

# Air-Conditioners

## SUZ-KA25, KA35, KA50, KA60, KA71VA5

### INSTALLATION MANUAL

For safe and correct use, read this manual and the indoor unit installation manual thoroughly before installing the air-conditioner unit.

**FOR INSTALLER**

### INSTALLATIONSHANDBUCH

Aus Sicherheitsgründen und zur richtigen Verwendung vor der Installation die vorliegende Bedienungsanleitung und die Installationsanleitung der Innenanlage gründlich durchlesen die Klimaanlage.

**FÜR INSTALLATEURE**

### MANUEL D'INSTALLATION

Avant d'installer le climatiseur, lire attentivement ce manuel, ainsi que le manuel d'installation de l'appareil intérieur pour une utilisation sûre et correcte.

**POUR L'INSTALLATEUR**

### INSTALLATIEHANDLEIDING

Lees deze handleiding en de installatiehandleiding van het binnenapparaat zorgvuldig door voordat u met het installeren van de airconditioner begint.

**VOOR DE INSTALLATEUR**

### MANUAL DE INSTALACIÓN

Para un uso correcto y seguro, lea detalladamente este manual y el manual de instalación de la unidad interior antes de instalar la unidad de aire acondicionado.

**PARA EL INSTALADOR**

### MANUALE DI INSTALLAZIONE

Per un uso sicuro e corretto, leggere attentamente il presente manuale ed il manuale d'installazione dell'unità interna prima di installare il condizionatore d'aria.

**PER L'INSTALLATORE**

### ΕΓΧΕΙΡΙΔΙΟ ΟΔΗΓΙΩΝ ΕΓΚΑΤΑΣΤΑΣΗΣ

Για σωστή και ασφαλή χρήση, διαβάστε προσεκτικά αυτό το εγχειρίδιο καθώς και το εγχειρίδιο εγκατάστασης της εσωτερικής μονάδας, προτού εγκαταστήσετε τη μονάδα του κλιματιστικού.

**ΓΙΑ ΑΥΤΟΝ ΠΟΥ ΚΑΝΕΙ ΤΗΝ ΕΓΚΑΤΑΣΤΑΣΗ**

### MANUAL DE INSTALAÇÃO

Para uma utilização segura e correcta, leia atentamente este manual e o manual de instalação da unidade interior antes de instalar o aparelho de ar condicionado.

**PARA O INSTALADOR**

### INSTALLATIONSMANUAL

Læs af sikkerhedshensyn denne manual samt manualen til installation af indendørsenheden grundigt, før du installerer klimaanlægget.

**TIL INSTALLATØREN**

### INSTALLATIONSMANUAL

Läs bruksanvisningen och inomhusenhetens installationshandbok noga innan luftkonditioneringen installeras så att den används på ett säkert och korrekt sätt.

**FÖR INSTALLATÖREN**

### MONTAJ ELKİTABI

Emniyetli ve doğru kullanım için, klima cihazını monte etmeden önce bu kılavuzu ve iç ünite montaj kılavuzunu tamamiyle okuyun.

**MONTÖR İÇİN**

### INSTALLASJONSHÅNDBOK

For å sikre trygg og riktig bruk skal denne håndboken samt installasjonshåndboken for innendørsenheten leses grundig gjennom før du installerer klimaanleggenheten.

**FOR MONTØR**

### INSTRUKCJA MONTAŻU

Aby zapewnić bezpieczne i prawidłowe korzystanie z urządzenia, przed montażem klimatyzatora należy dokładnie zapoznać się z treścią niniejszej instrukcji oraz instrukcji montażu jednostki wewnętrznej.

**DLA INSTALATORA****English****Deutsch****Français****Nederlands****Español****Italiano****Ελληνικά****Português****Dansk****Svenska****Türkçe****Norsk****Polski**

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## 1. The following should always be observed for safety

- Please provide an exclusive circuit for the air conditioner and do not connect other electrical appliances to it.
- Be sure to read “The following should always be observed for safety” before installing the air conditioner.
- Be sure to observe the cautions specified here as they include important items related to safety.
- The indications and meanings are as follows.

**⚠ Warning:**  
Could lead to death, serious injury, etc.

**⚠ Caution:**  
Could lead to serious injury in particular environments when operated incorrectly.

- **⚠ Warning:**  
Do not install it by yourself (customer).  
Incomplete installation could cause injury due to fire, electric shock, the unit falling or leakage of water. Consult the dealer from whom you purchased the unit or special installer.
- This appliance is intended to be used by expert or trained users in shops, in light industry and on farms, or for commercial use by lay persons.
- Install the unit securely in a place which can bear the weight of the unit. When installed in an insufficient strong place, the unit could fall causing injured.
- Use the specified wires to connect the indoor and outdoor units securely and attach the wires firmly to the terminal board connecting sections so the stress of the wires is not applied to the sections. Incomplete connecting and fixing could cause fire.
- Do not use intermediate connection of the power cord or the extension cord and do not connect many devices to one AC outlet. It could cause a fire or an electric shock due to defective contact, defective insulation, exceeding the permissible current, etc.
- Check that the refrigerant gas does not leak after installation has completed.
- Perform the installation securely referring to the installation manual. Incomplete installation could cause a personal injury due to fire, electric shock, the unit falling or leakage of water.
- Use only specified cables for wiring. The wiring connections must be made securely with no tension applied on the terminal connections. Also, never splice the cables for wiring (unless otherwise indicated in this document). Failure to observe these instructions may result in overheating or a fire.
- Perform electrical work according to the installation manual and be sure to use an exclusive circuit.

- **⚠ Caution:**  
Perform grounding.  
Do not connect the ground wire to a gas pipe, water pipe arrester or telephone ground wire. Defective grounding could cause an electric shock.
- Do not install the unit in a place where an inflammable gas leaks. If gas leaks and accumulates in the area surrounding the unit, it could cause an explosion.
- Install a ground leakage breaker depending on the installation place (where it is humid).

- After reading this manual, be sure to keep it together with the instruction manual in a handy place on the customer’s site.

**⚡** : Indicates a part which must be grounded.

**⚠ Warning:**  
Carefully read the labels affixed to the main unit.

- If the capacity of the power circuit is insufficient or there is incomplete electrical work, it could result in a fire or an electric shock.
- Attach the electrical part cover to the indoor unit and the service panel to the outdoor unit securely.  
If the electrical part cover in the indoor unit and/or the service panel in the outdoor unit are not attached securely, it could result in a fire or an electric shock due to dust, water, etc.
- Be sure to use the part provided or specified parts for the installation work. The use of defective parts could cause an injury or leakage of water due to a fire, an electric shock, the unit falling, etc.
- Ventilate the room if refrigerant leaks during operation. If the refrigerant comes in contact with a flame, poisonous gases will be released.
- When pumping down the refrigerant, stop the compressor before disconnecting the refrigerant pipes. The compressor may burst if air etc. get into it.
- When installing or relocating, or servicing the air conditioner, use only the specified refrigerant (R410A) to charge the refrigerant lines. Do not mix it with any other refrigerant and do not allow air to remain in the lines. If air is mixed with the refrigerant, then it can be the cause of abnormal high pressure in the refrigerant line, and may result in an explosion and other hazards.  
The use of any refrigerant other than that specified for the system will cause mechanical failure or system malfunction or unit breakdown. In the worst case, this could lead to a serious impediment to securing product safety.

- If a ground leakage breaker is not installed, it could cause an electric shock.
- Perform the drainage/piping work securely according to the installation manual.  
If there is a defect in the drainage/piping work, water could drop from the unit and household goods could be wet and damaged.
- Fasten a flare nut with a torque wrench as specified in this manual. When fastened too tight, a flare nut may be broken after a long period and cause a leakage of refrigerant.

## 2. Selecting the installation location

### 2.1. Outdoor unit

- Where it is not exposed to strong wind.
- Where airflow is good and dustless.
- Where it is not exposed to rain and direct sunshine.
- Where neighbours are not annoyed by operation sound or hot air.
- Where rigid wall or support is available to prevent the increase of operation sound or vibration.
- Where there is no risk of combustible gas leakage.
- When installing the unit at a high level, be sure to fix the unit legs.
- Where it is at least 3 m away from the antenna of TV set or radio. (Otherwise, images would be disturbed or noise would be generated.)
- Please install it in an area not affected by snowfall or blowing snow. In areas with heavy snow, please install a canopy, a pedestal and/or some baffle boards.
- Install the unit horizontally.

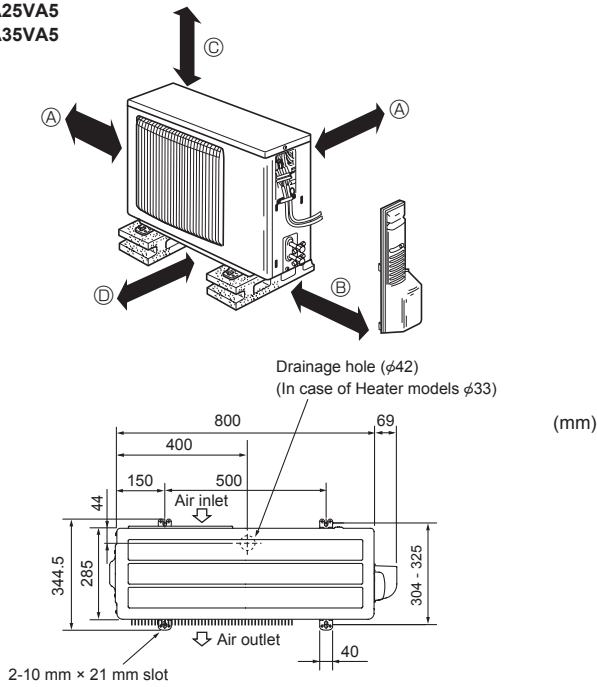
**⚠ Caution:**  
Avoid the following places for installation where air conditioner trouble is liable to occur.

- Where there is too much machine oil.
- Salty environment as seaside areas.
- Hot-spring areas.
- Where sulfide gas exists.
- Other special atmospheric areas.

The outdoor unit produces condensate during the heating operation. Select the installation place to ensure to prevent the outdoor unit and/or the grounds from being wet by drain water or damaged by frozen drain water.

### 3. Installation diagram

■ SUZ-KA25VA5  
SUZ-KA35VA5



■ SUZ-KA50VA5  
SUZ-KA60VA5  
SUZ-KA71VA5

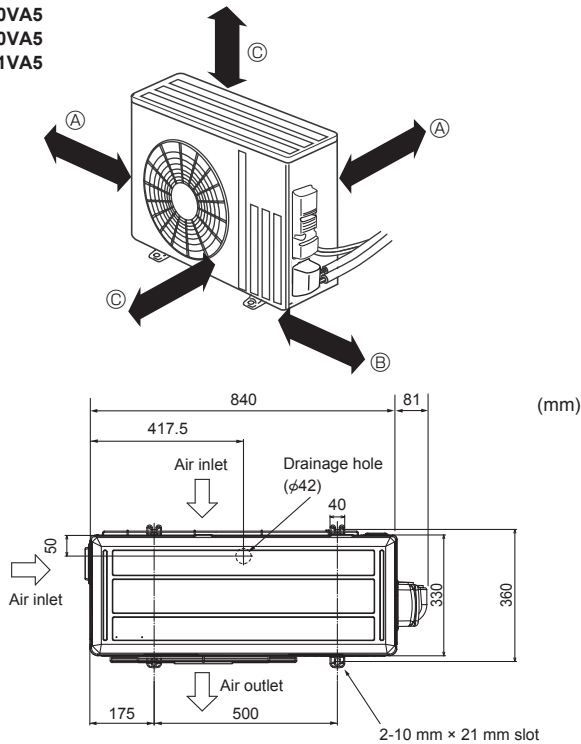


Fig. 3-1

#### 3.1. Outdoor unit (Fig. 3-1)

##### Ventilation and service space

■ SUZ-KA25VA5

SUZ-KA35VA5

Ⓐ 100 mm or more

Ⓑ 350 mm or more

Ⓒ Basically open 100 mm or more without any obstruction in front and on both sides of the unit.

Ⓓ 200 mm or more (Open two sides of left, right, or rear side.)

■ SUZ-KA50VA5

SUZ-KA60VA5

SUZ-KA71VA5

Ⓐ 100 mm or more

Ⓑ 350 mm or more

Ⓒ 500 mm or more

When the piping is to be attached to a wall containing metals (tin plated) or metal netting, use a chemically treated wooden piece 20 mm or thicker between the wall and the piping or wrap 7 to 8 turns of insulation vinyl tape around the piping.

Units should be installed by licensed contractor accordingly to local code requirement.

##### Note:

**When operating the air conditioner in low outside temperature, be sure to follow the instructions described below.**

- Never install the outdoor unit in a place where its air inlet/outlet side may be exposed directly to wind.
- To prevent exposure to wind, install the outdoor unit with its air inlet side facing the wall.
- To prevent exposure to wind, it is recommended to install a baffle board on the air outlet side of the outdoor unit.

### 4. Drain piping for outdoor unit (Fig. 4-1)

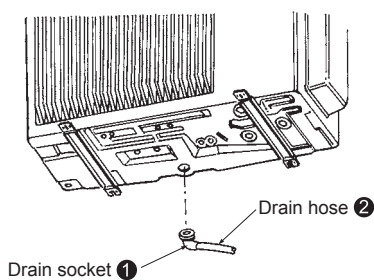


Fig. 4-1

#### 4.1. Accessories

Check the following parts before installation.

<Outdoor unit>

①	Drain socket	1
---	--------------	---

- Provide drain piping before indoor and outdoor piping connection. (It will be hard to install drain socket ① if indoor and outdoor piping connection is conducted prior to drain piping as outdoor unit becomes immovable.)
- Connect the drain hose ② (obtainable at a store, inside diameter: 15 mm) as shown in the figure for drainage.
- Make sure to provide drain piping with a downhill grade for easy drain flow.

##### Note:

**Do not use the drain socket ① in the cold region. Drain may freeze and it makes the fan stop.**

## 5. Refrigerant piping work

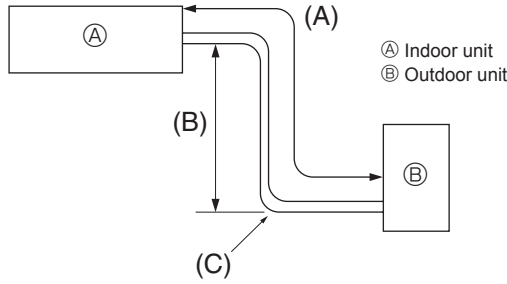


Fig. 5-1

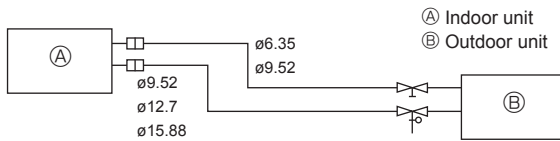


Fig. 5-2

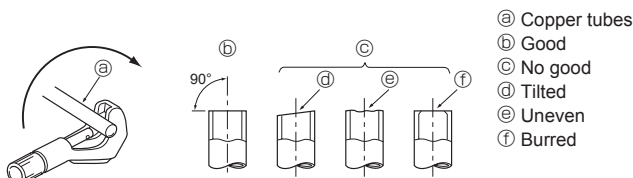


Fig. 5-3

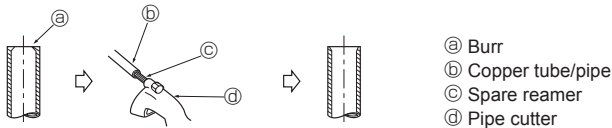


Fig. 5-4



Fig. 5-5

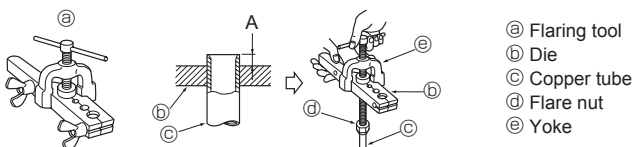


Fig. 5-6

### 5.1. Refrigerant pipe (Fig. 5-1)

► Check that the difference between the heights of the indoor and outdoor units, the length of refrigerant pipe, and the number of bends in the pipe are within the limits shown below.

Models	(A) Pipe length (one way)	(B) Height difference	(C) Number of bends (one way)
SUZ-KA25/KA35	Max. 20 m	Max. 12 m	Max. of 10
SUZ-KA50/KA60/KA71	Max. 30 m	Max. 30 m	Max. of 10

- Height difference limitations are binding regardless of which unit, indoor or outdoor, is positioned higher.
- Refrigerant adjustment ... If pipe length exceeds 7 m, additional refrigerant (R410A) charge is required.  
(The outdoor unit is charged with refrigerant for pipe length up to 7 m.)

Pipe length	Up to 7 m	No additional charge is required.
	Exceeding 7 m	Additional charge is required. (Refer to the table below.)
Refrigerant to be added	SUZ-KA25/KA35 type	30 g × (refrigerant piping length (m) - 7)
	SUZ-KA50/KA60 type	20 g × (refrigerant piping length (m) - 7)
	SUZ-KA71 type	55 g × (refrigerant piping length (m) - 7)

(1) Table below shows the specifications of pipes commercially available.

Model	Pipe	Outside diameter		Min. wall thickness	Insulation thickness	Insulation material
		mm	inch			
SUZ-KA25	For liquid	6.35	1/4	0.8 mm	8 mm	Heat resisting foam plastic 0.045 specific gravity
	For gas	9.52	3/8	0.8 mm	8 mm	
SUZ-KA35	For liquid	6.35	1/4	0.8 mm	8 mm	
	For gas	9.52	3/8	0.8 mm	8 mm	
SUZ-KA50	For liquid	6.35	1/4	0.8 mm	8 mm	
	For gas	12.7	1/2	0.8 mm	8 mm	
SUZ-KA60	For liquid	6.35	1/4	0.8 mm	8 mm	
	For gas	15.88	5/8	0.8 mm	8 mm	
SUZ-KA71	For liquid	9.52	3/8	0.8 mm	8 mm	
	For gas	15.88	5/8	1.0 mm	8 mm	

- (2) Ensure that the 2 refrigerant pipes are well insulated to prevent condensation.  
(3) Refrigerant pipe bending radius must be 100 mm or more.

#### ⚠ Caution:

Using careful insulation of specified thickness. Excessive thickness prevents storage behind the indoor unit and smaller thickness causes dew dripping.

### 5.2. Flaring work

- Main cause of gas leakage is defect in flaring work.  
Carry out correct flaring work in the following procedure.

#### 5.2.1. Pipe cutting (Fig. 5-3)

- Using a pipe cutter cut the copper tube correctly.

#### 5.2.2. Burrs removal (Fig. 5-4)

- Completely remove all burrs from the cut cross section of pipe/tube.  
Put the end of the copper tube/pipe to downward direction as you remove burrs in order to avoid burrs drop in the tubing.

#### 5.2.3. Putting nut on (Fig. 5-5)

- Remove flare nuts attached to indoor and outdoor unit, then put them on pipe/tube having completed burr removal.  
(not possible to put them on after flaring work)

#### 5.2.4. Flaring work (Fig. 5-6)

- Carry out flaring work using flaring tool as shown at the right.

Pipe diameter (mm)	Dimension	
	A (mm)	B <sup>+0</sup> <sub>-0.4</sub> (mm)
	When the tool for R410A is used Clutch type	
6.35	0 - 0.5	9.1
9.52	0 - 0.5	13.2
12.7	0 - 0.5	16.6
15.88	0 - 0.5	19.7

Firmly hold copper tube in a die in the dimension shown in the table at above.

## 5. Refrigerant piping work

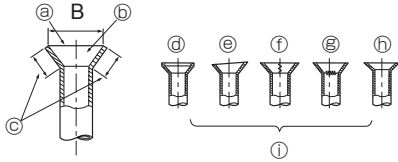


Fig. 5-7

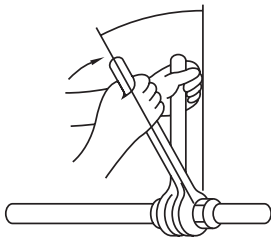


Fig. 5-8

### 5.2.5. Check (Fig. 5-7)

- Compare the flared work with a figure in right side hand.
- If flare is noted to be defective, cut off the flared section and do flaring work again.

- |   |                           |
|---|---------------------------|
| Ⓐ Smooth all around                       | Ⓣ Scratch on flared plane |
| Ⓑ Inside is shining without any scratches | Ⓤ Cracked                 |
| Ⓒ Even length all around                  | Ⓥ Uneven                  |
| Ⓓ Too much                                | Ⓦ Bad examples            |
| Ⓔ Tilted                                  |                           |

- Apply a thin coat of refrigeration oil on the seat surface of pipe. (Fig. 5-8)
- For connection first align the center, then tighten the first 3 to 4 turns of flare nut.
- Use tightening torque table below as a guideline for indoor unit side union joint section, and tighten using two wrenches. Excessive tightening damages the flare section.

Copper pipe O.D. (mm)	Flare nut O.D. (mm)	Tightening torque (N·m)
ø6.35	17	14 - 18
ø9.52	22	34 - 42
ø12.7	26	49 - 61
ø15.88	29	68 - 82

#### ⚠ Warning:

When installing the unit, securely connect the refrigerant pipes before starting the compressor.

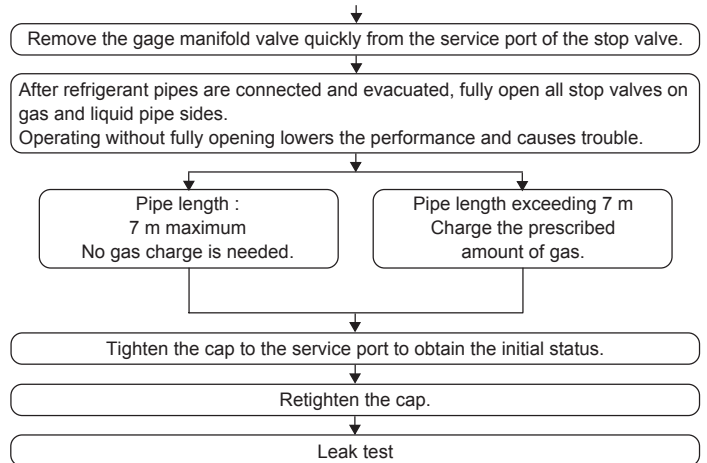
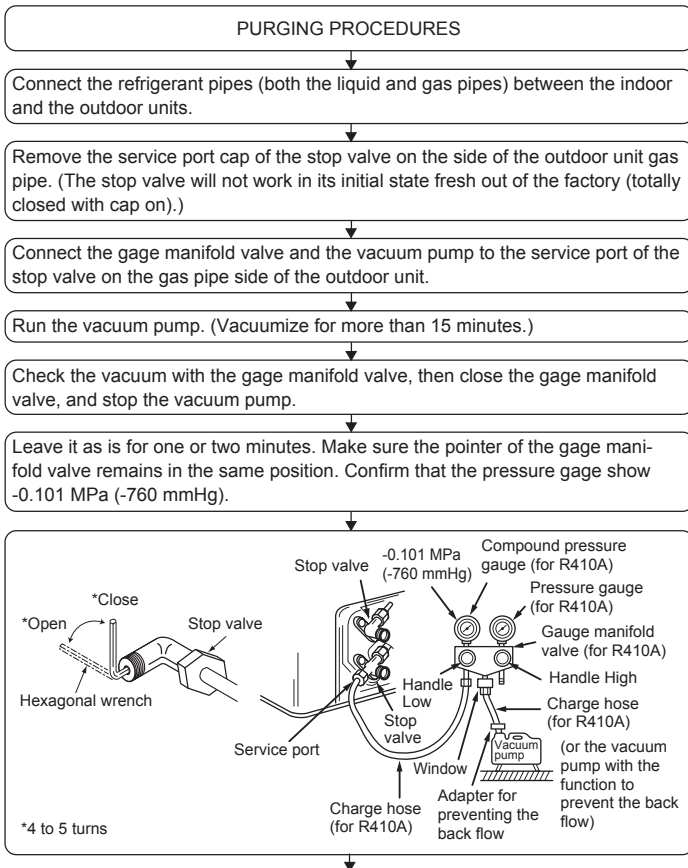
#### ⚠ Warning:

Be careful of flying flare nut! (Internally pressurized)

Remove the flare nut as follows:

1. Loosen the nut until you hear a hissing noise.
2. Do not remove the nut until the gas has been completely released (i.e., hissing noise stops).
3. Check that the gas has been completely released, and then remove the nut.

## 5.5. Purging procedures leak test



## 6. Electrical work

### 6.1. Outdoor unit (Fig. 6-1, Fig. 6-2, Fig. 6-3, Fig. 6-4)

- ① Remove the service panel.
- ② Wire the cables referring to the Fig. 6-1, Fig. 6-2, Fig. 6-3 and the Fig. 6-4.

#### ■ SUZ-KA25/35/50VA5

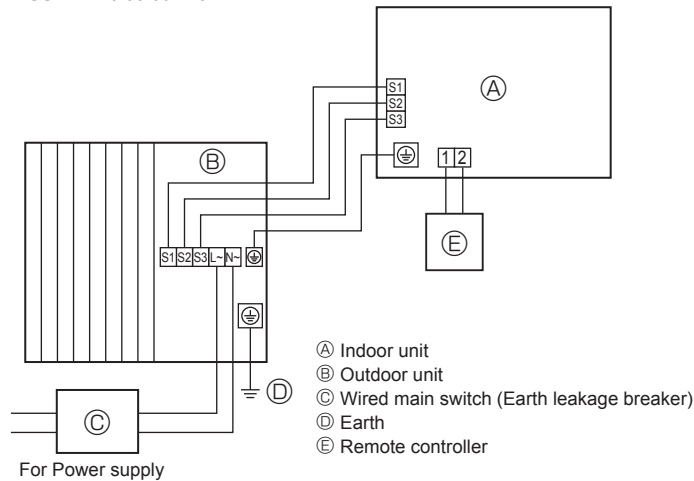


Fig. 6-1

#### ■ SUZ-KA60/71VA5

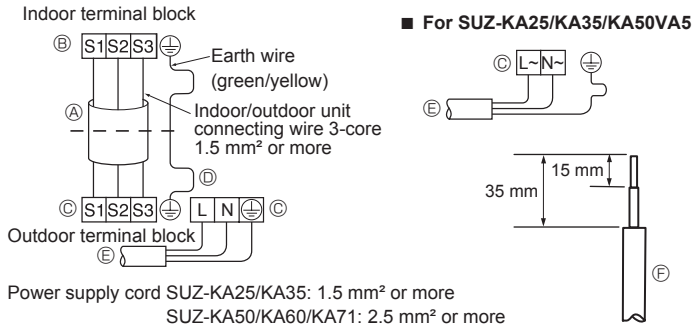
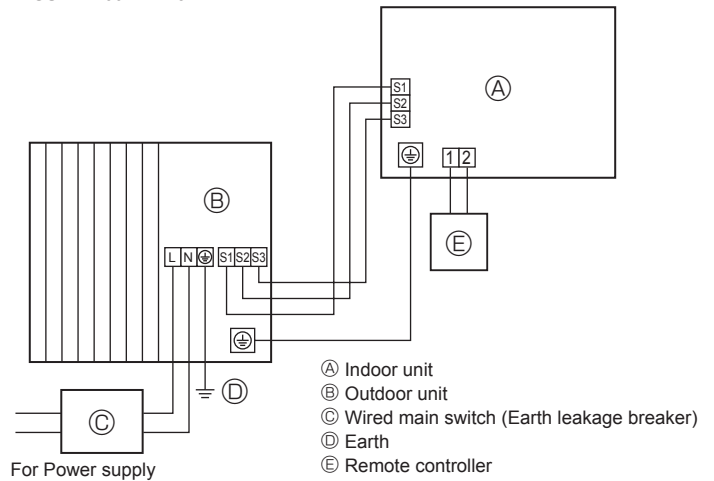


Fig. 6-2

#### ■ SUZ-KA25/35VA5

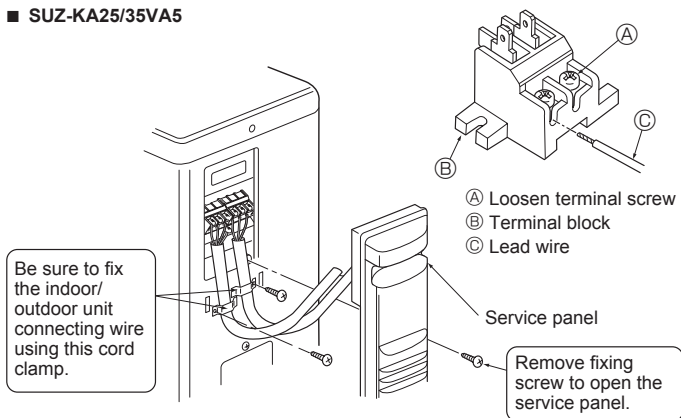


Fig. 6-3

#### ■ SUZ-KA50/60/71VA5

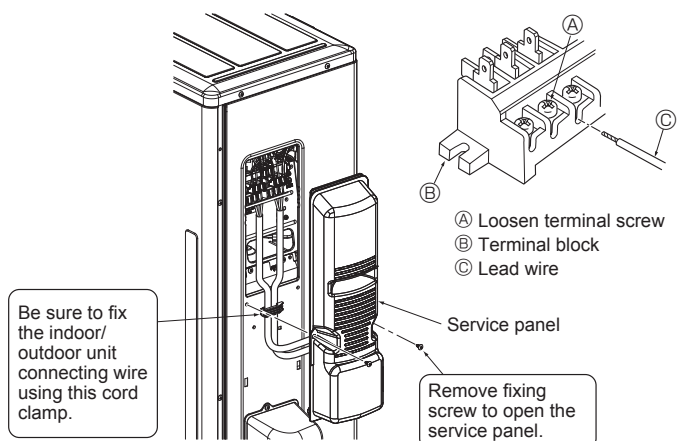


Fig. 6-4

- Perform wiring as shown in the diagram to the lower left. (Procure the cable locally) (Fig. 6-2)

Make sure to use cables of the correct polarity only.

- (A) Connecting cable
- (B) Indoor terminal block
- (C) Outdoor terminal block
- (D) Always install an earth wire longer than other cables.
- (E) Power supply cord
- (F) Lead wire

- Make earth wire a little longer than others. (More than 100 mm)
- For future servicing, give extra length to the connecting wires.
- Be sure to attach each screw to its correspondent terminal when securing the cord and/or the wire to the terminal block.

- Connect cable from the indoor unit correctly on the terminal-block.
- Use the same terminal block and polarity as is used with the indoor unit.
- For aftercare maintenance, give extra length to connecting cable.

- Both end of connecting cable (extension wire) are peeled off. When too long, or connected by cutting off the middle, peel off power supply cable to the size given in the figure.
- Be careful not to contact connecting cable with piping.

#### ⚠ Caution:

- Use care not to make miswiring.
- Firmly tighten the terminal screws to prevent them from loosening.
- After tightening, pull the wires lightly to confirm that they do not move.

#### ⚠ Warning:

- Be sure to attach the service panel of the outdoor unit securely. If it is not attached correctly, it could result in a fire or an electric shock due to dust, water, etc.
- Tighten terminal screws securely.
- Wiring should be done so that the power lines are not subject to tension. Otherwise, heat may be generated or fire may occur.

## 6. Electrical work

### 6.2. Field electrical wiring

Outdoor unit model		SUZ-KA25/KA35	SUZ-KA35 *3	SUZ-KA50/KA60/KA71
Outdoor unit power supply		~N (single), 50 Hz, 230 V	~N (single), 50 Hz, 230 V	~N (single), 50 Hz, 230 V
Outdoor unit input capacity Main switch (Breaker)		*1	10 A	16 A
Wiring Wire No. x size (mm <sup>2</sup> )	Outdoor unit power supply	2 × Min. 1.5	2 × Min. 2.0	2 × Min. 2.5
	Outdoor unit power supply earth	1 × Min. 1.5	1 × Min. 2.0	1 × Min. 2.5
	Indoor unit-Outdoor unit	3 × 1.5 (Polar)	3 × 1.5 (Polar)	3 × 1.5 (Polar)
	Indoor unit-Outdoor unit earth	1 × Min. 1.5	1 × Min. 1.5	1 × Min. 1.5
Circuit rating	Outdoor unit L-N	*2	230 VAC	230 VAC
	Indoor unit-Outdoor unit S1-S2	*2	230 VAC	230 VAC
	Indoor unit-Outdoor unit S2-S3	*2	12 VDC – 24 VDC	12 VDC – 24 VDC

\*1. A breaker with at least 3 mm contact separation in each poles shall be provided. Use earth leakage breaker (NV).

Make sure that the current leakage breaker is one compatible with higher harmonics.

Always use a current leakage breaker that is compatible with higher harmonics as this unit is equipped with an inverter.

The use of an inadequate breaker can cause the incorrect operation of inverter.

\*2. The figures are NOT always against the ground.

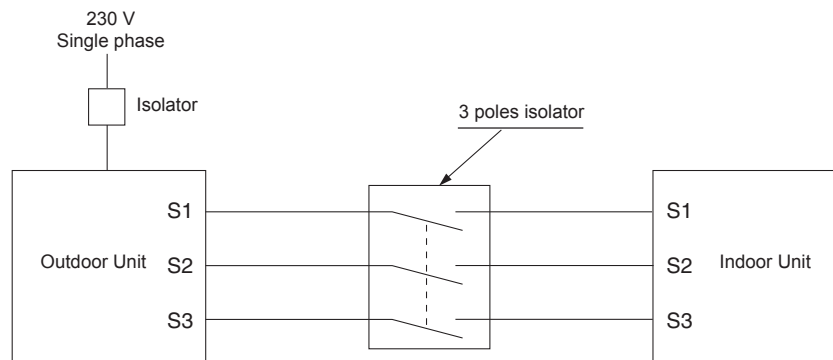
S3 terminal has 24 VDC against S2 terminal. However between S3 and S1, these terminals are NOT electrically insulated by the transformer or other device.

\*3. In case of PEAD-RP35JA series combination.

Notes: 1. Wiring size must comply with the applicable local and national code.

2. Power supply cords and Indoor/Outdoor unit connecting cords shall not be lighter than polychloroprene sheathed flexible cord. (Design 60245 IEC 57)

3. Install an earth longer than other cables.



#### ⚠ Warning:

There is high voltage potential on the S3 terminal caused by electrical circuit design that has no electrical insulation between power line and communication signal line. Therefore, please turn off the main power supply when servicing. And do not touch the S1, S2, S3 terminals when the power is energized. If isolator should be used between indoor unit and outdoor unit, please use 3-poles type.

Never splice the power cable or the indoor-outdoor connection cable, otherwise it may result in a smoke, a fire or communication failure.

## 7. Maintenance

### 7.1. Gas charge (Fig. 7-1)

1. Connect gas cylinder to the service port of stop valve (3-way).
2. Execute air purge of the pipe (or hose) coming from refrigerant gas cylinder.
3. Replenish specified amount of refrigerant, while running the air conditioner for cooling.

#### Note:

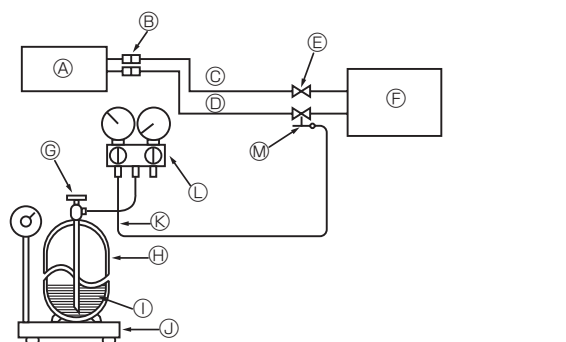
In case of adding refrigerant, comply with the quantity specified for the refrigerating cycle.

#### ⚠ Caution:

- Do not discharge the refrigerant into the atmosphere. Take care not to discharge refrigerant into the atmosphere during installation, reinstallation, or repairs to the refrigerant circuit.
- For additional charging, charge the refrigerant from liquid phase of the gas cylinder.

If the refrigerant is charged from the gas phase, composition change may occur in the refrigerant inside the cylinder and the outdoor unit. In this case, ability of the refrigerating cycle decreases or normal operation can be impossible. However, charging the liquid refrigerant all at once may cause the compressor to be locked. Thus, charge the refrigerant slowly.

To maintain the high pressure of the gas cylinder, warm the gas cylinder with warm water (under 40°C) during cold season. But never use naked fire or steam.



- |  |  |
|--|--|
| (A) Indoor unit                              | (H) Refrigerant gas cylinder for R410A with siphon |
| (B) Union                                    | (I) Refrigerant (liquid)                           |
| (C) Liquid pipe                              | (J) Electronic scale for refrigerant charging      |
| (D) Gas pipe                                 | (K) Charge hose (for R410A)                        |
| (E) Stop valve                               | (L) Gauge manifold valve (for R410A)               |
| (F) Outdoor unit                             | (M) Service port                                   |
| (G) Refrigerant gas cylinder operating valve |  |

Fig. 7-1

## 8. Pumping down

When relocating or disposing of the air conditioner, pump down the system following the procedure below so that no refrigerant is released into the atmosphere.

- ① Turn off the power supply (circuit breaker).
- ② Connect the gauge manifold valve to the service port of the stop valve on the gas pipe side of the outdoor unit.
- ③ Fully close the stop valve on the liquid pipe side of the outdoor unit.
- ④ Supply power (circuit breaker).
- ⑤ Perform the refrigerant collecting operation (cooling test run).
  - For the PAR-31MAA, select "Service" → "TestRun" from the main menu to start the test run, and then select the cooling mode.
  - For details or for other information about starting the test run when using remote controllers, refer to the installation manual for the indoor unit or the remote controller.
- ⑥ Fully close the stop valve on the gas pipe side of the outdoor unit when the pressure gauge shows 0.05 to 0 MPa [Gauge] (approx. 0.5 to 0 kgf/cm<sup>2</sup>) and quickly stop the air conditioner.
  - Push the "ON/OFF" button on the remote controller to stop the air conditioner.
  - \* Note that when the extension piping is very long with a large refrigerant amount, it may not be possible to perform a pump-down operation. In this case, use refrigerant recovery equipment to collect all of the refrigerant in the system.

- ⑦ Turn off the power supply (circuit breaker), remove the gauge manifold valve, and then disconnect the refrigerant pipes.

**⚠ Warning:**

**When pumping down the refrigerant, stop the compressor before disconnecting the refrigerant pipes.**

- **If the refrigerant pipes are disconnected while the compressor is operating and the stop valve (ball valve) is open, the pressure in the refrigeration cycle could become extremely high if air is drawn in, causing the pipes to burst, personal injury, etc.**

## 9. Specifications

Outdoor model		SUZ-KA25VA5.TH	SUZ-KA35VA5.TH	SUZ-KA50VA5.TH	SUZ-KA60VA5.TH	SUZ-KA71VA5.TH
Power supply		Single phase 230 V, 50 Hz				
Dimensions W × H × D		800 × 550 × 285			840 × 880 × 330	
Weight		30	35	54	50	53
Sound level *1	Cooling	47	49	52	55	
	Heating	48	50	52	55	

\*1 Measured under rated operating frequency.



EC DECLARATION OF CONFORMITY  
EG-KONFORMITÄTSEKTLÄRUNG  
DÉCLARATION DE CONFORMITÉ CE  
EG-CONFORMITEITSVERKLARING

DECLARACIÓN DE CONFORMIDAD CE  
DICHIARAZIONE DI CONFORMITÀ CE  
ΔΗΛΩΣΗ ΠΙΣΤΟΤΗΤΑΣ ΕΚ

DECLARAÇÃO DE CONFORMIDADE CE  
EU-ÖVERENSSTEMMELSEERKLÄRING  
EG-DEKLARATION OM ÖVERENSSTÄMMESE

EC UYGUNLUK BEYANI  
CE-ERKLÆRING OM SAMSVAR  
DEKLARACJA ZGODNOŚCI WE

**mitsubishi electric consumer products (thailand) co., ltd.**  
**AMATA NAKORN INDUSTRIAL ESTATE 700/406 MOO 7, TAMBON DON HUA ROH, AMPHUR MUANG, CHONBURI 20000, THAILAND**

hereby declares under its sole responsibility that the air conditioners and heat pumps described below for use in residential, commercial and light-industrial environments:  
erklärt hiermit auf seine alleinige Verantwortung, dass die Klimaanlage und Wärmepumpen für das häusliche, kommerzielle und leicht-industrielle Umfeld wie unten beschrieben:  
déclare par la présente et sous sa propre responsabilité que les climatiseurs et les pompes à chaleur décrits ci-dessous, destinés à un usage dans des environnements résidentiels, commerciaux et d'industrie légère :  
verklaart hierbij onder eigen verantwoordelijkheid dat de voor residentiële, commerciële en licht-industriële omgevingen bestemde airconditioners en warmtepompen zoals onderstaand beschreven:  
por la presente declara bajo su única responsabilidad que los acondicionadores de aire y bombas de calor descritas a continuación para su uso en entornos residenciales, comerciales y de industria ligera:  
conferma con la presente, sotto la sua esclusiva responsabilità, che i condizionatori d'aria e le pompe di calore descritti di seguito e destinati all'utilizzo in ambienti residenziali, commerciali e semi-industriali:  
με το παρόν πιστοποιεί με αποκλειστική της ευθύνη ότι οι τα κλιματιστικά και οι αντλίες θέρμανσης που περιγράφονται παρακάτω για χρήση σε οικιακό, επαγγελματικό και ελαφριάς βιομηχανίας περιβάλλοντα:  
através da presente declara sob sua única responsabilidade que os aparelhos de ar condicionado e bombas de calor abaixo descritos para uso residencial, comercial e de indústria ligeira:  
erklærer hermed under eneansvar, at de herunder beskrevne airconditionanlæg og varmepumper til brug i privat boligbyggeri, erhvervsområder og inden for let industri:  
intygat härmed att luftkonditioneringarna och värmepumparna som beskrivs nedan för användning i bostäder, kommersiella miljöer och lätta industriella miljöer:  
ev, ticaret ve hafif sanayi ortamlarında kullanım amaçlı üretilen ve aşağıda açıklanan klima ve ısıtma pompalarıyla ilgili aşağıdaki hususları yalnızca kendi sorumluluğunda beyan eder:  
erklærer et fullstendig ansvar for undernevnte klimaanlegg og varmepumper ved bruk i boliger, samt kommersielle og lettindustrielle miljøer:  
niniejszym oświadczam na swoją wyłączną odpowiedzialność, że klimatyzatory i pompy ciepła opisane poniżej, są przeznaczone do zastosowań w środowisku mieszkalnym, handlowym i lekko przemysłowym:

**MITSUBISHI ELECTRIC, SUZ-KA25VA\*, SUZ-KA35VA\*, SUZ-KA50VA\***  
**SUZ-KA60VA\*, SUZ-KA71VA\***  
\* : , , 1, 2, 3, . . . , 9

Note: Its serial number is on the nameplate of the product.  
Hinweis: Die Seriennummer befindet sich auf dem Kennschild des Produkts.  
Remarque : Le numéro de série de l'appareil se trouve sur la plaque du produit.  
Opmerking: het serienummer staat op het naamplaatje van het product.  
Nota: El número de serie se encuentra en la placa que contiene el nombre del producto.  
Nota: il numero di serie si trova sulla targhetta del prodotto.  
Σημείωση: Ο σειριακός του αριθμός βρίσκεται στην πινακίδα ονόματος του προϊόντος.

Nota: o número de série encontra-se na placa que contém o nome do produto.  
Bemærk: Serienummeret står på produktets fabriksskilt.  
Obs: Serienumret finns på produktens namnplåt.  
Not: Seri numarasi ürünün isim plakasında yer alır.  
Merk: Serienummeret befinner seg på navneplaten til produktet.  
Uwaga: Numer seryjny znajduje się na tabliczce znamionowej produktu.

Directives  
Richtlijnen  
Directives  
Richtlijnen  
Directivas  
Direttive  
Οδηγίες

Directivas  
Direktiver  
Direktiv  
Direktifler  
Direktiver  
Dyrektywy

2014/35/EU: Low Voltage Directive  
2006/42/EC: Machinery Directive  
2014/30/EU: Electromagnetic Compatibility Directive  
2011/65/EC: RoHS Directive  
2009/125/EC: Energy-related Products Directive and Regulation (EU) No 206/2012

Issued:  
THAILAND

20 Apr. 2016

Akira HIDAHA  
Manager, Quality Assurance Department

## <ENGLISH>

English is original. The other languages versions are translation of the original.

### ⚠ CAUTION

- Refrigerant leakage may cause suffocation. Provide ventilation in accordance with EN378-1.
- Be sure to wrap insulation around the piping. Direct contact with the bare piping may result in burns or frostbite.
- Never put batteries in your mouth for any reason to avoid accidental ingestion.
- Battery ingestion may cause choking and/or poisoning.
- Install the unit on a rigid structure to prevent excessive operation sound or vibration.
- Noise measurement is carried out in accordance with JIS C9612, JIS B8616, ISO 5151(T1), and ISO 13523(T1).

## <DEUTSCH>

Das Original ist in Englisch. Die anderen Sprachversionen sind vom Original übersetzt.

### ⚠ VORSICHT

- Das Auslaufen von Kältemittel kann zu Erstickung führen. Sorgen Sie für Belüftung gemäß der Bestimmung EN378-1.
- Sicherstellen, dass die Rohrführung isoliert ist. Direkter Kontakt mit der blanken Rohrleitung kann zu Verbrennungen oder Erfrierung führen.
- Nehmen Sie unter keinen Umständen Batterien in den Mund, um versehentliches Verschlucken zu vermeiden.
- Das Verschlucken von Batterien kann zu Erstickung und/oder Vergiftung führen.
- Installieren Sie das Gerät an einer stabilen Struktur, um übermäßige Betriebsgeräusche oder Vibration zu vermeiden.
- Geräuschmessungen werden gemäß der Bestimmungen JIS C9612, JIS B8616, ISO 5151(T1), und ISO 13523(T1) ausgeführt.

## <FRANÇAIS>

L'anglais est l'original. Les versions fournies dans d'autres langues sont des traductions de l'original.

### ⚠ PRECAUTION

- Une fuite de réfrigérant peut entraîner une asphyxie. Fournissez une ventilation adéquate en accord avec la norme EN378-1.
- Assurez-vous que la tuyauterie est enveloppée d'isolant. Un contact direct avec la tuyauterie nue peut entraîner des brûlures ou des engelures.
- Ne mettez jamais des piles dans la bouche pour quelque raison que ce soit pour éviter de les avaler par accident.
- Le fait d'ingérer des piles peut entraîner un étouffement et/ou un empoisonnement.
- Installez l'unité sur une structure rigide pour prévenir un bruit de fonctionnement et une vibration excessifs.
- Les mesures de niveau sonore ont été effectuées en accord avec les normes JIS C9612, JIS B8616, ISO 5151(T1) et ISO 13523(T1).

## <NEDERLANDS>

Het Engels is het origineel. De andere taalversies zijn vertalingen van het origineel.

### ⚠ VOORZICHTIG

- Het lekken van koelvoelstof kan verstikking veroorzaken. Zorg voor ventilatie in overeenstemming met EN378-1.
- isoleer de leidingen met isolatiemateriaal. Direct contact met de onbedekte leidingen kan leiden tot brandwonden of bevriezing.
- Stop nooit batterijen in uw mond om inslikking te voorkomen.
- Het inslikken van batterijen kan verstikking of vergiftiging veroorzaken.
- Installeer het apparaat op een stabiele structuur om overmatig lawaai of trillingen te voorkomen.
- Geluidsmetingen worden uitgevoerd in overeenstemming met JIS C9612, JIS B8616, ISO 5151(T1), en ISO 13523(T1).

## <ESPAÑOL>

El idioma original del documento es el inglés. Las versiones en los demás idiomas son traducciones del original.

### ⚠ CUIDADO

- Las pérdidas de refrigerante pueden causar asfixia. Se debe proporcionar la ventilación determinada en EN378-1.
- Asegúrese de colocar el aislante alrededor de las tuberías. El contacto directo con la tubería puede ocasionar quemaduras o congelación.
- Para evitar una ingestión accidental, no coloque las pilas en su boca bajo ningún concepto.
- La ingestión de las pilas puede causar asfixia y/o envenenamiento.
- Coloque la unidad en una estructura rígida para evitar que se produzcan sonidos o vibraciones excesivos debidos a su funcionamiento.
- La medición de los ruidos se lleva a cabo de acuerdo con JIS C9612, JIS B8616, ISO 5151(T1) y ISO 13523(T1).

## <ITALIANO>

Il testo originale è redatto in lingua Inglese. Le altre versioni linguistiche rappresentano traduzioni dell'originale.

### ⚠ ATTENZIONE

- Perdite di refrigerante possono causare asfissia. Prevedere una ventilazione adeguata in conformità alla norma EN378-1.
- Accertarsi di applicare materiale isolante intorno alle tubature. Il contatto diretto con le tubature non schermate può provocare ustioni o congelamento.
- Non introdurre in nessun caso le batterie nella bocca onde evitare ingestioni accidentali.
- L'ingestione delle batterie può provocare soffocamento e/o avvelenamento.
- Installare l'unità su di una struttura rigida in modo da evitare rumore o vibrazioni eccessivi durante il funzionamento.
- La misurazione del rumore viene effettuata in conformità agli standard JIS C9612, JIS B8616, ISO 5151(T1) e ISO 13523(T1).

## <ΕΛΛΗΝΙΚΑ>

Η γλώσσα του πρωτοτύπου είναι η αγγλική. Οι εκδόσεις άλλων γλωσσών είναι μεταφράσεις του πρωτοτύπου.

### ⚠ ΠΡΟΣΟΧΗ

- Η διαρροή του ψυκτικού ενδέχεται να προκαλέσει ασφυξία. Φροντίστε για τον εξαερισμό σύμφωνα με το EN378-1.
- Βεβαιωθείτε ότι τυλίξατε με μονωτικό υλικό τη σωλήνωση. Η απευθείας επαφή με τη γυμνή σωλήνωση ενδέχεται να προκαλέσει εγκαύματα ή κρυοπαγήματα.
- Μην βάζετε ποτέ τις μπαταρίες στο στόμα σας για κανένα λόγο ώστε να αποφύγετε την κατά λάθος κατάποσή τους.
- Η κατάποση μπαταριών ενδέχεται να προκαλέσει πνιγμό και/ή δηλητηρίαση.
- Εγκαταστήστε τη μονάδα σε σταθερή κατασκευή ώστε να αποφύγετε τον έντονο ήχο λειτουργίας ή τους κραδασμούς.
- Η μέτρηση θορύβου πραγματοποιήθηκε σύμφωνα με τα JIS C9612, JIS B8616, ISO 5151(T1) και ISO 13523(T1).

## <PORTUGUÊS>

O idioma original é o inglês. As versões em outros idiomas são traduções do idioma original.

### ⚠ CUIDADO

- As fugas de refrigerante podem provocar asfixia. Proporcione ventilação de acordo com a EN378-1.
- Certifique-se de que coloca isolamento em redor da tubagem. O contacto directo com a tubagem pode resultar em queimaduras ou úlceras causadas pelo frio.
- Para evitar uma ingestão accidental, nunca coloque pilhas na boca.
- A ingestão das pilhas pode provocar asfixia e/ou envenenamento.
- Instale a unidade numa estrutura rígida para evitar vibrações ou ruídos excessivos durante o seu funcionamento.
- A medição dos ruídos é efectuada de acordo com a JIS C9612, JIS B8616, ISO 5151(T1), e ISO 13523(T1).

## <DANSK>

Engelsk er originalen. De andre sprogversioner er oversættelser af originalen.

### ⚠ FORSIGTIG

- Kølmedellækage kan forårsage kvælning. Sørg for ventilation i henhold til EN378-1.
- Der skal altid vikles isolering omkring rørene. Direkte kontakt med blottagte rør kan medføre forbrænding eller forfrysning.
- Put aldrig batterier i munden uanset årsag, du kan komme til at sluge dem.
- Hvis batterier sluges, kan det medføre kvælning og/eller forgiftning.
- Monter enheden på en fast struktur, så kraftig lyd og vibration undgås.
- Støjmåling udføres i henhold til JIS C9612, JIS B8616, ISO 5151(T1) og ISO 13523(T1).

## <SVENSKA>

Engelska är originalspråket. De övriga språkversionerna är översättningar av originalet.

### ⚠ FÖRSIKTIGHET

- Köldmedelsläckage kan leda till kvävning. Tillhandahåll ventilation i enlighet med EN378-1.
- Kom ihåg att linda isolering runt rören. Direktkontakt med bara rör kan leda till brännskador eller köldskador.
- Stoppa aldrig batterier i munnen, de kan sväljas av misstag.
- Om ett batteri sväljs kan det leda till kvävning och/eller förgiftning.
- Montera enheten på ett stadigt underlag för att förhindra höga driftljud och vibrationer.
- Ljudmätningar har utförts i enlighet med JIS C9612, JIS B8616, ISO 5151(T1) och ISO 13523(T1).

## <TÜRKÇE>

Aslı İngilizce'dir. Diğer dillerdeki sürümler aslının çevirisidir.

### ⚠ DİKKAT

- Soğutucu sızıntısı boğulma tehlikesine yol açabilir. EN378-1'e göre havalandırma sağlayın.
- Boruların etrafına izolasyon malzemesi kaplamayı unutmayın. Çıplak boruya doğrudan temas etmek yanmaya ve soğuk ısırmasına neden olabilir.
- Yanlışlıkla yutmamak için pilleri hiçbir nedenle asla ağzınıza sokmayın.
- Pili yutmak boğulmaya ve/veya zehirlenmeye neden olabilir.
- Aşırı gürültü sesinin veya titreşimin oluşmaması için üniteyi sert bir yapı üzerine kurun.
- Ses ölçümü JIS C9612, JIS B8616, ISO 5151(T1), ve ISO 13523(T1) standartlarına göre yapılır.

## <NORSK>

Originalspråket er engelsk. De andre språkversjonene er oversettelser av originalen.

### ⚠ FORSIKTIG

- Kjølemiddellekkasje kan forårsake kvelning. Sørg for ventilering i samsvar med EN378-1.
- Pass på at isoleringen pakkes godt rundt røret. Direkte kontakt med ukledte rør kan forårsake brannskader eller forfrysninger.
- Aldri plasser batteri i munnen, da dette kan medføre en risiko for at du svelger batteriet ved et uhell.
- Hvis du svelger et batteri, kan du risikere kvelning og/eller forgiftning.
- Installer enheten på en stabil struktur for å forhindre unødvendig mye driftsstøy eller vibrering.
- Det A-vektede lydtrykknivået er under 70 dB.
- Dette apparatet er ment for bruk av eksperter eller faglært personell i butikker, lettindustri og på gårder, eller for kommersielt bruk av ikke-fagmenn.

## <POLSKI>

Językiem oryginalu jest język angielski. Inne wersje językowe stanowią tłumaczenia oryginalu.

### ⚠ UWAGA

- Wyciek czynnika chłodniczego może spowodować uduszenie. Należy zapewnić wentylację zgodnie z normą EN378-1.
- Należy pamiętać, aby owinąć izolację wokół przewodów rurowych. Bezpośredni kontakt z niezabezpieczonymi przewodami rurowymi może doprowadzić do poparzeń lub odmrożeń.
- Nie wolno wkładać baterii do ust z jakiegokolwiek powodu, aby uniknąć przypadkowego połknięcia.
- Połknięcie baterii może spowodować zadławienie i/lub zatrucie.
- Zainstalować urządzenie na sztywnej konstrukcji, aby zapobiec nadmieremu hałasowi i wibracjom.
- Poziom dźwięku A nie przekracza 70 dB.
- W sklepach, w przemyśle lekkim i w gospodarstwach rolnych urządzenie powinny obsługiwać profesjonalni lub przeszkoleni użytkownicy, a w środowisku handlowym mogą to być osoby nieposiadające fachowej wiedzy.

This product is designed and intended for use in the residential, commercial and light-industrial environment.

**Importer:**

Mitsubishi Electric Europe B.V.  
Capronilaan 46, 1119 NS, Schiphol Rijk, The Netherlands

French Branch  
25, Boulevard des Bouvets, 92741 Nanterre Cedex, France

German Branch  
Mitsubishi-Electric-Platz 1, 40882 Ratingen, Germany

Belgian Branch  
Autobaan 2, 8210 Loppem, Belgium

Irish Branch  
Westgate Business Park, Ballymount, Dublin 24, Ireland

Italian Branch  
Centro Direzionale Colleoni, Palazzo Sirio-Ingresso 1 Viale Colleoni 7, 20864 Agrate Brianza (MB), Italy

Norwegian Branch  
Gneisveien 2D, 1914 Ytre Enebakk, Norway

Portuguese Branch  
Avda. do Forte, 10, 2799-514, Carnaxide, Lisbon, Portugal

Spanish Branch  
Carretera de Rubi 76-80 - Apdo. 420 08173 Sant Cugat del Valles (Barcelona), Spain

Scandinavian Branch  
Hammarbacken 14, P.O. Box 750 SE-19127, Sollentuna, Sweden

UK Branch  
Travellers Lane, Hatfield, Herts., AL10 8XB, England, U.K.

Polish Branch  
Krakowska 50, PL-32-083 Balice, Poland

MITSUBISHI ELECTRIC TURKEY ELEKTRİK ÜRÜNLERİ A.Ş.  
Şerifali Mah. Kale Sok. No: 41 34775 Ümraniye, İstanbul / Turkey

MITSUBISHI ELECTRIC (RUSSIA) LLC  
52, bld.1 Kosmodamianskaya Nab. 115054, Moscow, Russia

Please be sure to put the contact address/telephone number on this manual before handing it to the customer.

**MITSUBISHI ELECTRIC CORPORATION**

HEAD OFFICE: TOKYO BUILDING, 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN