



# INSTALLATION AND OPERATION MANUAL

## ***VRV*** System air conditioner

**FXYSP20KA7V1**  
**FXYSP25KA7V1**  
**FXYSP32KA7V1**  
**FXYSP40KA7V1**  
**FXYSP50KA7V1**  
**FXYSP63KA7V1**  
**FXYSP80KA7V1**  
**FXYSP100KA7V1**  
**FXYSP125KA7V1**

CE - DECLARATION-OF-CONFORMITY  
CE - KONFORMITÄTSEKTLÄRUNG  
CE - DECLARATION-DE-CONFORMITE

CE - CONFORMITEITSVERKLARING  
CE - DECLARACION-DE-CONFORMIDAD  
CE - DICHIARAZIONE-DI-CONFORMITA'

CE - ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ  
CE - DECLARAÇÃO-DE-CONFORMIDADE  
CE - OPFYLDELSESERKLÆRING

CE - FÖRSÄKRAN-OM-ÖVERENSTÄMMELSE  
CE - ERKLÆRING OM-SAMSVAR  
CE - ILMOITUS-YHDENMUKAISUUDESTA

Daikin Europe N.V.

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 eeneansvar, at klimaanlægmodellerne, som denne deklaration vedrører:

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

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FXYSP40KA7V1, FXYSP50KA7V1, FXYSP63KA7V1,  
FXYSP80KA7V1, FXYSP100KA7V1, FXYSP125KA7V1

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 :  
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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:

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

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

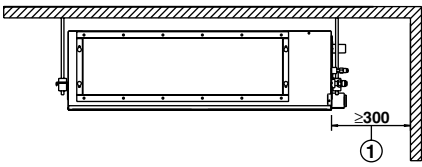
Οδηγιών, όπως έχουν τροποποιηθεί.  
Directivas, conforme alteração em.  
Direktiver, med senere ændringer.

Direktiv, med företagna ändringar.  
Direktiver, med foretatte endringer.  
Direktivejä, sellaisina kuin ne ovat muutettuina.

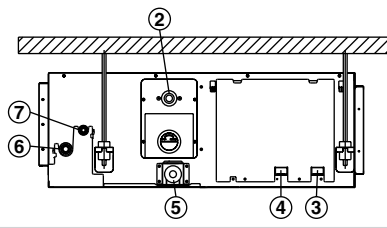
Low Voltage 73/23/EEC  
Machinery Safety 89/392/EEC  
Electromagnetic Compatibility 89/336/EEC \*

\* Note as set out in the Technical Construction File **DAIKIN.TCF.014** and judged positively by **NMI** according to the **Certificate 9110074503**.  
Hinweis wie in der Technischen Konstruktionsakte **DAIKIN.TCF.014** aufgeführt und von **NMI** positiv ausgezeichnet gemäß **Zertifikat 9110074503**.  
Remarque tel que stipulé dans le Fichier de Construction Technique **DAIKIN.TCF.014** et jugé positivement par **NMI** conformément au **Certificat 9110074503**.  
Bemerk zoals vermeld in het Technisch Constructiedossier **DAIKIN.TCF.014** en in orde bevonden door **NMI** overeenkomstig **Certificaat 9110074503**.  
Nota tal como se expone en el Archivo de Construcción Técnica **DAIKIN.TCF.014** y juzgado positivamente por **NMI** según el **Certificado 9110074503**.  
Nota delineato nel File Tecnico di Costruzione **DAIKIN.TCF.014** e giudicato positivamente da **NMI** secondo il **Certificato 9110074503**.  
Σημείωση όπως προσδιορίζεται στο Αρχείο Τεχνικής Κατασκευής **DAIKIN.TCF.014** και κρίνεται θετικά από το **NMI** σύμφωνα με το **Πιστοποιητικό 9110074503**.  
Nota tal como estabelecido no Ficheiro Técnico de Construção **DAIKIN.TCF.014** e com o parecer positivo de **NMI** de acordo com o **Certificado 9110074503**.  
Bemærk som anført i den Tekniske Konstruktionsfil **DAIKIN.TCF.014** og positivt vurderet af **NMI** i henhold til **Certifikat 9110074503**.  
Information utrustningen är utförd i enlighet med den Tekniska Konstruktionsfilen **DAIKIN.TCF.014** som positivt intygas av **NMI** vilket också framgår av **Certifikat 9110074503**.  
Merk som det fremkommer i den Tekniske Konstruktionsfilen **DAIKIN.TCF.014** og gjennom positiv bedømmelse av **NMI** ifølge **Sertifikat 9110074503**.  
Huom jotka on esitetty Teknisessä Asiakirjassa **DAIKIN.TCF.014** ja jotka **NMI** on hyväksynyt **Sertifikaatin 9110074503** mukaisesti.

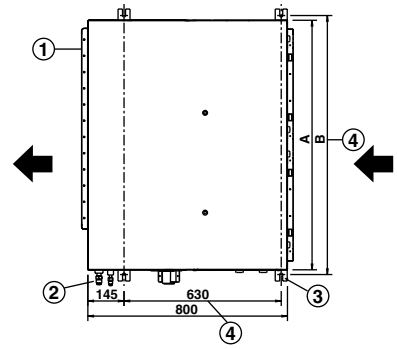




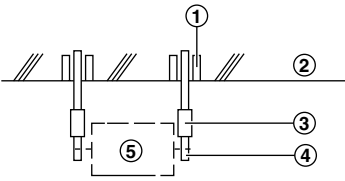
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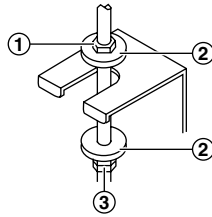
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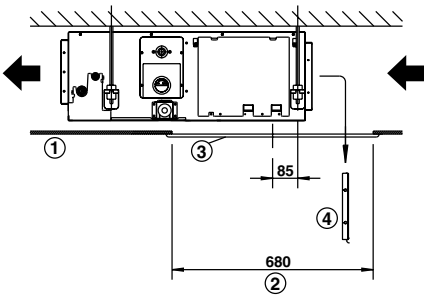
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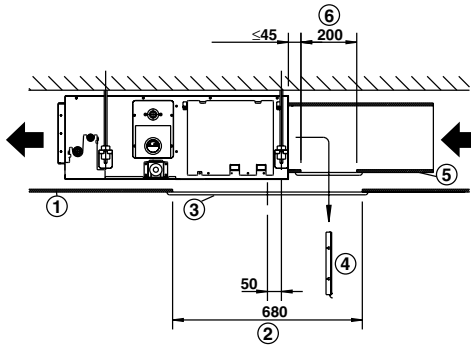
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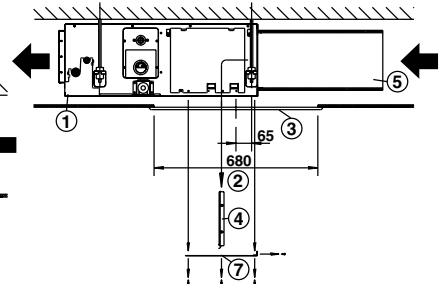
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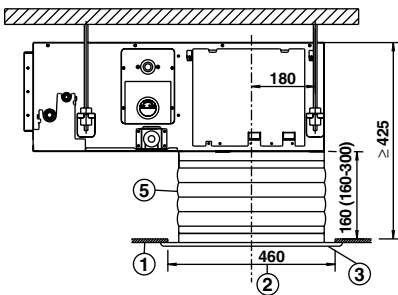
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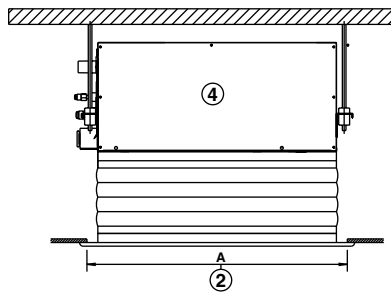
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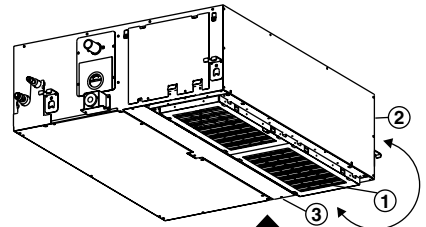
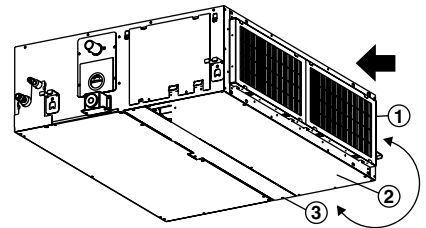
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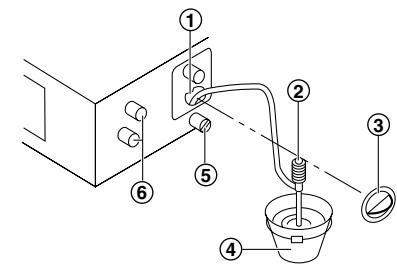
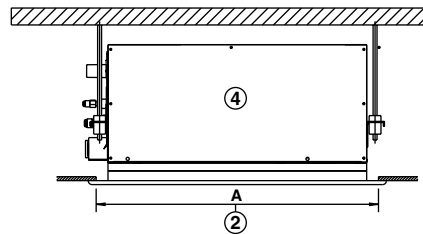
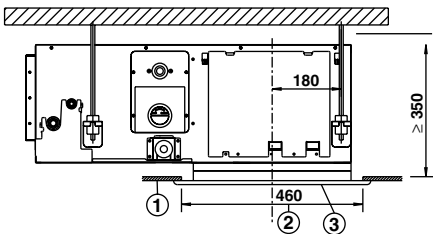
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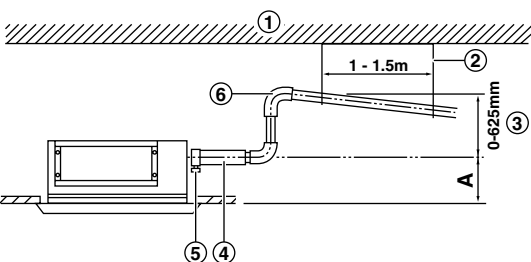
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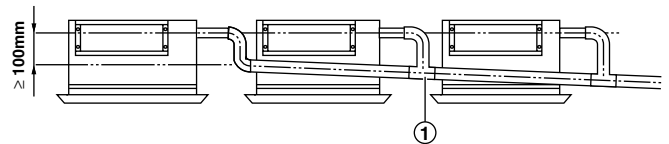
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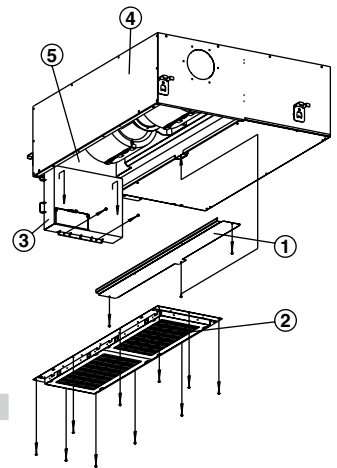
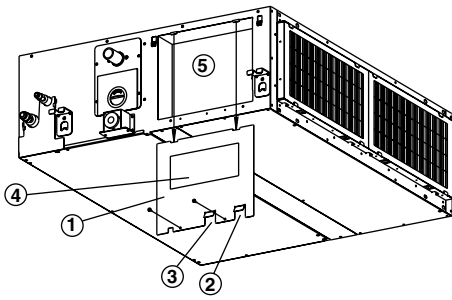
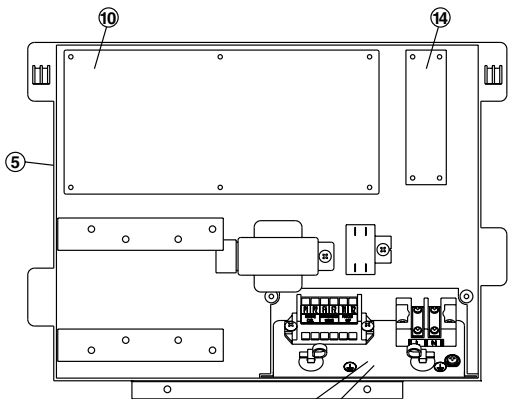
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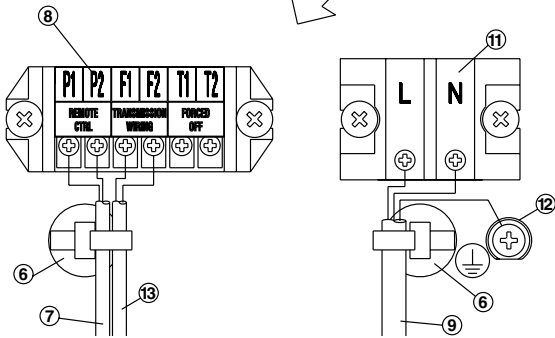


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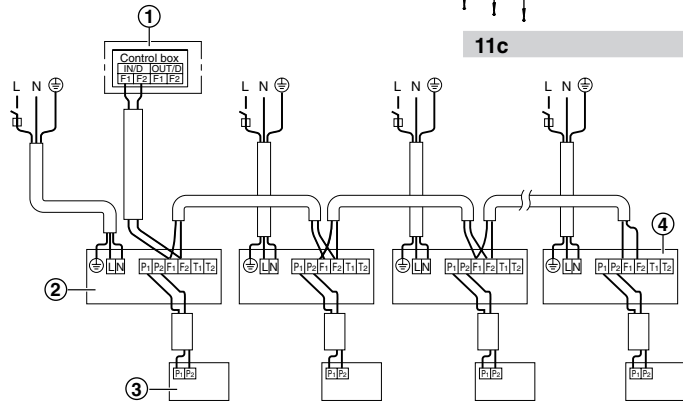
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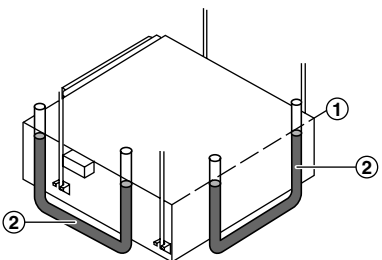


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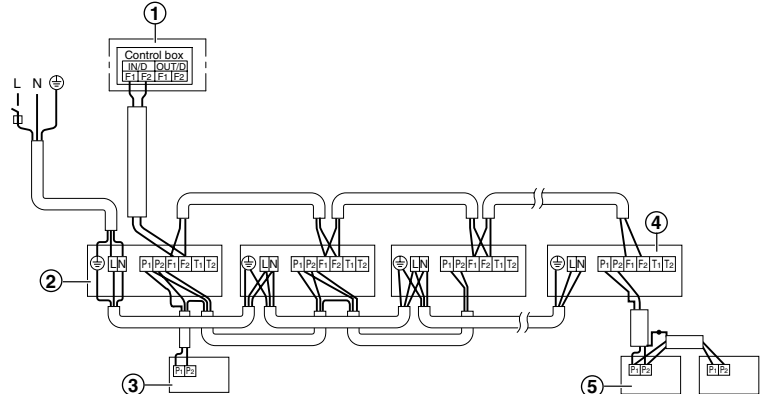
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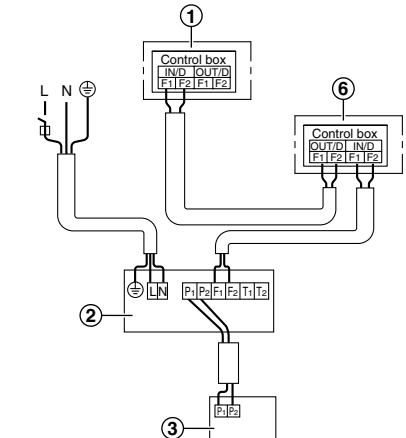
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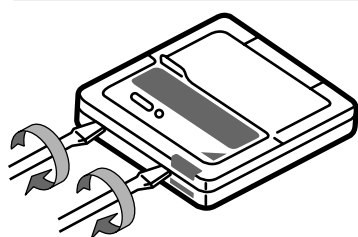
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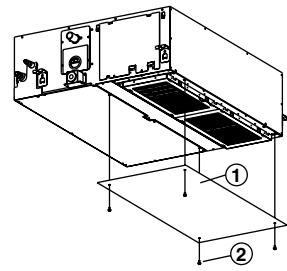
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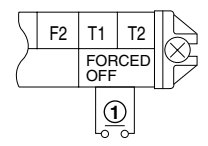
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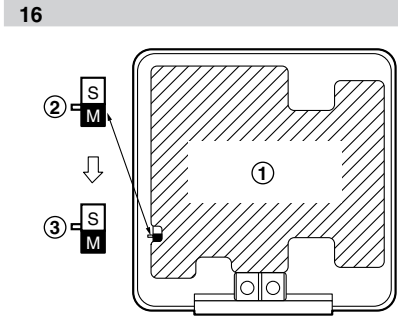
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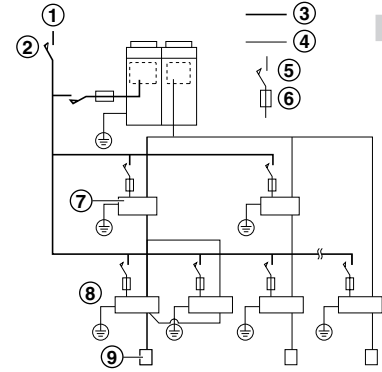
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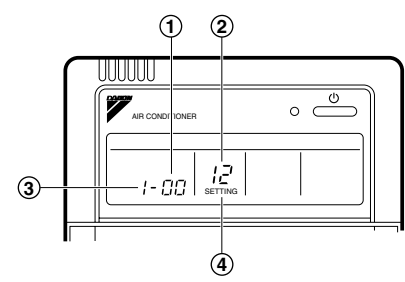
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READ THESE INSTRUCTIONS CAREFULLY BEFORE INSTALLATION. KEEP THIS MANUAL IN A HANDY PLACE FOR FUTURE REFERENCE. IMPROPER INSTALLATION OR ATTACHMENT OF EQUIPMENT OR ACCESSORIES COULD RESULT IN ELECTRIC SHOCK, SHORT-CIRCUIT, LEAKS, FIRE OR OTHER DAMAGE TO THE EQUIPMENT. BE SURE ONLY TO USE ACCESSORIES MADE BY DAIKIN WHICH ARE SPECIFICALLY DESIGNED FOR USE WITH THE EQUIPMENT AND HAVE THEM INSTALLED BY A PROFESSIONAL. IF UNSURE OF INSTALLATION PROCEDURES OR USE, ALWAYS CONTACT YOUR DAIKIN DEALER FOR ADVICE AND INFORMATION.

## BEFORE INSTALLATION


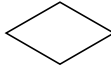






- Leave the unit inside its packaging until you reach the installation site. Where unpacking is unavoidable, use a sling of soft material or protective plates together with a rope when lifting, this to avoid damage or scratches to the unit.
- Refer to the installation manual of the outdoor unit for items not described in this manual.
- Caution concerning new refrigerant series:
  - The connectable outdoor units must be RSX(Y)P-K or RSEYP-K, the outdoor units designed exclusively for R407C.
  - If outdoor units for R22 are connected, the system will not work properly.

## Precautions

- Do not install or operate the unit in rooms mentioned below.
  - Places with mineral oil, or filled with oil vapour or spray like in kitchens. (Plastic parts may deteriorate.)
  - Where corrosive gas like sulphurous gas exists. (Copper tubing and brazed spots may corrode.)
  - Where volatile flammable gas like thinner or gasoline is used.
  - Where machines generating electromagnetic waves exist. (Control system may malfunction.)
  - Where the air contains high levels of salt such as air near the ocean and where voltage fluctuates a lot (e.g. in factories). Also in vehicles or vessels.
- When selecting the installation site, use the supplied paper pattern for installation.

## Accessories

Check if the following accessories are included with your unit.

 Metal clamp 1 pc.	 Paper pattern for installation 1 pc.	 Drain hose 1 pc.
Insulation for fitting 1 each		 Washer for hanging bracket 8 pcs.
 for gas pipe	 for liquid pipe	
FXYSP20•25•32 6 pcs.	 Screws for duct flanges 1 set	 Screws for fixing the paper pattern for installation 6 pcs.
FXYSP40•50 8 pcs.		
FXYSP63 12 pcs.		
FXYSP80•100•125 16 pcs.		
Other: installation and operation manual, fuse		

Screws for fixing panels are attached to the air inlet panel.

## Optional accessories

- There are two types of remote controllers: wired and wireless. Select a remote controller according to customer request and install in an appropriate place. Refer to catalogues and technical literature for selecting a suitable remote controller.
- When installing bottom suction: air inlet panel and canvas connection for the air inlet panel.

For the following items, take special care during construction and check after installation is finished

Tick  when checked

- Is the indoor unit fixed firmly?  
The unit 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 components may burn out.
- Are wiring and piping correct?  
The unit may malfunction or components may burn out.
- Is the unit safely grounded?  
Dangerous at electric leakage.
- Is the wiring size according to specifications?  
The unit may malfunction or components may burn out.
- Is nothing 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 might not be clear.
- Are the air filters fixed properly (when installing with rear duct)?  
Maintenance of the air filters can be impossible.

### Notes to the installer

- Read this manual carefully to ensure correct installation. Be sure to instruct the customer how to properly operate the system and show him/her the enclosed operation manual.
- Explain to the customer what system is installed on the site. Be sure to fill out the appropriate installation specifications in the chapter "What to do before operation" of the outdoor unit operation manual.

## SELECTING INSTALLATION SITE (SEE FIGURE 1 AND 2)

1. **Select an installation site where the following conditions are fulfilled and that meets your customer's approval.**
  - Where optimum air distribution can be ensured.
  - Where nothing blocks air passage.
  - Where condensate water can be properly drained.
  - Where the false ceiling is not noticeably on an incline.
  - Where sufficient clearance for maintenance and service can be ensured.
  - Where piping between indoor and outdoor units is possible within the allowable limit. (Refer to the installation manual of the outdoor unit.)
  - Keep indoor unit, outdoor unit, power supply wiring and transmission wiring at least 1 meter away from televisions and radios. This is to prevent image interference and noise in those electrical appliances. (Noise may be generated depending on the conditions under which the electric wave is generated, even if 1 meter is kept.)

2. **Use suspension bolts for installation. Check whether the ceiling is strong enough to support the weight of the indoor unit. If there is a risk, reinforce the ceiling before installing the unit.**

- 1 Service space  $\geq 300$
- 2 Drain pipe
- 3 Power supply wiring port
- 4 Transmission wiring port
- 5 Maintenance drain outlet
- 6 Gas pipe
- 7 Liquid pipe

## PREPARATIONS BEFORE INSTALLATION

1. **Relation of ceiling opening to unit and suspension bolt position (see figure 3).**

Model	A	B
FXYSP20•25•32	550	600
FXYSP40•50	700	750
FXYSP63	1000	1050
FXYSP80•100•125	1400	1450

- 1 Indoor unit
- 2 Pipe
- 3 Suspension bolt pitch (x4)
- 4 Suspension bolt pitch distance

For installation, choose one of the possibilities as listed further.

### Standard rear suction

See figure 6a

- 1 Ceiling surface
- 2 Ceiling opening
- 3 Service access panel (optional accessory)
- 4 Air filter
- 5 Air inlet duct
- 6 Duct service opening
- 7 Interchangeable plate

### Installation with rear duct and duct service opening

See figure 6b

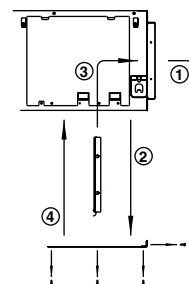
### Installation with rear duct, no duct service opening

See figure 6c

### NOTE

Before installation of the unit (in case of installation with duct, but no duct service opening): modify the position of the air filters.

- 1 Remove the air filter(s) at the outside of the unit
- 2 Remove the interchangeable plate
- 3 Install the air filter(s) from the inside of the unit
- 4 Reinstall the interchangeable plate.



### Bottom suction

See figure 7a

### NOTE

The unit can be used with bottom suction by replacing the interchangeable plate by the air filter holding plate.

- 1 air filter holding plate with air filter(s)
- 2 interchangeable plate
- 3 small bottom plate

## Mounting the air inlet panel with a canvas connection

See figure 7b

- 1 Ceiling surface
- 2 Ceiling opening
- 3 Air inlet panel (Optional accessory)
- 4 Indoor unit (Back side)
- 5 Canvas connection for air inlet panel (Optional accessory)

Model	A
FXYSP20•25•32	610
FXYSP40•50	760
FXYSP63	1060
FXYSP80•100•125	1460

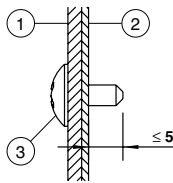
## Mounting the air inlet panel directly

See figure 7c

### NOTE

When installing an air inlet duct, select fixing screws that shall stick out maximum 5 mm at the inside of the flange.

- 1 Air inlet duct
- 2 Inside of the flange
- 3 Fixing screw



This is to protect the air filter from damage during maintenance of the filter.

- For other installation than standard installation, contact your Daikin dealer for details.

### 2. The fan speed for this indoor unit is preset to provide standard external static pressure.

If higher or lower external static pressure is required, reset the external static pressure by repositioning the adaptors of the PC-board.

Refer to "Setting of static pressure changeover connector".

### 3. Install the suspension bolts.

(Use M10 size bolt for the suspension bolt.) Use anchors for existing ceilings, and a sunken insert, sunken anchors or other field supplied parts for new ceilings to reinforce the ceiling in order to bear the weight of the unit.

### Installation example

See figure 4

- 1 Anchor
- 2 Ceiling slab
- 3 Long nut or turn-buckle
- 4 Suspension bolt
- 5 Indoor unit

### NOTE

All the above parts are field supplied.

## INDOOR UNIT INSTALLATION

When installing optional accessories (except for the air inlet panel), read also the installation manual of the optional accessories. Depending on the field conditions, it may be easier to install optional accessories before the indoor unit is installed.

### 1. Install the indoor unit temporarily.

- Attach the hanger bracket to the suspension bolt. Be sure to fix it securely by using a nut and washer from the upper and lower sides of the hanger bracket (see figure 5).

- 1 Nut (field supply)
- 2 Washer for hanger bracket (supplied with the unit)
- 3 Tighten (double nut)

### 2. Check if the unit is horizontally levelled.

- Do not install the unit tilted. The indoor unit is equipped with a built-in drain pump and float switch. (If the unit is tilted against condensate flow, the float switch may malfunction and cause water to drip.)
- Check if the unit is levelled at all four corners with a water level or a water-filled vinyl tube as shown in figure 13.

- 1 Water level
- 2 Vinyl tube

### 3. Tighten the upper nut.

### 4. Fix the paper pattern for installation.

- The paper pattern for installation corresponds with the measurements of the ceiling opening. Consult the builder for details.
- Attach the paper pattern for installation to the unit with the attached screws as shown in figure 17. The paper pattern for installation is marked for 3 types of ceiling openings. Read the notations carefully when installing.

- 1 Paper pattern for installation (supplied with the unit)
- 2 Screws for fixing the paper pattern for installation (supplied with the unit (6))

## REFRIGERANT PIPING WORK

For refrigerant piping of outdoor unit, refer to the installation manual supplied with the outdoor unit.

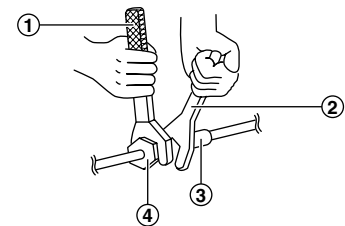
Before rigging tubes, check which type of refrigerant is used. (This unit uses R407C.)



All field piping must be provided by a licensed refrigeration technician and must comply with the relevant local and national codes.

- Use a pipe cutter and flare suitable for R407C.
- Apply ether oil or ester oil around the flare portions before connecting.
- To prevent dust, moisture or other foreign matter from infiltrating the tube, either pinch the end, or cover it with tape.
- The outdoor unit is charged with refrigerant.
- Be sure to use both a spanner and torque wrench together when connecting or disconnecting pipes to/from the unit.

- 1 Torque wrench
- 2 Spanner
- 3 Piping union
- 4 Flare nut



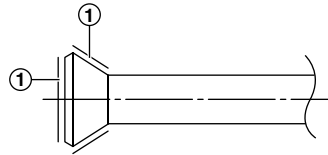
- Refer to Table 1 for the dimensions of flare nut spaces and the appropriate tightening torque. (Overtightening may damage the flare and cause leaks.)

Table 1

Pipe gauge	Tightening torque	Flare dimension A (mm)	Flare shape
Ø 6.4	1420~1720 N•cm (144~176 kgf•cm)	8.3~8.7	
Ø 9.5	3270~3990 N•cm (333~407 kgf•cm)	12.0~12.4	
Ø 12.7	4950~6030 N•cm (504~616 kgf•cm)	15.4~15.8	
Ø 15.9	6180~7540 N•cm (630~770 kgf•cm)	18.6~19.0	
Ø 19.1	9720~11860 N•cm (990~1210 kgf•cm)	22.9~23.3	

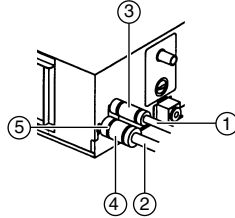
- When connecting the flare nut, coat the flare both inside and outside with ether oil or ester oil and initially tighten by hand 3 or 4 turns before tightening firmly.

- Coat here with ether oil or ester oil



- Check the pipe connector for gas leaks, the insulate it.

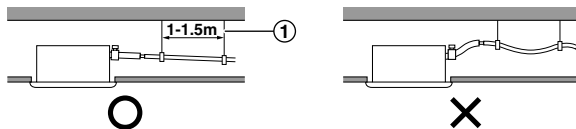
- Liquid pipe
- Gas pipe
- Insulation for fitting of liquid line (supplied with the unit)
- Insulation for fitting of gas line (supplied with the unit)
- Clamps (use 2 clamps per insulation)



## DRAIN PIPING WORK

Rig the drain piping as shown in the figure and take measures against condensation. Improperly rigged piping could lead to leaks and eventually wet furniture and belongings.

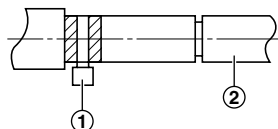
- Hanging bar



### 1. Install the drain pipes.

- Keep piping as short as possible and slope it downwards so that air may not remain trapped inside the pipe.
- Keep pipe size equal to or greater than that of the connecting pipe (Vinyl pipe of 25mm nominal diameter and 32mm outer diameter).
- Use the supplied drain hose and metal clamp. Tighten the clamp firmly.

- Metal clamp
- Drain hose



- Insulate the drain hose inside the building.
- If the drain hose cannot be sufficiently set on a slope, fit the hose with drain raising piping (field supply).

### HOW TO PERFORM PIPING (see figure 8)

- Ceiling slab
- Hanging bar
- Adjustable range
- Drain hose (supplied with the unit)
- Metal clamp (supplied with the unit)
- Drain raising pipe (field supply)

- Connect the drain hose to the drain raising pipes, and insulate them.
- Connect the drain hose to the drain pipe on the indoor unit, and tighten it with the metal clamp.

Installation	A
Rear suction installation	275
When canvas duct is installed	350-530
When air inlet panel is directly installed	275

- To ensure a downward slope of 1:100, install hanging bars every 1 to 1.5m.
  - If unifying multiple drain pipes, install the pipes as shown in figure 9.
- Multiple drain piping

### 2. After piping work is finished, check if drainage flows smoothly.

- Open the water inlet lid, add approximately 1l of water gradually and check the drainage flow (see figure 10).

- Water inlet
- Portable pump
- Water inlet lid
- Bucket (adding water from water inlet)
- Drain outlet for maintenance (with rubber drain plug)
- Refrigerant pipes

### NOTE

The drain outlet is only used to discharge water if the drain pump is not used or before maintenance. Gently put in and out the drain plug. Excessive force may deform the drain socket of the drain pan.






### WHEN ELECTRIC WIRING WORK IS FINISHED

Check drainage flow during COOL running, explained in chapter "TEST OPERATION".

### WHEN ELECTRIC WIRING WORK IS NOT FINISHED

Remove the switch box cover and connect the single-phase power supply and the remote controller to the terminals. (Refer to chapter "ELECTRIC WIRING WORK" for switch box attachment/detachment.) (Refer to figure 11a and 11b.)

- Switch box cover
- Power supply wiring port
- Transmission wiring port
- Wiring diagram
- Switch box
- Plastic clamp
- Remote controller wiring
- Terminal board for unit transmission wiring
- Power supply wiring
- Indoor PC board
- Power supply terminal board
- Earth screw
- Transmission wiring between units
- Adaptor for PC board

Next, press the inspection/test operation button  on the remote controller. The unit will engage the test operation mode. Press the operation mode selector button  until selecting fan operation . Then, press the on/off button . The indoor unit fan and drain pump will start up. Check that the water has drained from the unit. Press  to go back to the first mode.



# ELECTRIC WIRING WORK

## General instructions

- All field supplied parts and materials and electric works must conform to local codes.
- Use copper wire only.
- Follow the "Wiring diagram" attached to the switch box cover to wire the outdoor unit, indoor units and the remote controller. For details on hooking up the remote controller, refer to the "Installation manual of 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.
- 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.

## Electrical characteristics

Model	Hz	Volts	Voltage range
FXYSP20~125	50	230	min.198-max.264

	power supply		Fan motor	
	MCA	MFA	KW	FLA
FXYSP20*25*32	0.5	16A	0.05	0.4
FXYSP40	0.6	16A	0.065	0.5
FXYSP50	0.9	16A	0.085	0.7
FXYSP63	1.1	16A	0.125	0.9
FXYSP80	1.3	16A	0.135	1.0
FXYSP100	1.5	16A	0.135	1.2
FXYSP125	2.0	16A	0.225	1.6

MCA: Min. circuit Amps (A)  
MFA: Max. Fuse Amps (A)  
KW: Fan Motor Rated Output (kW)  
FLA: Full Load Amps (A)

### NOTE

For details, refer to "Electrical data".

## Specifications for field supplied fuses and wire

Model	Power supply wiring		
	Field fuses	Wire	Size
FXYSP20~125	16A	H05VV-U3G	Local codes

Model	Wire	Size
FXYSP20~125	Sheathed wire (2)	0.75-1.25mm <sup>2</sup>

### NOTE

For details, refer to the chapter "Wiring example".

Allowable length of transmission wiring between indoor and outdoor units, and between the indoor unit and the remote controller is as follows:

- 1 Outdoor unit - indoor unit: max. 1000m (total wiring length: 2000m)
- 2 Indoor unit - remote controller: max 500m

## WIRING EXAMPLE AND HOW TO SET THE REMOTE CONTROLLER

### How to connect wiring

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From the outside of the unit

---

Remove the switch box cover as shown in figure 11b, and make the connections.

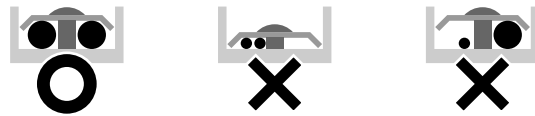
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From the inside of the unit

---

Remove the small bottom plate and the interchangeable plate (in case of rear suction) or the air filter holding plate (in case of bottom suction). Lower the switch box as shown in figure 11c. Put the wires through the wiring ports of the switch box cover before connecting them.

- 1 Small bottom plate
- 2 Air filter holding plate
- 3 Switch box
- 4 Interchangeable plate
- 5 Square hole (covered by the switch box cover)



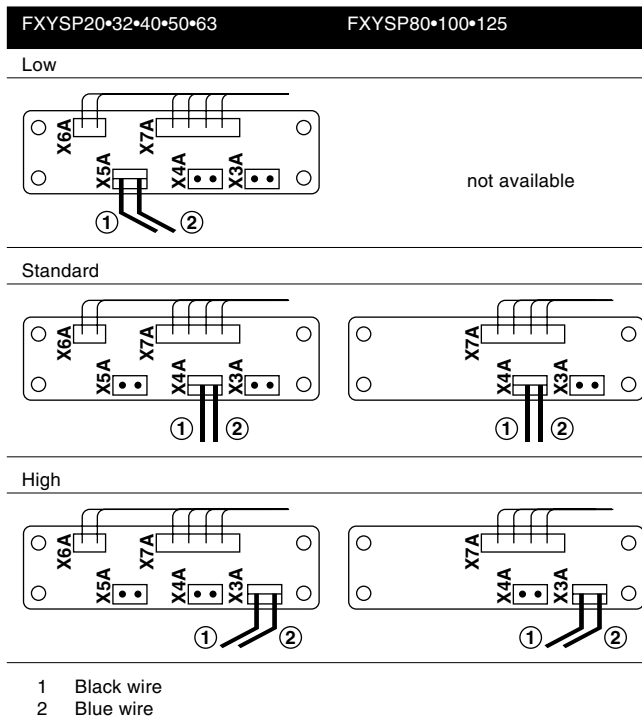
### PRECAUTIONS

- 1 Observe the notes mentioned below when wiring to the power supply terminal board.
  - 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 the figure.
- 2 Keep total current of crossover wiring between indoor units less than 12A. Branch the line outside the terminal board of the unit in accordance with electrical equipment standards, when using two power wiring of a gauge greater than 2mm<sup>2</sup> (Ø1.6).  
The branch must be sheathed in order to provide an equal or greater degree of insulation as power supply wiring itself.
- 3 Do not connect wires of different gauge to the same grounding terminal. Looseness in the connection may deteriorate the protection.
- 4 Remote controller cords and wires connecting the units should be located at least 50mm away from power supply wiring. Not following this guideline may result in malfunction due to electrical noise.
- 5 For the remote controller wiring, refer to the "Installation manual of the remote controller" supplied with the remote controller.
- 6 Never connect the power supply wiring to the terminal board for transmission wiring. This mistake could damage the entire system.

7 Use only specified wires and tightly connect wires to the terminals. Be careful that wires do not place external stress on the terminals. Keep wiring in neat order so that they do not obstruct other equipment such as popping open the switch box cover. Make sure the cover closes tight. Incomplete connections could result in overheating, and in the worse case, electric shock or fire.

### Setting of static pressure changeover connector

- According to the systems static pressure requirement, reposition the adaptors of the PC board inside the switch box as shown in the figure.



### NOTE

- The unit is factory set for standard static pressure (X4A) at the time of shipping.

### WIRING EXAMPLE

- Fit the power supply wiring of each unit with a switch and fuse as shown in figure 20.
  - Power supply
  - Main switch
  - Power supply wiring
  - Transmission wiring
  - Switch
  - Fuse
  - BS unit RSEYP only
  - Indoor unit
  - Remote controller

### COMPLETE SYSTEM EXAMPLE (3 systems)

When using 1 remote controller for 1 indoor unit. (Normal operation.) (see figure 12)

For group control or use with 2 remote controllers (see figure 14)

When including BS unit (see figure 16)

- Outdoor unit
- Indoor unit
- Remote controller (Optional accessories)

- Most downstream indoor unit
- For use with 2 remote controllers
- BS unit

### NOTE

- It is not necessary to designate an indoor unit address when using group control. The address is automatically set when the power is activated.

### PRECAUTIONS

- 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.
- For a group control remote controller, choose the remote controller that suits the indoor unit which has the most functions.
- Do not ground the equipment on gas pipes, water pipes, lightning rods or crossground with telephones. Improper grounding could result in electric shock.

### 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 part of the remote controller and, working from the 2 positions, pry off the upper part. (see figure 15) (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 boards to "S". (see figure 19) (Leave the switch of the other remote controller set to "M".)
  - Remote controller PC board
  - Factory setting
  - Only one remote controller needs to be changed

### Computerised control (forced off and on/off operation)

- Wire specifications and how to perform wiring.
  - Connect input from outside to terminals T1 and T2 of the terminal board (remote controller to transmission wiring).

Wire specification    Shielded vinyl cord or cable (2 wire)

Gauge                    0.75-1.25mm<sup>2</sup>

Length                    Max. 100m

External terminal        Contact that can ensure the minimum applicable load of 15V DC, 10mA

See figure 18

- Input A

### 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	input off → on: turns on the unit (impossible by remote controllers)
Input "off" enables control	input on → off: turns off the unit by remote controller

### 3. How to select forced off and on/off operation

- Turn the power on and then use the remote controller to select operation.
- Set the remote controller to the field set mode. For details, refer to the chapter "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 No. to '1'. Then set second code (position) No. to '01' for forced off and to '02' for on/off operation. (forced off at factory set.)(see figure 21)

- Second code No.
- Mode No.
- First code No.
- Field set mode

### Centralized control

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

### INSTALLATION OF THE DECORATION PANEL

Refer to the installation manual attached to the decoration panel.

After installing the decoration panel, ensure that there is no space between the unit body and decoration panel.

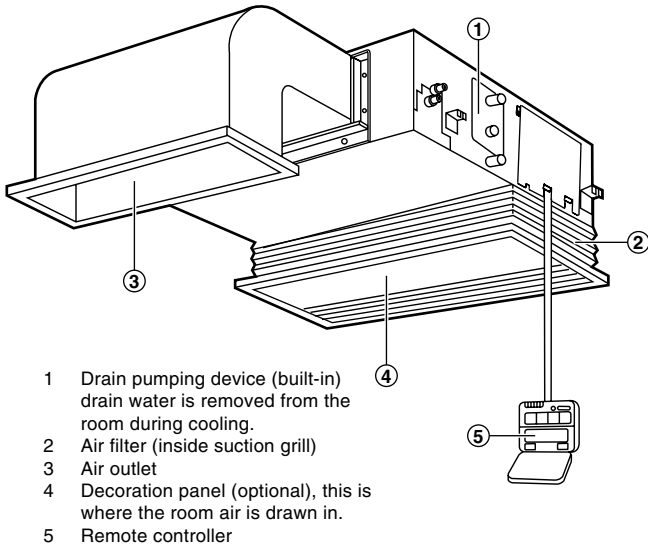
### TEST OPERATION

Refer to the installation manual of the outdoor unit.

- The operation lamp of the remote controller will flash when an error occurs. Check the error code on the liquid crystal display to identify the trouble. An explanation of error codes and the corresponding trouble is provided on "Caution for servicing" sticker on the indoor units switch box.

### PRECAUTIONS

In case something is wrong with the unit and it does not operate, refer to the malfunction diagnosis label attached to the unit.



### MAINTENANCE

#### IMPORTANT

- ONLY A QUALIFIED SERVICE PERSON IS ALLOWED TO PERFORM MAINTENANCE.
- BEFORE OBTAINING ACCESS TO TERMINAL DEVICES, ALL POWER SUPPLY CIRCUITS MUST BE INTERRUPTED.
- DO NOT USE WATER OR AIR OF 50°C OR HIGHER FOR CLEANING AIR FILTERS AND OUTSIDE PANELS

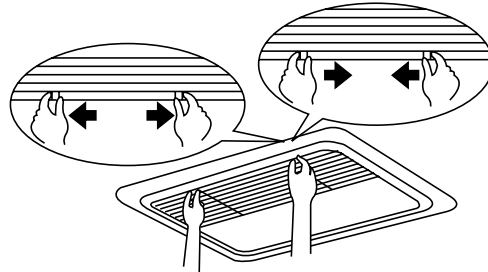
### HOW TO CLEAN THE AIR FILTER

Clean the air filter when the display shows " " (TIME TO CLEAN AIR FILTER).

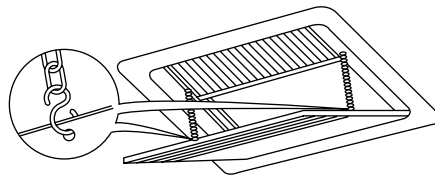
Increase the frequency of cleaning if the unit is installed in a room where the air is extremely contaminated.

If the dirt becomes impossible to clean, change the air filter. (Air filter for exchange is optional.)

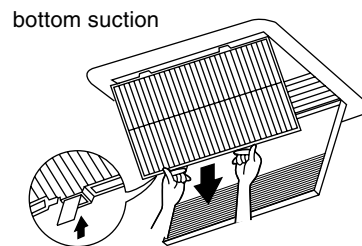
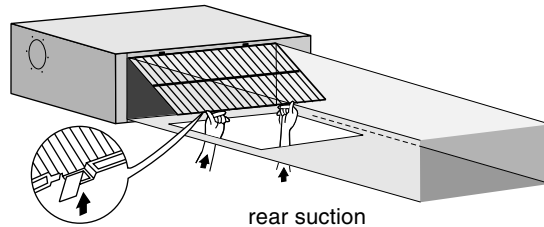
- Open the suction grille. (Only for bottom suction.)  
Slide both knobs simultaneously as shown and then pull them downward.



If chains are present, unhook the chains.

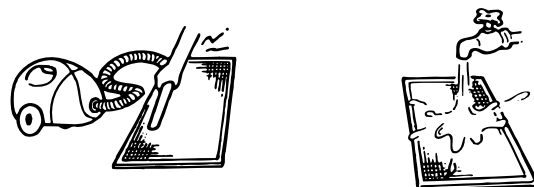


- Remove the air filters.  
Remove the air filters by pulling their cloth upward (rear suction) or backward (bottom suction).



- Clean the air filter.  
Use vacuum cleaner (A) or wash the air filter with water (B).

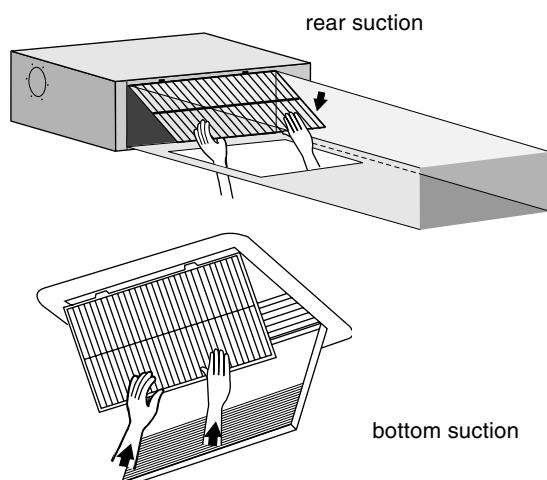
(A) Using a vacuum cleaner      (B) Washing with water



When the air filter is very dirty, use soft brush and neutral detergent.

Remove water and dry in the shade.

4. Fix the air filter.



Align the two hanger brackets and push the two clips in their place (pull the cloth if necessary).  
Confirm that four hangers are fixed.

5. Shut the air inlet grille. (Only for bottom suction.)  
Refer to item No. 1.
6. After turning on the power, press FILTER SIGN RESET button.  
The "TIME TO CLEAN AIR FILTER" display is turned off.

## HOW TO CLEAN AIR OUTLET AND OUTSIDE PANELS

- Clean with soft cloth.
- When it is difficult to remove stains, use water of neutral detergent.
- Clean the air inlet grille when it is shut.

### NOTE

Do not use gasoline, benzene, thinner, polishing powder, liquid insecticide. It may cause discoloring or warping.

Do not let the indoor unit get wet. It may cause an electric shock or a fire.

## START UP AFTER A LONG STOP

Confirm the following:

- Check that the air inlet and outlet are not blocked. Remove any obstacle.
- Check if the earth is connected.

Clean the air filter and outside panels.

- After cleaning the air filter, make sure to attach it.

Turn on the main power supply switch.

- The control panel display lights when the power is turned on.
- To protect the unit, turn on the main power switch at least 6 hours before operation.

## WHAT TO DO WHEN STOPPING THE SYSTEM FOR A LONG PERIOD

Turn on FAN OPERATION for half a day and dry the unit.

- Refer to the operation manual of the outdoor unit.

Cut off the power supply.

- When the main power switch is turned on, some wattage is being consumed even if the system is not operating.
- The remote controller display is turned off when the main power switch is turned off.

## DISPOSAL REQUIREMENTS

Dismantling of the unit, treatment of the refrigerant, oil and eventual other parts, should be done in accordance with the relevant local and national regulations.

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