

DAIKIN



INSTALLATION MANUAL

***VRV* System air conditioners**

FXAQ15AUV1B
FXAQ20AUV1B
FXAQ25AUV1B
FXAQ32AUV1B
FXAQ40AUV1B
FXAQ50AUV1B
FXAQ63AUV1B

- CE - DECLARATION-OF-COMFORMITY
- CE - KONFORMITÄTSERKÄRNING
- CE - DICHIARAZIONE-DI-CONFORMITÀ
- CE - DEKLARACIJA-ZGODNOSTI
- CE - CONFORMITEITSVERKLARING

Daikin Europe N.V.

- 01 (en) declares under its sole responsibility that the air conditioning models to which this declaration relates;
- 02 (d) erklærer under ansvar, at klimaanleggsmodellene, som denne deklarasjon inneholder;
- 03 (e) 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 bajo su única responsabilidad que los modelos de aire acondicionado a los cuales hace referencia la declaración;
- 06 (it) dichiara sotto sua responsabilità che i condizionatori modello a cui è riferita questa dichiarazione;
- 07 (tr) beyan eder ki sorumluluğunda ki bu modelin klima ünitelerini, bu beyanla ilgili olarak kullanıldıkları klima modellerinin aşağıdaki gibi olduğunu beyan eder;
- 08 (f) déclare sous sa seule responsabilité que ce modèle de air conditionné a que cette déclaration se réfère.

- CE - DECLARACÃO-DE-CONFORMIDADE
- CE - ЗАЯВЛЕНИЕ-О-СОТВЕТСТВИИ
- CE - OVERYENSTEMMELSE/ERKLÆRING
- CE - FÖRSÄKRAN-OM-ÖVERENSTEMMELSE

- CE - ERKLÆRING OM-SAMSVAR
- CE - ILMOITUS-YHDENMUKAISUDESTA
- CE - DEKLARACIJA-ZGODNOSTI
- CE - DECLARATIE-DE-CONFORMITATE

- CE - IZJAVA-O-USKLADENOSTI
- CE - NEGFELELŐSÉGI-NYILATKOZAT
- CE - DEKLARACIJA-ZGODNOSTI
- CE - DECLARATIE-DE-CONFORMITATE

- CE - IZJAVA O SKLADENOSTI
- CE - VASTAVUSDEKLARACIJA
- CE - ATBILSTIBAS-DEKLARACIJA
- CE - VYHLÁSENIE-ZHODY
- CE - UYGUNLUK-BEYANI

- 17 (nl) deklarieer de afname van de luchtkwaliteit, die voortvloeit uit het gebruik van deze apparaten;
- 18 (en) declare that the product complies with the requirements of the applicable standards;
- 19 (es) declaro que el producto cumple con los requisitos de las normas técnicas aplicables;
- 20 (nl) verklaar dat het product voldoet aan de technische eisen van de toepasselijke normen;
- 21 (en) declare that the product complies with the requirements of the applicable standards;
- 22 (it) dichiaro che il prodotto è conforme ai requisiti delle norme tecniche applicabili;
- 23 (tr) beyan eder ki ürünün ilgili teknik standartların gerektirdiği şekilde olduğunu beyan eder;
- 24 (f) déclare que le produit est conforme aux exigences des normes techniques applicables;
- 25 (tr) lanamen kendii sorumluluğunda olmaksızın bu ürünün ilgili iklim modellerinin aşağıdaki gibi olduğunu beyan eder;

FXAQ15AU1B, FXAQ20AU1B, FXAQ25AU1B, FXAQ32AU1B, FXAQ35AU1B, FXAQ40AU1B, FXAQ50AU1B, FXAQ63AU1B,

- 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 (de) den folgenden Normen) oder einem anderen Normdokument oder -dokumenten entspricht/entsprechen, unter der Voraussetzung, dass sie gemäß unseren Anweisungen eingesetzt werden;
- 03 sont conformes à laux normes) ou autres(s) document(s) normatifs), pour autant qu'ils soient utilisés conformément à nos instructions;
- 04 conform de volgende normen) of één of meer andere bindende documenten zijn, op voorwaarde dat ze worden gebruikt overeenkomstig onze instructies;
- 05 están en conformidad con las(s) siguiente(s) norma(s) u otro(s) documento(s) normativo(s), siempre que sean utilizados de acuerdo con nuestras instrucciones;
- 06 sono conformi all(i) seguente(i) standard(i) o altro(i) documento(i), a patto che vengano usati in conformità alle nostre istruzioni;
- 07 είναι σύμφωνα με το(α) ακόλουθ(α) πρότυπο(α) ή άλλο(α) έγγραφο(α) κανονιστικό, υπό την προϋπόθεση ότι χρησιμοποιούνται σύμφωνα με τις οδηγίες μας;
- 08 este în conformitate cu al(e) următoarele standarde sau alte documente normative, în condiția ca acestea să fie utilizate în conformitate cu instrucțiunile noastre;
- 09 соответствуют следующим стандартам или другим нормативным документам, при условии их использования согласно нашим инструкциям;
- 10 overholder følgende standard(er) eller andre relevante tekniske dokument(er), forudsat at disse anvendes i henhold til vores instrukser;
- 11 respektive utstilling 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 ulstyr er i overensstemmelse med følgende standard(er) eller andre normgivende dokument(er), under forudsætning af at disse bruges i henhold til våre instruksjoner;
- 13 astavaat seuraavien standardien ja muiden ohjeistettujen dokumenttien vaatimukset edellyttäen, että niitä käytetään ohjeidemme mukaisesti;
- 14 za predpovedi, že jsou využívány v souladu s našimi pokyny, odpovídají následujícími normám nebo normativním dokumentům;
- 15 u skladu sa sledećim standardima) ili drugim normativnim dokumentima), uz ujet da se oni koriste u skladu s našim uputstima;
- 16 Megjegyzés: az) <A> alábbi, az) gazdilla a megjelölt, certifikát <C> enligi információt <D> olti, tekintettel arra, hogy a megjelölt szabványokat és más normatív dokumentumokat csak akkor lehet alkalmazni, ha a megjelölt utasításokat követik;
- 17 Merk: alle producten zijn conform met de volgende normen en andere relevante technische documenten, zolang ze worden gebruikt overeenkomstig onze instructies;
- 18 Huvudsakligen är produkterna i överensstämmelse med följande standarder och andra relevanta tekniska dokument, förutsatt att de används enligt våra instruktioner;
- 19 Informații: toate produsele sunt conforme cu următoarele standarde sau alte documente normative, în condiția ca acestea să fie utilizate în conformitate cu instrucțiunile noastre;
- 20 Informații: alle produkter er i overensstemmelse med følgende standarder og andre relevante tekniske dokumenter, forudsat at disse anvendes i henhold til vores instruktioner;
- 21 Informații: toate produsele sunt conforme cu următoarele standarde sau alte documente normative, în condiția ca acestea să fie utilizate în conformitate cu instrucțiunile noastre;
- 22 Informații: alle produkter er i overensstemmelse med følgende standarder og andre relevante tekniske dokumenter, forudsat at disse anvendes i henhold til vores instruktioner;
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- 24 Informații: alle produkter er i overensstemmelse med følgende standarder og andre relevante tekniske dokumenter, forudsat at disse anvendes i henhold til vores instruktioner;
- 25 Informații: toate produsele sunt conforme cu următoarele standarde sau alte documente normative, în condiția ca acestea să fie utilizate în conformitate cu instrucțiunile noastre;

- 01 Nota: el producto cumple con los requisitos de las normas técnicas aplicables;
- 02 Gemäß den Vorschriften der Normen und sonstiger technischer Dokumente, unter der Voraussetzung, dass sie gemäß unseren Anweisungen eingesetzt werden;
- 03 conformément aux stipulations des normes et autres documents techniques applicables, sous réserve qu'ils soient utilisés conformément à nos instructions;
- 04 secondo le disposizioni delle norme e altri documenti tecnici applicabili, a patto che vengano usati in conformità alle nostre istruzioni;
- 05 preskazan je u skladu sa sledećim standardima) ili drugim normativnim dokumentima), uz ujet da se oni koriste u skladu s našim uputstima;
- 06 Nota: o produto está em conformidade com os requisitos das normas técnicas aplicáveis;
- 07 Zgodnie z zahtevami tehničnih dokumentov, ki so del tega opisa, če se uporabljajo v skladu s našimi navodili;
- 08 Nota: o produto está em conformidade com os requisitos das normas técnicas aplicáveis;
- 09 Присвячуване: всички продукти са в съответствие с изискванията на техническите документи, при условие че те се използват в съответствие с нашите инструкции;
- 10 Bemærk: alle produkter er i overensstemmelse med følgende standarder og andre relevante tekniske dokumenter, forudsat at disse anvendes i henhold til vores instruktioner;
- 11 Informații: toate produsele sunt conforme cu următoarele standarde sau alte documente normative, în condiția ca acestea să fie utilizate în conformitate cu instrucțiunile noastre;
- 12 Merk: alle producten zijn conform met de volgende normen en andere relevante technische documenten, zolang ze worden gebruikt overeenkomstig onze instructies;
- 13 Huvudsakligen är produkterna i överensstämmelse med följande standarder och andra relevanta tekniska dokument, förutsatt att de används enligt våra instruktioner;
- 14 za predpovedi, že jsou využívány v souladu s našimi pokyny, odpovídají následujícími normám nebo normativním dokumentům;
- 15 u skladu sa sledećim standardima) ili drugim normativnim dokumentima), uz ujet da se oni koriste u skladu s našim uputstima;
- 16 Megjegyzés: az) <A> alábbi, az) gazdilla a megjelölt, certifikát <C> enligi információt <D> olti, tekintettel arra, hogy a megjelölt szabványokat és más normatív dokumentumokat csak akkor lehet alkalmazni, ha a megjelölt utasításokat követik;
- 17 Merk: alle producten zijn conform met de volgende normen en andere relevante technische documenten, zolang ze worden gebruikt overeenkomstig onze instructies;
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- 24 Informații: alle produkter er i overensstemmelse med følgende standarder og andre relevante tekniske dokumenter, forudsat at disse anvendes i henhold til vores instruktioner;
- 25 Informații: toate produsele sunt conforme cu următoarele standarde sau alte documente normative, în condiția ca acestea să fie utilizate în conformitate cu instrucțiunile noastre;

- 01** Daikin Europe N.V. is authorised to compile the Technical Construction File;
- 02** Daikin Europe N.V. hat die Berechtigung die Technische Konstruktionssätze zusammenzustellen;
- 03** Daikin Europe N.V. est autorisé à compiler le Dossier de Construction Technique;
- 04** Daikin Europe N.V. is bevoegd om het Technisch Constructie dossier samen te stellen;
- 05** Daikin Europe N.V. está autorizado a compilar el Archivo de Construcción Técnica;
- 06** Daikin Europe N.V. è autorizzata a redigere il File Tecnico di Costruzione;
- 07** H Daikin Europe N.V. er tillåtet att sammanställa den tekniska konstruktionssätten;
- 08** A Daikin Europe N.V. está autorizada a compilar a documentação técnica de fabrico;
- 09** Компания Daikin Europe N.V. уполномочена собирать комплект технической документации;
- 10** Daikin Europe N.V. er autoriseret til at udarbejde de tekniske konstruktionssatte;
- 11** Daikin Europe N.V. är bemyndigade att sammanställa den tekniska konstruktionssätten;
- 12** Daikin Europe N.V. har tillatelse til å kompilere den tekniske konstruktionssætten;
- 13** Daikin Europe N.V. er autoriseret til at udarbejde de tekniske konstruktionssatte;
- 14** Společnost Daikin Europe N.V. má oprávnění k kompilaci souboru technické dokumentace;
- 15** Daikin Europe N.V. je ověřen za izrađa Databe o tehničkoj konstrukciji;
- 16** A Daikin Europe N.V. isgebruik te maken van de technische constructiegegevens;
- 17** Daikin Europe N.V. ma upovažnjevanje do zbiranja i poročevanja dokumentacije konstrukcije;
- 18** Daikin Europe N.V. este autorizat să complice Dosarul Tehnic de Construcție;

DAIKIN

Shigeki Morita
Director
Ostend, 1st of November 2017



3P494114-1A

- 16 megjelöltek az alábbi szabvány(ok)nak vagy egyéb irányított dokumentum(ok)nak, ha azokat előírás szerint használják;
- 17 megfelel a következő szabvány(ok)nak vagy egyéb irányított dokumentum(ok)nak, ha azokat előírás szerint használják;
- 18 este în conformitate cu următoarele standarde) sau alte documente normative), cu condiția ca acestea să fie utilizate în conformitate cu instrucțiunile noastre;
- 19 skladni z naslednjih standardi in drugimi normativni dokumenti, pod pogojem, da se uporabljajo v skladu z našimi navodili;
- 20 on vastavus järgmistele standarditele) või teistele normatiivsete dokumentidele, kui need kasutatakse vastavalt meie juhenditele;
- 21 conformerast naar de volgende normen en andere relevante technische documenten, bij voorwaarde, te ze worden gebruikt overeenkomstig onze instructies;
- 22 alinnä zemiai nurodytus standartus ir (kita) kitus normiuus dokumentus su sąlyga, kad yra naudojami pagal mūsų nurodymus;
- 23 tad, je želite atitikties reikalavimus, atitiktis susijusiems standartams, atitiktis susijusiems standartams, atitiktis susijusiems standartams, atitiktis susijusiems standartams;
- 24 su v yzhivayuy normam) ili drugim normativnym dokumentam), uz ujet da se oni koriste u skladu s našim uputstima;
- 25 Irinon, imatlamazma grece kulimazma: kszulyaja asgalyedki standartar ve norm befinen begeredje yujumidur;
- 26 Informații: toate produsele sunt conforme cu următoarele standarde sau alte documente normative, în condiția ca acestea să fie utilizate în conformitate cu instrucțiunile noastre;
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- 35 Informații: toate produsele sunt conforme cu următoarele standarde sau alte documente normative, în condiția ca acestea să fie utilizate în conformitate cu instrucțiunile noastre;

EN60335-2-40

- 01 gemäß den Vorschriften der Normen und sonstiger technischer Dokumente, unter der Voraussetzung, dass sie gemäß unseren Anweisungen eingesetzt werden;
- 02 conformément aux stipulations des normes et autres documents techniques applicables, sous réserve qu'ils soient utilisés conformément à nos instructions;
- 03 secondo le disposizioni delle norme e altri documenti tecnici applicabili, a patto che vengano usati in conformità alle nostre istruzioni;
- 04 preskazan je u skladu sa sledećim standardima) ili drugim normativnim dokumentima), uz ujet da se oni koriste u skladu s našim uputstima;
- 05 Megjegyzés: az) <A> alábbi, az) gazdilla a megjelölt, certifikát <C> enligi információt <D> olti, tekintettel arra, hogy a megjelölt szabványokat és más normatív dokumentumokat csak akkor lehet alkalmazni, ha a megjelölt utasításokat követik;
- 06 Merk: alle producten zijn conform met de volgende normen en andere relevante technische documenten, zolang ze worden gebruikt overeenkomstig onze instructies;
- 07 Zgodnie z zahtevami tehničnih dokumentov, ki so del tega opisa, če se uporabljajo v skladu s našimi navodili;
- 08 Nota: o produto está em conformidade com os requisitos das normas técnicas aplicáveis;
- 09 Присвячуване: всички продукти са в съответствие с изискванията на техническите документи, при условие че те се използват в съответствие с нашите инструкции;
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- 12 Merk: alle producten zijn conform met de volgende normen en andere relevante technische documenten, zolang ze worden gebruikt overeenkomstig onze instructies;
- 13 Huvudsakligen är produkterna i överensstämmelse med följande standarder och andra relevanta tekniska dokument, förutsatt att de används enligt våra instruktioner;
- 14 za predpovedi, že jsou využívány v souladu s našimi pokyny, odpovídají následujícími normám nebo normativním dokumentům;
- 15 u skladu sa sledećim standardima) ili drugim normativnim dokumentima), uz ujet da se oni koriste u skladu s našim uputstima;
- 16 Megjegyzés: az) <A> alábbi, az) gazdilla a megjelölt, certifikát <C> enligi információt <D> olti, tekintettel arra, hogy a megjelölt szabványokat és más normatív dokumentumokat csak akkor lehet alkalmazni, ha a megjelölt utasításokat követik;
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| | |
|-----|------------------|
| <A> | DAIKIN.TCF.024H1 |
| | TUV (NB1956) |
| <C> | 0510260101 |

- 01** Daikin Europe N.V. is authorised to compile the Technical Construction File;
- 02** Daikin Europe N.V. hat die Berechtigung die Technische Konstruktionssätze zusammenzustellen;
- 03** Daikin Europe N.V. est autorisé à compiler le Dossier de Construction Technique;
- 04** Daikin Europe N.V. is bevoegd om het Technisch Constructie dossier samen te stellen;
- 05** Daikin Europe N.V. está autorizado a compilar el Archivo de Construcción Técnica;
- 06** Daikin Europe N.V. è autorizzata a redigere il File Tecnico di Costruzione;
- 07** H Daikin Europe N.V. er tillåtet att sammanställa den tekniska konstruktionssätten;
- 08** A Daikin Europe N.V. está autorizada a compilar a documentação técnica de fabrico;
- 09** Компания Daikin Europe N.V. уполномочена собирать комплект технической документации;
- 10** Daikin Europe N.V. er autoriseret til at udarbejde de tekniske konstruktionssatte;
- 11** Daikin Europe N.V. är bemyndigade att sammanställa den tekniska konstruktionssätten;
- 12** Daikin Europe N.V. har tillatelse til å kompilere den tekniske konstruktionssætten;
- 13** Daikin Europe N.V. er autoriseret til at udarbejde de tekniske konstruktionssatte;
- 14** Společnost Daikin Europe N.V. má oprávnění k kompilaci souboru technické dokumentace;
- 15** Daikin Europe N.V. je ověřen za izrađa Databe o tehničkoj konstrukciji;
- 16** A Daikin Europe N.V. isgebruik te maken van de technische constructiegegevens;
- 17** Daikin Europe N.V. ma upovažnjevanje do zbiranja i poročevanja dokumentacije konstrukcije;
- 18** Daikin Europe N.V. este autorizat să complice Dosarul Tehnic de Construcție;

DAIKIN EUROPE N.V.

Zandvoordestraat 300, B-8400 Oostende, Belgium

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


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 run 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.

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.
- 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.
- 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 cover must be firmly fastened so that the wiring may not push up the structural parts such as the cover.
If the cover 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.
- 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.



CAUTION

- 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.
- Sound pressure level is less than 70 dB(A).

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 the type of R410A refrigerant to be used before doing any work. (Using an incorrect refrigerant will prevent normal operation of the unit.)

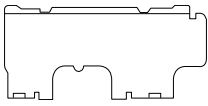

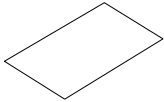
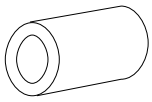
- When opening the unit or moving it after opening, be sure to lift it by holding on to the lifting lugs without exerting any pressure on other parts, especially, drain piping, and other resin parts.
- Decide upon a line of transport.
- Leave the unit inside its packaging while moving, until reaching the installation site. Use a sling of soft material, where unpacking is unavoidable or protective plates together with a rope when lifting, to avoid damage or scratches to the unit.
- Refer to the installation manual of the outdoor unit for items not described in this manual.
- Do not dispose of any parts necessary for installation until the installation is complete.



2-1 PRECAUTIONS

- Be sure to read this manual before installing the indoor unit.
- When selecting installation site, refer to the installation pattern.
- This unit, both indoor and outdoor, is suitable for installation in a commercial and light industrial environment. If installed as a household appliance it could cause electromagnetic interference.
- Entrust installation to the place of purchase or a qualified serviceman. Improper installation could lead to leaks and, in worse cases, electric shock or fire.
- Use only parts provided with the unit or parts satisfying required specifications. Unspecified parts could cause the unit to fall out of place, or could lead to leaks and, in worse cases, electric shock or fire.
- Do not install or operate the unit in rooms mentioned below.
 - **Laden with mineral oil, or filled with oil vapor or spray like in kitchens. (Plastic parts may deteriorate which could eventually cause the unit to fall out of place, or could lead to leaks.)**
 - **Where corrosive gas like sulfurous gas exists. (Copper tubing and brazed spots may corrode, which could eventually lead to refrigerant leaks.)**
 - **Where volatile flammable gas like thinner or gasoline is used.**
 - **Where exposed to combustible gases and where volatile flammable gas like thinner or gasoline is used. (Gas in the vicinity of the unit could ignite.)**
 - **Where machines can generate electromagnetic waves. (Control system may malfunction.)**
 - **Where the air contains high levels of salt such as that near the ocean and where voltage fluctuates greatly such as that in factories. Also in vehicles or vessels.**

2-2 ACCESSORIES

Check the following accessories are included with your unit.

| Name | (1) Installation plate | (2) Attachment screws for the installation plate | (3) Paper pattern for installation | (4) Insulating tape |
|----------|---|---|---|---|
| Quantity | 1 set | 8 pcs. → FXAQ15,20,25,32 type 9 pcs. → FXAQ40,50,63 type | 1 pc. | 1 pc. |
| Shape |  |  M4 × 25L |  |  |

| Name | (5) Clamp | (6) Securing screws | (Other) • Operation manual • Installation manual |
|----------|---|--|--|
| Quantity | 1 large 3 small | 2 pcs. | |
| Shape |  |  M4 × 12L | |

2-3 OPTIONAL ACCESSORIES

- These are two types of remote controllers: wired and wireless. Select a remote controller according to customer request and install in an appropriate place.

| Remote controller type | | Model |
|------------------------|-------------------|-----------|
| Wired type | | BRC1E61 |
| Wireless type | Heat pump type | BRC7EA628 |
| | Cooling only type | BRC7EA629 |

* Refer to installation manual attached to the remote controller.

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 materials.

For following items, take special care during installation and after finishing the work check the following table.

a. 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 and outdoor unit fixed firmly? | The units may drop, vibrate or make noise. | |
| Is the outdoor unit fully installed? | The unit may malfunction or the components burn out. | |
| Is the gas leak test finished? | It may result in insufficient cooling. | |
| Is the unit fully insulated? | 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 burn out. | |
| Are wiring and piping correct? | The unit may malfunction or the components burn out. | |
| Is the unit safely earthed? | Dangerous at electric leakage. | |
| Is wiring size according to specifications? | The unit may malfunction or the components burn out. | |
| Is something blocking the air outlet or inlet of either the indoor or outdoor units? | It may result in insufficient cooling. | |
| Are refrigerant piping length and additional refrigerant charge noted down? | The refrigerant charge in the system is not clear. | |

b. Items to be checked at time of delivery

Also review the "SAFETY PRECAUTIONS"

| Items to be checked | Check |
|---|-------|
| Are the control box cover, air filter, suction grille attached? | |
| Did you explain about operations while showing the instruction manual to your customer? | |
| Did you hand the instruction manual over to your customer? | |

c. Points for explanation about operations

The items with **⚠** WARNING and **⚠** CAUTION marks in the instruction manual are the items pertaining to possibilities for bodily injury and material damage in addition to the general usage of the product. Accordingly, it is necessary that you make a full explanation about the described contents and also ask your customers to read the instruction manual.

2-4 NOTE TO THE INSTALLER

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

3. SELECTING INSTALLATION SITE

(1) Select an installation site where the following conditions are fulfilled and that meets with your customer's approval.

- In the upper space (including the back of the ceiling) of the indoor unit where there is no possible dripping of water from the refrigerant pipe, drain pipe, water pipe, etc.
- Where the wall is strong enough to bear the indoor unit weight.
- Where sufficient clearance for installation and maintenance can be ensured.
(Refer to Fig. 1 and Fig. 2)
- Where optimum air distribution can be ensured.
- Where nothing blocks the air passage.
- Where condensate can be properly drained.
- Where the wall is not significantly tilted.
- Where not exposed to combustible gases.
- Where pipe between indoor and outdoor units is possible within the allowable limit.
(Refer to the installation manual of the outdoor unit.)
- Install the indoor and outdoor units, power cable and transmission wiring, at least 1 m from TVs and radios, to prevent distorted pictures and static. (Depending on the type and source of the electrical waves, static may be heard even when more than 1 m away.)
- Install the indoor unit no less than 2.5 m above the floor. Where unavoidably lower, take what measures are necessary to keep hands out of the air inlet.

- Where the cool (warm) air reaches all across the room.

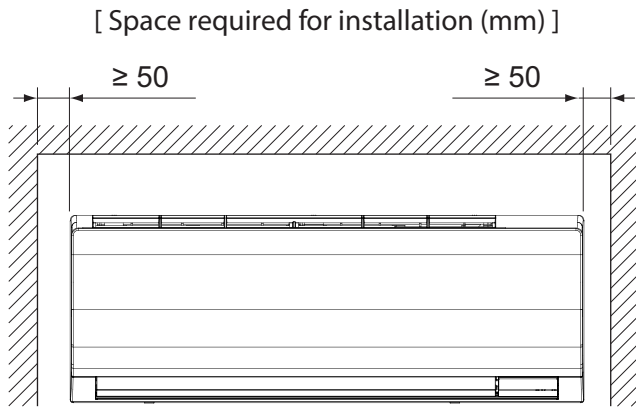


Fig. 1

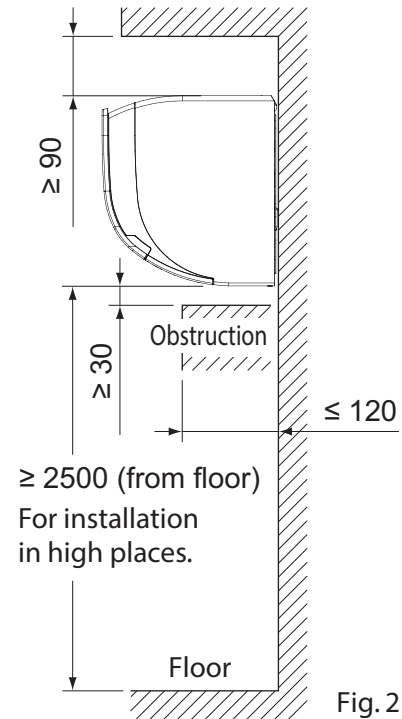


Fig. 2

⚠ CAUTION

- The indoor and outdoor units and the power supply wiring and remote controller cord must be installed at least 1m away from any televisions or radios. This is to prevent interference with picture and sound reception. (Interference may occur even at 1m away depending on the reception quality.)
- If installing the wireless kit, the distance of the signal sent from the remote controller might be shorter if there are fluorescent lights which are electrically started (such as with inverters, rapid starters, etc.) in the room. The indoor unit should be installed as far away from fluorescent lights as possible.

- (2) Consider whether the place where the unit will be installed can support the full weight of the unit, and reinforce it with boards and beams, etc. if needed before proceeding with the installation. Also, reinforce the place to prevent vibration and noise before installing.
- (3) The indoor unit may not be directly installed on the wall. Use the attached installation plate (1) before installing the unit.

4. INDOOR UNIT INSTALLATION

- Use only accessories and parts which are of the designated specification when installing.

⚠ CAUTION

- Install so that the unit does not tilt to either side or forward.
- Do not hold the unit by the horizontal flaps when lifting it. (This may damage the horizontal flaps.)

(1) Open the piping through-hole.

- The refrigerant pipe and drain pipe can be passed out in one of 6 directions: left, bottom-left, back-left, right, bottom-right, and back-right. (Refer to Fig. 3)

(2) Remove the installation plate (1) from the unit and attach to the wall.

(The installation panel is temporarily attached to the unit with screw.)

(Refer to Fig. 3)

(a) Secure the installation plate (1) to the wall using either screws or bolts.

- If using the attachment screws for the installation panel (2), attach using at least 4 screws on either side (for a total of 8 screws (15-32 class), 9 screws (40-63 class)) of the recommended installation cleat position on the included paper pattern for installation (3).
- If using bolts, attach using a M8 - M10 bolt (for a total of 2 bolts) on either side.
- If dealing with concrete, use commercially available foundation bolts (M8 - M10).

(3) If using the left, bottom-left, right, or bottom-right positions for the piping, cut out the through-hole for the piping in the front grille. (Refer to Fig. 4)

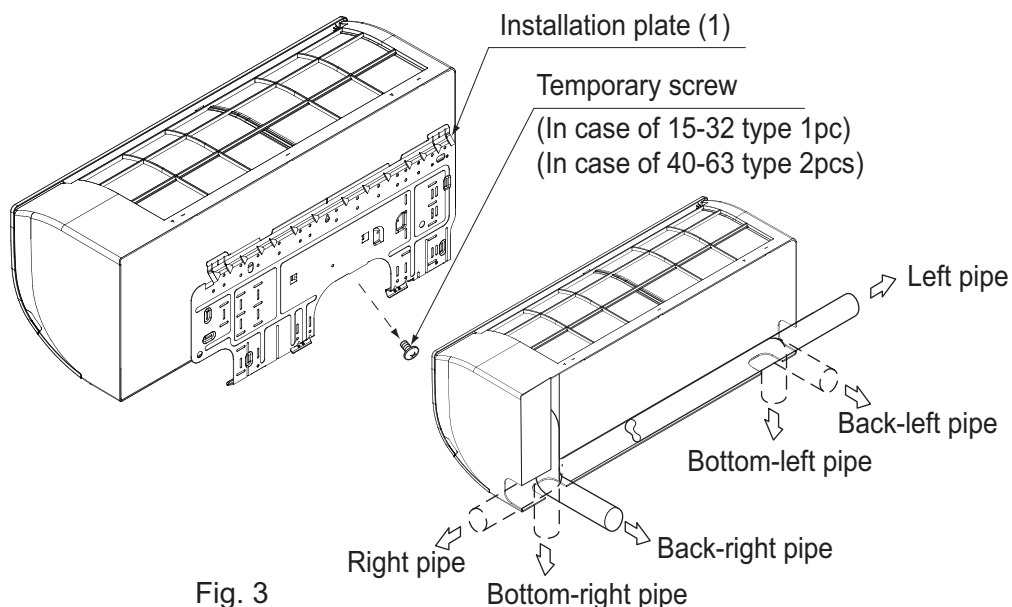


Fig. 3

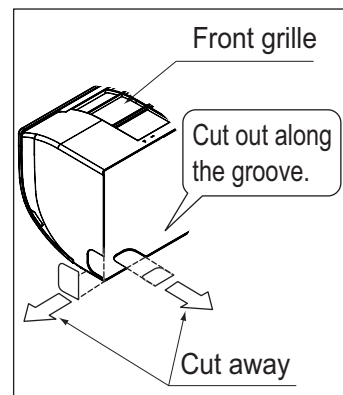


Fig. 4

(4) Remove the front panel and the service cover. (Refer to Fig. 5)

< How to remove the front panel and service cover >

- (1) Open the front panel to the point where it stops.
- (2) Push the hooks on either side of the front panel towards the sides of the main unit and remove. (You can also remove it by sliding the front panel either to the left or right and pulling it forward.)
- (3) Remove the screw from the service cover and pull the handle forward.

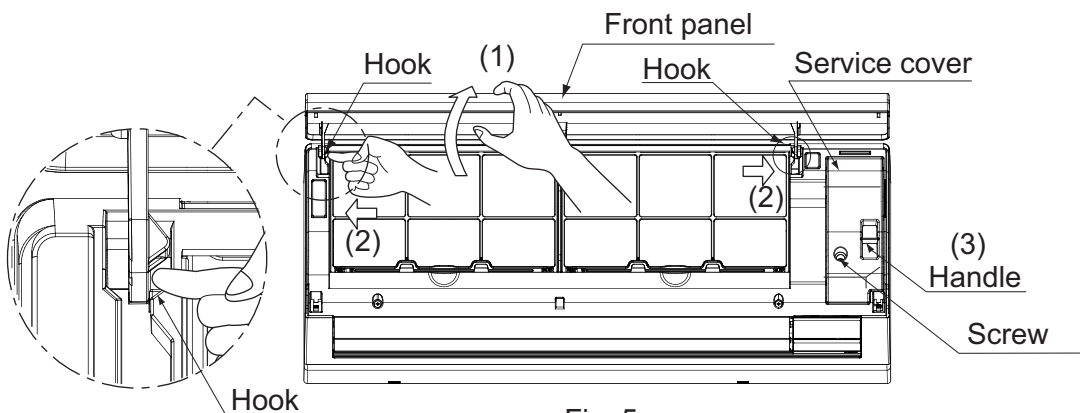


Fig. 5

(5) Point the pipe in the direction it will be passed out.

For right, bottom-right, and back-right piping (Refer to Fig. 6)

- Wrap the drain hose and the refrigerant piping together with the insulating tape (4) so that the drain hose is below the refrigerant piping.

For left, bottom-left, and left-back piping

- Remove the front grille. (Refer to Fig. 7)

< How to remove the front grille >

Remove the front grille as described below when securing the indoor unit with screws or when attaching Optional Accessories (wireless remote controller, adapter PC board, etc.).

- (1) Remove the front panel.
- (2) Remove the screws (2 places in case of FXAQ15,20,25,32 class/3 places in case of FXAQ40,50,63 class) securing the front grille.
- (3) Remove the tabs (3 places) securing the front grille by pushing them in the direction of the arrows.

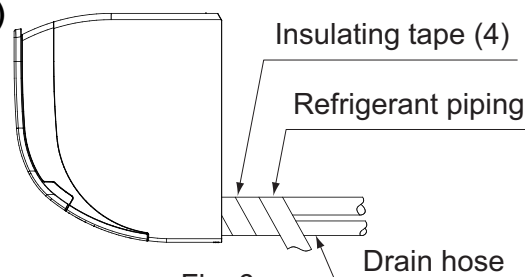


Fig. 6

(4) Making sure not to catch the horizontal flaps, remove the front grille by pulling in the direction of the arrow.

CAUTION

- Remove the cardboard which is placed between filter and heat exchanger. Refer to figure below.

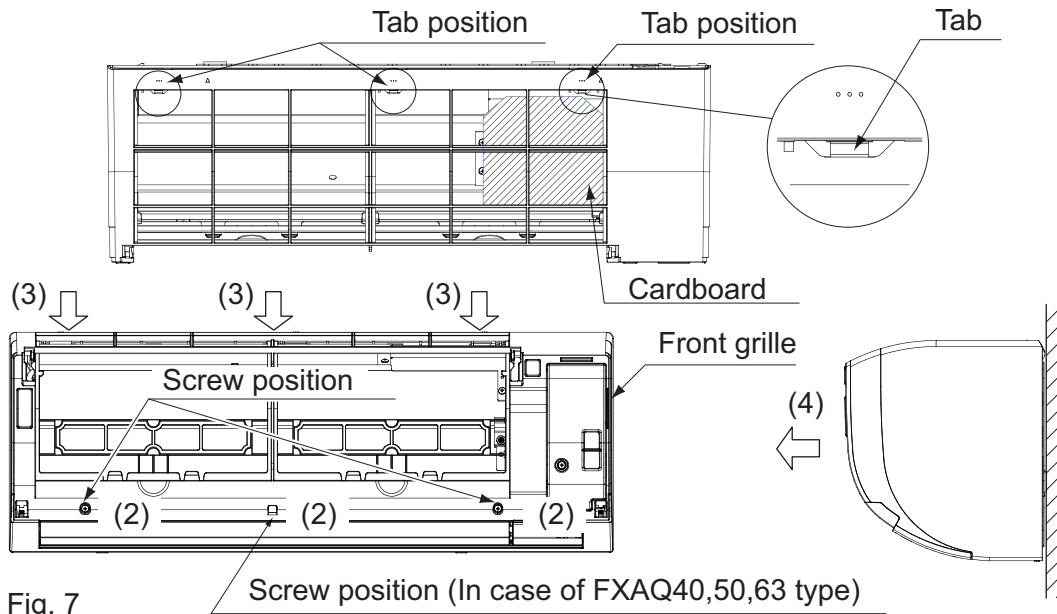


Fig. 7

- Remove the drain plug, the insulation tubing, and the drain hose from the drain pan and replace. (Refer to Fig. 8)
- Connect the local refrigerant piping ahead of time, matching it to the liquid pipe and gas pipe marks engraved on the installation plate (1).

< Replacing the drain hose and drain plug >

- (1) Remove the drain plug and insulation tubing.
- (2) Remove the drain hose and replace onto the left side.
- (3) Replace the drain plug and the insulation tubing onto the right side.

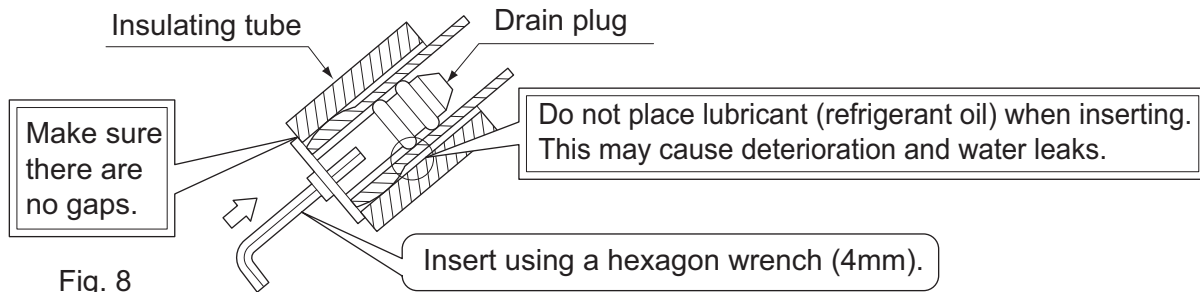


Fig. 8

(6) Hook the indoor unit onto the installation plate. (Refer to Fig. 9)

- Placing buffering material between the wall and the indoor unit at this time will make work easier.

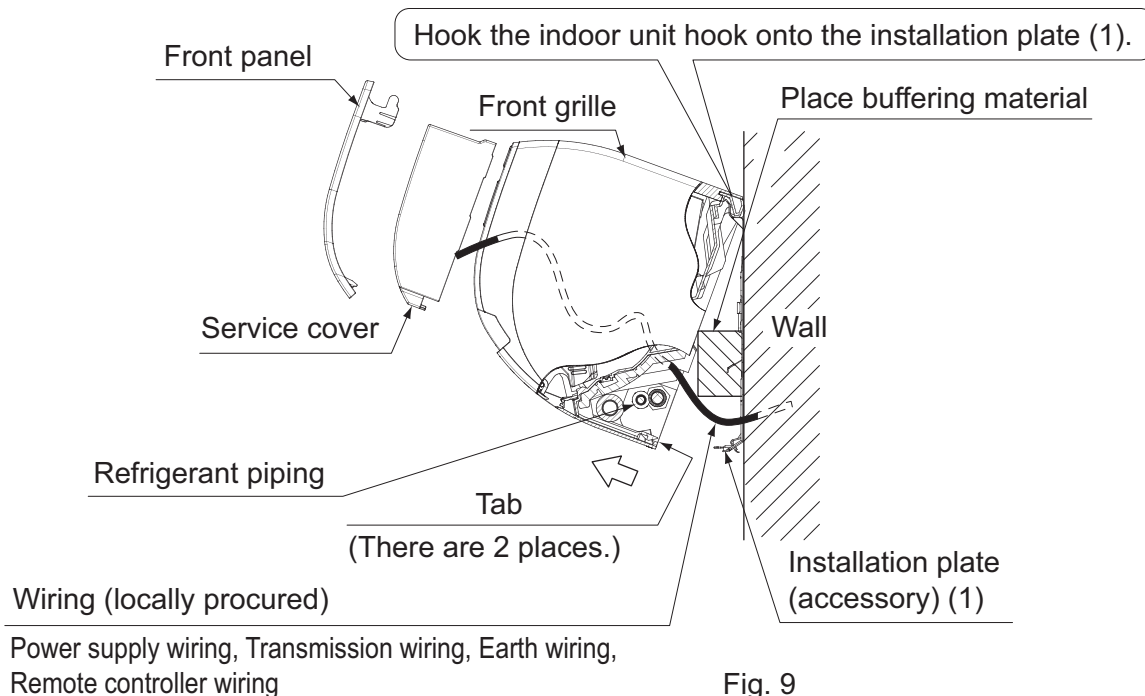


Fig. 9

For right, bottom-right, and back-right piping

- Pass the drain hose and the refrigerant piping to the wall.

(7) Pass power supply wiring, transmission wiring, earth wiring, and remote controller wiring through the wiring guide in from the back of the indoor unit and to the front.

(8) Connect the piping. (See “5.REFRIGERANT PIPING WORK” and Fig. 10)

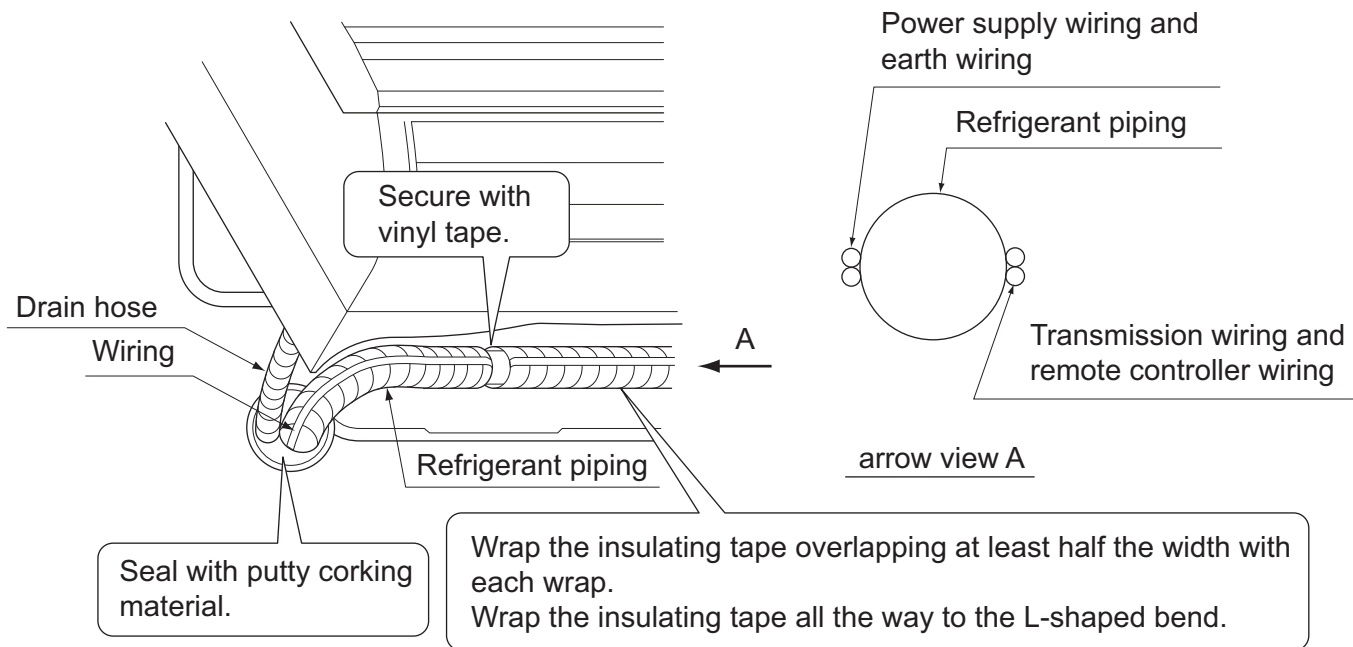


Fig. 10

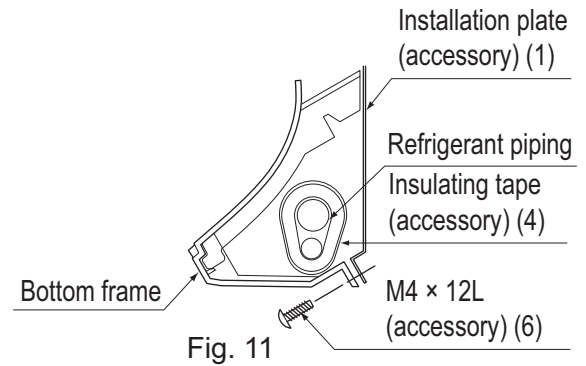
- To avoid the influence of noise from the power supply line on the transmission wiring and the remote controller wiring, these wirings must be kept as far as possible from the power/earth wirings. As shown in the figure, keep the power supply wiring and the earth wiring together. Keep the transmission and remote controller wirings together and route them maintaining a good distance from the power supply/earth wirings (that is, on the other side of the power supply/earth wirings). Then, fix them securely on the refrigerant pipe.
- Seal the piping through-hole with putty corking material.

(9) Push on both bottom edges of the indoor unit using both hands and hook the tab on the back of the indoor unit onto the installation plate (1). (Refer to Fig. 9)

- At this time remove the buffering material placed in step (6).
- Make sure power supply wiring, transmission wiring, earth wiring and remote controller wiring are not caught inside the indoor unit.

■ When screwing in the indoor unit

- Remove the front grille. (Refer to Fig. 7)
- Secure the indoor unit to the installation plate (1) with the securing screws (6). (Refer to Fig. 11)



5. REFRIGERANT PIPING WORK

<For refrigerant piping of outdoor units, see the installation manual attached to the outdoor unit.>

<Execute heat insulation work completely on both sides of the gas piping and the liquid piping.

Otherwise, a water leakage can result sometimes.>

(When using a heat pump, the temperature of the gas piping can reach up to approximately 120°C, so use insulation which is sufficiently resistant.)

<Also, in cases where the temperature and humidity of the refrigerant piping sections might exceed 30°C or RH80 %, reinforce the refrigerant insulation. (20 mm or thicker) Condensation may form on the surface of the insulating material.>

<Before refrigerant piping work, check which type of refrigerant is used. Proper operation is not possible if the types of refrigerant are not the same.>

⚠ CAUTION

- Use a pipe cutter and flare suitable for the type of refrigerant.
 - Apply ester oil or ether oil around the flare section before connecting.
 - To prevent dust, moisture or other foreign matter from infiltrating the tube, either pinch the end or cover it 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.
-
- Do not mix air or other gas with the specified refrigerant in the refrigeration cycle.
 - Ventilate the room if refrigerant gas leaks during the work.
 - The outdoor unit is charged with refrigerant.
 - Use copper alloy seamless pipes (ISO 1337)

- Be sure to use both a spanner and torque wrench together, as shown in the drawing, when connecting or disconnecting pipes to/from the unit. **(Refer to Fig. 12)**
- Refer to “Table 1” for the dimensions of flare nut spaces.
- When connecting the flare nut, coat the flare section (both inside and outside) with ester oil or ether oil, rotate three or four times first, then screw in. **(Refer to Fig. 13)**
- **Keep all the screw mounting resin parts (e.g., piping presser plates) away from oil.**
If oil adheres, the strength of the screw mounting resin parts may drop.

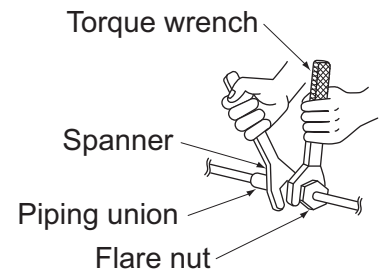


Fig. 12

Apply ester oil or ether oil only inside

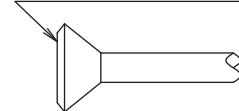


Fig. 13

CAUTION

- Over-tightening may cause the flare nuts to crack or the refrigerant to leak.

NOTE

- Use the flare nut included with the unit main body.

Table 1

| Pipe size | Tightening torque (N·m) | Flare dimensions A (mm) | Flare |
|--------------|-------------------------|-------------------------|--|
| Ø6.4 (1/4") | 14.2 – 17.2 | 8.7 – 9.1 | <p>The diagram shows a cross-section of a flare nut. It indicates a 90-degree angle with a tolerance of ±2 degrees, a 45-degree angle with a tolerance of ±2 degrees, and a fillet radius of R0.4-0.8.</p> |
| Ø9.5 (3/8") | 32.7 – 39.9 | 12.8 – 13.2 | |
| Ø12.7 (1/2") | 49.5 – 60.3 | 16.2 – 16.6 | |
| Ø15.9 (5/8") | 61.8 – 75.4 | 19.3 – 19.7 | |

- Refer to Table 1 to determine the proper tightening torque.

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

CAUTION

CAUTION TO BE TAKEN WHEN BRAZING REFRIGERANT PIPING

“Do not use flux when brazing refrigerant piping. Therefore, use the phosphor copper brazing filler metal (BCuP-2: JIS Z 3264/B-Cu93P-710/795: ISO 3677) which does not require flux.”
(Flux has extremely harmful influence on refrigerant piping systems. For instance, if the chlorine based flux is used, it will cause pipe corrosion or, in particular, if the flux contains fluorine, it will damage the refrigerant oil.)

- Before brazing local refrigerant piping, nitrogen gas shall be blown through the piping to expel air from the piping.
If your brazing is done without nitrogen gas blowing, a large amount of oxide film develops inside the piping, and could cause system malfunction.
- When brazing the refrigerant piping, only begin brazing after having carried out nitrogen substitution or while inserting nitrogen into the refrigerant piping. Once this is done, connect the indoor unit with a flared or a flanged connection.

- Nitrogen should be set to 0.02 MPa with a pressure-reducing valve if brazing while inserting nitrogen into the piping. **(Refer to Fig.14)**

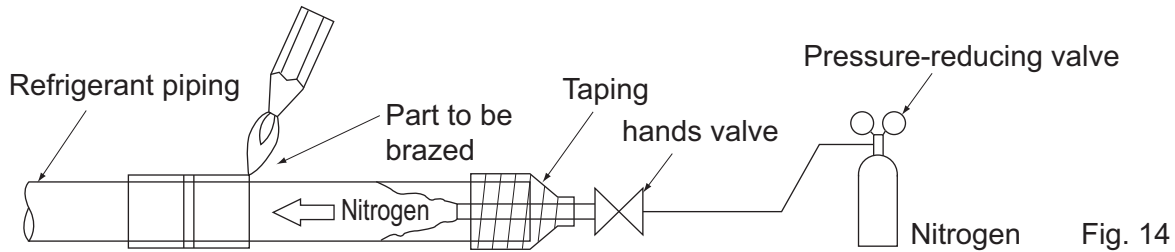


Fig. 14



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.

- After checking for gas leaks, be sure to insulate the pipe connections using the supplementary piping insulation tubing and insulating tape (4). The insulating tape (4) should be wrapped from the L-shaped bend all the way to the end inside the unit. **(Refer to Fig. 15)**

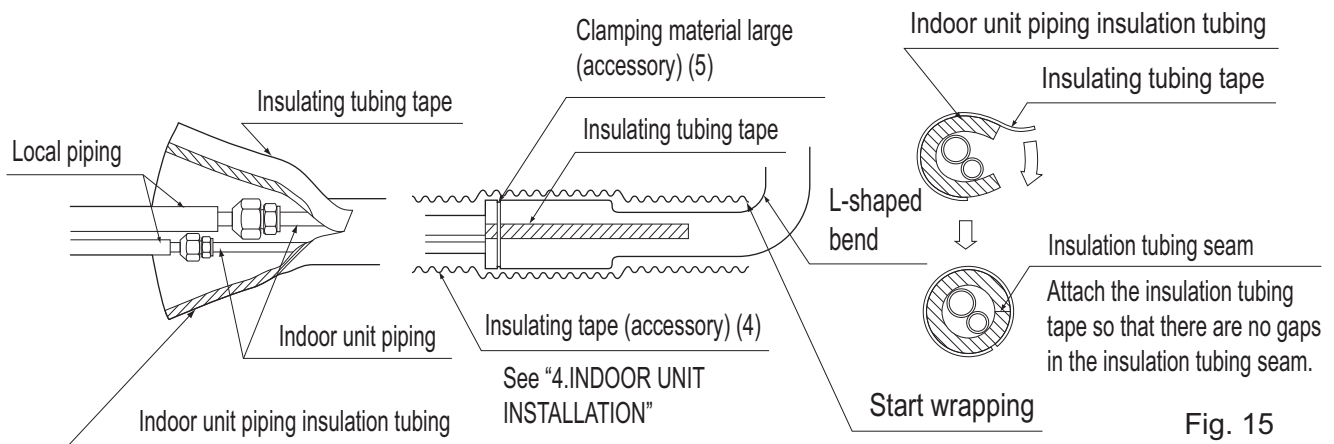


Fig. 15



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.

6. DRAIN PIPING WORK

(1) Install the drain piping. (Refer to Fig. 16)

- The drain pipe should be short with a downward slope and should prevent air pockets from forming.
- Watch out for the points in the Fig. 16 when performing drain work.

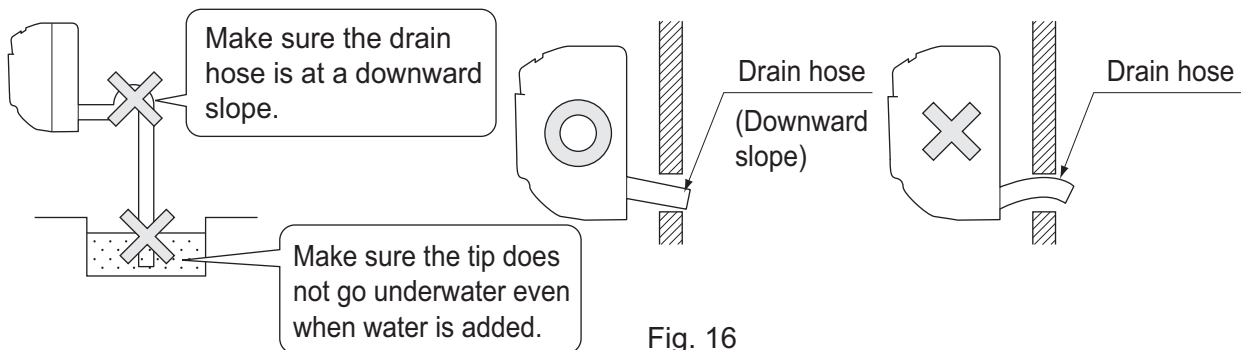


Fig. 16

- When extending the drain hose, use a commercially available drain extension hose, and be sure to insulate the extended section of the drain hose which is indoors. **(Refer to Fig. 17)**

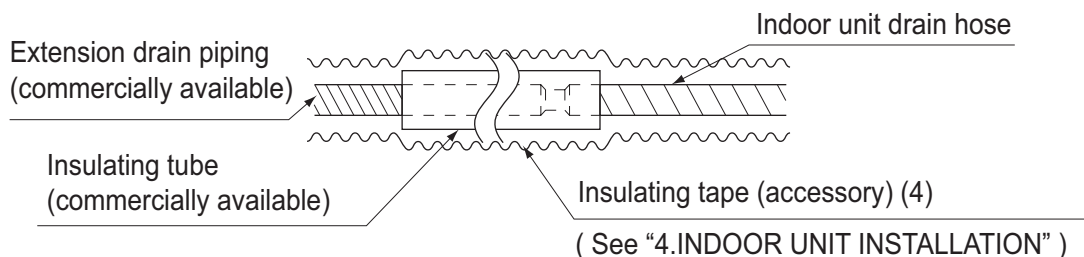
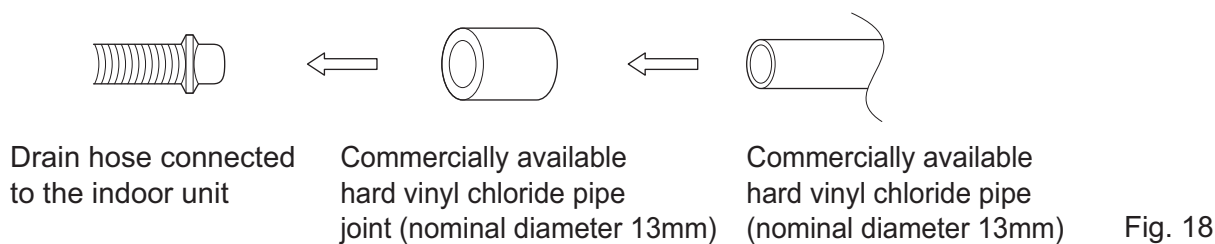


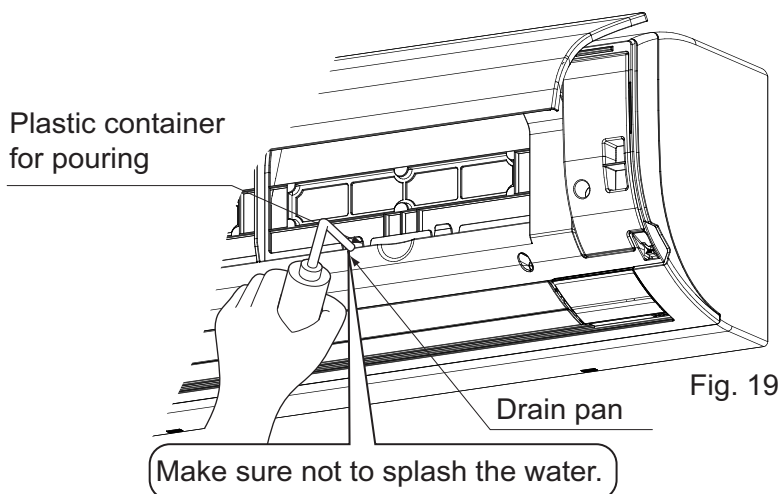
Fig. 17

- Make sure the diameter of the piping is the same as the piping (hard vinyl chloride, nominal diameter 13mm) or bigger.
- When directly connecting a hard vinyl chloride pipe joint (nominal diameter 13mm) to the drain hose connected to the indoor unit (i.e. for embedded piping, etc.), use a commercially available hard vinyl chloride pipe joint (nominal diameter 13mm). **(Refer to Fig. 18)**



(2) Make sure the drain works properly.

- After drain work is complete, perform a drain check by opening the front panel, **removing the air filter**, pouring water into the drain pan, and making sure water flows smoothly out of the drain hose. **(Refer to Fig. 19)**



⚠ CAUTION

- 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.
- Keep in mind that it will become the cause of getting drain pipe blocked if water collects on drain pipe.

7. ELECTRIC WIRING WORK

7-1 GENERAL INSTRUCTIONS

- All field supplied parts and materials and electric works must conform to local codes.
- Use copper wire only.
- For electric wiring work, refer to also "WIRING DIAGRAM" attached to the unit body.
- For remote controller wiring details, refer to the installation manual attached to the remote controller.
- All wiring must be performed by an authorized electrician.
- This system consists of multiple indoor units. Mark each indoor unit as unit A, unit B..., and be sure the terminal board wiring to the outdoor unit and BS unit are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.

- A main switch or other means for disconnection, having a contact separation in all poles, must be incorporated in the fixed wiring in accordance with relevant local and national legislation.
Note that the operation will restart automatically if the main power supply is turned off and then turned back on again.
- Refer to the installation manual attached to the outdoor unit for the size of power supply wiring connected to the outdoor unit, the capacity of the circuit breaker and switch, and wiring instructions.
- Be sure to earth the air conditioner.
- Do not connect the earth wire to gas pipes, water pipes, lightning rods, or telephone earth wires.
 - Gas pipes: might cause explosions or fire if gas leaks.
 - Water pipes: no earthing effect if hard vinyl piping is used.
 - Telephone earth wires or lightning rods: might cause abnormally high electric potential in the earth during lightning storms.

7-2 ELECTRICAL CHARACTERISTICS

| Units | | | | Power supply | | Fan motor | |
|-------------|----|-----------|----------------------|--------------|-----|-----------|-----|
| Model | Hz | Volts | Voltage range | MCA | MFA | kW | FLA |
| FXAQ15AUV1B | 50 | 220 - 240 | Max. 264 Min. 198 | 0.3 | 16 | 0.040 | 0.2 |
| FXAQ20AUV1B | | | | 0.3 | 16 | 0.040 | 0.2 |
| FXAQ25AUV1B | | | | 0.4 | 16 | 0.040 | 0.3 |
| FXAQ32AUV1B | | | | 0.4 | 16 | 0.040 | 0.3 |
| FXAQ40AUV1B | | | | 0.4 | 16 | 0.043 | 0.3 |
| FXAQ50AUV1B | | | | 0.5 | 16 | 0.043 | 0.4 |
| FXAQ63AUV1B | | | | 0.7 | 16 | 0.043 | 0.5 |


MCA: Min. Circuit Amps (A);

MFA: Max. Fuse Amps (A)

kW: Fan Motor Rated Output (kW);

FLA: Full Load Amps (A)

7-3 SPECIFICATIONS FOR FIELD SUPPLIED FUSES AND WIRE

| Model | Power supply wiring | | | Remote controller wiring Transmission wiring | |
|-------------|--|-------------|--|---|-----------------------------|
| | Field fuses  | Wire | Size | Wire | Size |
| FXAQ15AUV1B | 16A | H05VV - U3G | Wire size and length must comply with local codes. | Vinyl cord with sheath or cable (2 wire) | 0.75 - 1.25 mm ² |
| FXAQ20AUV1B | | | | | |
| FXAQ25AUV1B | | | | | |
| FXAQ32AUV1B | | | | | |
| FXAQ40AUV1B | | | | | |
| FXAQ50AUV1B | | | | | |
| FXAQ63AUV1B | | | | | |

Allowable length of transmission wirings and remote controller wiring are as follows.

(1) Outdoor unit - Indoor unit: Max. 1000m (Max. wiring length: 2000m)

(2) Indoor unit - Remote controller: Max. 500m

NOTE

1. Shows only in case of protected pipes. Use H07RN-F in case of no protection.
2. Vinyl cord with sheath or cable (Insulated thickness : 1mm or more)

CAUTION

- Arrange the wires and fix a cover firmly so that the cover does not float during wiring work.
- Do not clamp remote controller wiring and transmission wiring together with power supply wiring. Doing so may cause malfunction.
- Remote controller wiring and transmission wiring should be located at least 50 mm from power supply wiring. Not following this guideline may result in malfunction due to electrical noise.

8. HOW TO CONNECT WIRINGS AND WIRING EXAMPLE

8-1 HOW TO CONNECT WIRINGS

Methods of wiring power supply, units and connecting remote controller wiring

- Power supply wiring and earth wire
 Unscrew and remove the service cover.
 Connect the power supply wiring and earth wiring to the power supply terminal block (3P).
 When doing this, tie the power supply wiring and the earth wiring using the included clamp (small) (5) and then firmly secure using the included clamp (small) (5) according to the figure.
(Refer to Fig. 21)
- Transmission wiring and remote controller wiring
 Unscrew and remove the service cover.
 Connect the remote controller wiring and the transmission wiring to the terminal block (6P).
 When doing this, tie the remote controller wiring and the transmission wiring using the included clamp (small) (5) and then firmly secure using the included clamp (small) (5) according to the figure. **(Refer to Fig. 21)**
- Be sure to attach it to prevent the infiltration of water as well as any insects and other small creatures from the outside. Otherwise a short-circuit may occur inside the control box.

[PRECAUTIONS]

Observe the notes mentioned below when wiring to the power supply terminal block and terminal block for remote controller.

Tightening torque for the terminal blocks

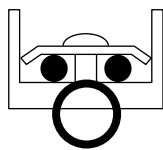
- Use the correct screwdriver for tightening the terminal screws. If the blade of screwdriver is too small, the head of the screw might be damaged, and the screw will not be properly tightened.
- If the terminal screws are tightened too hard, screws might be damaged.
- Refer to the table below for the tightening torque of the terminal screws.

| | Size | Tightening torque (N·m) |
|--|------|-------------------------|
| Terminal block for remote controller (6P) | M3.5 | 0.79 - 0.97 |
| Power supply and Earth terminal block (3P) | M4 | 1.18 - 1.44 |

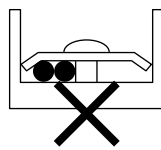
When none are available, follow the instructions below.

Do not connect wires of different gauge to the same earth terminal.

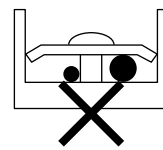
Connect wires of the same gauge to both side.



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



Do not connect wires of different gauges.



Looseness in the connection may deteriorate protection.

Precautions to be taken for power supply wiring

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

Be sure to peel off the sheath of power supply wiring more than 40 mm. **(Refer to Fig. 20)**

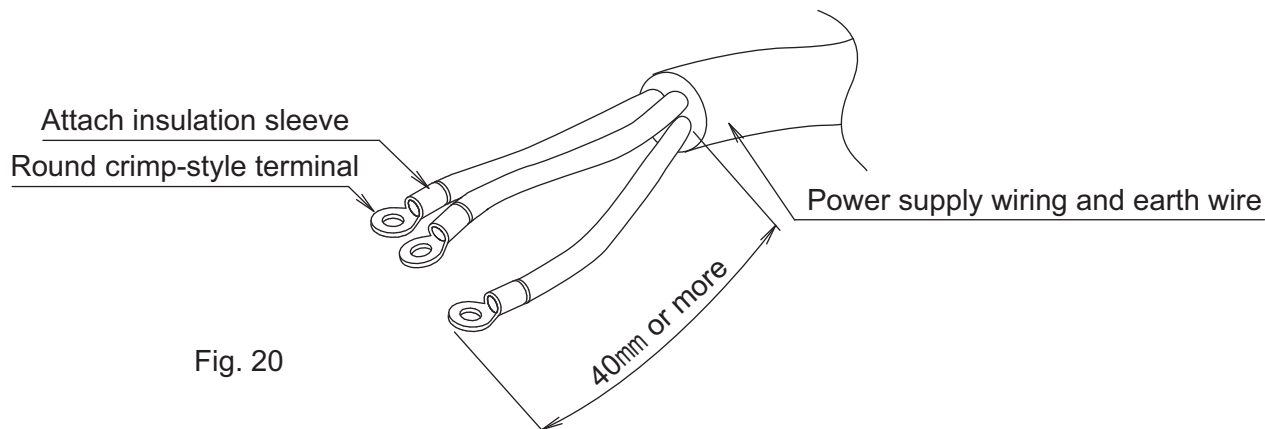


Fig. 20

- For remote controller wiring, refer to the “INSTALLATION MANUAL OF REMOTE CONTROLLER.” attached to the remote controller.
- **Never connect power supply wiring to the terminal block for remote controller. A mistake of the sort could damage the entire system.**
- Use only specified wire and tightly connect wires to terminals. Be careful wires do not place external stress on terminals. Keep wiring in neat order and so as not to obstruct other equipment such as popping open the control box cover. Make sure the cover closes tight. Incomplete connections could result in overheating, and in worse case, electric shock or fire.

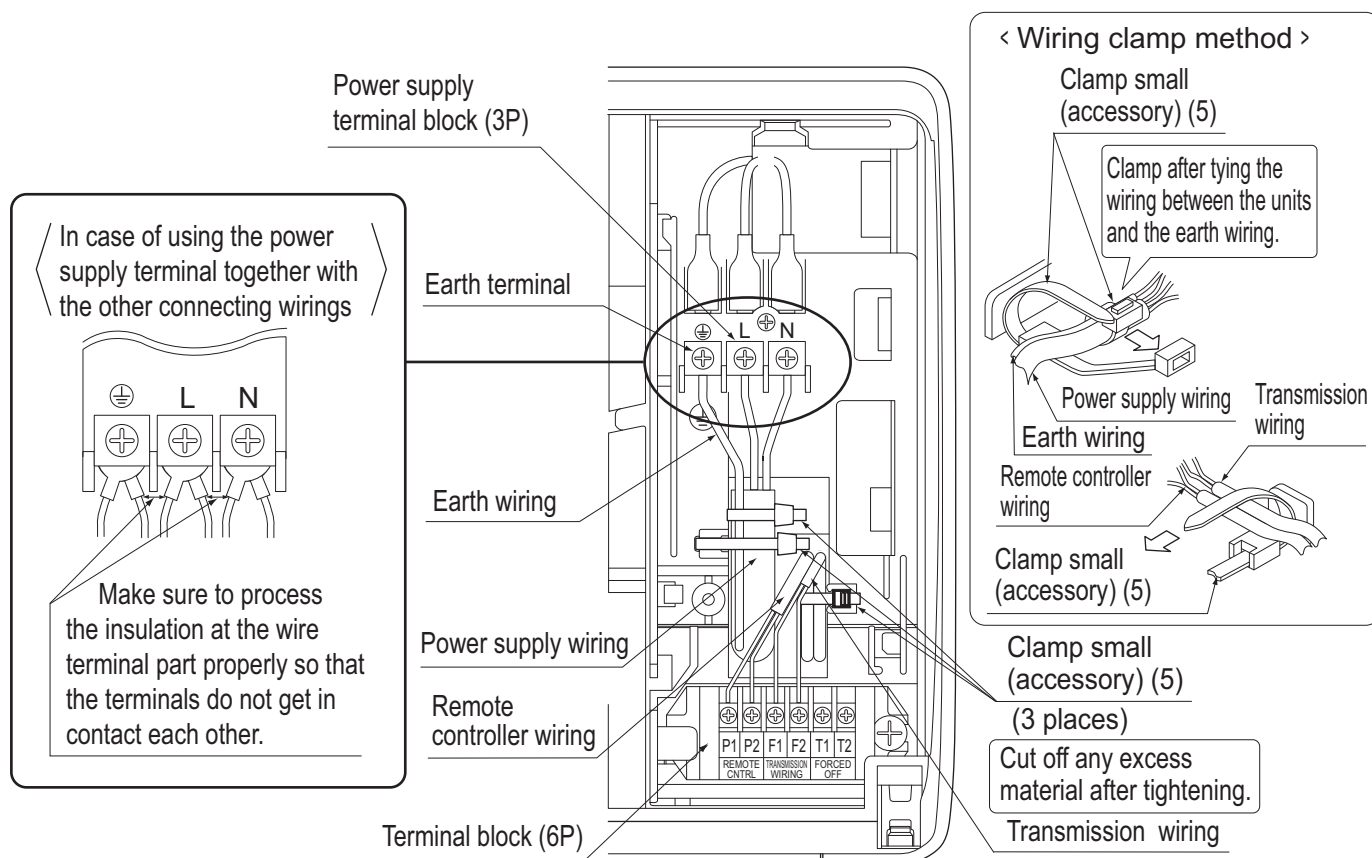


Fig. 21



CAUTION

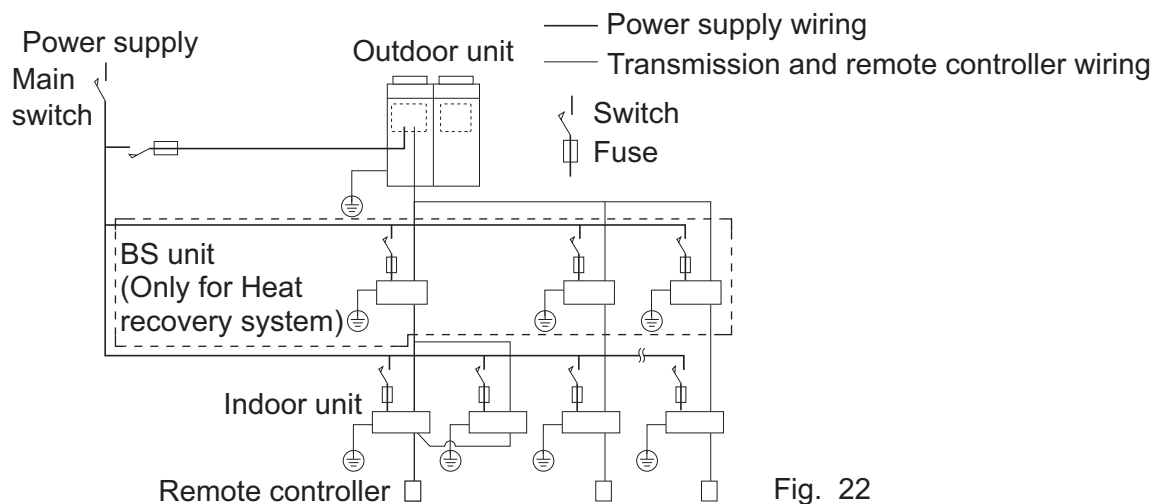
- Be sure to attach the sealing material and putty (field supplied) to hole of wiring to prevent the infiltration of water as well as any insects and other small creatures from outside. Otherwise a short-circuit may occur inside the control box.

- When clamping the wirings, be sure no pressure is applied to the wire connections by using the included clamp to make appropriate clamps. Also, when wiring, make sure the cover on the control box fits snugly by arranging the wirings neatly and attaching the service cover firmly. When attaching the service cover, make sure no wirings get caught in the edges. Pass wiring through the wiring through holes to prevent damage to them.
- Make sure the remote controller wiring, and transmission wiring between the units, and other electrical wiring do not pass through the same locations outside the machine, separating them by at least 50mm, otherwise electrical noise (external static) could cause mistaken operation or breakage.
- Use only specified wire and tightly connect wires to terminals. Be careful wires do not place external stress on terminals. Keep wiring in neat order and so as not to obstruct other equipment such as popping open the service cover. Make sure the cover closes tight. Incomplete connections could result in overheating, and in worse case, electric shock or fire.

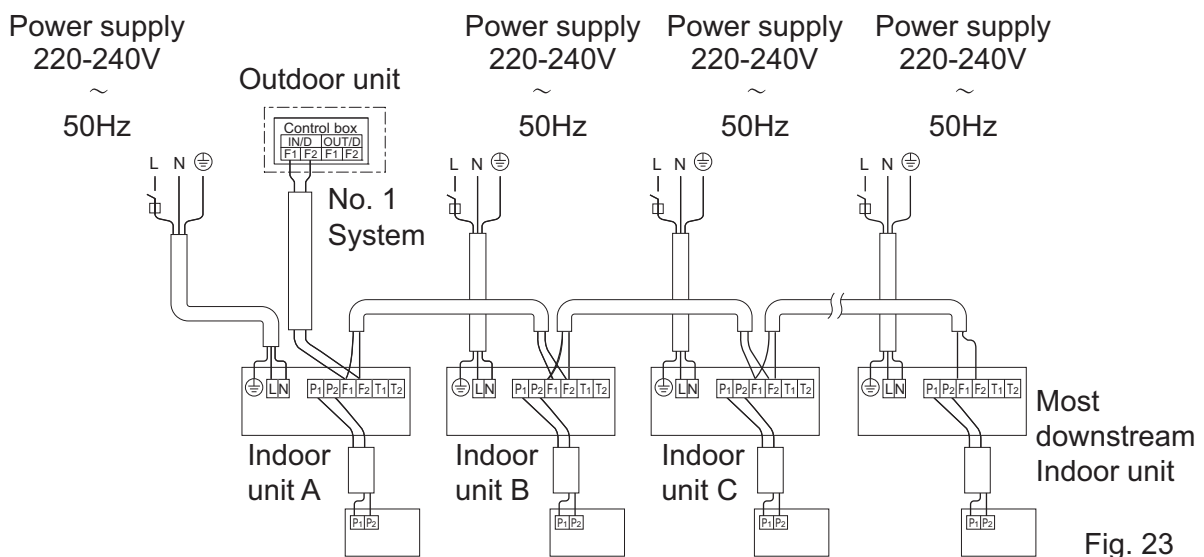
8-2 WIRING EXAMPLE

- Fit the power supply wiring of each unit with a switch and fuse as shown in the drawing.

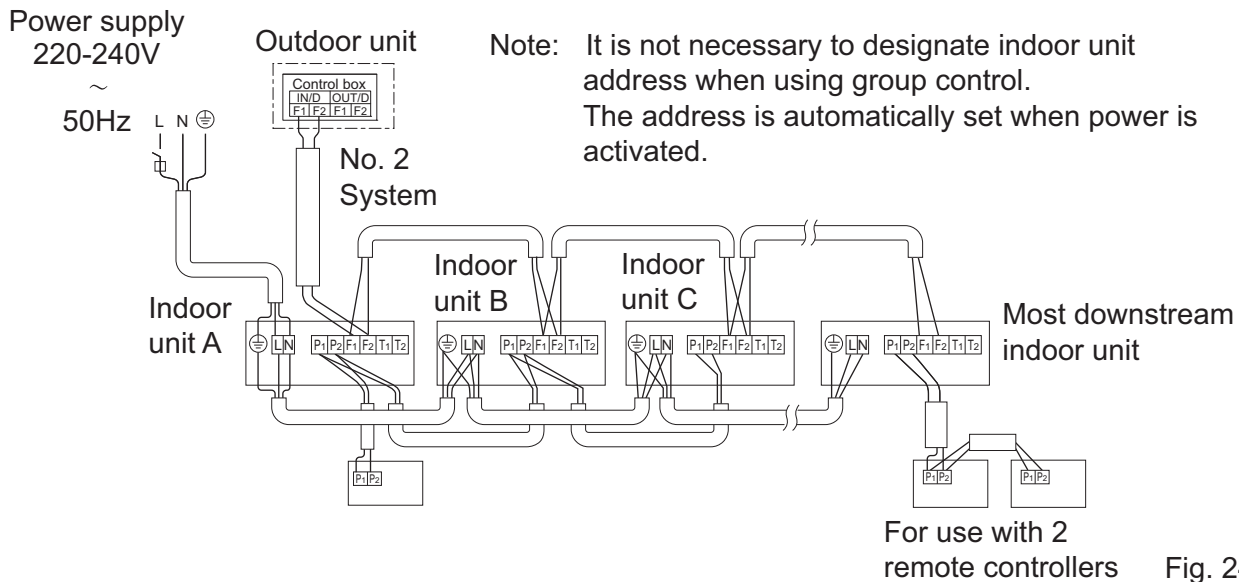
COMPLETE SYSTEM EXAMPLE (3 systems)



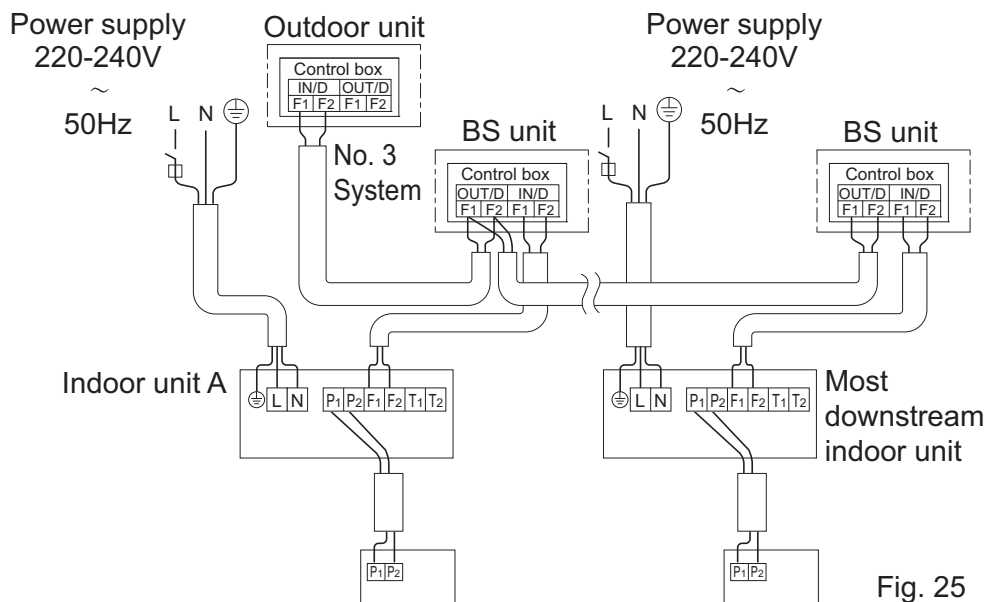
1. When using 1 remote controller for 1 indoor unit. (Normal operation)



2. For group control or use with 2 remote controllers



3. When including BS unit



[PRECAUTIONS]

1. All transmission wiring except for the remote controller wires is polarized and must match the terminal symbol.
2. A single switch can be used to supply power to units on the same system. However, branch switches and branch circuit breakers must be selected carefully.
3. Do not earth the equipment on gas pipes, water pipes or lightning rods, or cross earth with telephones. Improper earthing could result in electric shock.

8-3 CONTROL BY 2 REMOTE CONTROLLERS (CONTROLLING 1 INDOOR UNIT BY 2 REMOTE CONTROLLERS)

- When using 2 remote controllers, one must be set to “MAIN” and the other to “SUB”.

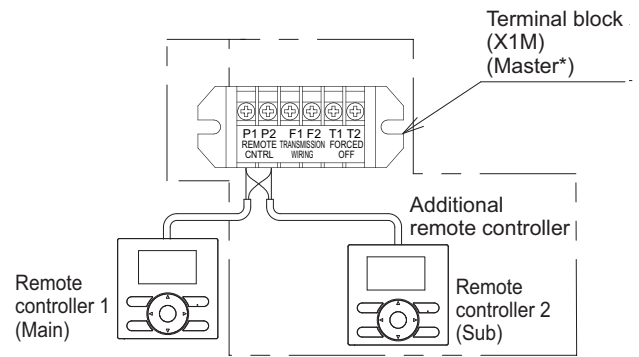
MAIN/SUB CHANGEOVER

- Refer to the manual attached to the remote controller.

Wiring Method

- (1) Remove the control box cover.

(2) Add wiring between the remote controller 2 (Sub) and the terminal (P1, P2) of the terminal block (X1M) for the remote controller in the control box. (There is no polarity.)



* For simultaneous operation system, be sure to connect the remote controller to the master unit.

Fig. 26

NOTE

- Terminal numbers of outdoor and indoor units must match.

8-4 COMPUTERISED CONTROL (FORCED OFF AND ON/OFF OPERATION)

(1) Wire specifications and how to perform wiring

- Connect the input from outside to terminals T1 and T2 of the terminal block (6P) for remote controller.

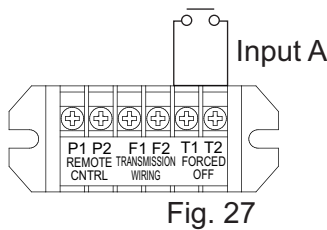


Fig. 27

| | |
|--------------------|--|
| Wire specification | Sheathed vinyl cord or cable (2 wire) |
| Gauge | 0.75 - 1.25 mm ² |
| Length | Max. 100 m |
| External terminal | Contact that can ensure the minimum applicable load of 15V DC, 1 mA. |

(2) Actuation

- The following table explains FORCED OFF and ON/OFF OPERATIONS in response to Input A.

| FORCED OFF | ON/OFF OPERATION |
|--|--------------------------------|
| Input ON stops operation (impossible by remote controllers). | Input OFF → ON turns ON unit. |
| Input OFF enables control by remote controller. | Input ON → OFF turns OFF unit. |

(3) How to select FORCED OFF and ON/OFF OPERATION

- Turn the power on and then use the remote controller to select operation.

8-5 CENTRALIZED CONTROL

- For centralized control, it is necessary to designate the group No. For details, refer to the manual of each optional controllers for centralized control.

When implementing group control

- When using as a pair unit or as a master unit for simultaneous multiple unit operation, you may carry out simultaneous start/stop (group) control up to 16 units with the remote controller. **(Refer to Fig. 28)**
- In this case, all the indoor units in the group will operate in accordance with the group control remote controller.
- The thermistor reading of room temperature is effective only for the indoor unit connected to the remote controller.

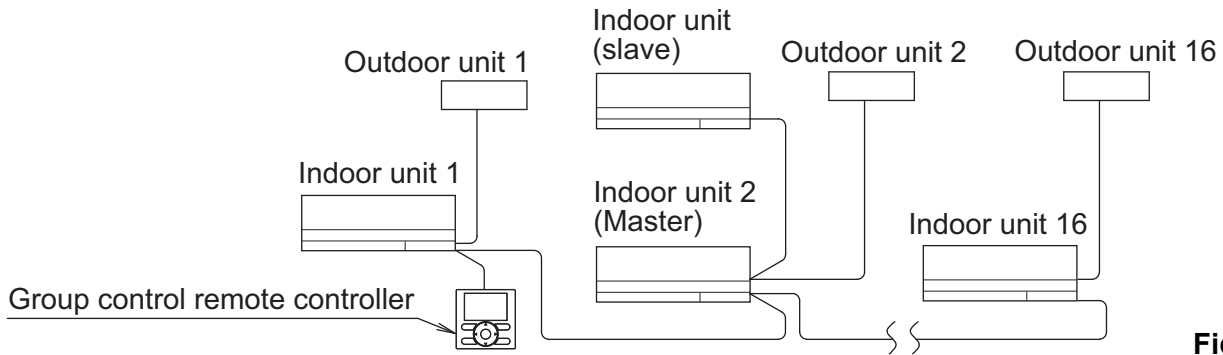


Fig. 28

Wiring Method

- (1) Remove the control box cover. (Refer to “5. INDOOR UNIT INSTALLATION”.)
- (2) Lay crossover between the terminals (P1, P2) inside the control box for the remote controller. (There is no polarity.) **(Refer to Fig. 29)**

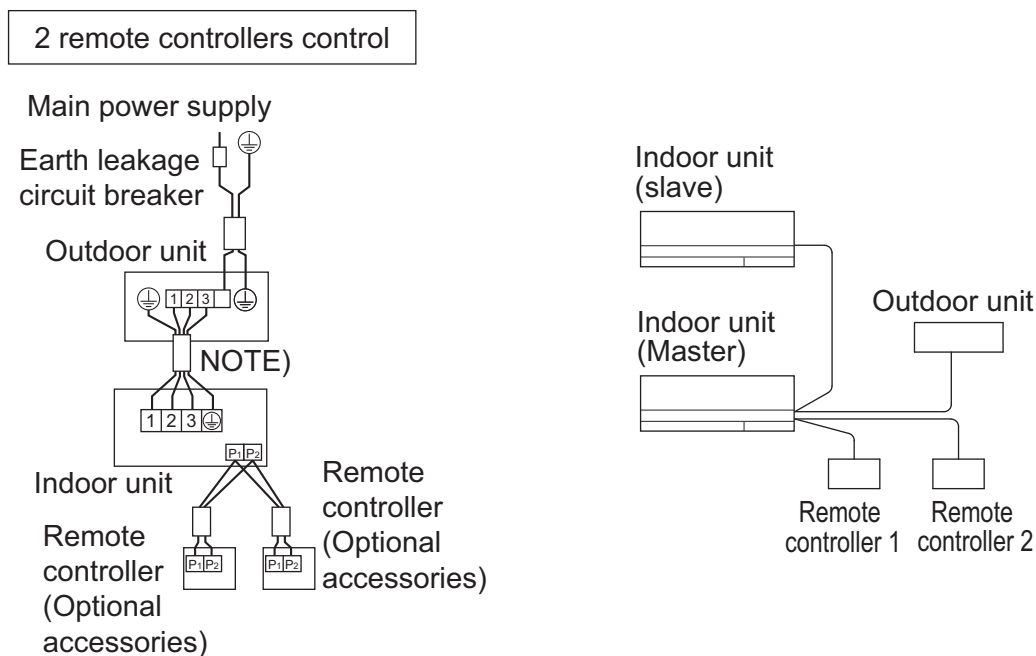


Fig. 29

NOTE

- Terminal numbers of outdoor and indoor units must match.

9. FIELD SETTINGS

(1) Make sure the service covers are closed on the indoor and outdoor units.

(2) Field settings must be made from the remote controller and in accordance with installation conditions.

- Settings can be made by changing the “Mode No”, “FIRST CODE NO.” and “SECOND CODE NO.”.
- The “Field Settings” included with the remote control lists the order of the settings and method of operation.
*Setting is made in all units in a group. To set for individual indoor units or to check the setting, use the mode Nos. (with “2” in upper digit) in parentheses ().

9-1 SETTING AIR FILTER SIGN

- Remote controllers are equipped with liquid crystal display air filter signs to display the time to clean air filters.
- Change the SECOND CODE NO. according to Table 2 depending on the amount of dirt or dust in the room. (SECOND CODE NO. is factory set to “01” for air filter contamination-light)

Table 2

| Setting | Spacing time of display air filter sign | Mode No. | FIRST CODE NO. | SECOND CODE NO. |
|--------------------------------|---|----------|----------------|-----------------|
| Air filter contamination-light | Approx. 200 hrs | 10 (20) | 0 | 01 |
| Air filter contamination-heavy | Approx. 100 hrs | | | 02 |

9-2 SETTING AIR FLOWRATE INCREASE MODE

- It is possible to raise set airflow (HIGH and LOW) from the field. Change the SECOND CODE NO. as shown in Table 3 to suit your needs. (SECOND CODE NO. is factory set to “01” for Standard.)

Table 3

| Setting | Mode No. | FIRST CODE NO. | SECOND CODE NO. |
|-------------------|----------|----------------|-----------------|
| Standard | 13 (23) | 0 | 01 |
| A little increase | | | 02 |
| Increase | | | 03 |

<When using wireless remote controllers>

- When using wireless remote controllers, wireless remote controller address setting is necessary. Refer to the installation manual attached to the wireless remote controller for setting instructions.
 - Set the remote controller to the field set mode. For details, refer to the “HOW TO SET IN THE FIELD”, in the remote controller manual.
 - When in the field set mode, select mode No. 12, then set the first code (switch) No. to “1”. Then set second code (position) No. to “01” for FORCED OFF and “02” for ON/OFF OPERATION. (FORCED OFF at factory set) **(Refer to Fig. 30)**

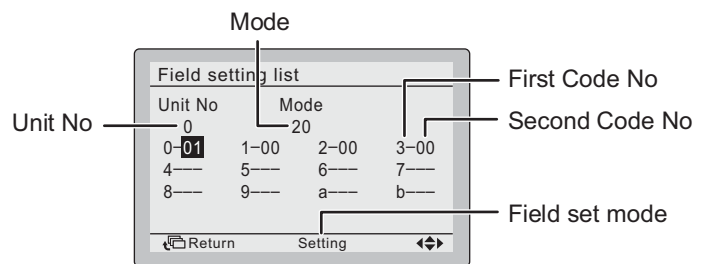


Fig. 30


10. TEST OPERATION

Make sure the service covers are closed on the indoor and outdoor units.

Refer to the installation manual of the outdoor unit.

- The operation lamp of the remote controller will flash when an malfunction occurs. Check the malfunction code on the liquid crystal display to identify the point of trouble. An explanation of malfunction codes and the corresponding trouble is provided in the installation manual of the outdoor unit or the service manual. If any of the items in Table 4 are displayed, there may be a problem with the wiring or power, so check the wiring again.

Table 4





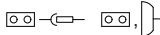











| Remote controller display | Content |
|---|---|
| “  ” is lit up | <ul style="list-style-type: none"> • There is a short circuit at the FORCED OFF terminals (T1, T2). |
| “U4” is lit up “UH” is lit up | <ul style="list-style-type: none"> • The power on the outdoor unit is off. • The outdoor unit has not been wired for power supply. • Incorrect wiring for the transmission wiring and/or FORCED OFF wiring. • The branch wiring is cut. |
| No display | <ul style="list-style-type: none"> • The power on the indoor unit is off. • The indoor unit has not been wired for power supply. • Incorrect wiring for the remote controller wiring, the transmission wiring, and/or the FORCED OFF wiring. • The remote controller wiring is cut. |

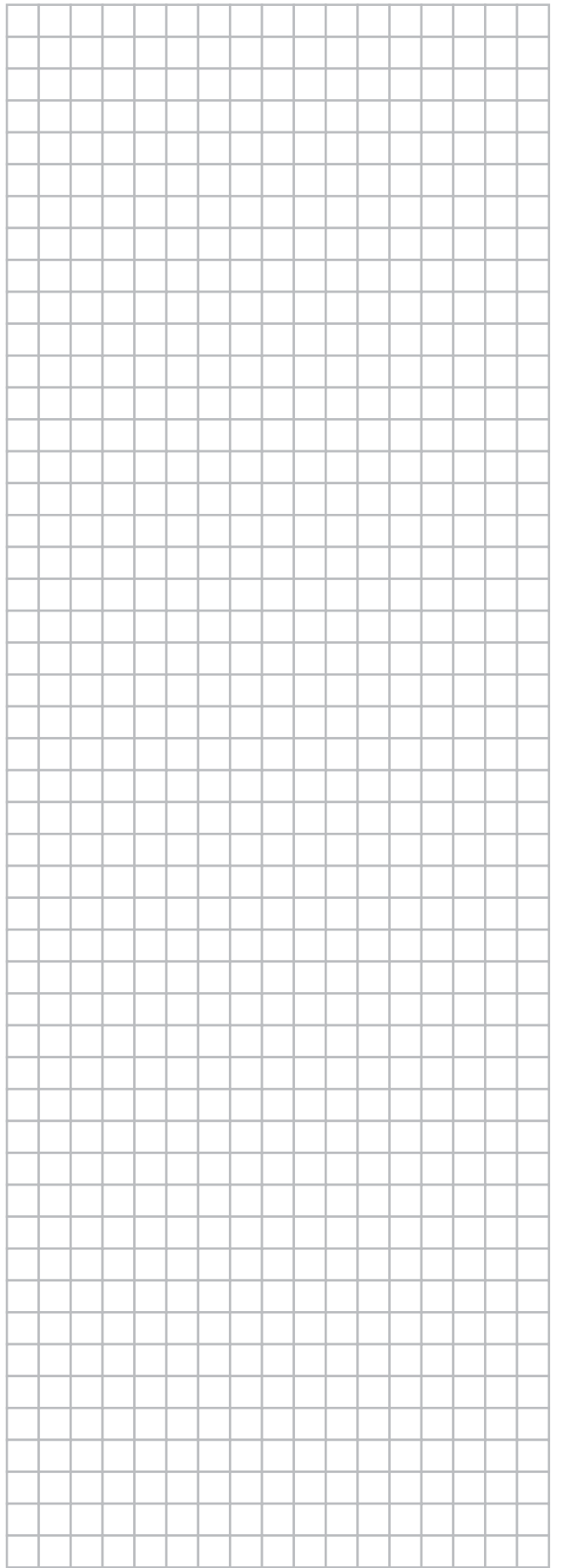
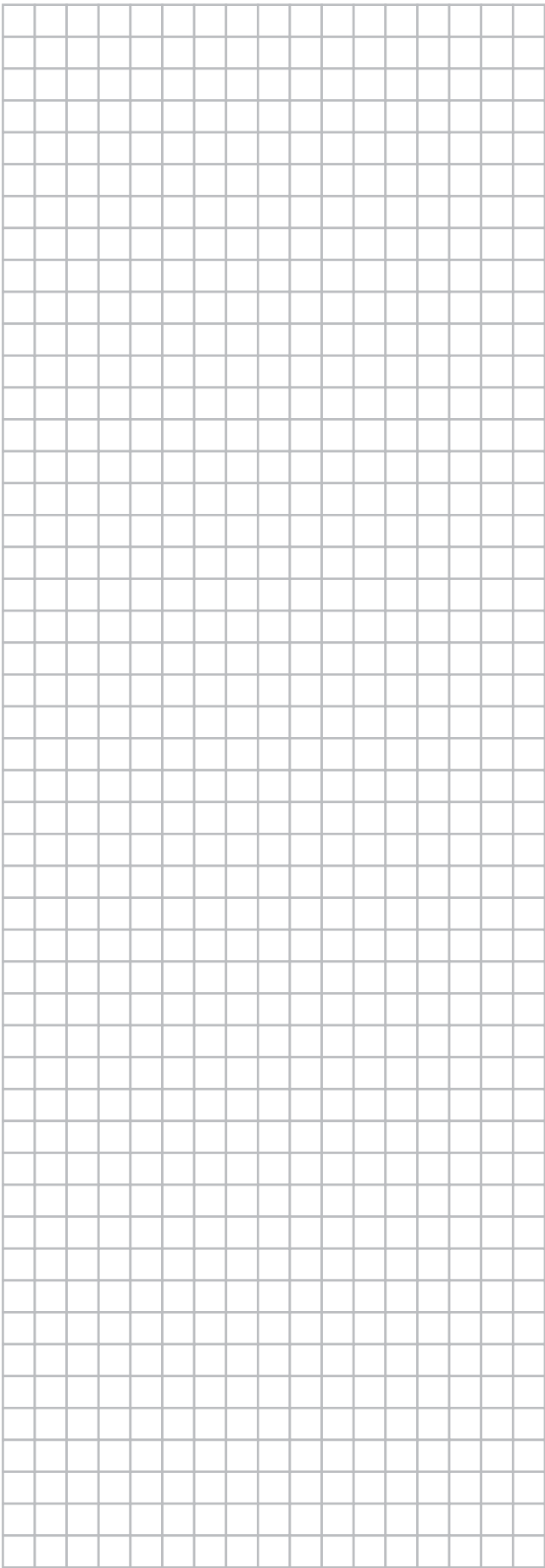
- In order to protect the indoor unit, instruct the customer not to operate the air conditioner until the interior work is completed if the interior work has not been finished at the end of the test run. (If the air conditioner is operated, substances discharged from the paint, adhesive, etc. can contaminate the indoor unit, and they may cause splashing or leakage of water.)

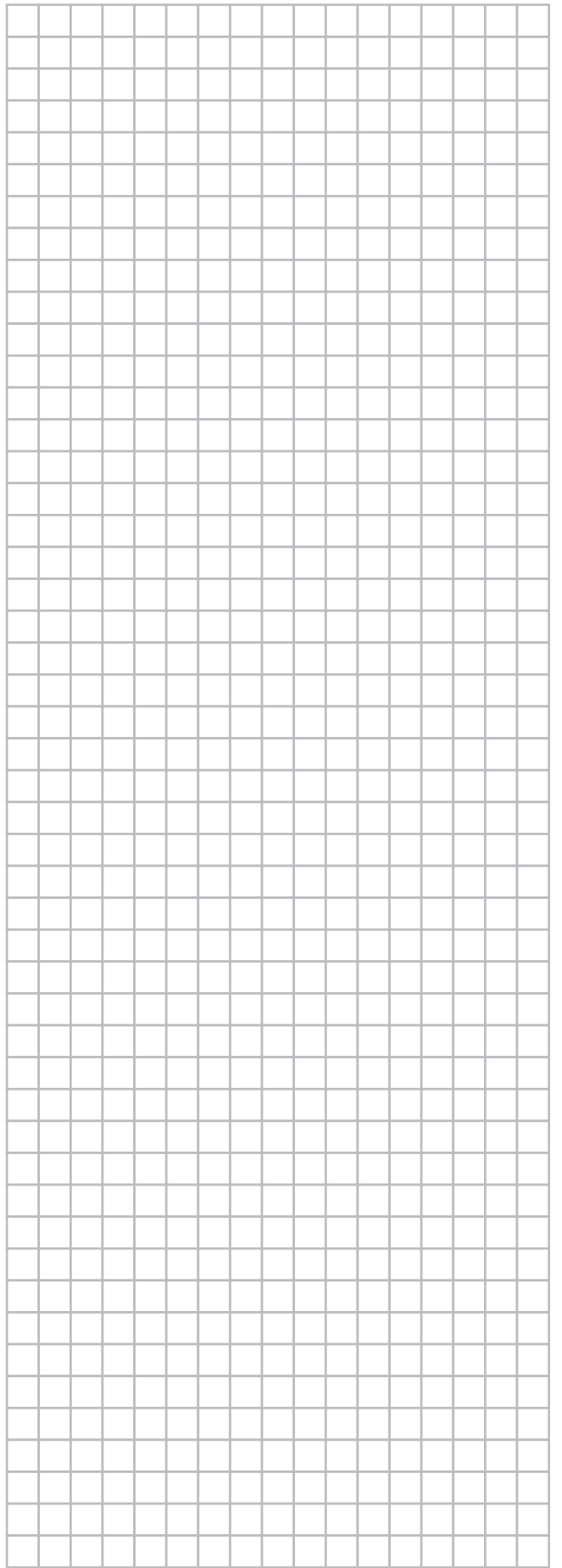
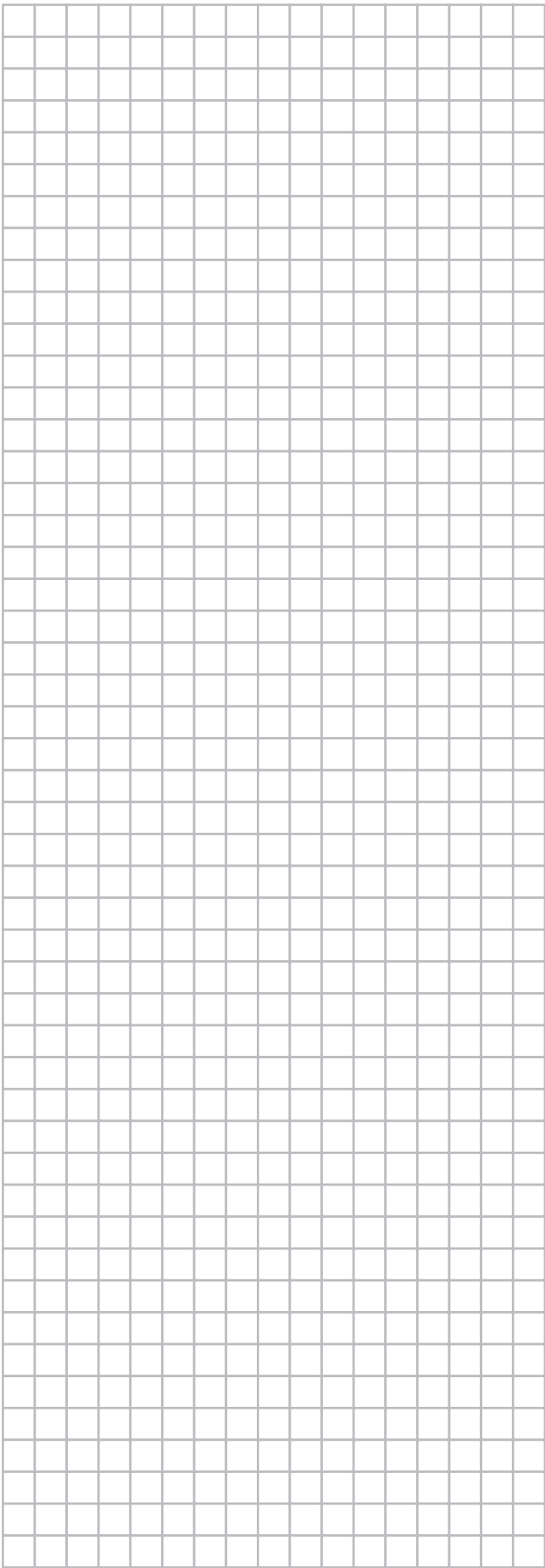
NOTE

- After the test run is finished, check the items listed in “**b. Items to be checked at time of delivery**”.

11. WIRING DIAGRAM

| Unified Wiring Diagram Legend | | | |
|---|--|---|--|
| 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. | | | |
|  | : CIRCUIT BREAKER |  | : PROTECTIVE EARTH |
|  | : CONNECTION |  | : PROTECTIVE EARTH (SCREW) |
|  | : CONNECTOR |  | : RECTIFIER |
|  | : EARTH |  | : RELAY CONNECTOR |
|  | : FIELD WIRING |  | : SHORT CIRCUIT CONNECTOR |
|  | : FUSE |  | : TERMINAL |
|  | : INDOOR UNIT |  | : TERMINAL STRIP |
|  | : OUTDOOR UNIT |  | : 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 | PS | : SWITCHING POWER SUPPLY |
| BS* | : PUSH BUTTON ON / OFF, OPERATION SWITCH | PTC* | : THERMISTOR PTC |
| BZ, H*O | : BUZZER | Q* | : INSULATED GATE BIPOLAR TRANSISTOR (IGBT) |
| C* | : CAPACITOR | Q*DI | : EARTH LEAK CIRCUIT BREAKER |
| AC*, CN*, E*, HA*, HE, HL*, HN*, HR*, MR*_A, MR*_B, S*, U, V, W, X*A, K*R_* | : CONNECTION, CONNECTOR | Q*L | : OVERLOAD PROTECTOR |
| D*, V*D | : DIODE | Q*M | : THERMO SWITCH |
| DB* | : DIODE BRIDGE | R* | : RESISTOR |
| DS* | : DIP SWITCH | R*T | : THERMISTOR |
| E*H | : HEATER | RC | : RECEIVER |
| F*U, FU* (FOR CHARACTERISTICS REFER TO PCB INSIDE YOUR UNIT) | : FUSE | S*C | : LIMIT SWITCH |
| FG* | : CONNECTOR (FRAME GROUND) | S*L | : FLOAT SWITCH |
| H* | : HARNESS | S*NPH | : PRESSURE SENSOR (HIGH) |
| H*P, LED*, V*L | : PILOT LAMP, LIGHT EMITTING DIODE | S*NPL | : PRESSURE SENSOR (LOW) |
| HAP | : LIGHT EMITTING DIODE (SERVICE MONITOR GREEN) | S*PH, HPS* | : PRESSURE SWITCH (HIGH) |
| HIGH VOLTAGE | : HIGH VOLTAGE | 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, K*M | : MAGNETIC RELAY | SA*, F1S | : 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) |
| n = *, N = * | : NUMBER OF PASSES THROUGH FERRITE CORE | Y*E | : ELECTRONIC EXPANSION VALVE COIL |
| PAM | : PULSE-AMPLITUDE MODULATION | Y*R, Y*S | : REVERSING SOLENOID VALVE COIL |
| PCB* | : PRINTED CIRCUIT BOARD | Z*C | : FERRITE CORE |
| PM* | : POWER MODULE | ZF, Z*F | : NOISE FILTER |





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