	01
thermostat is OFF	Setting airflow rate	12 (22)		02

11-3 SETTING AIRFLOW RATE INCREASE MODE (71 · 100 class)

• The set airflow rate (HH, H, and L) can be increased depending on the installation condition or customer's request. In such a case, switch the SECOND CODE NO. as shown in Table 7.

Table 7

Setting	Mode No.	FIRST CODE NO.	SECOND CODE NO.
Standard			01
Slightly increase	13 (23)	0	02
Increase			03

12. TEST OPERATION

Complete all the "1. Items to be checked after completion of work" on page 4. Please also refer to the installation manual of the outdoor unit.>

- < Precaution before test operation >
 - 1. Be sure to fully open the stop valves of outdoor unit.
 - 2. Keep crank case heater energized for 6 hours or more.
 - 3. Be sure to perform the cooling operation during the test operation.
 - 4. Make sure to remove the cushion materials of fun. (Refer to page 8)

The settings of the BRC1E model remote controller should be switched while referring to the manual supplied with the remote controller.

The settings of the other remote controller should be switched in accordance with the following procedure.

- Make sure that the installation work for the indoor and outdoor units is all completed.
- Make sure that the following items are all closed: the control box lid of the indoor unit and the outer board and piping cover of the outdoor unit.
- After completing the refrigerant piping, drain piping, and electrical wiring, clean the interior of the indoor unit
 and front panel. Next, perform test operation in accordance with the installation manual supplied with the
 outdoor unit in order to protect the unit. (It is recommended that the test operation is performed in the
 presence of qualified electrical technician or engineer.)
- If interior work is still unfinished when test operation finishes, explain to the customer that the air conditioner
 must not be operated until interior work is completed in order to protect the indoor units. (If the unit is
 operated under this condition, paint, glue, and other materials used during the interior finishing work will
 contaminate the indoor unit. This may cause water splashes or leakage.)
- If a malfunction occurs and the unit cannot operate, refer to "12-1 HOW TO DIAGNOSE FOR PROBLEMS".
- After completing the test operation, press the INSPECTION/TEST OPERATION button once to put the unit into inspection mode, and make sure the malfunction code is "00" (=normal). If the code reads anything other than "00", refer to "12-1 HOW TO DIAGNOSE FOR PROBLEMS".
- After trial operation, when the fan of indoor unit is spinning and the operation light is flashing, there is a risk of refrigerant leakage, so please ventilate the room, and contact your dealer (only for R32 refrigerant).
- Press the INSPECTION/TEST OPERATION button four times to return to normal operation mode.

[Mode switching]

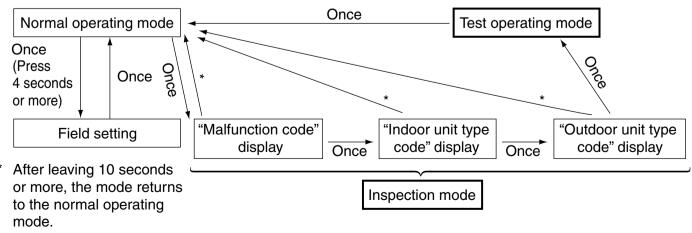


Fig. 42

12-1 HOW TO DIAGNOSE FOR PROBLEMS

With the power on. Troubles can be monitored on the remote controller.

The fault diagnosis for the BRC1E model remote controller should be performed while referring to the installation manual supplied with the remote controller. For the other remote controllers, perform the fault diagnosis using the following procedure.

- Trouble shooting with the remote controller liquid crystal display.
 - 1 With the remote controller. (NOTE 1)
 - When the operation stops due to trouble, the operation lamp flashes, and the liquid crystal display indicates " \(\frac{\L}{\L} \)" and the malfunction code. Diagnosis can be carried out using the malfunction code list according to the indicated malfunction code.
 - In addition, when in group control it indicates the unit No., so the malfunction detected unit No. will be clarified for resetting the malfunction, see (NOTE 2).

NOTE -

- 1. When the INSPECTION/OPERATION button on the remote controller is pressed, the "▲" indication starts flashing.
- 2. When the ON/OFF button is kept pressed for 5 seconds or longer during the inspection mode, the above trouble history indication disappears. In this case, after the malfunction code indication flashes twice, the indication of code becomes "00" (normal) and unit NO. becomes "0". Then, the display automatically changes from the inspection mode to the normal mode.

12-2 MALFUNCTION CODE

- For places where the malfunction code is left blank, the "\(\Lambda\)" indication is not displayed. Though the system continues operating, be sure to inspect the system and make repairs as necessary.
- Depending on the type of indoor or outdoor unit, the malfunction code may or may not be displayed.

	•		
Malfunction code	Descriptions and measures	Remarks	
		Is it making beeping sound?	
		If it is making sound: There is a risk of refrigerant leakage. Please ventilate the room and contact your dealer.	
A0	Fault diagnosis by remote controller show the code A0 on the display of remote controller.	If it is not making sound: There is no refrigerant leakage, or it is still doing detection. Please wait a few minutes. Sometimes, the refrigerant sensor detects by mistake substances other than refrigerant, such as insecticides or hairsprays (only for R32 refrigerant).	
A1	Indoor printed circuit board failure		
A3	Drain level abnormal		
A6	Indoor fan motor overload, over current, lock		
Ao	Indoor printed circuit board connection failure		
AF	Humidifier system malfunction		
АН	Air purifier (dust collection, deodorization) unit malfunction	Only the air purifier (dust collection, deodorization) unit does not function. Abnormal stop is applied depending on the model or condition.	
AJ	Capacity setting failure	Capacity setting adapter or capacity data error, or disconnection of the capacity setting adapter, failure to connect the adapter, or the capacity is not set to the data-retention IC.	

C1	Transmission error between indoor printed circuit board (main) and indoor printed circuit board (sub)	
C4	Indoor heat exchanger liquid pipe temperature sensor malfunction	Abnormal stop is applied depending on the model or condition.
C5	Indoor heat exchanger condenser / evaporator thermistor malfunction	Abnormal stop is applied depending on the model or condition.
C9	Suction air thermistor malfunction	Abnormal stop is applied depending on the model or condition.
CC	Humidity sensor abnormal	
CE	Intelligent eye / floor temperature sensor malfunction	
CJ	Remote controller air thermistor malfunction	Remote controller thermo does not function, but body thermo operation is enabled.
E0	Action of safety device (Outdoor unit)	
E1	Outdoor printed circuit board failure (Outdoor unit)	
E3	High pressure malfunction (Outdoor unit)	
E4	Low pressure malfunction (Outdoor unit)	
E5	Compressor motor lock malfunction (Outdoor unit)	
E6	Compressor motor lock by over current (Outdoor unit)	
E7	Outdoor fan motor lock malfunction (Outdoor unit)	
	Outdoor fan instant overcurrent malfunction (Outdoor unit)	
E9	Electric expansion valve malfunction (Outdoor unit)	
EA	Cooling/Heating switch malfunction (Outdoor unit)	
F3	Discharge piping temperature malfunction (Outdoor unit)	
H3	High pressure switch failure (Outdoor unit)	
H4	Low pressure switch failure (Outdoor unit)	
H7	Outdoor fan motor position signal malfunction (Outdoor unit)	
Н9	Outdoor air thermistor system malfunction (Outdoor unit)	Abnormal stop is applied depending on the model or condition.
СН	Fault diagnosis by remote controller show the code CH on the display of remote controller.	Is it making beeping sound? If it is making sound: There is a risk of follows. Please contact your dealer (R32 refrigerant only). Malfunction of refrigerant leakage sensor. Cable of refrigerant leakage sensor is broken. Cable connection of refrigerant leakage sensor is not complete. Malfunction of main printed-circuit board.
J1	Pressure sensor system malfunction (batch) (Outdoor unit)	

J2	Current sensor system malfunction (Outdoor unit)	Abnormal stop is applied depending on the model or condition.	
J3	Discharge pipe thermistor system malfunction (Outdoor unit)	Abnormal stop is applied depending on the model or condition.	
J5	Suction pipe thermistor system malfunction (Outdoor unit)		
J6	Outdoor heat exchanger distributor liquid pipe thermistor malfunction (Outdoor unit)	Abnormal stop is applied depending on the model or condition.	
J7	Outdoor heat exchanger condenser / evaporator thermistor malfunction (Outdoor unit)	Abnormal stop is applied depending on the model or condition.	
J8	Liquid pipe thermistor system malfunction (Outdoor unit)	Abnormal stop is applied depending on the model or condition.	
J9	Gas piping thermistor malfunction (cooling) (Outdoor unit)		
JA	Discharge pipe pressure sensor system malfunction (Outdoor unit)		
JC	Suction pipe pressure sensor system malfunction (Outdoor unit)		
L1	Inverter system malfunction (Outdoor unit)		
L3	Reactor thermistor malfunction (Outdoor unit)		
L4	Overheated heat-radiating fin (Outdoor unit)	Inverter cooling failure.	
L5	Instantaneous overcurrent (Outdoor unit)	The compressor engines and turbines may be experiencing a ground fault or short circuit.	
L8	Electric thermal (Outdoor unit)	The compressor engines and turbines may be overloaded and disconnected.	
L9	Stall prevention (Outdoor unit)	The compressor may be locked.	
LC	Transmission malfunction between inverter and outdoor control unit (Outdoor unit)		
P1	Open-phase (Outdoor unit)		
P3	DCL sensor system malfunction (Outdoor unit)		
P4	Heat-radiating fin thermistor malfunction (Outdoor unit)	Abnormal stop is applied depending on the model or condition.	
P6	DC output current sensor system malfunction (Outdoor unit)		
PJ	Capacity setting failure (Outdoor unit)	Capacity setting adapter or capacity data error, or disconnection of the capacity setting adapter, failure to connect the adapter, or the capacity is not set to the data-retention IC.	
U0	Suction pipe temperature abnormal (Outdoor unit)	The refrigerant may be insufficient. Abnormal stop is applied depending on the model or condition.	
U1	Reverse phase (Outdoor unit)	Reverse two phase of L1, L2 and L3 leads.	
U2	Power voltage malfunction (Outdoor unit)	The inverter open-phase or main circuit condenser may be malfunctioning. Abnormal stop is applied depending on the model or condition.	

U4 UF	Transmission error (between indoor and outdoor units)	Wiring error between indoor and outdoor unit. Or Indoor and outdoor printed circuit board failure.
U5	Transmission error (between indoor and remote controller units)	Transmission between indoor unit and remote controller is not performed properly.
U8	Transmission error between main and sub remote controllers (sub remote controller malfunction)	
UA	Field setting error	System setting error of the simultaneous on/ off multi-split type.
UE	Transmission error (between indoor unit and centralized remote controller)	
UC	Remote controller address setting error	
UJ	Accessory equipment transmission error	Abnormal stop is applied depending on the model or condition.

CAUTION -

- Refer to "Items to be checked at time of delivery to customer." (page 5) upon completion of the test operation and make sure that all the items are checked.
- If the customer's interior work is not finished on completion of the test operation, tell the customer not to operate the air conditioner.
 - Substances generated from paints and adhesives used for the interior work may contaminate the product if the unit is operated.

To test operation Contractors

When delivering the product to the customer after the test operation is completed, check that the control box lid, the air filter and the suction grille are mounted. In addition, explain to the customer regarding the state (ON/OFF) of the power supply breaker.

13. OPERATION RANGE

If the temperature or the humidity is beyond the following conditions, safety devices may work and the air conditioner may not operate, or sometimes, water may drop from the indoor unit. For combination with R410A outdoor unit, refer to the following table:

Outdoor units		Cooling	Heating
RZQ200~250	Outdoor temperature (°C)	-5~46 DB	-15~15 WB
	Indoor temperature (°C)	14~28 WB	10~27 DB
RZQG71~140	Outdoor temperature (°C)	-15~50 DB	-20~15.5 WB
	Indoor temperature (°C)	12~28 WB	10~27 DB
RZQSG71~140	Outdoor temperature (°C)	-15~46 DB	-15~15.5 WB
	Indoor temperature (°C)	14~28 WB	10~27 DB
AZQS125	Outdoor temperature (°C)	-5~46 DB	-15~15.5 WB
(AVA125 model only)	Indoor temperature (°C)	14~28 WB	10~27 DB
Indoor humidity ≤80% ^(a)			

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

Outdoor units		Cooling	Heating	
	Outdoor temperature (°C)	-20~52 DB	-20~24 DB	
RZAG71~140			-20~18 WB	
	Indoor	17~38 DB	10~27 DB	
	temperature (°C)	12~28 WB		
	Outdoor temperature (°C)	-15~46 DB	-15~21 DB	
RZASG71~140			-15~15.5 WB	
REAGOTT 140	Indoor temperature (°C)	20~38 DB	10~27 DB	
		14~28 WB		
	Outdoor temperature (°C)	-5~46 DB	-15~21 DB	
AZAS125 (AVA125 model only)			-15~15.5 WB	
	Indoor temperature (°C)	20~38 DB	10~27 DB	
		14~28 WB		
Indoor humidity ≤80% ^(a)				

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

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