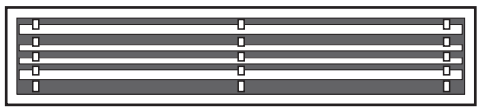
DAIKIN

INSTALLATION MANUAL

R32 Split series

INVERTER



FDXM25F2V1B
FDXM35F2V1B
FDXM50F2V1B
FDXM60F2V1B

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

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

CE - DECLARAÇÃO-DE-CONFORMIDADE
CE - ЗАЯВЛЕНИЕ-О-СООТВЕТСТВИИ
CE - OVERENSSTEMMELSESERKLÆRING
CE - FÖRSÄKRAN-OM-ÖVERENSTÄMMELSE

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

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

CE - IZJAVA O SKLADNOSTI
CE - VASTAVUSDEKLARATSIOON
CE - ДЕКЛАРАЦИЯ-ЗА-СЪОТВЕТСТВИЕ

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

Daikin Industries Czech Republic s.r.o.

01 (GB) declares under its sole responsibility that the air conditioning models to which this declaration relates:
02 (D) erklärt auf seine alleinige Verantwortung daß die Modelle der Klimageräte für die diese Erklärung bestimmt ist:
03 (F) déclare sous sa seule responsabilité que les appareils d'air conditionné visés par la présente déclaration:
04 (NL) verklaart hierbij op eigen exclusieve verantwoordelijkheid dat de airconditioning 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:
06 (I) dichiara sotto sua responsabilità che i condizionatori modello a cui è riferita questa dichiarazione:
07 (GR) 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:
09 (RUS) заявляет, исключительно под свою ответственность, что модели кондиционеров воздуха, к которым относится настоящее заявление:
10 (DK) 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 (FIN) ilmoittaa yksinomaan omalla vastuullaan, että tämän ilmoituksen tarkoittamat ilmastointilaitteiden mallit:
14 (CZ) prohlašuje ve své plné odpovědnosti, že modely klimatizace, k nimž se toto prohlášení vztahuje:
15 (HR) izjavljuje pod isključivo vlastitom odgovornošću da su modeli klima uređaja na koje se ova izjava odnosi:
16 (H) teljes felelőssége tudatában kijelenti, hogy a klímaberendezés modellek, melyekre e nyilatkozat vonatkozik:
17 (PL) deklaruje na własną i wyłączną odpowiedzialność, że modele klimatyzatorów, których dotyczy niniejsza deklaracja:
18 (RO) declară pe proprie răspundere că aparatele de aer condiţionat la care se referă această declaraţie:
19 (SLO) z vso odgovornostjo izjavlja, da so modeli klimatskih naprav, na katere se izjava nanaša:
20 (EST) kinnitab oma täielikul vastutusel, et käesoleva deklaratsiooni alla kuuluvad kliimaseadmete mudelid:
21 (BG) декларира на своя отговорност, че моделите климатична инсталация, за които се отнася тази декларация:
22 (LT) visiška savo atsakomybe skelbia, kad oro kondicionavimo prietaisų modeliai, kuriems yra taikoma ši deklaracija:
23 (LV) ar pilnu atbildību apliecina, ka tālāk uzskaitīto modeļu gaisa kondicionētāji, uz kuriem attiecas šī deklarācija:
24 (SK) vyhlasuje na vlastnú zodpovednosť, že tieto klimatizačné modely, na ktoré sa vzťahuje toto vyhlásenie:
25 (TR) tamamen kendi sorumluluğunda olmak üzere bu bildirinin ilgili olduğu klima modellerinin aşağıdaki gibi olduğunu beyan eder:

FDXM25F2V1B, FDXM35F2V1B, FDXM50F2V1B, FDXM60F2V1B,

01 are in conformity with the following standard(s) or other normative document(s), provided that these are used in accordance with our instructions:
02 der/den folgenden Norm(en) oder einem anderen Normdokument oder -dokumenten 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 nuestras instrucciones:
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 nostre istruzioni:
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:
08 estão em conformidade com a(s) seguinte(s) norma(s) ou outro(s) documento(s) normativo(s), desde que estes sejam utilizados de acordo com as nossas instruções:
09 соответствуют следующим стандартам или другим нормативным документам, при условии их использования согласно нашим инструкциям:
10 overholder følgende standard(er) eller andet/andre 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:
14 za předpokladu, že jsou využívány v souladu s našimi pokyny, odpovídají následujícím normám nebo normativním dokumentům:
15 u skladu sa slijedećim standardom(ima) ili drugim normativnim dokumentom(ima), uz uvjet da se oni koriste u skladu s našim uputama:
16 megfelelnek az alábbi szabvány(ok)nak vagy egyéb irányadó dokumentum(ok)nak, ha azokat előírás szerint használják:
17 spełniają wymogi następujących norm i innych dokumentów normalizacyjnych, pod warunkiem że używane są zgodnie z naszymi instrukcjami:
18 sunt în conformitate cu următorul (următoarele) standard(e) sau alt(e) document(e) normativ(e), cu condiţia ca acestea să fie utilizate în conformitate cu instrucţiunile noastre:
19 skladni z naslednjimi standardi in drugimi normativi, pod pogojem, da se uporabljajo v skladu z našimi navodili:
20 on vastavuses järgmis(t)e standardi(te)ga või teiste normatiivsete dokumentidega, kui neid kasutatakse vastavalt meie juhenditele:
21 съответстват на следните стандарти или други нормативни документи, при условие, че се използват съгласно нашите инструкции:
22 atitinka žemiau nurodytus standartus ir (arba) kitus norminius dokumentus su sąlyga, kad yra naudojami pagal mūsų nurodymus:
23 tad, ja 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, talimatlarımıza göre kullanılması koşuluyla aşağıdaki standartlar ve norm belirten belgelerle uyumludur:

EN60335-2-40,

01 following the provisions of:
02 gemäß den Vorschriften der:
03 conformément aux stipulations des:
04 overeenkomstig de bepalingen van:
05 siguiendo las disposiciones de:
06 secondo le prescrizioni per:
07 με τήρηση των διατάξεων των:
08 de acordo com o previsto em:
09 в соответствии с положениями:
10 under iagttagelse af bestemmelserne i:
11 enligt villkoren i:
12 gitt i henhold til bestemmelsene i:
13 noudattaen määräyksiä:
14 za dodržení ustanovení předpisu:
15 prema odredbama:
16 követi a(z):
17 zgodnie z postanowieniami Dyrektyw:
18 în urma prevederilor:
19 ob upoštevanju določb:
20 vastavalt nõuetele:
21 следвайки клаузите на:
22 laikantis nuostatų, pateikiamų:
23 ievērojot prasības, kas noteiktas:
24 održavajúc ustanovenia:
25 bunun koşullarına uygun olarak:

Low Voltage 2006/95/EC
Machinery 2006/42/EC **
Electromagnetic Compatibility 2004/108/EC *

01 Directives, as amended.
02 Direktiven, gemäß Änderung.
03 Directives, telles que modifiées.
04 Richtlijnen, zoals geamendeerd.
05 Directivas, según lo enmendado.
06 Direttive, come da modifica.
07 Οδηγιών, όπως έχουν τροποποιηθεί.
08 Directivas, conforme alteração em.
09 Директив со всеми поправками.
10 Direktiver, med senere ændringer.
11 Direktiv, med företagna ändringar.
12 Direktiver, med foretatte endringer.
13 Direktiivejä, sellaisina kuin ne ovat muutettuina.
14 v platném znění.
15 Smjernice, kako je izmijenjeno.
16 irányelv(ek) és módosításaik rendelkezéseit.
17 z późniejszymi poprawkami.
18 Directivelor, cu amendamentele respective.
19 Direktive z vsemi spremembami.
20 Direktiivid koos muudatustega.
21 Директиви, с техните изменения.
22 Direktyvose su papildymais.
23 Direktīvās un to papildinājumos.
24 Smernice, v platnom znení.
25 Değiştirilmiş halleriyle Yönetmelikler.

01	**Note** *	as set out in <A> and judged positively by <B> according to the **Certificate <C>**.	06	**Nota** *	delineato nel <A> e giudicato positivamente da <B> secondo il **Certificato <C>**.	11	**Information** *	enligt <A> och godkänts av <B> enligt **Certifikatet <C>**.	16	**Megjegyzés** *	a(z) <A> alapján, a(z) <B> igazolta a megfelelést, a(z) **<C> tanúsítvány** szerint.	21	**Забележка** *	както е изложено в <A> и оценено положително от <B> съгласно **Сертификата <C>**.
02	**Hinweis** *	wie in <A> aufgeführt und von <B> positiv beurteilt gemäß **Zertifikat <C>**.	07	**Σημείωση** *	όπως καθορίζεται στο <A> και κρίνεται θετικά από το <B> σύμφωνα με το **Πιστοποιητικό <C>**.	12	**Merk** *	som det fremkommer i <A> og gjennom positiv bedømmelse av <B> ifølge **Sertifikat <C>**.	17	**Uwaga** *	zgodnie z dokumentacją <A>, pozytywną opinią <B> i **Świadectwem <C>**.	22	**Pastaba** *	kaip nustatyta <A> ir kaip teigiamai nuspręsta <B> pagal **Sertifikatą <C>**.			
03	**Remarque** *	tel que défini dans <A> et évalué positivement par <B> conformément au **Certificat <C>**.	08	**Nota** *	tal como estabelecido em <A> e com o parecer positivo de <B> de acordo com o **Certificado <C>**.	13	**Huom** *	jotka on esitetty asiakirjassa <A> ja jotka <B> on hyväksynyt **Sertifikaatin <C>** mukaisesti.	18	**Notă** *	așa cum este stabilit în <A> și apreciat pozitiv de <B> în conformitate cu **Certificatul <C>**.	23	**Piezīmes** *	kā norādīts <A> un atbilstoši <B> pozitīvajam vērtējumam saskaņā ar **sertifikātu <C>**.			
04	**Bemerk** *	zoals vermeld in <A> en positief beoordeeld door <B> overeenkomstig **Certificaat <C>**.	09	**Примечание** *	как указано в <A> и в соответствии с положительным решением <B> согласно **Свидетельству <C>**.	14	**Poznámka** *	jak bylo uvedeno v <A> a pozitivně zjištěno <B> v souladu s **osvědčením <C>**.	19	**Opomba** *	kot je določeno v <A> in odobreno s strani <B> v skladu s **certifikatom <C>**.	24	**Poznámka** *	ako bolo uvedené v <A> a pozitívne zistené <B> v súlade s **osvedčením <C>**.			
05	**Nota** *	como se establece en <A> y es valorado positivamente por <B> de acuerdo con el **Certificado <C>**.	10	**Bemærk** *	som anført i <A> og positivt vurderet af <B> i henhold til **Certifikat <C>**.	15	**Napomena** *	kako je izloženo u <A> i pozitivno ocijenjeno od strane <B> prema **Certifikatu <C>**.	20	**Märkus** *	nagu on näidatud dokumendis <A> ja heaks kiidetud <B> järgi vastavalt **sertifikaadile <C>**.	25	**Not** *	<A>'da belirtildiği gibi ve <B> tarafından olumlu olarak değerlendirildiği gibi. **<C> Sertifikasına** göre			

<A>	DAIKIN.TCF.032C9/11-2015
<B>	DEKRA (NB0344)
<C>	2159619.0551-EMC

01 ** DICz*** is authorised to compile the Technical Construction File.
02 ** DICz*** hat die Berechtigung die Technische Konstruktionsakte zusammenzustellen.
03 ** DICz*** est autorisé à compiler le Dossier de Construction Technique.
04 ** DICz*** is bevoegd om het Technisch Constructiedossier samen te stellen.
05 ** DICz*** está autorizado a compilar el Archivo de Construcción Técnica.
06 ** DICz*** è autorizzata a redigere il File Tecnico di Costruzione.
07 ** Η DICz*** είναι εξουσιοδοτημένη να συντάξει τον Τεχνικό φάκελο κατασκευής.
08 ** A DICz*** está autorizada a compilar a documentação técnica de fabrico.
09 ** Компания DICz*** уполномочена составить Комплект технической документации.
10 ** DICz*** er autoriseret til at udarbejde de tekniske konstruktionsdata.
11 ** DICz*** är bemyndigade att sammanställa den tekniska konstruktionsfilen.
12 ** DICz*** har tillatelse til å kompilere den Tekniske konstruksjonsfilen.
13 ** DICz*** on valtuutettu laatimaan Teknisen asiakirjan.
14 ** Společnost DICz*** má oprávnění ke kompilaci souboru technické konstrukce.
15 ** DICz*** je ovlašten za izradu Datoteke o tehničkoj konstrukciji.
16 ** A DICz*** jogosult a műszaki konstrukciós dokumentáció összeállítására.
17 ** DICz*** ma upoważnienie do zbierania i opracowywania dokumentacji konstrukcyjnej.
18 ** DICz*** este autorizat să compileze Dosarul tehnic de construcţie.
19 ** DICz*** je pooblaščen za sestavo datoteke s tehnično mapo.
20 ** DICz*** on volitatud koostama tehnilist dokumentatsiooni.
21 ** DICz*** е оторизирана да състави Акта за техническа конструкция.
22 ** DICz*** yra įgaliota sudaryti šį techninės konstrukcijos failą.
23 ** DICz*** ir autorizēts sastādīt tehnisko dokumentāciju.
24 ** Spoločnosť DICz*** je oprávnená vytvoriť súbor technickej konštrukcie.
25 ** DICz*** Teknik Yapı Dosyasını derlemeye yetkilidir.

***DICz = Daikin Industries Czech Republic s.r.o.

3P323721-12L

DAIKIN

Tetsuya Baba
Managing Director
Pilsen, 1st of Dec. 2015

DAIKIN INDUSTRIES CZECH REPUBLIC s.r.o.
U Nové Hospody 1/1155, 301 00 Plzeň Skvrňany,
Czech Republic

Safety Precautions

	Read the precautions in this manual carefully before operating the unit.		This appliance is filled with R32.

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

  ⚠ **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.**
- The safety marks shown in this manual have the following meanings:

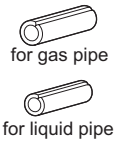
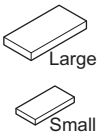
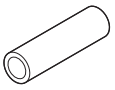
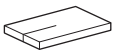
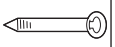
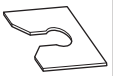
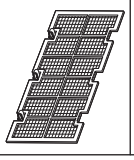
❗ Be sure to follow the instructions.	⏚ Be sure to establish an earth connection.	⃠ Never attempt.

- After completing installation, conduct a trial operation to check for faults and explain to the customer how to operate the air conditioner and take care of it with the aid of the operation manual.
- The English text is the original instruction. Other languages are translations of the original instructions.

⚠ WARNING
• Ask your dealer or qualified personnel to carry out installation work. Do not attempt to install the air conditioner yourself. Improper installation may result in water leakage, electric shocks or fire.
• Install the air conditioner in accordance with the instructions in this installation manual. Improper installation may result in water leakage, electric shocks or fire.
• Be sure to use only the specified accessories and parts for installation work. Failure to use the specified parts may result in the unit falling, water leakage, electric shocks or fire.
• Install the air conditioner on a foundation strong enough to withstand the weight of the unit. A foundation of insufficient strength may result in the equipment falling and causing injury.
• Electrical work must be performed in accordance with relevant local and national regulations and with instructions in this installation manual. Be sure to use a dedicated power supply circuit only. Insufficiency of power circuit capacity and improper workmanship may result in electric shocks or fire.
• Use a cable of suitable length. Do not use tapped wires or an extension lead, as this may cause overheating, electric shocks or fire.
• Make sure that all wiring is secured, the specified wires are used, and that there is no strain on the terminal connections or wires. Improper connections or securing of wires may result in abnormal heat build-up or fire.
• When wiring the power supply and connecting the wiring between the indoor and outdoor units, position the wires so that the control box lid can be securely fastened. Improper positioning of the control box lid may result in electric shocks, fire or over heating terminals.
• If refrigerant gas leaks during installation, ventilate the area immediately. ❗ Toxic gas may be produced if the refrigerant comes into contact with fire.
• After completing installation, check for refrigerant gas leakage. ❗ Toxic gas may be produced if the refrigerant gas leaks into the room and comes into contact with a source of fire, such as a fan heater, stove or cooker.
• When installing or relocating the air conditioner, be sure to bleed the refrigerant circuit to ensure it is free of air, and use only the specified refrigerant (R32). The presence of air or other foreign matter in the refrigerant circuit causes abnormal pressure rise, which may result in equipment damage and even injury.
• During installation, attach the refrigerant piping securely before running the compressor. If the refrigerant pipes are not attached and the stop valve is open when the compressor is run, air will be sucked in, causing abnormal pressure in the refrigeration cycle, which may result in equipment damage and even injury.
• During pump-down, stop the compressor before removing the refrigerant piping. If the compressor is still running and the stop valve is open during pump-down, air will be sucked in when the refrigerant piping is removed, causing abnormal pressure in the refrigeration cycle, which may result in equipment damage and even injury.
• Be sure to earth the air conditioner. ⏚ Do not earth the unit to a utility pipe, lightning conductor or telephone earth lead. Imperfect earthing may result in electric shocks.
• Be sure to install an earth leakage circuit breaker. Failure to install an earth leakage circuit breaker may result in electric shocks or fire.

⚠ CAUTION
• Do not install the air conditioner at any place where there is a danger of flammable gas leakage. In the event of a gas leakage, build-up of gas near the air conditioner may cause a fire to break out.
• Only qualified personnel can handle, fill, purge and dispose of the refrigerant.
• While following the instructions in this installation manual, install drain piping to ensure proper drainage and insulate piping to prevent condensation. Improper drain piping may result in indoor water leakage and property damage.
• Tighten the flare nut according to the specified method such as with a torque wrench. If the flare nut is too tight, it may crack after prolonged use, causing refrigerant leakage.
• 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).

ACCESSORIES

Clamp metal	Insulation for fitting	Sealing pad	Drain hose	Washer for hanging bracket	Sealing material	Clamp	Washer fixing plate	Screws for duct flanges	Air fillter	
1 pc.	1 each	Large and small 1 each	1 pc.	8 pcs.	2 pcs.	6 pcs.	1 set	1 set	1 pc.	[Other]
										• Operation manual • Installation manual

Optional accessories

- This indoor unit requires one of the remote controllers.
- There are two types of remote controller: wired and wireless.
  Select a remote controller according to the customer's request and install in an appropriate place.
  Refer to catalogues and technical literature for selecting a suitable remote controller.

CHOOSING A SITE

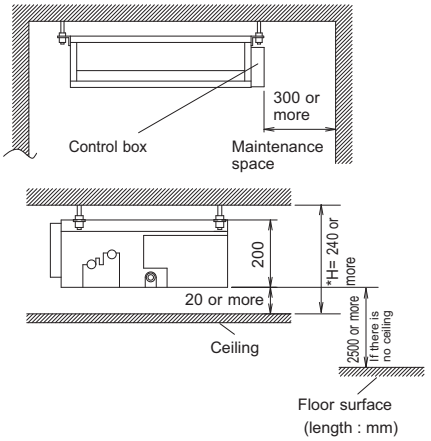
• Before choosing the installation site, obtain user approval.

Indoor unit

⚠ Caution

- When moving the unit during or after unpacking, make sure to lift it by holding its lifting lugs. Do not exert any pressure on other parts, especially the refrigerant piping, drain piping and flange parts.
  Wear protective gears (gloves and so on) when installing the unit.
- If you think the humidity inside the ceiling might exceed 30°C and RH80%, reinforce the insulation on the unit body.
  Use glass wool or polyethylene foam as insulation so that the thickness is more than 10mm and fits inside the ceiling opening.

- Optimum air distribution is ensured.
- The air passage is not blocked.
- Condensate can drain properly.
- The ceiling is strong enough to bear the weight of the indoor unit.
- A false ceiling does not seem to be at an incline.
- Sufficient clearance for maintenance and servicing is ensured.
- Piping between the indoor and outdoor units is within the allowable limits. (Refer to the installation manual for the outdoor unit.)
- The indoor unit, outdoor unit, power supply wiring and transmission wiring is at least 1 meter away from televisions and radios. This prevents image interference and noise in electrical appliances. (Noise may be generated depending on the conditions under which the electric wave is generated, even if a one-meter allowance is maintained.)
- The equipment is not intended for use in a potentially explosive atmosphere.

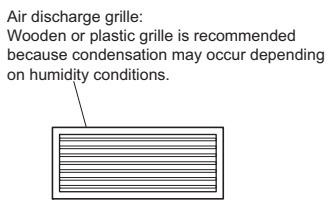


■ **Use suspension bolts to install the unit. Check whether or not the ceiling is strong enough to support the weight of the unit. If there is a risk that the ceiling is not strong enough, reinforce the ceiling before installing the unit.**
Select the *H dimension such that a downward slope of at least 1/100 is ensured as indicated in **"DRAIN PIPING WORK"**.

- To avoid contact with the fan, one of the following precaution actions must be taken:
  - Install the unit as high as possible at a minimum bottom height of 2.7 m.
  - Install the unit as high as possible at a minimum bottom height of 2.5 m in case the fan is externally screened by parts which can be removed without the aid of tools (e.g. false sealing, grill ...).
  - Install the unit with ducting and grill which can only be removed with the aid of tooling. It shall be installed so that it gives adequate protection against touching the fan. If a maintenance panel exists in the ducting, it shall only be possible to remove the panel by the aid of tooling to avoid contact with the fan. The protection shall be according to relevant European and local legislation. There are no restrictions concerning the installation height.

■ **Select the signal receiver mounting location according to the following conditions:**

- Install the signal receiver, which has a built-in temperature sensor, near the intake vent where there is convection of air and it can get an accurate reading of the room's temperature. If the intake vent is in another room or the unit cannot be installed near the intake vent for any other reason, install it 1.5m above the floor on a wall where there is convection.
- In order to get an accurate reading of the room's temperature, install the signal receiver in a location where it is not exposed directly to cold or hot air from the air discharge grille or to direct sunlight.
- Since the receiver has a built-in light receptor to receive signals from the wireless remote controller, do not mount it in a location where the signal may be blocked by a curtain, etc.



⚠ Caution

If the signal receiver is not installed in a location where there is convection of air, it may be unable to get an accurate reading of the room's temperature.

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 4 metres).

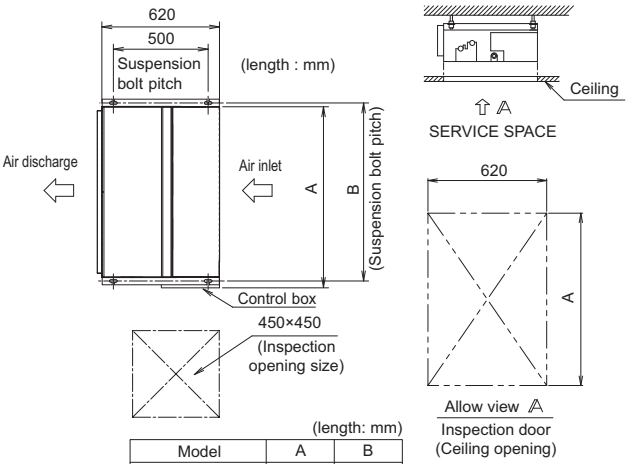
Outdoor unit

- For outdoor unit installation, see the installation manual supplied with the outdoor unit.

PREPARATIONS BEFORE INSTALLATION

■ **Relation of the unit to the suspension bolt positions.**

- Install the inspection opening on the control box side where maintenance and inspection of the control box are easy. Install the inspection opening also in the lower part of the unit.



(length: mm)

Model	A	B
15-20-25-32 type	750	740
40-50 type	950	940
63 type	1150	1140

■ **Make sure the range of the unit's external static pressure is not exceeded.**

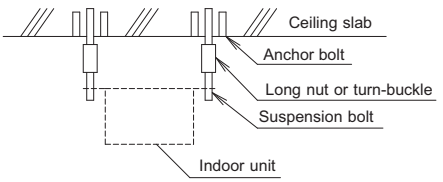
(See the technical documentation for the range of the external static pressure setting.)

■ **Open the installation hole. (Pre-set ceilings)**

- Once the installation hole is opened in the ceiling where the unit is to be installed, pass refrigerant piping, drain piping, transmission wiring, and remote controller wiring (unneeded if using a wireless remote controller) to the unit's piping and wiring holes.See **"REFRIGERANT PIPING WORK"**, **"DRAIN PIPING WORK"**, and **"WIRING"**.
- After opening the ceiling hole, make sure ceiling is level if needed. It might be necessary to reinforce the ceiling frame to prevent shaking.Consult an architect or carpenter for details.

■ **Install the suspension bolts.**

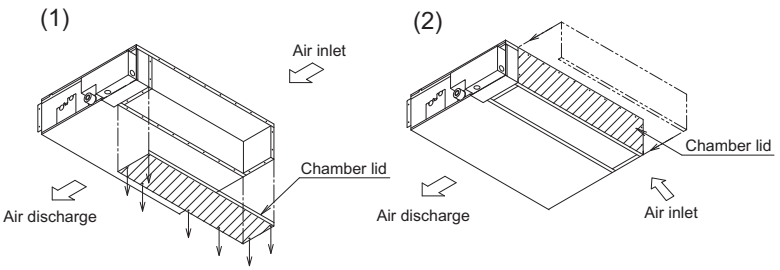
(Use W3/8 to M10 suspension bolts.)
Use a hole-in-anchor, sunken insert, sunken anchor for existing ceilings, and a sunken insert, sunken anchor or other part to be procured in the field to reinforce the ceiling to bearing the weight of the unit. (Refer to the figure.)



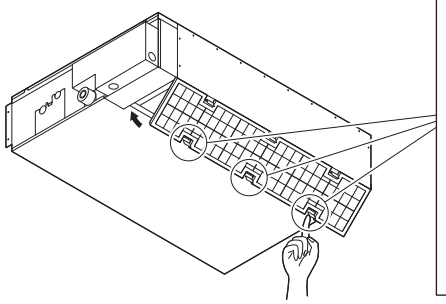
Note: All the above parts are field supplied.

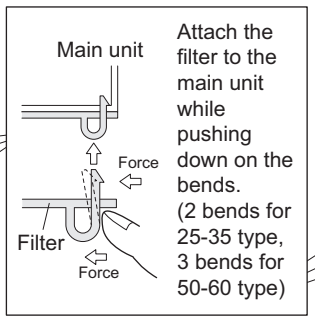
■ **Mount chamber lid and air filter (accessory).**

In case of bottom suction:
(1)Remove the chamber lid. (7 locations)
(2)Reattach the removed chamber lid in the orientation shown in the figure. (7 locations)
(3)Attach the air filter (accessory) in the manner shown in the diagram.

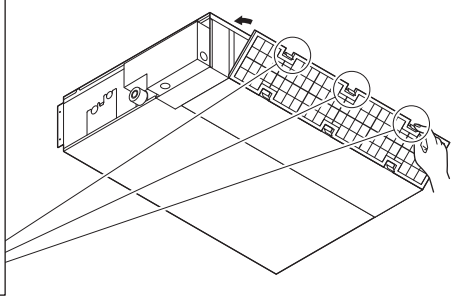


In case of bottom side





In case of back side



INDOOR UNIT INSTALLATION

〈〈 **As for the parts to be used for installation work, be sure to use the provided accessories and specified parts designated by our company.** 〉〉

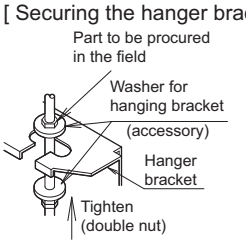
■ **Install the indoor unit temporarily.**

- Attach the hanger bracket to the suspension bolt. Be sure to fix it securely by using a nut and washer from the upper and lower sides of the hanger bracket. (Refer to the figure.)

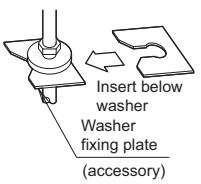
[PRECAUTION]

Since the unit uses a plastic drain pan, prevent welding spatter and other foreign substances from entering the outlet hole during installation.

[Securing the hanger bracket]

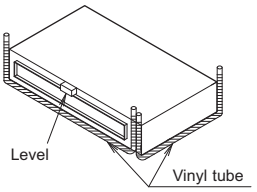


[How to secure washers]



■ **Adjust the height of the unit.**

■ **Check the unit is horizontally level.**



⚠ Caution

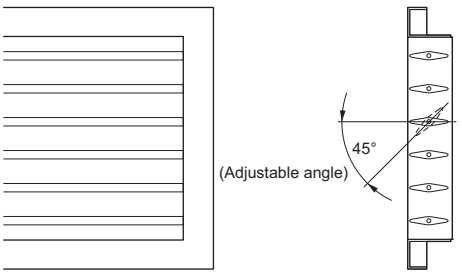
Make sure the unit is installed level using a level or a plastic tube filled with water. In using a plastic tube instead of a level, adjust the top surface of the unit to the surface of the water at both ends of the plastic tube and adjust the unit horizontally. (One thing to watch out for in particular is if it is installed so that the slope is not in the direction of the drain piping, as this might cause leaking.)

■ **Tighten the upper nut.**

■ **Mounting the remote controller.**

Refer to the “installation manual of the remote controller” supplied with remote controller.

For heat pump: If your feet feel cold when using the heating function, it is recommended that the air discharge grille shown at below be attached.



NOTE:

Installation shall be done by an installer, the choice of materials and installation shall comply with the applicable legislation. In Europe the EN 378 is the applicable standard that shall be used.

OUTDOOR UNIT INSTALLATION

Install as described in the installation manual supplied with the outdoor unit.

REFRIGERANT PIPING WORK

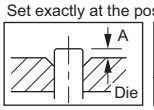
See the installation manual supplied with the outdoor unit.

1. 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.

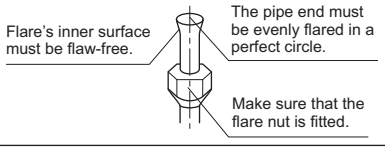
Flaring

Set exactly at the position shown below.



	Flare tool for R32	Conventional flare tool	
	Clutch-type	Clutch-type (Ridgid-type)	Wing-nut type (Imperial-type)
A	0-0.5mm	1.0-1.5mm	1.5-2.0mm

Check



⚠ Warning

Do not use mineral oil on flared part.
Prevent mineral oil from getting into the system as this would reduce the lifetime of the units.
Never use piping which has been used for previous installations. Only use parts which are delivered with the unit.
Never install a dryer to this R32 unit in order to guarantee its lifetime.
The drying material may dissolve and damage the system.
Incomplete flaring may cause refrigerant gas leakage.
Do not reuse joints which have been used once already.

2. REFRIGERANT PIPING

1) To prevent gas leakage, apply refrigeration machine oil on both inner and outer surfaces of the flare. (Use refrigeration oil for R32)

2) 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.

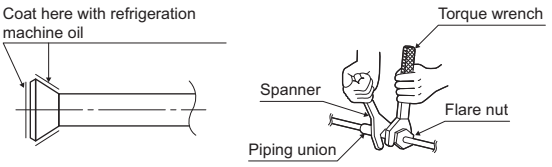
Flare nut tightening torque		
Gas side		Liquid side
Ø9.5	Ø12.7	Ø6.4
33-39N•m	50-60N•m	15-17N•m

⚠ Caution

Overtightening may damage the flare and cause leaks.

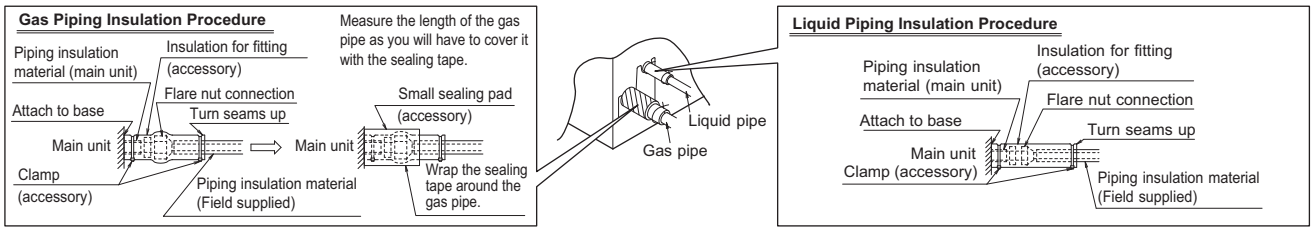
REFRIGERANT PIPING WORK

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



4) After checking for gas leaks, be sure to insulate the pipe connections.

- Insulate using the insulation for fitting included with the liquid and gas pipes. Besides, make sure the insulation for fitting on the liquid and gas piping has its seams facing up.
  (Tighten both edges with clamp.)
- For the gas piping, wrap the medium sealing pad over the insulation for fitting (flare nut part).

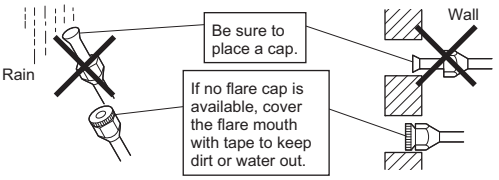


⚠ Caution

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.

Cautions on Pipe Handling

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



Selection of Copper and Heat Insulation materials

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

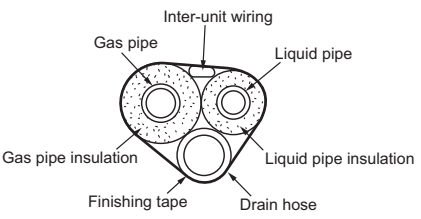
- Insulation material: Polyethylene foam
  Heat transfer rate: 0.041 to 0.052W/mK (0.035 to 0.045kcal/mh°C)
  Refrigerant gas pipe's surface temperature reaches 110°C max.
  Choose heat insulation materials that will withstand this temperature.
- Be sure to insulate both the gas and liquid piping and to provide insulation dimensions as below.

Gas side		Liquid side	Gas pipe thermal insulation		Liquid pipe thermal insulation
25/35 class	50/60 class		25/35 class	50/60 class	
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 minimum		

Also, when subject to high humidity, heat insulation of the refrigerant piping (the unit piping and branch piping) must be further reinforced. Reinforce the insulation when installing the unit near bathrooms, kitchens, and other similar locations.
Refer to the following:

- 30°C, more than 75% RH: 20mm minimum in thickness

If the insulation is not sufficient, condensation may form on the surface of the insulation.



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

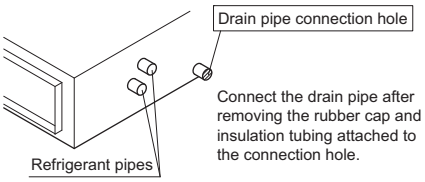
DRAIN PIPING WORK

⚠ Caution

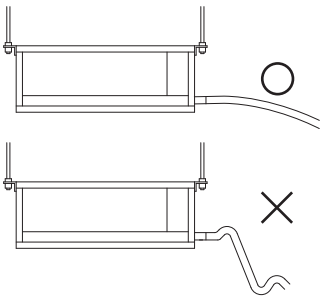
Make sure all water is out before making the duct connection.

■ Install the drain piping.

- Make sure the drain works properly.
- The diameter of the drain pipe should be greater than or equal to the diameter of the connecting pipe (vinyl tube; pipe size: 20mm; outer dimension: 26mm).



- Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air pockets from forming.

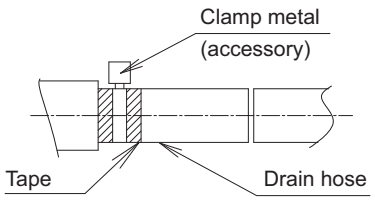


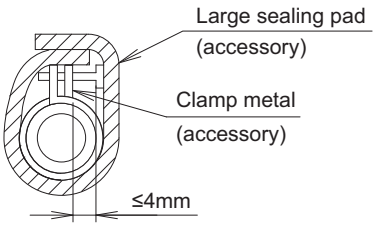
⚠ Caution

Water accumulating in the drain piping can cause the drain to clog.

- To keep the drain tube from sagging, space hanging wires every 1 to 1.5m.
- Use the drain hose and the metal clamp. Insert the drain hose fully into the drain socket and firmly tighten the metal clamp with the upper part of the tape on the hose end. Tighten the metal clamp until the screw head is less than 4mm from the hose.
- The two areas below should be insulated because condensation may form there causing water to leak.
  - Drain piping passing indoors
  - Drain sockets

  Referring to the figure below, insulate the metal clamp and drain hose using the included large sealing pad.





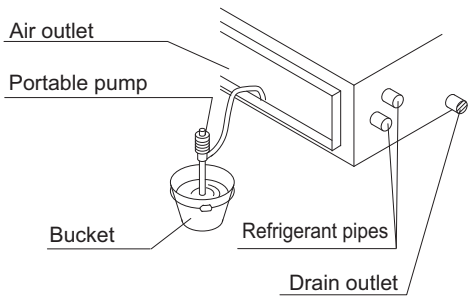
〈 **PRECAUTIONS** 〉

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.
- Do not twist or bend the drain hose, so that excessive force is not applied to it. (This type of treatment may cause leaking.)

■ After piping work is finished, check drainage flows smoothly.

- Gradually insert approximately 1L of water into the drain pan to check drainage in the manner described below.
  - Gradually pour approximately 1L of water from the outlet hole into the drain pan to check drainage.
  - Check the drainage.



INSTALLING THE DUCT

Connect the duct supplied in the field.

Air inlet side

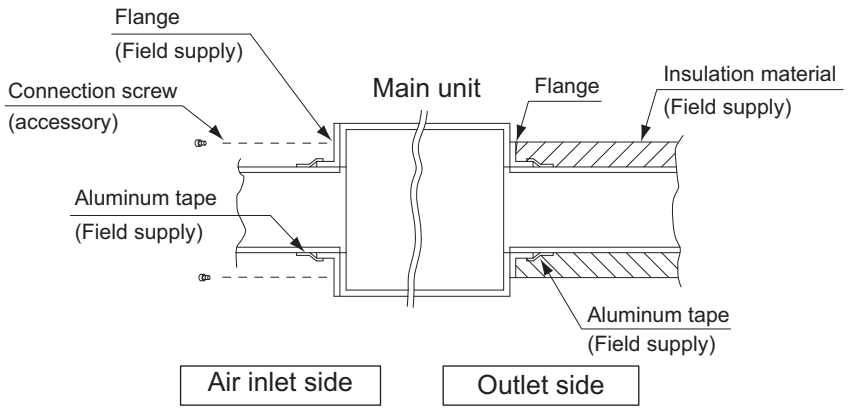
- Attach the duct and intake-side flange (field supply).
- Connect the flange to the main unit with accessory screws (in 16, 20 or 24 positions).
- Wrap the intake-side flange and duct connection area with aluminum tape or something similar to prevent air escaping.

⚠ Caution

When attaching a duct to the intake side, be sure also to attach an air filter inside the air passage on the intake side. (Use an air filter whose dust collecting efficiency is at least 50% in a gravimetric technique.)

Outlet side

- Connect the duct according to the inside of the outlet-side flange.
- Wrap the outlet-side flange and the duct connection area with aluminum tape or something similar to prevent air escaping.



⚠ Caution

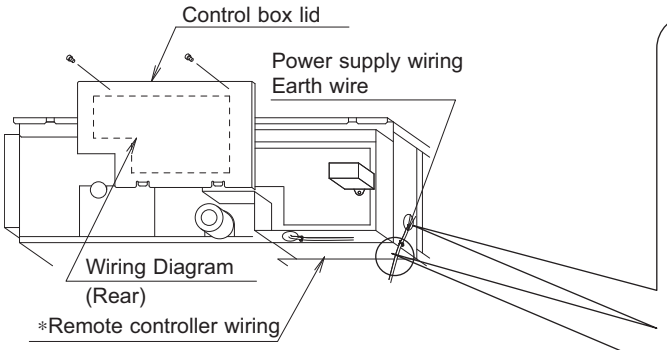
- Be sure to insulate the duct to prevent condensation from forming. (Material: glass wool or polyethylene foam, 25mm thick)
- Use electric insulation between the duct and the wall when using metal ducts to pass metal laths of the net or fence shape or metal plating into wooden buildings.

WIRING

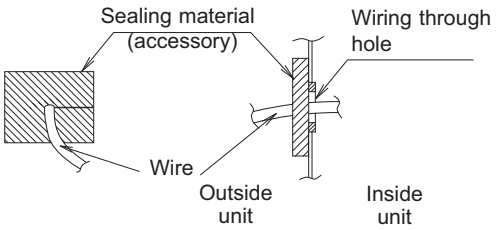
See the installation manual supplied with the outdoor unit.

■ HOW TO CONNECT WIRINGS.

- Wire only after removing the control box lid as shown in the figure.



⚠
- Make sure to let a wire go through a wire penetration area.
- After wiring, seal the wire and wire penetration area to prevent moisture and small creatures from the outside.
- Wrap the strong and weak electric lines with the sealing material as shown in the figure below.
  (Otherwise, moisture or small creatures such as insects from the outside may cause short-circuit inside the control box.)
  Attach securely so that there are no gaps.



[How to adhere it]

⚠ Caution

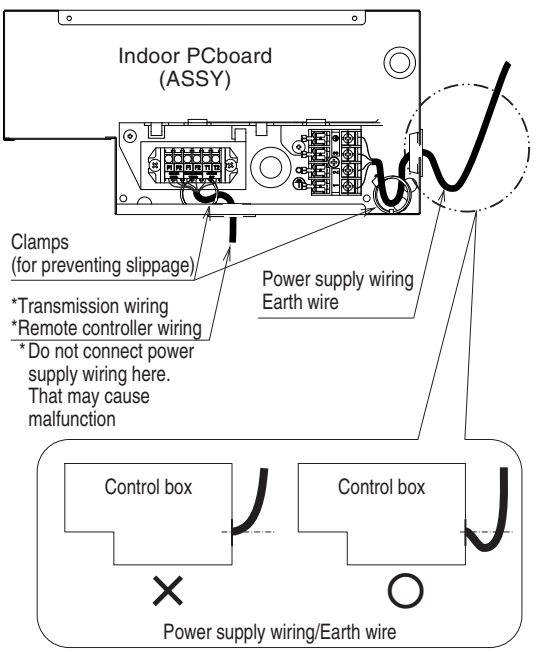
- When clamping the wiring, use the included clamping material as shown in the figure to prevent outside pressure being exerted on the wiring connections and clamp firmly.
- When doing the wiring, make sure the wiring is neat and does not cause the control box lid to stick up, then close the cover firmly. When attaching the control box lid, make sure you do not pinch any wires.
- Outside the machine, separate the weak wiring (remote controller wiring) and strong wiring (earth wire and power supply wiring) at least 50mm so that they do not pass through the same place together. Proximity may cause electrical interference, malfunctions, and breakage.

[PRECAUTION]

- See also the “Electrical Wiring Diagram Nameplate” when wiring the unit for electrical power.

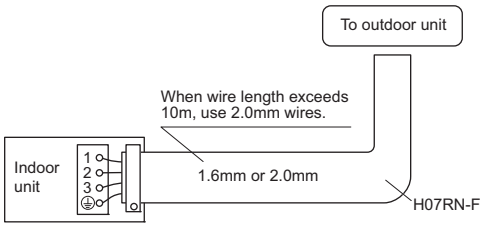
[Connecting electrical wiring]

- **Power supply wiring and Earth wire**
  Remove the control box lid.
  Next, pull the wires into the unit through the wiring through hole and connect to the power wiring terminal block (4P).
  Be sure to put the part of the sheathed vinyl into the control box.



⚠ Warning

Do not use tapped wires, stand wires, extensioncords, or starbust connections, as they may cause overheating, electrical shock, or fire.



TRIAL OPERATION AND TESTING

Trial operation and testing

(1) Measure the supply voltage and make sure that it falls in the specified range.
(2) Trial operation should be carried out in either cooling or heating mode.

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

■ For Heat pump.
In cooling mode, select the lowest programmable temperature; in heating mode, select the highest programmable temperature.

- Trial operation may be disabled in either mode depending on the room temperature.
- 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).
- For protection, the system disables restart operation for 3 minutes after it is turned off.

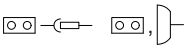
(3) Carry out the test operation in accordance with the Operation Manual to ensure that all functions and parts, are working properly.
* The air conditioner requires a small amount of power in its standby mode. If the system is not to be used for some time after installation, shut off the circuit breaker 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 turned on again.

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 inlet or discharge has clear path of air. Shut-off valves are opened.	Incomplete cooling/heating function	
Indoor unit properly receives remote controller commands.	Inoperative	

WIRING DIAGRAM

For applied parts and numbering refer to the wiring diagram sticker supplied on the unit. Part numbering is realized by Arabic numbers in ascending order for each part and is represented in the overview below by symbol "*" in the part code.

	: CONNECTION		: PROTECTIVE EARTH (SCREW)
	: CONNECTOR		: RECTIFIER
	: EARTH		: RELAY CONNECTOR
	: FIELD WIRING		: SHORT CIRCUIT CONNECTOR
	: INDOOR UNIT		: TERMINAL
	: OUTDOOR UNIT		: TERMINAL STRIP
	: PROTECTIVE EARTH		: WIRE CLAMP

BLK	: BLACK	GRN	: GREEN	PNK	: PINK	WHT	: WHITE
BLU	: BLUE	GRY	: GREY	PRP, PPL	: PURPLE	YLW	: YELLOW
BRN	: BROWN	ORG	: ORANGE	RED	: RED		

A*P	: PRINTED CIRCUIT BOARD	PTC*	: THERMISTOR PTC
BS*	: PUSH BUTTON ON / OFF, OPERATION SWITCH	Q*	: INSULATED GATE BIPOLAR TRANSISTOR (IGBT)
BZ, H*O	: BUZZER	Q*DI	: EARTH LEAK CIRCUIT BREAKER
C*	: CAPACITOR	Q*L	: OVERLOAD PROTECTOR
CN*, E*AC*, HA*, HE, HL*, HN*, HR*, MR*_A, MR*_B, S*, X*A	: CONNECTION, CONNECTOR	Q*M	: THERMO SWITCH
D*, V*D	: DIODE	R*	: RESISTOR
DB*	: DIODE BRIDGE	R*T	: THERMISTOR
DS*	: DIP SWITCH	RC	: RECEIVER
E*H	: HEATER	S*C	: LIMIT SWITCH
F*U, FU* (FOR CHARACTERISTICS REFER TO PCB INSIDE YOUR UNIT)	: FUSE	S*L	: FLOAT SWITCH
FG*	: CONNECTOR (FRAME GROUND)	S*NPH	: PRESSURE SENSOR (HIGH)
H*	: HARNESS	S*NPL	: PRESSURE SENSOR (LOW)
H*P, LED*, V*L	: PILOT LAMP, LIGHT EMITTING DIODE	S*PH, HPS*	: PRESSURE SWITCH (HIGH)
HAP	: LIGHT EMITTING DIODE (SERVICE MONITOR GREEN)	S*PL	: PRESSURE SWITCH (LOW)
IES	: INTELLIGENT EYE SENSOR	S*T	: THERMOSTAT
IPM*	: INTELLIGENT POWER MODULE	S*W, SW*	: OPERATION SWITCH
K*R, KCR, KFR, KHuR	: MAGNETIC RELAY	SA*	: SURGE ARRESTOR
L	: LIVE	SR*, WLU	: SIGNAL RECEIVER
L*	: COIL	SS*	: SELECTOR SWITCH
L*R	: REACTOR	SHEET METAL	: TERMINAL STRIP FIXED PLATE
M*	: STEPPER MOTOR	T*R	: TRANSFORMER
M*C	: COMPRESSOR MOTOR	TC, TRC	: TRANSMITTER
M*F	: FAN MOTOR	V*, R*V	: VARISTOR
M*P	: DRAIN PUMP MOTOR	V*R	: DIODE BRIDGE
M*S	: SWING MOTOR	WRC	: WIRELESS REMOTE CONTROLLER
MR*, MRCW*, MRM*, MRN*	: MAGNETIC RELAY	X*	: TERMINAL
N	: NEUTRAL	X*M	: TERMINAL STRIP (BLOCK)
PAM	: PULSE-AMPLITUDE MODULATION	Y*E	: ELECTRONIC EXPANSION VALVE COIL
PCB*	: PRINTED CIRCUIT BOARD	Y*R, Y*S	: REVERSING SOLENOID VALVE COIL
PM*	: POWER MODULE	Z*C	: FERRITE CORE
PS	: SWITCHING POWER SUPPLY	ZF, Z*F	: NOISE FILTER

NOTE

1. USE COPPER CONDUCTORS ONLY.
2. WHEN USING THE CENTRAL REMOTE CONTROLLER, SEE MANUAL FOR CONNECTION TO THE UNIT.
3. WHEN CONNECTING THE INPUT WIRES FROM OUTSIDE, FORCED "OFF" OR "ON/OFF" CONTROL OPERATION CAN BE SELECTED BY THE REMOTE CONTROLLER. SEE INSTALLATION MANUAL FOR MORE DETAILS.
4. REMOTE CONTROLLER MODEL VARIES ACCORDING TO THE COMBINATION SYSTEM, CONFIRM ENGINEERING DATA AND CATALOGS, ETC. BEFORE CONNECTING.

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