

**SPLIT SYSTEM****Air Conditioners**

MODELS  
(Wall mounted type)

**FAY71LVE****FAYP71LV1****FAQ71BUV1B**

READ THESE INSTRUCTIONS CAREFULLY BEFORE INSTALLATION.  
KEEP THIS MANUAL IN A HANDY PLACE FOR FUTURE REFERENCE.

LESEN SIE DIESE ANWEISUNGEN VOR DER INSTALLATION SORGFÄLTIG DURCH.  
BEWAHREN SIE DIESE ANLEITUNG FÜR SPÄTERE BEZUGNAHME GRIFFBEREIT AUF.

LIRE SOIGNEUSEMENT CES INSTRUCTIONS AVANT L'INSTALLATION.  
CONSERVER CE MANUEL A PORTEE DE MAIN POUR REFERENCE ULTERIEURE.

LEA CUIDADOSAMENTE ESTAS INSTRUCCIONES ANTES DE INSTALAR.  
GUARDE ESTE MANUAL EN UN LUGAR A MANO PARA LEER EN CASO DE TENER  
ALGUNA DUDA.

PRIMA DELL'INSTALLAZIONE LEGGERE ATTENTAMENTE QUESTE ISTRUZIONI.  
TENERE QUESTO MANUALE A PORTATA DI MANO PER RIFERIMENTI FUTURI.

ΔΙΑΒΑΣΤΕ ΠΡΟΣΕΚΤΙΚΑ ΑΥΤΕΣ ΤΙΣ ΟΔΗΓΙΕΣ ΠΡΙΝ ΑΠΟ ΤΗΝ ΕΓΚΑΤΑΣΤΑΣΗ ΕΧΕΤΕ ΑΥΤΟ  
ΤΟ ΕΓΧΕΙΡΙΔΙΟ ΕΥΚΑΙΡΟ ΓΙΑ ΝΑ ΤΟ ΣΥΜΒΟΥΛΕΥΕΣΤΕ ΣΤΟ ΜΕΛΛΟΝ.

LEES DEZE INSTRUCTIES ZORGVULDIG DOOR VOOR INSTALLATIE. BEWAAR DEZE HAN-  
DLEINDING WAAR U HEM KUNT TERUGVINDEN VOOR LATERE NASLAG.

LEIA COM ATENÇÃO ESTAS INSTRUÇÕES ANTES DE REALIZAR A INSTALAÇÃO.  
MANTENHA ESTE MANUAL AO SEU ALCANCE PARA FUTURAS CONSULTAS.

ПЕРЕД НАЧАЛОМ МОНТАЖА ВНИМАТЕЛЬНО ОЗНАКОМЬТЕСЬ С ДАННЫМИ  
ИНСТРУКЦИЯМИ. СОХРАНИТЕ ДАННОЕ РУКОВОДСТВО В МЕСТЕ, УДОБНОМ ДЛЯ  
ОБРАЩЕНИЯ В БУДУЩЕМ.

安裝前務必仔細閱讀此安裝指南，閱後妥善保存，以便隨時參看。

安装前务必仔细阅读此安装指南，阅后妥善保存，以便随时参看。

English

Deutsch

Français

Español

Italiano

Ελληνικά

Nederlands

Portugues

Russian

Taiwanese

Chinese

DAIKIN INDUSTRIES, LTD.

declares under its sole responsibility that the air conditioning models to which this declaration relates:  
erklärt auf seine alleinige Verantwortung daß die Modelle der Klimageräte für die diese Erklärung bestimmt ist:  
déclare sous sa seule responsabilité que les appareils d'air conditionné visés par la présente déclaration:

verklaart hierbij op eigen exclusieve verantwoordelijkheid dat de airconditioning units waarop deze verklaring betrekking heeft:  
declara baja su única responsabilidad que los modelos de aire acondicionado a los cuales hace referencia la declaración:  
dichiara sotto sua responsabilità che i condizionatori modello a cui è riferita questa dichiarazione:

δηλώνει με αποκλειστική της ευθύνη ότι τα μοντέλα των κλιματιστικών συσκευών στα οποία αναφέρεται η παρούσα δήλωση:  
declara sob sua exclusiva responsabilidade que os modelos de ar condicionado a que esta declaração se refere:  
erklærer under eneansvar, at klimaanlægmodellerne, som denne deklaration vedrører:

deklarerar i egenskap av huvudansvarig, att luftkonditioneringsmodellerna som berörs av denna deklaration innebär att:  
erklærer et fullstendig ansvar for at de luftkonditioneringsmodeller som berøres av denne deklarasjon innebærer at:  
ilmoittaa yksinomaan omalla vastuullaan, että tämän ilmoituksen tarkoittamat ilmastointilaitteiden mallit:

FAYP71LV1, FAY71LVE

are in conformity with the following standard(s) or other normative document(s), provided that these are used in accordance with our instructions:  
der/den folgenden Norm(en) oder einem anderen Normdokument oder -dokumenten entspricht/entsprechen, unter der Voraussetzung, daß sie gemäß unseren Anweisungen eingesetzt werden:  
sont conformes à la/aux norme(s) ou autre(s) document(s) normatif(s), pour autant qu'ils soient utilisés conformément à nos instructions:

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

είναι σύμφωνα με το(α) ακόλουθο(α) πρότυπο(α) ή άλλο έγγραφο(α) κανονισμών, υπό την προϋπόθεση ότι χρησιμοποιούνται σύμφωνα με τις οδηγίες μας:  
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:  
overholder følgende standard(er) eller andet/andre retningsgivende dokument(er), forudsat at disse anvendes i henhold til vore instrukser:

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:  
respektive utstyr er i overensstemmelse med følgende standard(er) eller andre normgivende dokument(er), under forutsetning av at disse brukes i henhold til våre instrukser:  
vastaavat seuraavien standardien ja muiden ohjeellisten dokumenttien vaatimuksia edellyttäen, että niitä käytetään ohjeidemme mukaisesti:

EN60335-2-40,

following the provisions of:  
gemäß den Vorschriften der:  
conformément aux stipulations des:

overeenkomstig de bepalingen van:  
siguiendo las disposiciones de:  
secondo le prescrizioni per:

με τήρηση των διατάξεων των:  
de acordo com o previsto em:  
under iagttagelse af bestemmelserne i:

enligt villkoren i:  
gitt i henhold til bestemmelsene i:  
noudattaen määräyksiä:

Low Voltage 73/23/EEC  
Machinery Safety 89/392/EEC  
Electromagnetic Compatibility 89/336/EEC\*

Directives, as amended.  
Direktiven, gemäß Änderung.  
Directives, telles que modifiées.

Richtlijnen, zoals geamendeerd.  
Directivas, según lo enmendado.  
Direttive, come da modifica.

Οδηγιών, όπως έχουν τροποποιηθεί.  
Directivas, conforme alteração em.  
Direktiver, med senere ændringer.

Direktiv, med foretagne ændringer.  
Direktiver, med foretatte endringer.  
Direktiivejä, sellaisina kuin ne ovat muutettuina.

*Note	as set out in Technical Construction file <b>DAIKIN.TCF.016</b> and judged positively by <b>KEMA</b> according to The <b>Certificate 81728-KRQ/ECM98-4341</b> .
Hinweis	wie in der Technischen Konstruktionsakte <b>DAIKIN.TCF.016</b> aufgeführt und von <b>KEMA</b> positiv ausgezeichnet gemäß <b>Zertifikat 81728-KRQ/ECM98-4341</b> .
Remarque	tel que stipulé dans le Fichier de Construction Technique <b>DAIKIN.TCF.016</b> et jugé positivement par <b>KEMA</b> conformément au <b>Certificat 81728-KRQ/ECM98-4341</b> .
Bemerk	zoals vermeld in het Technisch Constructiedossier <b>DAIKIN.TCF.016</b> en in orde bevonden door <b>KEMA</b> overeenkomstig <b>Certificaat 81728-KRQ/ECM98-4341</b> .
Nota	tal como se expone en el Archivo de Construcción Técnica <b>DAIKIN.TCF.016</b> y juzgado positivamente por <b>KEMA</b> según el <b>Certificado 81728-KRQ/ECM98-4341</b> .
Nota	delineato nel File Tecnico di Costruzione <b>DAIKIN.TCF.016</b> e giudicato positivamente da <b>KEMA</b> secondo il <b>Certificato 81728-KRQ/ECM98-4341</b> .
Σημείωση	όπως προσδιορίζεται στο Αρχείο Τεχνικής Κατασκευής <b>DAIKIN.TCF.016</b> και κρίνεται θετικά από το <b>KEMA</b> σύμφωνα με το <b>Πιστοποιητικό 81728-KRQ/ECM98-4341</b> .
Nota	tal como estabelecido no Ficheiro Técnico de Construção <b>DAIKIN.TCF.016</b> e com o parecer positivo de <b>KEMA</b> de acordo com o <b>Certificado 81728-KRQ/ECM98-4341</b> .
Bemærk	som anført i den Tekniske Konstruktionsfil <b>DAIKIN.TCF.016</b> og positivt vurderet af <b>KEMA</b> i henhold til <b>Certifikat 81728-KRQ/ECM98-4341</b> .
Information	utrustningen är utförd i enlighet med den Tekniska Konstruktionsfilen <b>DAIKIN.TCF.016</b> som positivt intygas av <b>KEMA</b> vilket också framgår av <b>Certifikat 81728-KRQ/ECM98-4341</b> .
Merk	som det fremkommer i den Tekniske Konstruktionsfilen <b>DAIKIN.TCF.016</b> og gennem positiv bedømmelse av <b>KEMA</b> ifølge <b>Sertifikat 81728-KRQ/ECM98-4341</b> .
Huom	jotka on esitetty Teknisessä Asiakirjassa <b>DAIKIN.TCF.016</b> ja jotka <b>KEMA</b> on hyväksynyt <b>Sertifikaatin 81728-KRQ/ECM98-4341</b> .

**DAIKIN**

*Hitoshi Jinnō*

Hitoshi Jinnō  
Manager Quality Control Department  
Sakai, 1st of Feb 2003

**DAIKIN INDUSTRIES, LTD.**

Umeda Center Bldg., 4-12, Nakazaki-Nishi 2-chome,  
Kita-ku, Osaka, 530-8323 Japan

DAIKIN INDUSTRIES, LTD.

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erklärt auf seine alleinige Verantwortung daß die Modelle der Klimageräte für die diese Erklärung bestimmt ist:  
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erklærer et fullstendig ansvar for at de luftkonditioneringsmodeller som berøres av denne deklarasjon innebærer at:  
ilmoittaa yksinomaan omalla vastuullaan, että tämän ilmoituksen tarkoittamat ilmastointilaitteiden mallit:

- ( I ) FHY35BJV1, FHY45BJV1, FHY60BJV1, FHY71BJV1, FHY100BJV1, FHY125BJV1, FH35BJV1, FH45BJV1, FH60BJV1  
( II ) FHYP35BV1, FHYP45BV1, FHYP60BV1, FHYP71BV1, FHYP100BV1, FHYP125BV1, FH35BZV1, FH45BZV1, FH60BZV1  
( III ) FHQ35BUBV1B, FHQ50BUBV1B, FHQ60BUBV1B, FHQ71BUBV1B, FHQ100BUBV1B, FHQ125BUBV1B  
FUQ71BUBV1B, FUQ100BUBV1B, FUQ125BUBV1B  
FAQ71BUBV1B, FAQ100BUBV1B

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der/den folgenden Norm(en) oder einem anderen Normdokument oder -dokumenten entspricht/entsprechen, unter der Voraussetzung, daß sie gemäß unseren Anweisungen eingesetzt werden:  
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EN60335-2-40,

following the provisions of:  
gemäß den Vorschriften der:  
conformément aux stipulations des:  
overeenkomstig de bepalingen van:  
siguiendo las disposiciones de:  
secondo le prescrizioni per:  
με τήρηση των διατάξεων των:  
de acordo com o previsto em:  
under iagttagelse af bestemmelserne i:  
enligt villkoren i:  
gitt i henhold til bestemmelsene i:  
noudattaen määräyksiä:

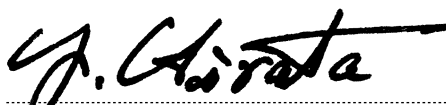
Low Voltage 73/23/EEC  
Machinery Safety 98/37/EEC  
Electromagnetic Compatibility 89/336/EEC\*

Directives, as amended.  
Direktiven, gemäß Änderung.  
Directives, telles que modifiées.  
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Direktiver, med foretatte endringer.  
Direktiivejä, sellaisina kuin ne ovat muutettuina.

\*Note as set out in Technical Construction file A and judged positively by KEMA according to The Certificate B.  
Hinweis wie in der Technischen Konstruktionsakte A aufgeführt und von KEMA positiv ausgezeichnet gemäß Zertifikat B.  
Remarque tel que stipulé dans le Fichier de Construction Technique A et jugé positivement par KEMA conformément au Certificat B.  
Bemerk zoals vermeld in het Technisch Constructiedossier A en in orde bevonden door KEMA overeenkomstig Certificaat B.  
Nota tal como se expone en el Archivo de Construcción Técnica A y juzgado positivamente por KEMA según el Certificado B.  
Nota delineato nel File Tecnico di Costruzione A e giudicato positivamente da KEMA secondo il Certificato B.  
Σημείωση όπως προσδιορίζεται στο Αρχείο Τεχνικής Κατασκευής A και κρίνεται θετικά από το KEMA σύμφωνα με το Πιστοποιητικό B.  
Nota tal como estabelecido no Ficheiro Técnico de Construção A e com o parecer positivo de KEMA de acordo com o Certificado B.  
Bemærk som anført i den Tekniske Konstruktionsfil A og positivt vurderet af KEMA i henhold til Certifikat B.  
Information utrustningen är utförd i enlighet med den Tekniska Konstruktionsfilen A som positivt intygas av KEMA vilket också framgår av Certifikat B.  
Merk som det fremkommer i den Tekniske Konstruktionsfilen A og gjennom positiv bedømmelse av KEMA ifølge Sertifikat B.  
Huom jotka on esitetty Teknisessä Asiakirjassa A ja jotka KEMA on hyväksynyt Sertifikaatin B.

	A	B
( I )	DAIKIN.TCF.004	59277-KRQ/ECM95-4233
( II )	DAIKIN.TCF.016	81728-KRQ/ECM98-4341
( III )	DAIKIN.TCF.021	2024351-QUA/EMC02-4565

DAIKIN



Yoshiaki Hirata  
Manager Quality Control Department  
Sakai, 1st of February 2004

DAIKIN INDUSTRIES, LTD.

Umeda Center Bldg., 4-12, Nakazaki-Nishi 2-chome,  
Kita-ku, Osaka, 530-8323 Japan

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## 1. SAFETY CONSIDERATIONS


Please read these “SAFETY CONSIDERATIONS” carefully before installing air conditioning equipment and be sure to install it correctly. After completing the installation, make sure that the unit operates properly during the start-up operation.


Please instruct the customer on how to operate the unit and keep it maintained.

Also, inform customers that they should store this installation manual along with the operation manual for future reference.

This air conditioner comes under the term “appliances not accessible to the general public”.

Meaning of warning and caution symbols.

 **WARNING** ..... Failure to observe a warning may result in death.

 **CAUTION** ..... Failure to observe a caution may result in injury or damage to the equipment.

### **WARNING**

- Ask your dealer or qualified personnel to carry out installation work. Do not try to install the machine yourself. Improper installation may result in water leakage, electric shocks or fire.
- Perform installation work in accordance with 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 water leakage, electric shocks, fire or the unit falling.
- 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 injuries.
- Carry out the specified installation work after taking into account strong winds, typhoons or earthquakes. Improper installation work may result in the equipment falling and causing accidents.
- Make sure that a separate power supply circuit is provided for this unit and that all electrical work is carried out by qualified personnel according to local laws and regulations and this installation manual. An insufficient power supply capacity or improper electrical construction may lead to electric shocks or fire.
- Make sure that all wiring is secured, the specified wires are used, and no external forces act on the terminal connections or wires. Improper connections or installation may result in 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 the terminals overheating.
  - If the refrigerant gas leaks during installation, ventilate the area immediately.  
Toxic gas may be produced if the refrigerant gas comes into contact with fire.
  - After completing the installation work, check that the refrigerant gas does not leak.  
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.
  - Before touching electrical parts, turn off the unit.
- 

## CAUTION

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- Ground the air conditioner.  
Do not connect the ground wire to gas or water pipes, lightning rods or a telephone ground wire.  
Incomplete grounding may result in electric shocks.
  - Be sure to install an earth leakage breaker.  
Failure to install an earth leakage breaker may result in electric shocks.
  - While following the instructions in this installation manual, install drain piping in order to ensure proper drainage and insulate piping in order to prevent condensation.  
Improper drain piping may result in water leakage and property damage.
  - Remote controller (wireless kit) transmitting distance can result shorter than expected in rooms with electronic fluorescent lamps (inverter or rapid start types).  
Install the indoor unit as far away from fluorescent lamps as possible.
  - Do not install the air conditioner in the following locations:
    - (a) where a mineral oil mist or an oil spray or vapor is produced, for example in a kitchen  
Plastic parts may deteriorate and fall off or result in water leakage.
    - (b) where corrosive gas, such as sulfurous acid gas, is produced  
Corroding copper pipes or soldered parts may result in refrigerant leakage.
    - (c) near machinery emitting electromagnetic waves  
Electromagnetic waves may disturb the operation of the control system and result in a malfunction of the equipment.
    - (d) where flammable gases may leak, where there are carbon fiber or ignitable dust suspensions in the air, or where volatile flammables such as thinner or gasoline are handled.  
Operating the unit in such conditions may result in fire.
- 

## 2. BEFORE INSTALLATION

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

- 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.
- Installation should only be carried out after checking in advance the type of refrigerant to be used. (Using the wrong refrigerant will prevent the unit from functioning properly.)
- Do not dispose of any parts necessary for installation until the installation is complete.

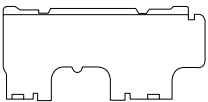

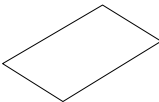
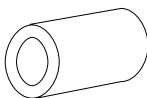
### 2-1 PRECAUTIONS

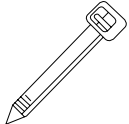

- Be sure to read this manual before installing the indoor unit.
- When selecting installation site, refer to the paper pattern.
- This unit is suitable for installation in a household, commercial and light industrial environment.
- Do not install or operate the unit in rooms mentioned below.
  - Laden with mineral oil, or filled with oil vapor or spray like in kitchens. (Plastic parts may deteriorate.)
  - Where corrosive gas like sulfurous gas exists. (Copper tubing and brazed spots may corrode.)
  - Where volatile flammable gas like thinner or gasoline is used.

- 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 the unit.

Name	(1) Installation panel	(2) Attachment screws for the installation panel	(3) Paper pattern for Installation	(4) Insulating tape
Quantity	1 set	9 pcs.	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

- The remote controller are required for this indoor unit.  
(However, the remote controller is not required for the slave unit of a simultaneous operation system.)
- These are two types of remote controllers: wired and wireless. Select a remote controller from Table 1 according to customer request and install in an appropriate place.  
(For installation, follow the Installation manual included with the remote controllers.)

Table 1

Remote controller			Model
FAY-LVE type	Wired type		BRC1C61
	Wireless type	Heat pump type	BRC7E618
		Cooling only type	BRC7E619
FAYP-LV1 type	Wired type		BRC1C517
	Wireless type	Heat pump type	BRC7E618
		Cooling only type	BRC7E619
FAQ-BUV1B type	Wired type		BRC1D527
	Wireless type	Heat pump type	BRC7E618
		Cooling only type	BRC7E619

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

**1. Items to be checked after completion of work**

Items to be checked	If not properly done, what is likely to occur	Check
Are the indoor and outdoor unit fixed firmly?	The units may drop, vibrate or make noise.	
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 grounded?	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.	

**2. Items to be checked at time of delivery** \*Also review the “SAFETY CONSIDERATIONS”

Items to be checked	Check
Did you explain about operations while showing the instruction manual to your customer?	
Did you hand the instruction manual over to your customer?	

**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.

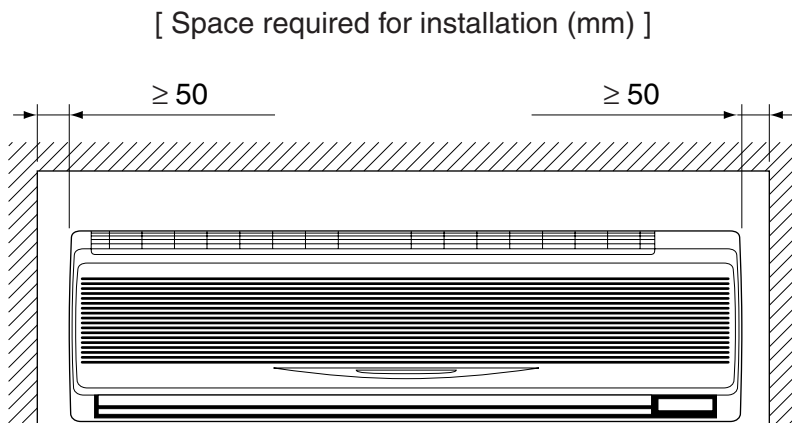


Fig. 1

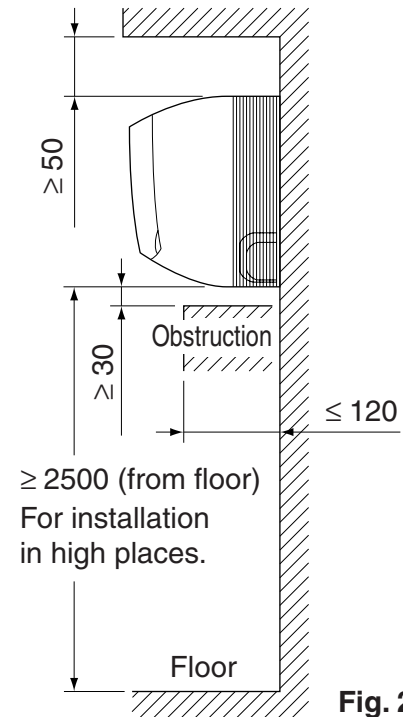


Fig. 2

- (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. (The installation pitch can be found on the paper pattern for installation (3), so refer to it when considering the necessity for reinforcing the location.)
- (3) The indoor unit may not be directly installed on the wall. Use the attached installation panel (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)
- Using the paper pattern for installation (3), choose where to pass the piping out and open a through-hole ( $\phi 80$ ) in the wall. Open the hole so that there is a downward slope for the drain piping. (See "6.DRAIN PIPING WORK")



## (2) Attach to the wall.

- (a) Check the place for the hole using the included paper pattern for installation (3).
  - Choose a place so that there is at least a 90 mm gap between the ceiling and the main unit.
- (b) Temporarily attach the installation panel (1) at the temporary-securing position on the paper pattern for installation (3) and use a level to make sure the drain hose is either level or tilted slightly downward.
- (c) Secure the installation panel (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 9 screws) 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 grill. (Refer to Fig. 4)

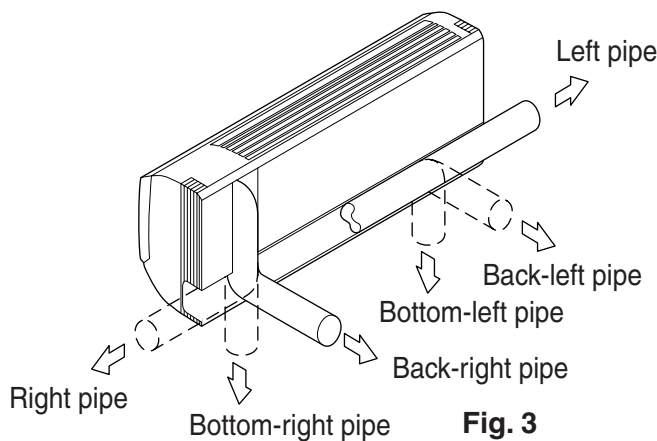


Fig. 3

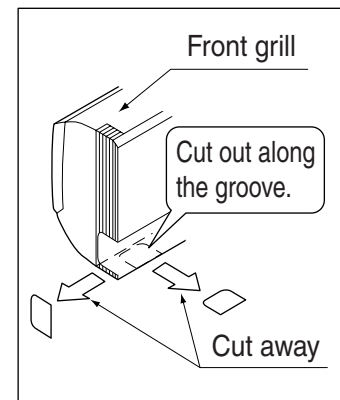


Fig. 4

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

### < How to remove the front panel and service lid >

- (1) Open the front panel to the point where it stops.
- (2) Push the axes on either side of the front panel towards the center 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 lid and pull the handle forward.

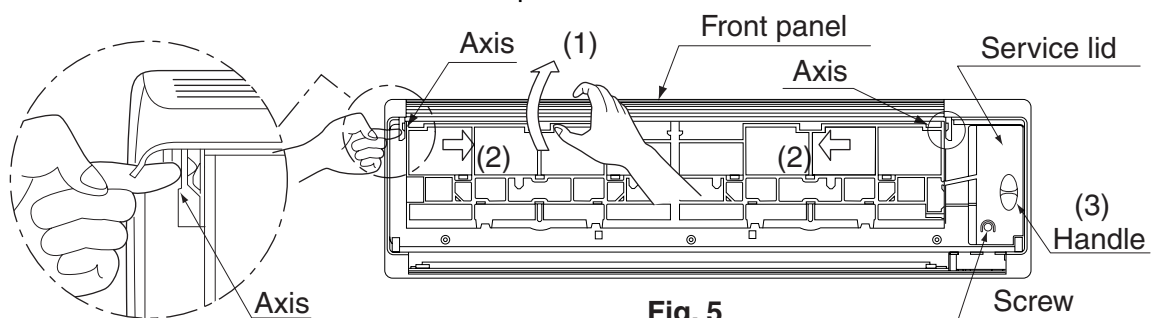
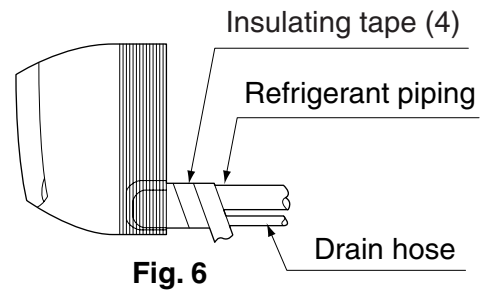


Fig. 5

**(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.



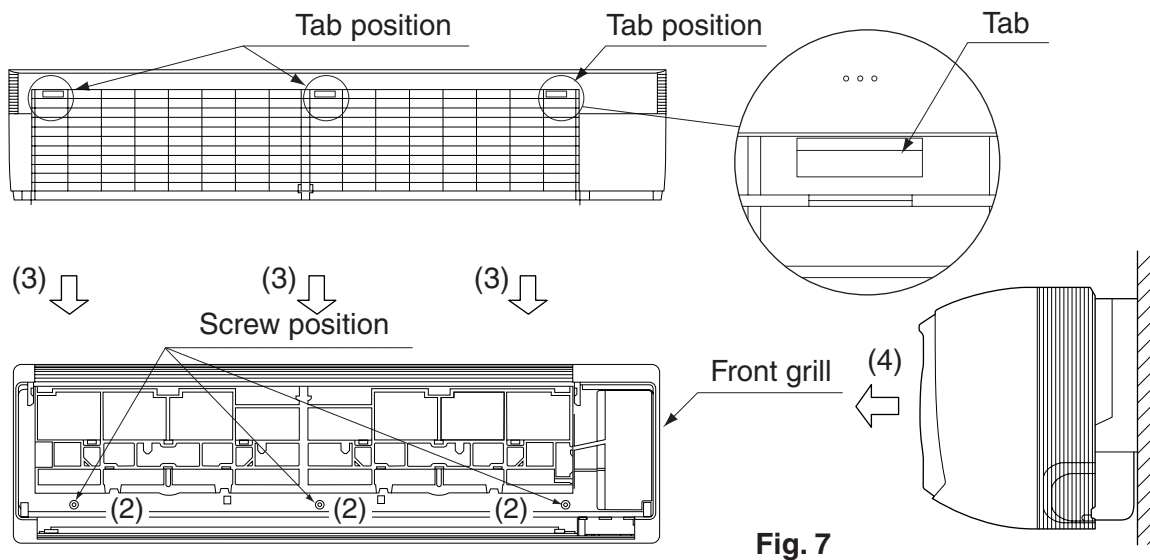
**For left, bottom-left, and left-back piping**

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

**< How to remove the front grill >**

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

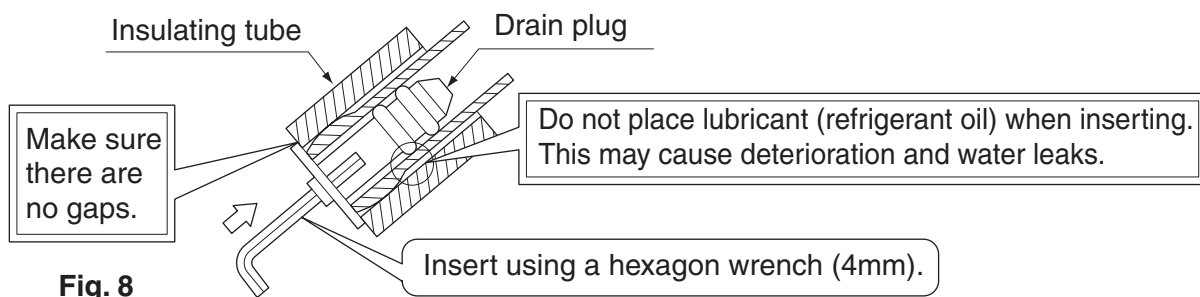
- (1) Remove the front panel.
- (2) Remove the screws (3 places) securing the front grill.
- (3) Remove the tabs (3 places) securing the front grill by pushing them in the direction of the arrows.
- (4) Making sure not to catch the horizontal flaps, remove the front grill by pulling in the direction of the arrow.



- 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 panel (1).

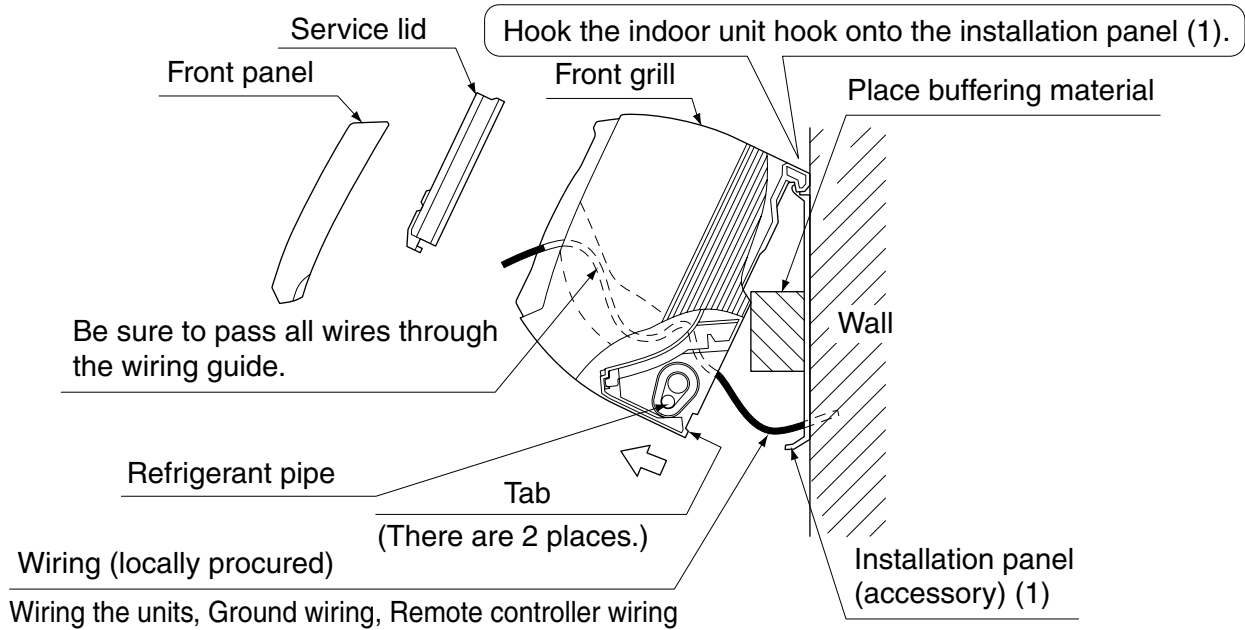
**< Replacing the drain hose and drain plug >**

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



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

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



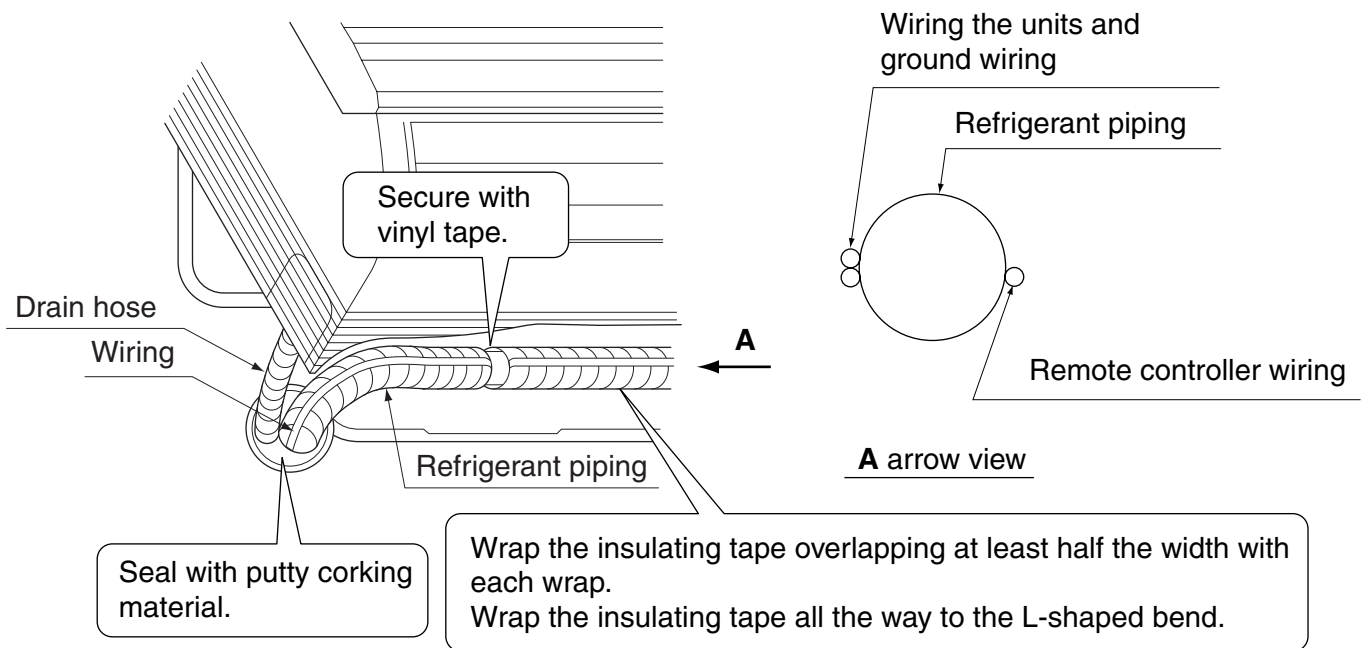
**Fig. 9**

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

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

**(7) Pass wiring the units, ground wiring, and remote controller wiring through the wiring guide in through 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 remote controller wiring, this wiring must be kept as far as possible from wiring the units/ground wirings. As shown in the Fig.10, keep the wiring the units and the ground wiring together. Route remote controller wiring maintaining a good distance from the wiring the units/ground wirings (that is, on the other side of the wiring the units/ground 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 panel (1). (Refer to Fig. 9)**

- At this time remove the buffering material placed in step (6).

- Make sure wiring the units, ground wiring and remote controller wiring are not caught inside the indoor unit.

### ■ When screwing in the indoor unit

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

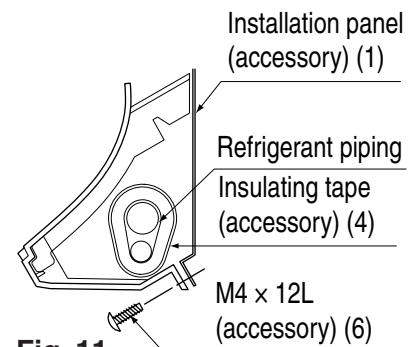


Fig. 11

## 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.

- 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 2" 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)

### ⚠ 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.

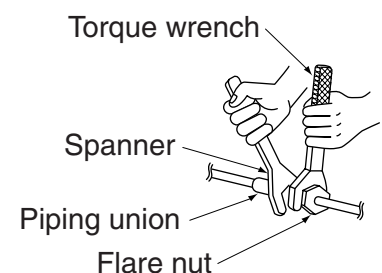


Fig. 12

Ester oil or ether oil

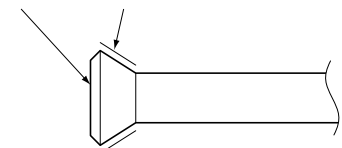


Fig. 13

Table 2

Pipe size	Type of refrigerant Applicable model	Flare dimensions A (mm)		Flare
		R22, R407C FAY-LVE FAYP-LV1	R410A FAQ-BUV1B	
φ6.4(1/4")	14.2-17.2 N • m (144-175kgf • cm)	8.6 – 9.0	8.7 – 9.1	
φ9.5(3/8")	32.7-39.9 N • m (333-407kgf • cm)	12.6 – 13.0	12.8 – 13.2	
φ12.7(1/2")	49.5-60.3 N • m (505-615kgf • cm)	15.8 – 16.2	16.2 – 16.6	
φ15.9(5/8")	61.8-75.4 N • m (630-769kgf • cm)	19.0 – 19.4	19.3 – 19.7	
φ19.1(3/4")	97.2-118.8 N • m (991-1211kgf • cm)	23.3 – 23.7	—	

• Refer to “Table 2” to determine the proper tightening torque.

**— Not recommendable but in case of emergency —**

You must use a torque wrench but if you are obliged to install the unit without a torque wrench, you may follow the installation method mentioned below. (Table 3)

When you keep on tightening the flare nut with a spanner, there is a point where the tightening torque suddenly increases. From that position, further tighten the flare nut the angle shown below: (Table 3)

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

Table 3

Pipe size	Further tightening angle	Recommended arm length of tool
φ 6.4 (1/4")	60 to 90 degrees	Approx. 150mm
φ 9.5 (3/8")	60 to 90 degrees	Approx. 200mm
φ12.7 (1/2")	30 to 60 degrees	Approx. 250mm
φ15.9 (5/8")	30 to 60 degrees	Approx. 300mm

**⚠ CAUTION**

**CAUTION TO BE TAKEN WHEN BRAZING REFRIGERANT PIPING**

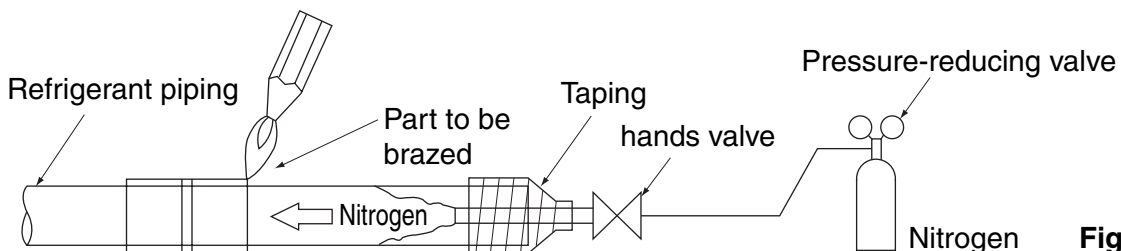
“Do not use flux when brazing refrigerant piping. Therefore, use the phosphor copper brazing filler metal (BCuP-2: JIS Z 3264/B-Cu93P-710/795: ISO 3677) which does not require flux.”

(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.)

- When brazing the refrigerant piping, only begin brazing after having carried out nitrogen substitution (NOTE 1) or while inserting nitrogen into the refrigerant piping (NOTE 2). Once this is done, connect the indoor unit with a flared or a flanged connection.

**NOTES**

1. Refer to the “Manual for Multi Installation for Buildings” for directions on how to carry out nitrogen substitution. (Inquire with your dealer.)
2. Nitrogen should be set to 0.02 Mpa (0.2 kg/cm<sup>2</sup>) with a pressure-reducing valve if brazing while inserting nitrogen into the piping. (Refer to Fig. 14)

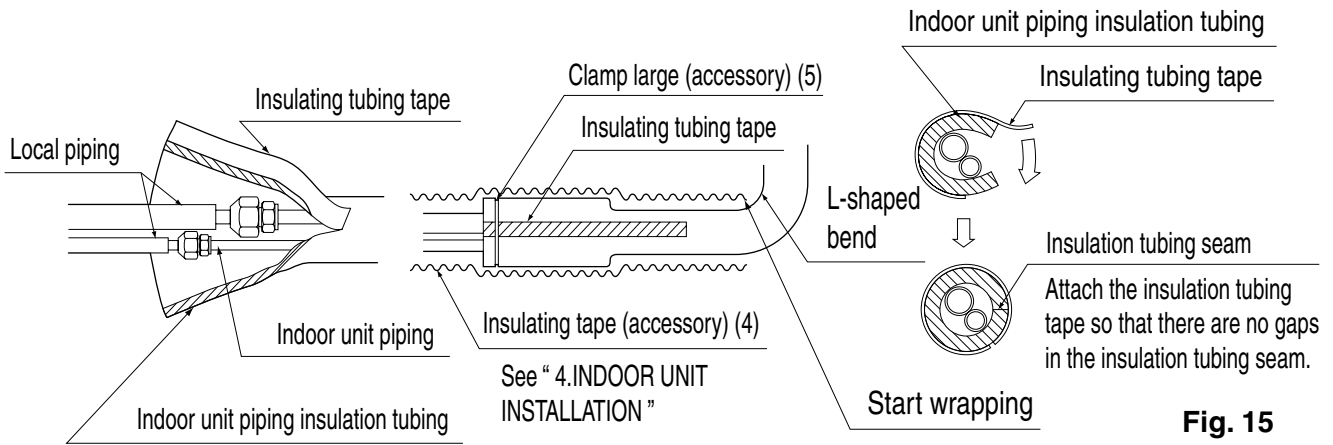


**Fig. 14**

**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.

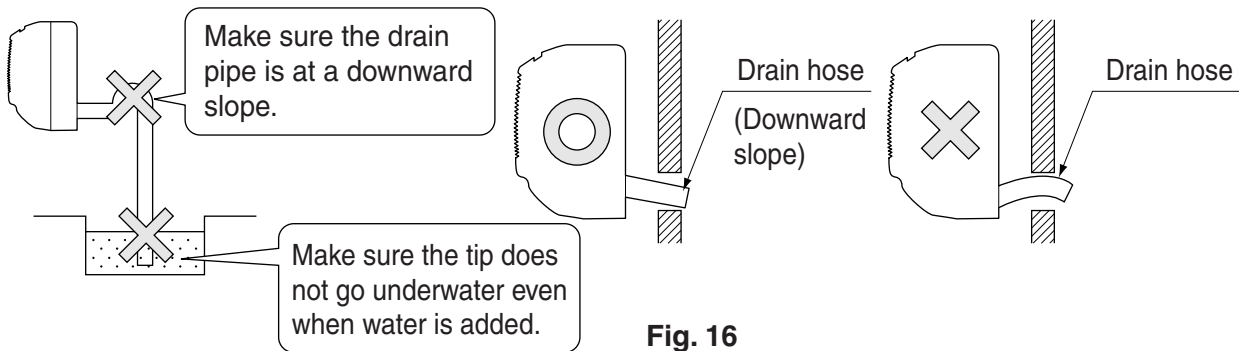
- After checking for gas leaks, be sure to insulate the pipe connections using the supplementary piping insulation tubing and insulating tape (4). The insulating tape (4) should be wrapped from the L-shaped bend all the way to the end inside the unit. **(Refer to Fig. 15)**



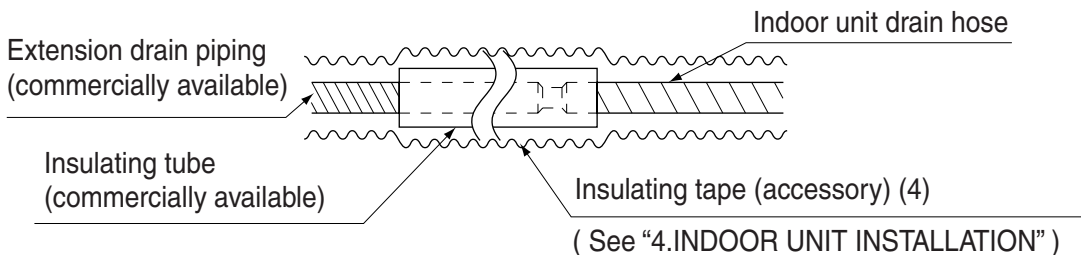
## 6. DRAIN PIPING WORK

### (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 figure 16 when performing drain work.

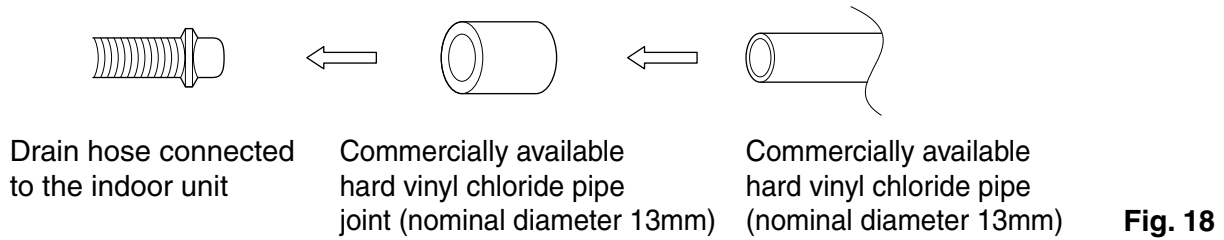


- When extending the drain hose, use a commercially available drain extension hose, and be sure to insulate the extended section of the drain hose which is indoors. **(Refer to Fig. 17)**



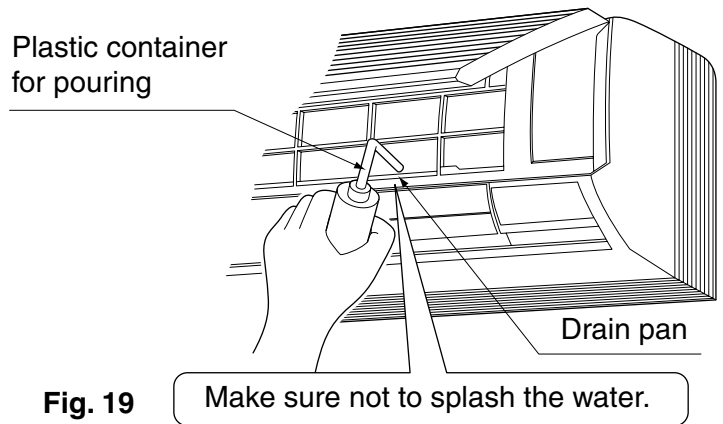
- Make sure the diameter of the piping is the same as the piping (hard vinyl chloride, nominal diameter 13mm) or bigger.

- 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 also to "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.
- A circuit breaker capable of shutting down power supply to the entire system must be installed.
- Refer to the installation manual attached to the outdoor unit for the size of power supply electric wire connected to the outdoor unit, the capacity of the circuit breaker and switch, and wiring instructions.
- Be sure to ground the air conditioner.
- Do not connect the ground wire to gas pipes, water pipes, lightning rods, or telephone ground wires.
  - Gas pipes: could explode and cause fires if there was a gas leak.
  - Water pipes: no grounding effect if hard vinyl pipes are used.
  - Telephone ground wires or lightning rods: the ground potential could rise dangerously high if hit by lightning.

## 7-2 SPECIFICATIONS FOR FIELD WIRE

The remote controller cord should be procured locally. Refer to the Table 4 when preparing one.

Table 4

	Wire	Size (mm <sup>2</sup> )	Length
Wiring between units	H05VV-U4G (NOTE 1)	2.5	–
Remote controller cord	Vinyl cord with sheath or cable (2 wire) (NOTE 2)	0.75 - 1.25	Max. 500m

### NOTE

1. Shows only in case of protected pipes. Use H07RN-F in case of no protection.
2. For European and Asian market: Vinyl cord with sheath or cable (Insulated thickness: 1 mm or more)  
For Australian regular: Shield wire (Insulated thickness: 1 mm or more)



## 8. HOW TO CONNECT WIRINGS AND WIRING EXAMPLE

### 8-1 HOW TO CONNECT WIRINGS

#### Methods of wiring units and connecting remote controller wiring

- Wiring between units

Unscrew and remove the service lid.

Connect the wiring between units of matching number to the power supply terminal block (4P). And connect the ground wiring to the ground terminal.

When doing this, tie the wiring between units and the ground wiring using the included clamp (small) (5) and then firmly secure using the included clamp (small) (5) according to the figure.

**(Refer to Fig. 20)**

- Remote controller wiring

Unscrew and remove the service lid.

Connect the remote controller wiring to the terminal block (5P).

When doing this, tie the remote controller wiring using the included clamp (small) (5) and then firmly secure using the included clamp (small) (5) according to the figure. **(Refer to Fig. 20)**

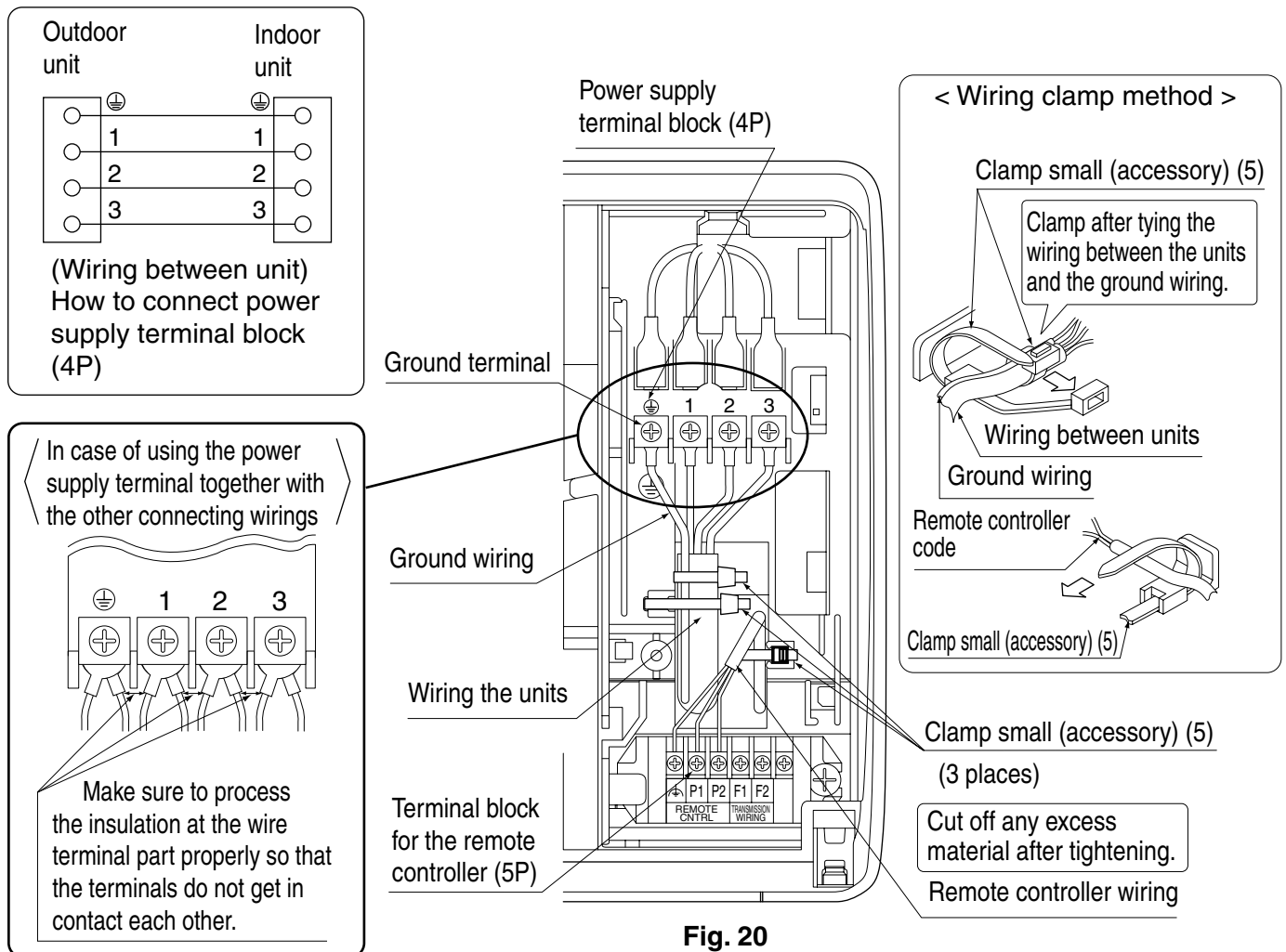


Fig. 20

## ⚠ 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 wires, be sure no pressure is applied to the wire connections by using the included clamping material to make appropriate clamps. Also, when wiring, make sure the lid on the control box fits snugly by arranging the wires neatly and attaching the control box lid firmly. When attaching the control box lid, make sure no wires get caught in the edges. Pass wiring through the wiring through holes to prevent damage to them.

Make sure the remote controller wiring, the 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.

### [ PRECAUTIONS ]

1. Use round crimp-style terminals for connecting wires to the power supply terminal block.  
(Refer to Fig. 21)

If unavailable, observe the following points when wiring.

- Do not connect wires of different gauge to the same power supply terminal.  
(Looseness in the connection may cause overheating.)
- When connecting wires of the same gauge, connect them according to Fig. 22.
- Use the specified electric wire. Connect the wire securely to the terminal. Lock the wire down without applying excessive force to the terminal. (Tightening torque: 131N·cm ±10 %)

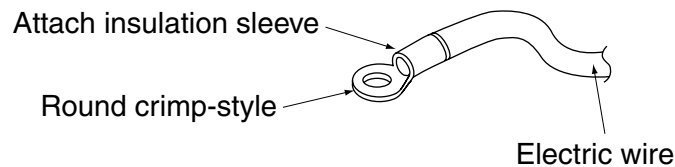


Fig. 21

2. **Tightening torque for the terminal screws.**

- 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.

Terminal	Size	Tightening torque
Remote controller terminal block (5P)	M3.5	0.79 – 0.97 N·m
Power supply and ground terminal block (4P)	M4	1.18 – 1.44 N·m

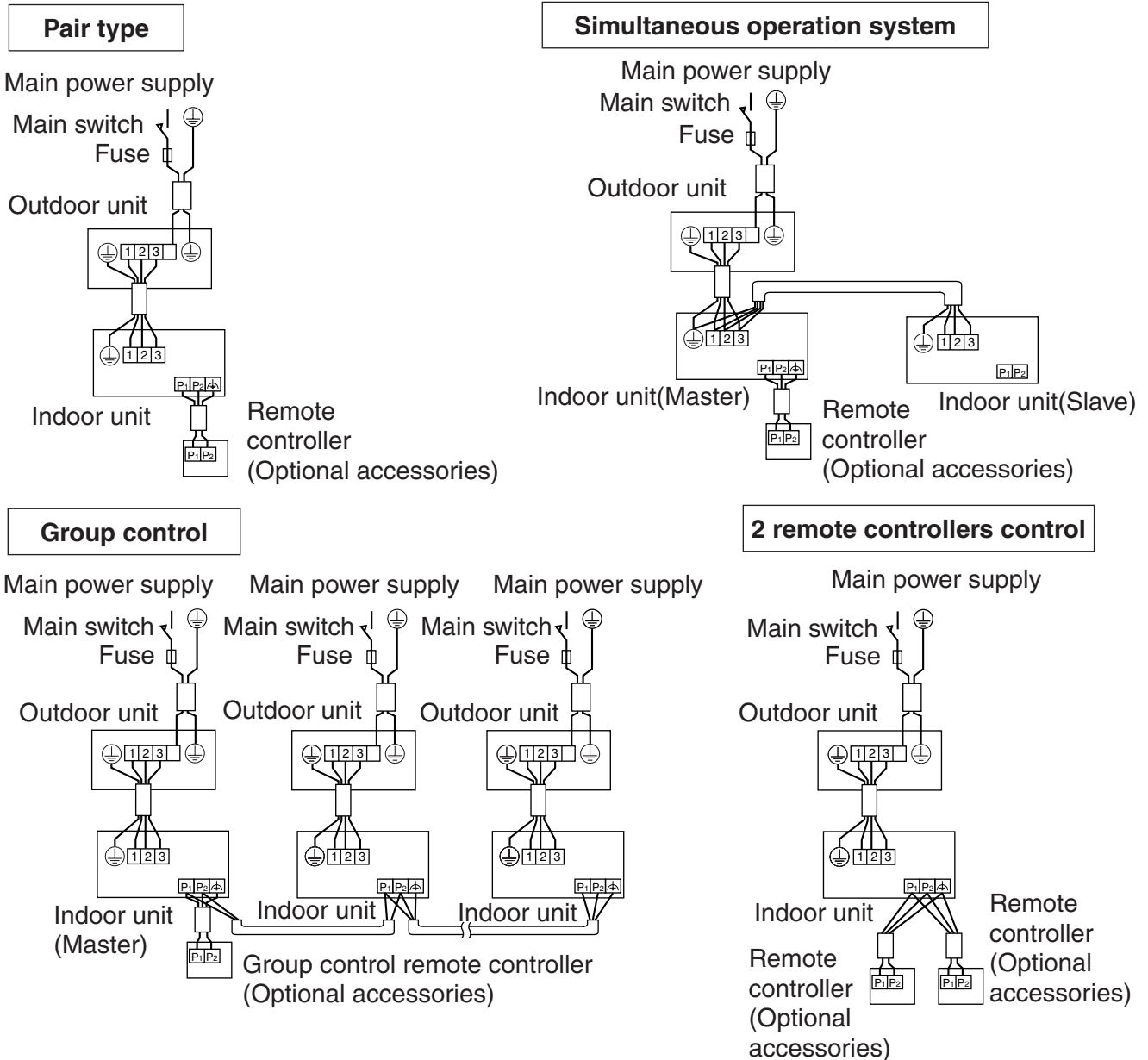
- Do not connect wires of different gauge to the same ground terminal. Looseness in the connection may deteriorate protection.
- For remote controller wiring, refer to the “INSTALLATION MANUAL OF REMOTE CONTROLLER” attached to the remote controller.
- **Never connect wiring the units to the terminal block for remote controller. A mistake of the sort could damage the entire system.**

## 8-2 WIRING EXAMPLE

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

### Confirm the system type.

- **Pair type:** 1 remote controller controls 1 indoor unit (standard system).
- **Simultaneous operation system:** 1 remote controller controls 2 indoor units (2 indoor units operate equally.)
- **Group control:** 1 remote controller controls up to 16 indoor units (All indoor units operate according to the remote controller).
- **2 remote controllers control:** 2 remote controllers control 1 indoor unit.



### NOTE

1. All transmission wiring except for the remote controller wires is polarized and must match the terminal symbol.
2. In case of group control, perform the remote controller wiring to the master unit when connecting to the simultaneous operation system. (wiring to the slave unit is unnecessary)
3. For group control remote controller, choose the remote controller that suits the indoor unit which has the most functions (as attached swing flap).
4. For simultaneous operation system, connect the remote controller cord to the master unit.

## 9. FIELD SETTING

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

(2) Field setting must be made from the remote controller in accordance with the installation condition.

- Setting can be made by changing the “Mode No.,” “FIRST CODE NO.,” and “SECOND CODE NO.”.
- For setting and operation, refer to the “FIELD SETTING” in the installation manual of the remote controller.

### 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 5 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 5

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 FLOW RATE INCREASE MODE

- It is possible to raise set air flow (HIGH and LOW) from the field. Change the SECOND CODE NO. as shown in Table 6 to suit your needs. (SECOND CODE NO. is factory set to “01” for standard.)

Table 6

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.

### 9-3 SETTING INDOOR UNIT NUMBER OF SIMULTANEOUS OPERATION SYSTEM

- When using in simultaneous operation system mode, change the SECOND CODE NO. as shown in Table 7. (SECOND CODE NO. is factory set to “01” for pair system.)

Table 7

Setting	Mode No.	FIRST CODE NO.	SECOND CODE NO.
Pair system (1 unit)	11 (21)	0	01
Simultaneous operation system (2-unit)			02
Simultaneous operation system (3-unit)			03

- When using in simultaneous operation system mode, refer to “**Simultaneous Operation System Individual Setting**” section to set master and slave units separately.

#### ⟨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.

## 9-4 SIMULTANEOUS OPERATION SYSTEM INDIVIDUAL SETTING

It is easier if the optional remote controller is used when setting the slave unit.

- Perform the following procedure when setting the master and slave unit separately.

### Procedure

- (1) Change the SECOND CODE NO. to "02", individual setting, so that the slave unit can be individually set.  
( Refer to Table 8 )  
(SECOND CODE NO. is factory set to "01", for unified setting.)

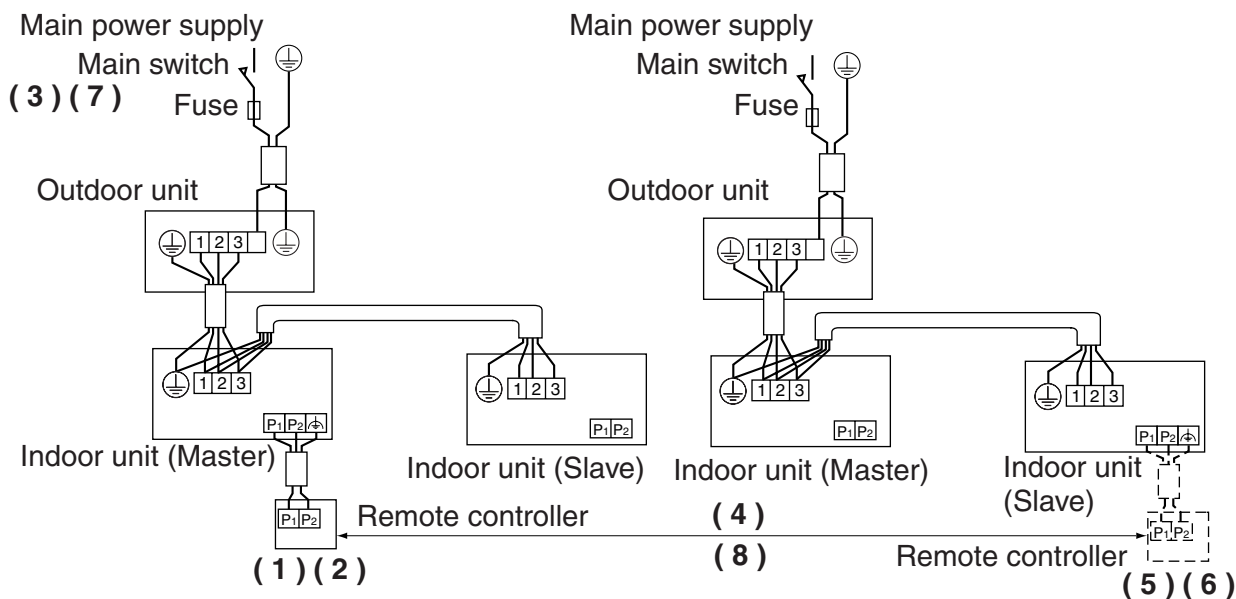
Table 8

Setting	Mode No.	FIRST CODE NO.	SECOND CODE NO.
Unified setting	11 (21)	1	01
Individual setting			02

- (2) Perform field setting (Refer to 9-1 to 9-3) for the master unit.
- (3) Turn off the main power supply switch after (2).
- (4) Detach remote controller from the master unit and connect it to the slave unit.
- (5) Turn on the main power supply switch again, and as in (1), change the SECOND CODE NO. to "02", individual setting.
- (6) Perform field setting (Refer to 9-1 to 9-2) for the slave unit.
- (7) Turn off the main power supply switch after (6).
- (8) If there is more than one slave unit, repeat steps (4) to (7).
- (9) Detach the remote controller from the slave unit after the setting, and reattach to the master unit. This is the end of the setting procedure.

\* You do not need to rewire the remote controller from the master unit if the optional remote controller for slave unit is used.

(However, remove the wires attached to the remote controller terminal board of the master unit.)



## 9-5 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

- Insert a wedge-head screwdriver into the recess between the upper and lower parts of remote controller and, working from the 2 positions, remove carefully the upper part. **(Refer to Fig. 22)**  
(The remote controller PC board is attached to the upper part of the remote controller.)
- Turn the MAIN/SUB changeover switch on one of the two remote controller PC board to “S”.  
(Leave the switch of the other remote controller set to “M”.) **(Refer to Fig. 23)**

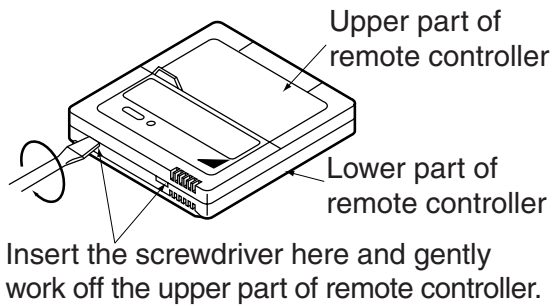
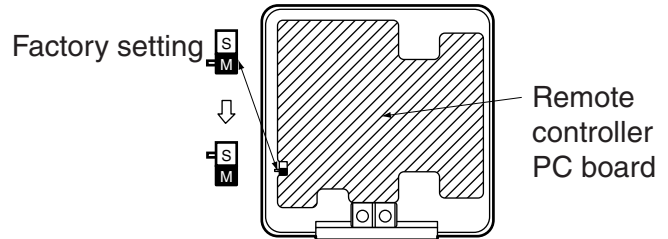


Fig. 22



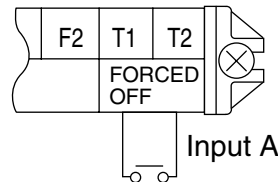
Only one remote controller needs to be changed if factory settings have remained untouched.

Fig. 23

## 9-6 COMPUTERISED CONTROL (FORCED OFF AND ON/OFF OPERATION) FOR FAQ MODEL

### (1) Wire specifications and how to perform wiring

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



Wire specification	Sheathed vinyl cord or cable (2 wire)
Gauge	0.75 - 1.25 mm <sup>2</sup>
Length	Max. 100 m
External terminal	Contact that can ensure the minimum applicable load of 15 V DC, 10 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.

## 10. TEST OPERATION

- (1) Make sure the service lids are closed on the indoor and outdoor units.
- (2) Refer to the section of “FOR THE FOLLOWING ITEMS, TAKE SPECIAL CARE DURING CONSTRUCTION AND CHECK AFTER INSTALLATION IS FINISHED” .
  - After finishing the construction of refrigerant piping, drain piping, and electric wiring, conduct test operation accordingly to protect the unit.

### 10-1 HOW TO TEST OPERATION

- 1 Open the gas side stop valve.
- 2 Open the liquid side stop valve.
- 3 Electrify for more than 6 hours (Not required in case of a unit exclusively designed for cooling only).
- 4 Set to cooling operation with the remote controller and start operation by pushing ON/OFF button (  ).
- 5 Press INSPECTION/TEST OPERATION button (  ) 4 times (2 times for wireless remote controller) and operate at Test Operation mode for 3 minutes.
- 6 Press AIR FLOW DIRECTION ADJUST button (  ) to make sure the unit is in operation.
- 7 Press INSPECTION/TEST OPERATION button (  ) and operate normally.
- 8 Confirm function of unit according to the operation manual.

### PRECAUTIONS


- Refer to the diagnoses below if the unit does not operate properly.
- After completing the test run, press the INSPECTION/TEST OPERATION button once to put the unit in inspection mode, and make sure the malfunction code is “00” (=normal).  
If the code reads anything other than “00”, refer to the malfunction diagnoses below.

### 10-2 HOW TO DIAGNOSE FOR PROBLEMS

**With the power on. Troubles can be monitored on the remote controller or the LED's on the PC board of the indoor unit.**

■ Trouble shooting with the display on the liquid crystal display remote controller.


- 1 With the wired remote controller. (NOTE 1)

When the operation stops due to trouble, operation lamp flashed, and “  ” and the error code are indicated on the liquid crystal display . In such a case, diagnose the fault contents by referring to the table on the Error code list it case of group control, the unit No. is displayed so that the indoor unit no with the trouble can be recognized. (NOTE 2)

- 2 With the wireless remote controller.

(Refer also to the operation manual attached to the wireless remote controller)

When the operation stops due to trouble. the display on the indoor unit flashes. In such a case, diagnose the fault contents with the table on the Error code list looking for the error code which can be found by following procedures. (NOTE 2)

- (1) Press the INSPECTION /TEST OPERATION button, “  ” is displayed and “ 0 ” flashes.
- (2) Press the PROGRAMMING TIME button and find the unit No. which stopped due to trouble.  
Number of beeps 3 short beeps ..... Perform all the following operations  
    1 short beep ..... Perform (3) and (6)  
    1 long beep ..... No trouble
- (3) Press the OPERATION MODE SELECTOR button and upper figure of the error code flashes.
- (4) Continue pressing the PROGRAMMING TIME button unit it makes 2 short beeps and find the upper code.
- (5) Press the OPERATION MODE SELECTOR button and lower figure of the error code flashes.
- (6) Continue pressing the PROGRAMMING TIME button unit it makes a long beep and find the lower code.
  - A long beep indicate the error code.








■ Trouble shooting with the LEDs on the PC board (Refer to Table 9 )

The following checking can be made with the service monitor LEDs (green). (Normal when flashing)


 : LED on      ● : LED off       : LED flashing

— : Not used for trouble shooting


Table 9

Microcomputer normal monitor	Transmission normal monitor	Details
HAP(H1P)	HBP(H2P)	FAY-L, FAYP-L, FAQ-BUV1B
		Indoor unit is normal → Diagnose the outdoor unit
		Miswiring between the indoor and outdoor units
		If the outdoor unit HAP(H1P) does not light, diagnose the outdoor unit. If it is flashed, it is due to either miswiring or malfunction of the indoor or outdoor unit PC board assembly. (NOTE 4)
		Malfunction of the indoor unit PC board (NOTE 5)
		Abnormal power supply, malfunction of PC board assembly or disconnection between the indoor and outdoor units (NOTE 5)

**NOTE**

- In case wired remote controller. Press the INSPECTION /TEST OPERATION button on remote controller, “” starts flashing.
- Keep down the ON/OFF button for 5 seconds or longer in the inspection mode and the above trouble history disappears, after the trouble code goes on and off twice, followed by the code “00”(normal). The display changes from the inspection mode to the normal mode.
- Depending on the model or the conditions, it may carry out an emergency shut-down.
- If the HBP(H2P) is off, the branch wiring between each of the indoor and outdoor units may either be incorrectly connected or broken. Before taking any of the diagnostic steps listed above, check the branch wiring. If the HBP(H2P) is off on an inverter, there is a possibility that the fuse on the outdoor unit’s PC board is burnt out.
- Cut off the power and wait for 5 seconds or longer. Turn on the power again and see if the LED is in the same state again.

**10-3 MALFUNCTION CODE**

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

Code	Malfunction/Remarks
A1	Indoor unit’s PC board faulty
A3	Drain water level abnormal
A6	Indoor fan motor overloaded, overcurrent or locked
<b>AF</b>	Humidifier faulty
<b>AH</b>	Air cleaner faulty
	Only the air cleaner does not function.
AJ	Type set improper
	Capacity data is wrongly proset. Or there is nothing programmed in the data hold IC.
C4	Sensor for heat exchanger lamp is fault
C9	Sensor for suction air lamp is fault
<b>CJ</b>	Sensor for remote controller is fault
	The remote controller thermistor does not function, but the system thermo run is possible.
E0	Action of safety device (outdoor unit)
E1	Outdoor unit’s PC board faulty (outdoor unit)
E3	High pressure abnormal(outdoor unit)



E4	Low pressure abnormal (outdoor unit)
E5	Compressor motor lock malfunction (outdoor unit)
E7	Outdoor fan motor lock malfunction Outdoor fan instantaneous overcurrent malfunction (outdoor unit)
E9	Electronic expansion valve faulty (outdoor unit)
F3	Discharge pipe temperature abnormal (outdoor unit)
H3	High pressure switch faulty (outdoor unit)
H7	Outdoor motor position signal malfunction (outdoor unit)
H9	Outdoor air thermistor faulty (outdoor unit) (NOTE 3)
J3	Discharge pipe thermistor faulty (outdoor unit) (NOTE 3)
J5	Suction pipe thermistor faulty (outdoor unit)
J6	Heat exchanger thermistor faulty (outdoor unit) (NOTE 3)
JA	Discharge pipe pressure sensor faulty (outdoor unit)
JC	Suction pipe pressure sensor faulty (outdoor unit)
L4	Overheated heat-radiating fin (outdoor unit) Inverter cooling defect.
L5	Instantaneous overcurrent (outdoor unit) Possible earth fault or short circuit in the compressor motor.
L8	Electric thermal (outdoor unit) Possible electrical overload in the compressor or cut line in the compressor motor.
L9	Stall prevention (outdoor unit) Compressor possibly locked.
LC	Transmission malfunction between the outdoor control units' inverters (outdoor unit)
P1	Open-phase (outdoor unit)
P3	PC board temperature sensor malfunction (outdoor unit)
P4	Heat-radiating fin temperature sensor malfunction (outdoor unit)
PJ	Type set improper (outdoor unit) Capacity data is wrongly proset. Or there is nothing programmed in the data hold IC.
U0	Suction pipe temperature abnormal
U1	Reverse phase Reverse two of the L1,L2 and L3 leads.
U2	Power source voltage malfunction (outdoor unit) Includes the defect in K1M.
U4	Transmission malfunction (indoor unit – outdoor unit) Wrong wiring between indoor and outdoor units or malfunction of the PC board mounted on the indoor and the outdoor units. (Refer to the trouble shooting with the LEDs on the PC board)
U5	Transmission malfunction (indoor unit – remote controller) Transmission is improper between the indoor unit and the remote controller.
U8	Malfunction in transmission between main and sub remote controls. (Malfunction in sub remote control.)
UA	Miss setting for multi system Setting is wrong for selector switch of multi-system. (see switch SS2 on the main unit's PC board)

<b>UC</b>	Central control address overlapping
UF	Transmission error (indoor unit – outdoor unit)
	Miswiring of (1) and (3) between the indoor and outdoor units.

## 11. WIRING DIAGRAM

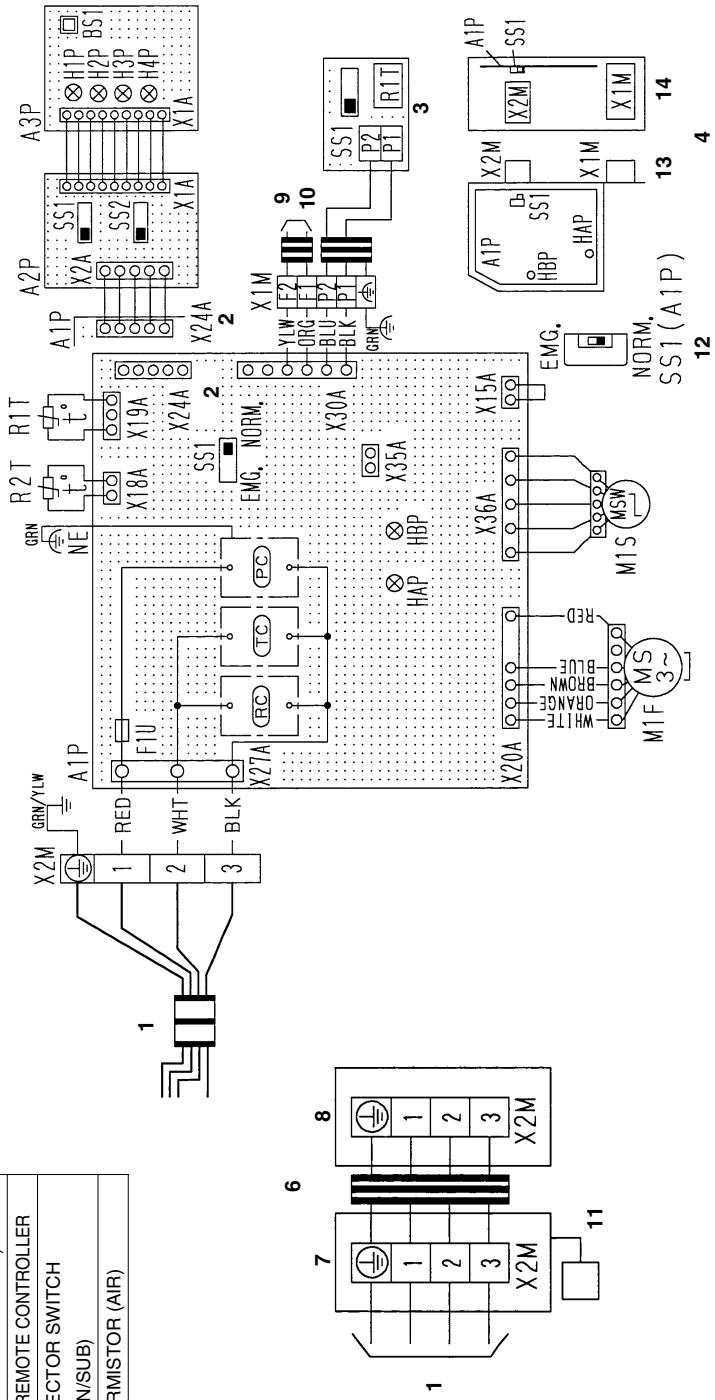
(Refer to Fig. 24 and Fig. 25, 26)

1	TO OUTDOOR UNIT	2	NOTE) 4
3	WIRED REMOTE CONTROLLER	4	CONTROL BOX (INDOOR)
5	RECEIVER/DISPLAY UNIT (ATTACHED TO WIRELESS REMOTE CONTROLLER)	6	IN CASE OF SIMULTANEOUS OPERATION SYSTEM
7	INDOOR UNIT (MASTER)	8	INDOOR UNIT (SLAVE)
9	NOTE) 2	10	TRANSMISSION WIRING CENTRAL REMOTE CONTROLLER
11	REMOTE CONTROLLER	12	FORWARDING OF SETTING POINT
13	SIDE	14	FRONT
15	INPUT FROM OUTSIDE		

# WIRING DIAGRAM

CONNECTOR FOR OPTIONAL PARTS	
X15A	CONNECTOR
X35A	CONNECTOR (GROUP CONTROL ADAPTOR)
SS1	WIRED REMOTE CONTROLLER
R1T	SELECTOR SWITCH (MAIN/SUB)
R1T	THERMISTOR (AIR)

A1P	PRINTED CIRCUIT BOARD
F1U	FUSE (① 3A, 250V)
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR GREEN)
HBP	LIGHT EMITTING DIODE (ON - GREEN)
M1F	MOTOR (INDOOR FAN)
M1S	MOTOR (SWING FLAP)
R1T	THERMISTOR (AIR)
R2T	THERMISTOR (COIL LIQUID)
SS1	SELECTOR SWITCH (MAIN/SUB)
X1M	TERMINAL BLOCK (CONTROL)
X2M	TERMINAL BLOCK (POWER)
(PC)	POWER CIRCUIT
(RC)	SIGNAL RECEIVER CIRCUIT
(TC)	SIGNAL TRANSMISSION CIRCUIT
RECEIVER/DISPLAY UNIT	
WIRELESS REMOTE CONTROLLER	
A2P	PRINTED CIRCUIT BOARD
A3P	PRINTED CIRCUIT BOARD
BS1	PUSH BUTTON (ON/OFF)
H1P	LIGHT EMITTING DIODE (ON - RED)
H2P	LIGHT EMITTING DIODE (TIMER - GREEN)
H3P	LIGHT EMITTING DIODE (FILTER SIGN - RED)
H4P	LIGHT EMITTING DIODE (DEFROST - ORANGE)
SS1	SELECTOR SWITCH (MAIN/SUB)
SS2	SELECTOR SWITCH (WIRELESS ADDRESS SET)

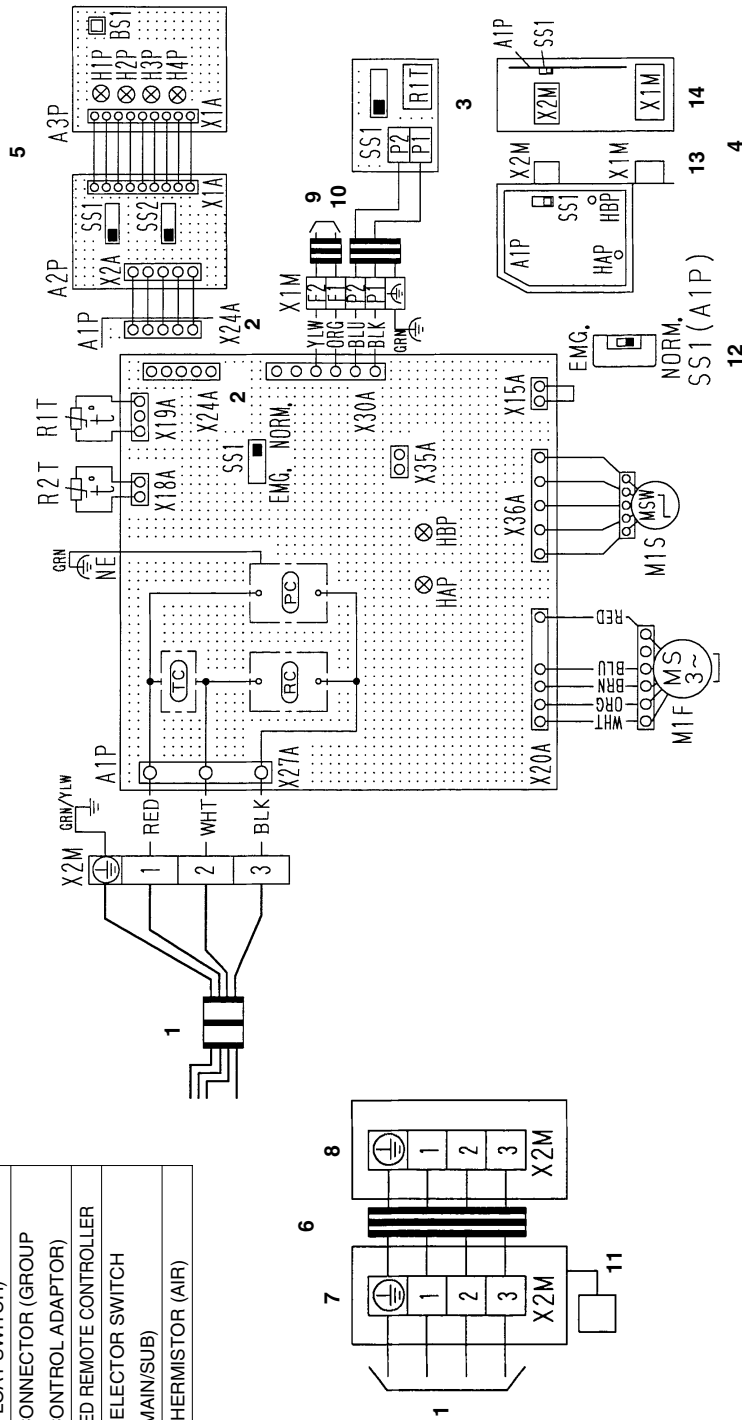


- NOTES)
1. □□□□ : TERMINAL ○○○○ : CONNECTOR ≡≡≡ : FIELD WIRING
  2. IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTALLATION MANUAL.
  3. REMOTE CONTROLLER MODEL VARIES ACCORDING TO THE COMBINATION SYSTEM, CONFIRM ENGINEERING MATERIALS AND CATALOGS, ETC. BEFORE CONNECTING.
  4. X24A IS CONNECTED WHEN THE WIRELESS REMOTE CONTROLLER KIT IS BEING USED.
  5. ○○○○ SHOWS SHORT CIRCUIT CONNECTOR.
  6. SYMBOLS SHOWS AS FOLLOWS : RED: RED WHT:WHITE GRN: GREEN BLK:BLACK ORG: ORANGE BRN:BROWN BLU: BLUE YLW: YELLOW
  7. CONFIRM THE METHOD OF SETTING THE SELECTOR SWITCH (SS1, SS2) OF WIRED REMOTE CONTROLLER AND WIRELESS REMOTE CONTROLLER BY INSTALLATION MANUAL AND ENGINEERING DATA, ETC.

Fig. 24

# WIRING DIAGRAM

CONNECTOR FOR OPTIONAL PARTS	
A1P	PRINTED CIRCUIT BOARD
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR GREEN)
HBP	LIGHT EMITTING DIODE (ON - GREEN)
M1F	MOTOR (INDOOR FAN)
M1S	MOTOR (SWING FLAP)
R1T	THERMISTOR (AIR)
R2T	THERMISTOR (COIL LIQUID)
SS1	SELECTOR SWITCH (MAIN/SUB)
X1M	TERMINAL BLOCK (CONTROL)
X2M	TERMINAL BLOCK (POWER)
(PC)	POWER CIRCUIT
(RC)	SIGNAL RECEIVER CIRCUIT
(TC)	SIGNAL TRANSMISSION CIRCUIT
RECEIVER/DISPLAY UNIT	
WIRELESS REMOTE CONTROLLER	
A2P	PRINTED CIRCUIT BOARD
A3P	PRINTED CIRCUIT BOARD
BS1	PUSH BUTTON (ON/OFF)
H1P	LIGHT EMITTING DIODE (ON - RED)
H2P	LIGHT EMITTING DIODE (TIMER - GREEN)
H3P	LIGHT EMITTING DIODE (FILTER SIGN - RED)
H4P	LIGHT EMITTING DIODE (DEFROST - ORANGE)
SS1	SELECTOR SWITCH (MAIN/SUB)
SS2	SELECTOR SWITCH (WIRELESS ADDRESS SET)

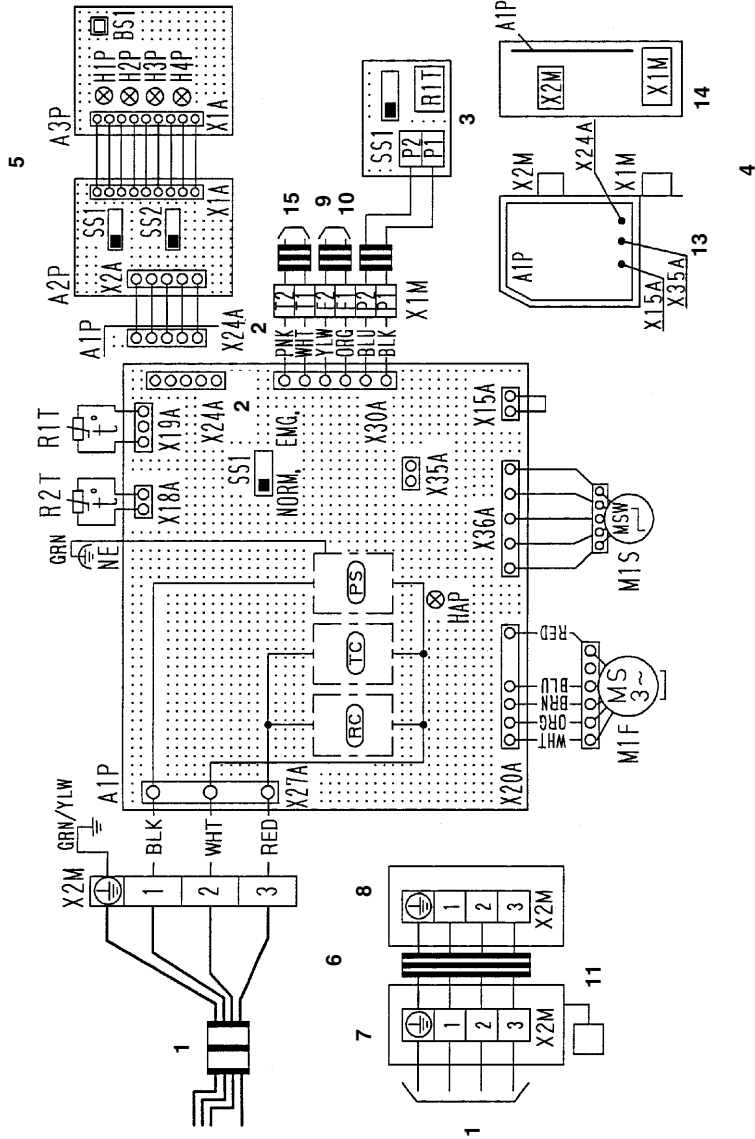


- NOTES)
- □ □ □ : TERMINAL    □ □ □ □ : CONNECTOR    ≡ ≡ ≡ ≡ : FIELD WIRING
  - IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTALLATION MANUAL.
  - REMOTE CONTROLLER MODEL VARIES ACCORDING TO THE COMBINATION SYSTEM, CONFIRM ENGINEERING MATERIALS AND CATALOGS, ETC. BEFORE CONNECTING.
  - X24A IS CONNECTED WHEN THE WIRELESS REMOTE CONTROLLER KIT IS BEING USED.
  - □ □ □ SHOWS SHORT CIRCUIT CONNECTOR.
  - SYMBOLS SHOWS AS FOLLOWS : RED: RED    WHT:WHITE    GRN: GREEN    BLK:BLACK    ORG: ORANGE    BRN:BROWN    BLU: BLUE    YLW: YELLOW
  - CONFIRM THE METHOD OF SETTING THE SELECTOR SWITCH (SS1, SS2) OF WIRED REMOTE CONTROLLER AND WIRELESS REMOTE CONTROLLER BY INSTALLATION MANUAL AND ENGINEERING DATA, ETC.

Fig. 25

# WIRING DIAGRAM

A1P	PRINTED CIRCUIT BOARD	CONNECTOR FOR OPTIONAL PARTS
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR GREEN)	X15A CONNECTOR (FLOAT SWITCH)
M1F	MOTOR (INDOOR FAN)	X35A CONNECTOR (GROUP CONTROL ADAPTOR)
M1S	MOTOR (SWING FLAP)	WIRED REMOTE CONTROLLER
R1T	THERMISTOR (AIR)	R1T THERMISTOR (AIR)
R2T	THERMISTOR (COIL)	SS1 SELECTOR SWITCH (MAIN/SUB)
SS1	SELECTOR SWITCH (EMERGENCY)	
X1M	TERMINAL BLOCK	
X2M	TERMINAL BLOCK	
PS	POWER SUPPLY	
RC	SIGNAL RECEIVER CIRCUIT	
TC	SIGNAL TRANSMISSION CIRCUIT	
WIRED REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
A2P	PRINTED CIRCUIT BOARD	
A3P	PRINTED CIRCUIT BOARD	
BS1	PUSH BUTTON (ON/OFF)	
H1P	LIGHT EMITTING DIODE (ON - RED)	
H2P	LIGHT EMITTING DIODE (TIMER - GREEN)	
H3P	LIGHT EMITTING DIODE (FILTER SIGN - RED)	
H4P	LIGHT EMITTING DIODE (DEFROST - ORANGE)	
SS1	SELECTOR SWITCH (MAIN/SUB)	
SS2	SELECTOR SWITCH (WIRELESS ADDRESS SET)	



- NOTES)
1. □ : TERMINAL    □ : CONNECTOR    ≡ : FIELD WIRING
  2. IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTALLATION MANUAL.
  3. REMOTE CONTROLLER MODEL VARIES ACCORDING TO THE COMBINATION SYSTEM; CONFIRM ENGINEERING MATERIALS AND CATALOGS, ETC. BEFORE CONNECTING.
  4. X24A IS CONNECTED WHEN THE WIRELESS REMOTE CONTROLLER KIT IS BEING USED.
  5. □ SHOWS SHORT CIRCUIT CONNECTOR.
  6. SYMBOLS SHOWS AS FOLLOWS : RED: RED    WHT: WHITE    GRN: GREEN    BLK: BLACK    ORG: ORANGE    BRN: BROWN    BLU: BLUE    YLW: YELLOW    PNK: PINK
  7. CONFIRM THE METHOD OF SETTING THE SELECTOR SWITCH (SS1, SS2) OF WIRED REMOTE CONTROLLER AND WIRELESS REMOTE CONTROLLER BY INSTALLATION MANUAL AND ENGINEERING DATA, ETC.

Fig. 26

