#### External Switch Controller UTY-TEKX

# **INSTALLATION MANUAL**

(PART NO. 9378874008-03)

For authorized service personnel only.

#### **SAFETY PRECAUTIONS**

- The "SAFETY PRECAUTIONS" indicated in the manual contain important information pertaining to your safety. Be sure to observe them.
- Request the user to keep the manual on hand for future use, such as for relocating or repairing the unit.

#### / WARNING

This mark indicates procedures which, if improperly performed, might lead to the death or serious injury of the user.

- Perform electrical work by an authorized service personnel in accordance with the installation manual and the electrical wiring regulations or implementation regulations of the country. Also do not install this unit by yourself. Improper electric work will cause electric shock or a fire.
- Perform installation work in accordance with the installation manual. Request an authorized service personnel to perform installation work. Do not install this unit by yourself. Improper installation will cause injury, electric shock, fire, etc.
- In the event of a malfunction (burning smell, etc.), immediately stop operation, turn off the electrical breaker, and consult authorized service personnel
- Install a leakage circuit breaker to power supply cable in accordance with the related laws and regulations and electric
- Use a power source exclusively for this unit. Never share the power source with other electrical equipment. Doing so will cause fire and electric shock.

Do not install the unit in the following areas:

- Do not install the unit near a source of heat, steam, or flammable gas.
- Area filled with mineral oil or containing a large amount of splashed oil or steam, such as a kitchen. It will deteriorate plastic parts, causing the parts to fall or the unit to leak water.
- Area that generates substances that adversely affect the equipment, such as sulfuric gas, chlorine gas, acid, or alkali. will cause the copper pipes and brazed joints to corrode, which can cause refrigerant leakage.
- Area containing equipment that generates electromagnetic interference. It will cause the control system to malfunction, preventing the unit from operating normally.
- Area that can cause combustible gas to leak, contains suspended carbon fibers or flammable dust, or volatile inflammables such as paint thinner or gasoline. If gas leaks and settles around the unit, it can cause a fire.
- Do not use the unit for special purposes, such as storing food, raising animals, growing plants, or preserving precision
- devices or art objects. It can degrade the quality of the preserved or stored objects Install the unit in a well-ventilated place avoiding rains and direct sunlight.
- Do not operate this unit when your hands are wet. Touching the unit with wet hands will cause an electric shock.
- If children may approach the unit, take preventive measures so that they cannot reach the unit

## / CAUTION

This mark indicates procedures which, if improperly performed, might possibly result in personal harm to the user, or damage to property.

- Pay abundant care when transporting this unit because it is a precision device. Improper transportation will cause trouble.
- Do not touch the switches with sharp objects. Doing so will cause injury, trouble, or electric shock.
- Do not expose this unit directly to water. Doing so will cause trouble, electric shock, or heating
- Do not set vessels containing a liquid on this unit. Doing so will cause heating, fire, or electric shock.
- Dispose of the packing materials safely. Tear apart and dispose of the plastic packing bags so that children cannot play with them. There is the danger of suffocation if children play with the original plastic bags.
- Do not insert articles into the slit parts of this unit. Doing so will cause trouble, heating, or electric shock.

#### **ACCESSORIES**

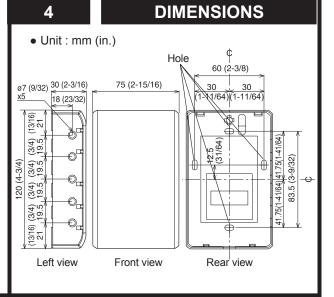
The following installation parts are supplied. Use them as required.

| Name and Shape      | Q'ty | Application                                      |
|---------------------|------|--|
| Installation manual |      | This manual                                      |
|                     | 1    |  |
| Screw (M4 x 16mm)   |      | For installing the external switch controller    |
| (4) Junion          | 2    |  |
| Binder              | _    | For external switch controller and cable binding |
|                     | 5    |  |

## **ELECTRICAL REQUIREMENT**

| Use                     | Size                | Wire type                             | Remarks         |
|-------------------------|---------------------|---------------------------------------|-----------------|
| Remote controller cable | 0.33mm <sup>2</sup> | 22AWG<br>Polar 3core,<br>Twisted pair | Use             |
| External input cable    | 0.33mm <sup>2</sup> | 22AWG<br>Polar 2core,<br>Twisted pair | shield<br>cable |

We recommend that you purchase our service parts for the remote controller cable. Contact service personnel to purchase



#### **INSTALLING THE EXTERNAL SWITCH CONTROLLER**

#### / WARNING

- Always use the accessories and specified installation work parts. Check the state of the installation parts. Not using the specified parts will cause units to fall off, water leakage, electric shock, fire, etc.
- Install at a place that can withstand the weight of the unit and install positively so that the unit will not topple or fall.
- · When installing this unit, make sure that there are no children nearby. Otherwise, injury or electric shock could result.
- . Install a circuit breaker. Otherwise, electric shock or fire could result

#### **⚠** CAUTION

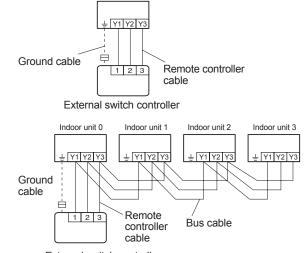
- Do not set the DIP switch or rotary switch of this unit except as specified in this installation manual or the instruction manual supplied with the air conditioner. Setting the switches other than specified will cause an accident or trouble.
- Use an insulated screwdriver to set the DIP switches.
- Before opening the case of this unit, completely discharge static electricity charged on you body. Not doing so will cause
- Do not touch this unit's circuit board and circuit board parts directly with your hands. Not doing so may cause electric
- Tightening the mounting screws too tight will damage the case of this unit.
- When inserting the hooks, do not push them in unreasonably. Doing so may damage or deform the claws.
- \* External switch controller and remote controller have the same indoor unit connection method and number of units restriction. "Remote controller" includes external switch controller as well.

# 1. Group control

- A number of indoor units can be operated at the same
- time using a single external switch controller.

   S-series air conditioners cannot be connected with V
- series air conditioners. S-series air conditioners with model change code A or B cannot be connected with S-series air conditioners with model change code C.
- (1) Wiring method (indoor unit to external switch controller)

Indoor unit

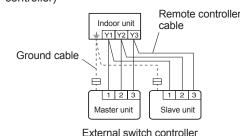


External switch controller

(2) Remote controller address setting Set each remote controller address using the rotary switch of each indoor unit in order from 0. (Refer to the installation instruction sheet for the indoor unit.)

#### 2. External switch controller and remote controller, or dual external switch controllers

- Two remote controllers can be used to operate the indoor units.
- The remote controller (UTB-\*LA) and external switch controller (UTY-TEKX) cannot be connected at the same
- (1) Wiring method (indoor unit to external switch controller)



or remote controller

(2) External switch controller DIP switch setting Set the external switch controller DIP switch 1 No. 5 according to the following table.

When using an external switch controller and a remote controller other than it, always set the remote controller to master. If set to slave, operation cannot be guaranteed.

| Number of remote | Master unit          | Slave unit           |
|------------------|----------------------|----------------------|
| controllers      | DIP switch1<br>No. 5 | DIP switch1<br>No. 5 |
| 1 (Single)       | OFF                  |                      |
| 2 (Dual)         | OFF                  | ON                   |

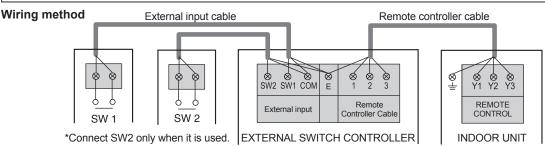
# **WIRING**

## **⚠ WARNING**

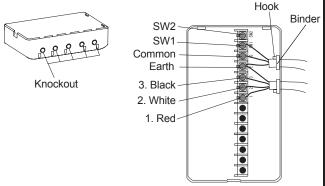
- Before starting installation work, turn off the power of this unit and the connection destination. Do not turn on the power again until installation is completed. Otherwise, it will cause electric shock or fire.
- Use the accessories or specified power cable and connection cables. Do not modify power cable and connection cables other than those specified, do not use extension cables, and do not use independent branch wiring. The allowable current will be exceeded and cause electric shock or fire.
- Install the connection cables securely to the terminal block. Confirm that external force is not applied to the cable. Use connection cables made of the specified cable. If intermediate connection or insertion fixing are imperfect, it will cause electric shock, fire, etc
- When connecting the power cable and transmission cable, layout the wiring so that the cover of this unit is securely fixed. If the cover is imperfectly fixed, it may cause fire or overheating of the terminals.
- Perform ground work positively. Do not connect the ground cable to a telephone ground cable, water pipe, or conductor
- Always fasten the outside covering of the connection cable with the cable clamp. (If the insulator is chafed, electric leakage may occur.)
- If any cable is damaged, do not repair or modify it yourself. Improper work will cause electric shock or fire.
- When performing cable wiring work, be sure that it does not touch the user. Doing so will cause injury or electric shock.

## **⚠** CAUTION

- Do not bind the remote controller cable and the transmission cable together with or parallel to the power supply cable of the indoor and outdoor units. It may cause erroneous operation.
- When performing wiring work, be careful not to damage the cable or injure yourself. Also, connect the connectors securely. Loose connectors will cause trouble, heating, fire, or electric shock.
- Install the indoor and outdoor units, power cable, signal cable and remote control cable 1 m away from television and radio to avoid distorted images and noise.
- Perform wiring so that water does not enter this unit along the external wiring. Always install a trap to the wiring or take other countermeasures. Otherwise it will cause trouble or electric shock or fire.
- Confirm the name of each unit and name of each terminal block of the unit and connect the wiring in accordance with the directions given in the manual so that there is no incorrect wiring. Incorrect wiring will damage the electric parts and cause smoke and fire.
- When installing the connection cable near a source of electromagnetic waves, use shielded cable. Otherwise, a breakdown or malfunction could result.



- (1) Remove Knockout only for numbers of cables to be connected. Remove burr so that the edge is smooth Put the cables through a hole.
- (2) Connect the remote controller cable and
- external input cables to the terminal board. (3) Clamp the cable and hook with the binder.
- (4) Cut off the excess binder.
- (5) Install the rear case to the wall, etc., with two screws. Fix the two screws in either horizontal or vertical position.
- (6) Connect the connecter to the circuit board in rear case and put it to the front case.

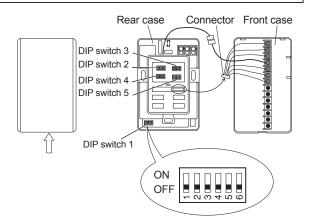


Tightening torque for installing cables to terminal block 0.8 to 1.2 N • m (8 to 12 kgf • cm)

#### **SETTING THE DIP SWITCH**

#### / CAUTION

- Do not set the DIP switch or rotary switch of this unit except as specified in this installation manual or the instruction manual supplied with the air conditioner. Setting the switches other than specified will cause an accident or trouble.
- Use an insulated screwdriver to set the DIP switches.
- (1) Insert the end of a flat blade screwdriver at the arrow parts of the groove at the side of the controller case and remove the front case by turning the screwdriver.
- (2) When disconnecting the connector from the circuit board, be careful not to break the cable.
- (Refer to the figure on the right.) (3) Set the external switch controller DIP switches.



|              | NO.              | Switch                     | state                  | Detail   |
|--------------|------------------|----------------------------|------------------------|--|
|              | NO.              | OFF                        | ON                     | Detail   |
|              | 1,2              | Refer to "(1) MODE settin  | g".                    | MODE setting   |
| DIP switch 1 | 3                | ★Instant (200msec)         | Delay (1 min)          | When DIP switch 1 – 3 is turned ON, the operation state of SW1/SW2 is changed only after SW1/SW2 is turned ON or OFF and that state continues for approximately 1 minute. (Even if the state of SW1/SW2 is changed within 1 minute, it is considered noise and the state of SW1/SW2 does not change.)  Due to the characteristics of SW1/SW2, when ON/OFF is repeated frequently, select Delay (1 min.) to avoid it. |
|              | 4                | ★Central effective         | Central ineffective    | When Central is ineffective, setting change is possible even in the Central prohibited state.  |
|              | 5                | ★Master                    | Slave                  | Refer to "5. INSTALLING THE EXTERNAL SWITCH CONTROLLER".   |
|              | 6                | ★Fixed at OFF              |                        | Cannot be used.  |
| DIP switch 2 | 1~6              | Refer to "(2) Operation mo | ada sattina"           | Operation mode setting of parameter setting  |
|              | 1~4              | Refer to (2) Operation in  | ode setting .          | 1 (P1)   |
|              | 5                | ★Contact ON ⇒ OFF          | Contact OFF ⇒ ON       | Setting contact input of SW1 at MODE 0   |
| DIP switch 3 | 6                | ★No Condition              | Unit in operation only | Operation conditions: Set to ON when switched to P1 or P2 setting by contact input only during indoor unit is in operation.  |
| DIP switch 4 | DIP switch 4 1~6 |                            | ada aattina"           | Operation mode setting of parameter setting  |
|              | 1~4              | Refer to "(2) Operation mo | ode setting .          | 2 (P2)   |
| DIP switch 5 | 5                | <b>★</b> Contact ON ⇒ OFF  | Contact OFF ⇒ ON       | Setting contact input of SW2 at MODE 0   |
|              | 6                |                            | ★Fixed at ON           | Cannot be used   |

(★Factory setting)

• R/C Prohibition: Function which controls ON/OFF etc. of the remote controller by control unit (example: touch panel controller).

(1) MODE setting

| MODE setting | DIP switch1   |              | Detail  |  |
|--------------|---------------|--------------|---|--|
| WODE setting | No. 1         | No. 2        | Detail  |  |
| MODE 0       | <b>★</b> OFF  | <b>★</b> OFF | This MODE sets to P1 operation mode if SW1 has a contact input of DIP switch3-5. This MODE sets to P2 operation mode if SW2 has a contact input of DIP switch5-5.   |  |
| MODE 1       | MODE 1 OFF ON |              | This MODE sets to P1 operation mode if a contact of SW1 is switched ON $\Rightarrow$ OFF. This MODE sets to P2 operation mode if a contact of SW1 is switched OFF $\Rightarrow$ ON.   |  |
| MODE 2       | ON            | OFF          | This MODE sets to P1 operation mode in 1 minute after stop operation if a contact of SW1 is switched ON $\Rightarrow$ OFF. This MODE sets to P2 operation mode in 1 minute after stop operation if a contact of SW1 is switched OFF $\Rightarrow$ ON. When switching the operation mode between heating and cooling, operation must be once stopped and then the reselected mode entered. At that time, use MODE 2. |  |
| No Setting   | ON            | ON           | Cannot be used.   |  |

(★Factory setting)

• Operation state set by DIP switch2, 3 ...P1 • Operation state set by DIP switch4, 5 ... P2

DIP switch2,4

No. 1 No. 2 **★**OFF **★**OFF

| Example :  ① MODE 0  DIP switch3-5 : ON  DIP switch5-5 : OFF | ② MODE 1<br>SW1<br>Contact ON | 3 MODE 2<br>SW1<br>Contact ON | 2                             |           |
|--|-------------------------------|-------------------------------|-------------------------------|-----------|
| SW1 Contact ON   | Contact OFF P1 P2             | Contact OFF                   | ST ♥ ♥P1                      | ST ♥ ♥ P2 |
| Contact OFF Sw2  | SW2 shall not be used.        | SW2 shall not be used.        | *1                            |           |
| Contact OFF P1 P2  |                               |                               | between ST a<br>and P2, the o |           |

(2) Operation mode setting Set DIP switch2 and 3 for P1, DIP switch4 and 5 for P2, according to the following table.

| OFF            | OFF           | ON           |  |
|----------------|---------------|--------------|--|
| ON             | ON            | OFF          |  |
| SETBACK*1      | ON            | ON           |  |
|                |               |              |  |
| Operation      | DIP sw        | itch3,5      |  |
| mode           | No. 1         | No. 2        |  |
| Not applicable | <b>★</b> OFF  | <b>★</b> OFF |  |
| COOL           | OFF           | ON           |  |
| HEAT*2*3       | ON            | OFF          |  |
| Not setting    | ON            | ON           |  |
|                |               |              |  |
| Fan speed      | DIP switch3,5 |              |  |
| ran speed      | No. 3         | No. 4        |  |
| Not applicable | ★OFF          | <b>★</b> OFF |  |
| HIGH           | OFF           | ON           |  |
| MID            | ON            | OFF          |  |

ON

ON

Operation

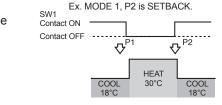
Not applicable

LOW

| Set                                      | DIP switch2,4 |              |       |                |
|--|---------------|--------------|-------|----------------|
| temperature                              | No. 3         | No. 4        | No. 5 | No. 6          |
| Not applicable                           | <b>★</b> OFF  | <b>★</b> OFF | ★OFF  | <b>★</b> OFF   |
| 16°C*2*3 (60°F)                          | OFF           | OFF          | OFF   | ON             |
| 17°C* <sup>2</sup> * <sup>3</sup> (62°F) | OFF           | OFF          | ON    | OFF            |
| 18°C (64°F)                              | OFF           | OFF          | ON    | ON             |
| 19°C (66°F)                              | OFF           | ON           | OFF   | OFF            |
| 20°C (68°F)                              | OFF           | ON           | OFF   | ON             |
| 21°C (70°F)                              | OFF           | ON           | ON    | OFF            |
| 22°C (72°F)                              | OFF           | ON           | ON    | ON             |
| 23°C (74°F)                              | ON            | OFF          | OFF   | OFF            |
| 24°C (76°F)                              | ON            | OFF          | OFF   | ON             |
| 25°C (78°F)                              | ON            | OFF          | ON    | OFF            |
| 26°C (80°F)                              | ON            | OFF          | ON    | ON             |
| 27°C (82°F)                              | ON            | ON           | OFF   | OFF            |
| 28°C (84°F)                              | ON            | ON           | OFF   | ON             |
| 29°C (86°F)                              | ON            | ON           | ON    | OFF            |
| 30°C (88°F)                              | ON            | ON           | ON    | ON             |
|  |               |              | (★Fa  | actory setting |

\*1 Setting of SETBACK turns back the operation state to that of before switching parameter setting. (Example on the right shows that the operation state is set back to before switching to P1 setting.) When SET BACK is set to ON, the Operation Mode, Fan Speed, and Set Temperature settings become ineffective. To make them effective, set SET BACK to OFF.

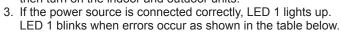
- \*2 Do not set the operation mode "HEAT", or the setting temperature "16°C (60°F)" or "17°C (62°F)" for COOLING ONLY MODEL. These settings do not function.
- \*3 Units cannot operate correctly under the settings shown below: • Set the operation mode to "HEAT" and temperature to "16°C (60°F)" or "17°C (62°F)" during operation in Cooling priority.
  - Set the operation mode to "COOL" during operation in Heating
  - Set the Fan speed during the operation mode "DRY".

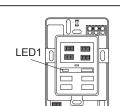


# **TURNING ON THE POWER**

## 

- Recheck the wiring. Incorrect wiring will cause trouble.
- 1. Check the external switch controller wiring and DIP switch settings. 2. Check the indoor and outdoor unit wiring and circuit board switch settings, and
- then turn on the indoor and outdoor units.





9

## **ERROR CODE DISPLAY**

Displays the error contents at the timing at which LED1 blinks.

| Error code                       | Contents  |
|----------------------------------|---|
| 0.5 sec. ON/0.5sec. OFF flashing | Remote controller cable connection error (Indoor unit ⇔ External switch controller) |
| 0.5 sec. ON/1.0sec. OFF flashing | Transmission error (Indoor unit ⇔ External switch controller)                       |

# 外部开关控制器 UTY-TEKX 安装说明书

(部件编号 9378874008-03)

请妥善保管本说明书以便将来做参考

#### 1

#### 安全注意事项

- 说明书中所示意的"安全注意事项"包含了与用户安全有关的重要内容。请务必详细阅读。
- 因为当修理组件或搬迁时需要使用安装说明书,请用户妥善保管。

#### <u></u> 警告

此标记是表示如不遵守本说明书操作会导致使用人员死亡或负重伤。

- 电气安装方面的工作应专门服务人员,遵照本说明书及国家有关电气布线或操作的规定进行。并且请用户不要 自行安装。电气方面的错误操作会引起触电或引起火灾。
- 必须按本安装说明书进行安装工作。应请求专门服务人员进行安装工作。并且请用户不要自行安装组件。错误 地安装会造成负伤、触电、火灾等。
- 如发生故障 (烧焦味等),请立即停止运行关闭断路器,向专门服务人员咨询。
- ┃● 遵照有关法律、规定及电气产品公司的标准,为电源供电电缆安装一个漏电断路器。
- ●请为组件使用单独的专用电源。不得与其他电气仪器共用电源。否则会引起火灾或触电。

#### 请不要在以下区域安装组件:

- 请不要在发热源、蒸汽源、易燃气体发生源附近安装本机。
- 充满了矿物油或含有大量飞溅油或蒸汽的区域,例如厨房。这些场所会使塑料零部件老化、使得零部件脱落或导致组件漏水。
- ●产生对仪器带来恶化作用物质的区域,例如硫化气体、氯化气体、酸性或碱性物质。这些物质将导致管道连接 点及电焊接点被腐蚀,泄漏制冷剂。
- | ●安放了发生电磁干扰仪器的区域。这些仪器会引起控制系统发生错误,妨碍组件的正常运行。 |●安放了发生电磁干扰仪器的区域。这些仪器会引起控制系统发生错误,妨碍组件的正常运行。
- ●会引起泄漏可燃性气体的区域,包含悬浮碳纤维或可燃性灰尘、或挥发性易燃物质如涂料稀释剂或汽油的区域。 如组件周围充满泄漏的气体将会引起火灾。
- 请不要把组件用于特殊目的,如保存食品、养殖动物、种植、或保存精密器件或艺术作品。这样做会降低所保存或储藏物品的质量。
- 请把组件安装在通风良好,避开雨淋及直射光线。
- 请不要用潮湿的手操作组件。用潮湿的手触摸组件会导致触电。
- 如果小孩有可能接近组件,请采取措施防止接触组件。

#### 

此标记表示如不正确操作有可能导致使用者负伤或造成物质损坏。

- 因为本组件是精密仪器,在搬运时需要特别多加小心。不恰当的运输会引起故障。
- 请不要用尖锐的物体接触组件。这样做会造成破损、出故障或引起触电。
- 请不要把组件直接接触在水。这样做会引起故障、触电或发热。
- ●请不要在组件上放置含有液体的容器。这样做会引起发热、火灾或触电
- |● 请安全地处理包装材料。把塑料袋剪破后处理以防止小孩玩耍塑料袋。如果小孩玩耍这些原装包装袋会有窒息 | 的危险。
- ▼不要在组件的缝隙中插入纸张等。否则会引起故障发热、或触电。

# 我们提供下列安装用附件。请按要求使用。

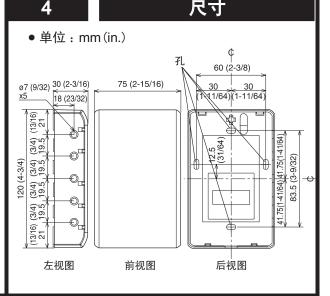
| 名称和形状           | 数量 | 用途              |
|-----------------|----|-----------------|
| 安装说明书           |    | 本说明书            |
|                 | 1  |                 |
| 楔形螺丝钉 (M4x16mm) |    | 用于安装外部开关控制器     |
| (4) Junios      | 2  |                 |
| 捆扎绳             | 5  | 用于捆扎外部开关控制器的导线。 |

附件

## 3 电气性能指标

| 用途         | 尺寸                      | 电线类型                   | 备注   |
|------------|-------------------------|------------------------|------|
| 遥控器导线      | 0.33<br>mm <sup>2</sup> | 22AWG<br>极性向3芯,<br>双纹线 | 请使用屏 |
| 外部输入导<br>线 | 0.33<br>mm <sup>2</sup> | 22AWG<br>极性向2芯,<br>双纹线 | 蔽电缆。 |

我们建议顾客购买本公司的用于遥控器电缆的备用零部件。请 与专门服务人员联系购买。



#### 5

# 安装外部开关控制器

#### **企警告**

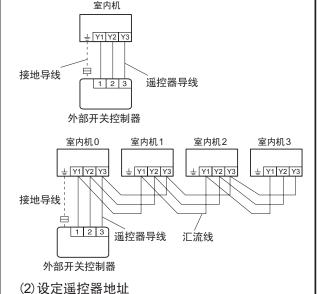
- 请务必使用附带及指定的安装用零部件。检查零部件的状态。如不使用指定的零部件有可能造成组件脱落、漏水、触电、火灾等。
- 把组件端正地安装在能够承受组件重量的场地以防止组件倾斜或倒塌。
- 当安装组件时,请确认附近没有少儿。否则有可能导致负伤或触电。
- 安装一个电流断路器, 如不安装将会导致触电。

#### <u>/</u>注意

- ●除非在本安装说明书或空调机附带的安装说明书中指定,请不要设定组件的DIP开关或转盘开关。如果不安指定方法设定开关,会引起事故或故障。
- 请使用绝缘起子设定 DIP 开关
- 在打开组件外壳之前,请先把自身所带的静电彻底放电。否则会引起故障。
- ●请不要用手直接触摸组件的电路板和安装在电路板上的零部件。否则会引起触电或负伤
- 安装螺丝时如果旋转的过紧会损坏组件的外壳。
- 当插入卡扣时请不要硬推。否则会损坏螺丝或使螺丝变形。
- \* 室内机与外部开关控制器及遥控器的连接方法相同,并同样受连接室内机数量的限制。"遥控器"也包 括外部开关控制器。

## 1. 控制群

- 使用一个外部开关控制器可以同时操作多个室内机。S系列的空调不能与V系列的空调相连接。
- S系列的空调不能与V系列的空调相连接。带更换型号编码A或编码B的S系列空调,不能与带更换型号编码C的S系列空调相连接。
- (1) 布线方法 (从室内机向外部开关控制器)



用旋转开关与每个室内机所对应的从0开始的 地址设定每个遥控器的地址。

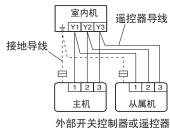
(参考室内机的安装说明书)

开关控制器

● 2个分离的遥控器可以用于控制多个室内机。
● 不能同时与遥控器 (UTB-\*LA) 和外部开关控制器 (UTY-TFKX) 相连接

2. 外部开关控制器和遥控器,或双重外部

(1) 布线方法 (从室内机向外部开关控制器)



(2) 设定外部开关控制器的 DIP 开关 设定外部开关控制器的 DIP 开关 1 No.5 根据下 表

当使用一个外部开关控制器和一个遥控器时,请务必把遥控器设为主控制器。如果设为从属控制器将不能保证正常运行。

| 遥控器开关数 | 王机            | 从属机           |  |
|--------|---------------|---------------|--|
| 迪涅舒开入蚁 | DIP-开关1 No. 5 | DIP-开关1 No. 5 |  |
| 1 (单一) | 关(OFF)        | <del></del>   |  |
| 2 (双重) | 关 (OFF)       | 开 (ON)        |  |
|        |               |               |  |

# 6

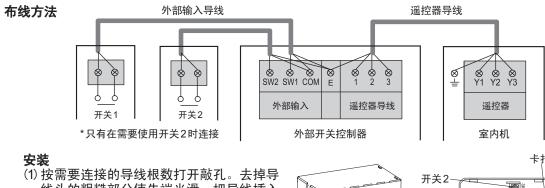
# 布线

## ♠ 警告

- ●在开始安装工作之前,请切断组件电源及与其它机器的连接。在完成安装工作之前不得接通组件电源。否则会引起触电或火灾。
- 请使用附带零件或指定的电源电缆和连接用电缆。请不要改装电缆、或使用非指定电缆,请不要使用延长电缆、不要使用单独分离布线。否则会超过额定电流引起触电或火灾。 ● 请把连接用电缆与端子组安全地连接。确认没有外力施加于电缆。请使用指定电缆作为连接用电缆。如果中间
- 连接部分或固定插入部分不牢固,将引起触电或火灾。
- 当连接电源电缆和信号传输电缆时,请注意布线时安全地固定组件外罩。如果错误地固定组件保护罩,会引起 火灾或终端零部件发热。
- 请正确地进行接地。请不要把接地电缆与电话接地电缆、水管或导体棒相连接。
- ●请务必用捆扎绳牢固地固定连接电缆的外部保护层,(如果绝缘层破损会引起漏电。)●在进行布线工作时,请确认不能使电缆接触用户。否则会造成负伤或触电。
- 如发生电缆破损,请不要自行修理或改装。错误地修理会导致触电或火灾。

# 

- 请不要把遥控器电缆和信号传输电缆与室内机或室外机的电源供电电缆绕在一起或平行布线。这样做有可能引起组件错误运行。
- 当进行布线时,请注意不要损伤电缆或用户。同时安全地与连接器相连接。如连接器松动会引起故障、发热、 火灾或触电。
- ●请把室内机和室外机、电源电缆、信号传输电缆和遥控器电缆安装在与电视机和收音机距离1m以上的地方, 避免图象或音响发生畸变及干扰。
- 在布线时请注意不要使水沿着外部布线流入组件内部。请务必安装一个存水弯或采取其他措施。否则会引起故障、触电或火灾。
- ●确认每个组件的名称及每个端子组的名称,按说明书中指定的方向连接布线,保证没有错误的布线。错误的布 线会损伤电子零部件产生烟雾或引起火灾。
- 在电磁波发生源的附近安装连接电缆时,请使用屏蔽电缆。否则会引起断路或故障。



- (1) 按需要连接的导线根数打升敲孔。去掉导 线头的粗糙部分使先端光滑,把导线插入 孔内。
- (2)把遥控器导线和外部输入导线与终端线路 板相连接。
- (3)用捆扎绳把导线和卡扣连接。 (4)切断剩余的捆扎绳
- (5)用2个螺钉把开关盒的背面安装在墙上。 在水平方向或垂直方向固定这2个螺钉。
- (6) 把连接器与开关盒背面的电路板相连接, 按入前面的开关盒。

## 

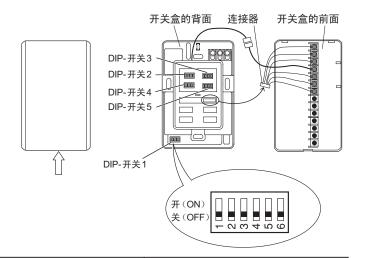
## 把电缆安装到端子组时所需的拧紧力矩。

0.8 ~ 1.2 N•m (8 ~ 12 kgf•cm)

设定 DIP 开关

## <u> 注意</u>

- 除非与空调机同时提供的安装说明书或设定说明书中有特殊指定之外,请不要设定本机组的 DIP 开关或旋转开 关如不按指定内容设定开关会引起事故或出现运转故障。
- 请使用绝缘起子设定 DIP 开关。
- (1) 把螺丝起子的扁平端插入图中箭头所指 定的控制器外壳边缘,用起子撬开外壳 的前面板。
- (2)把连接器从电路板取下时,请注意不要 使电缆破裂。(请参考右图)
- (3)设定外部开关控制器的 DIP 开关



| NO  | 开关状态                          |   | 详细说明   |  |
|-----|-------------------------------|---|--|--|
| NO. | 关(OFF)                        | 开(ON)   | <b>年细玩</b> 奶   |  |
| 1,2 | 参考 "(1) 设定模式"                 |   | 设定模式   |  |
| 3   | ★瞬时 (200 毫秒)                  | 延迟(1分钟)   | 当DIP 开关 1 - 3 被设定为开(ON)的条件下,把开关 1 / 开关 2 设为开(ON)或关(OFF)然后持续 1 分钟,运转状态将发生变化。(1 分钟之内即开关 1 / 开关 2 的状态发生变化也只是被判定为噪声,不更改开关 1 / 开关 2 的状态)。根据开关 1 / 开关 2 的状态)。根据开关 1 / 开关 2 的状态)。根据开关 1 / 开关 2 的特性,为了避免开(ON)或关(OFF)的状态频繁反复地变化,请把延迟时间选为 1 分钟。  |  |
| 4   | ★中央控制有效                       | 中央控制无效  | 当中央控制为无效时,即使在中央控制为<br>禁止状态时也可设定  |  |
| 5   | ★主机                           | 从属机   | 参考 "5. 安装外部开关控制器"  |  |
| 6   | ★固定为关(OFF)                    |   | 不能使用   |  |
| 1~6 | 会 <b>之</b> "(2) 设字运柱描述"       |   | 为设定运转模式而设定的参数1 (P1)  |  |
| 1~4 | 多考(2) 议定应权候认                  |   |  |  |
| 5   | ★接点 开 (ON) ⇒关 (OFF)           | 接点 关 (OFF) ⇒开 (ON)  | 模式0时 设定开关1的接点输入  |  |
| 6   | <b>★</b> 无条件                  | 只适于运转中  | 运转条件:只有在室内机运转时、由接点输入转换为设定P1或P2。此时设定为开(ON)  |  |
| 1~6 | 参考"(2)设定运转模式"                 |   | 为设定运转模式而设定的参数2(P2)   |  |
| 1~4 |                               |   |  |  |
| 5   | ★接点 开 (ON) ⇒关 (OFF)           | 接点 关 (OFF) ⇒开 (ON)  | 当模式0时,设定接点输入的开关2   |  |
| 6   |                               | ★固定为开 (ON)  | 不能使用   |  |
|     | 3 4 5 6 1~6 1~4 5 6 1~6 1~4 5 | X       X       (OFF)         1,2       参考 "(1) 设定模式"         3       ★瞬时(200毫秒)         4       ★中央控制有效         5       ★主机         6       ★固定为关(OFF)         1~6       参考 "(2) 设定运转模式"         5       ★接点 开(ON) ⇒关(OFF)         6       参考 "(2) 设定运转模式"         5       ★接点 开(ON) ⇒关(OFF) | X (OFF)       开 (ON)         1,2       参考 "(1) 设定模式"         3       ★瞬时 (200毫秒)       延迟 (1分钟)         4       ★中央控制有效       中央控制无效         5       ★主机       从属机         6       ★固定为关 (OFF)         1~6       参考 "(2) 设定运转模式"         5       ★接点 开 (ON) ⇒关 (OFF)       接点 关 (OFF) ⇒ 开 (ON)         6       ★无条件       只适于运转中         1~6       参考 "(2) 设定运转模式"         5       ★接点 开 (ON) ⇒关 (OFF)       接点 关 (OFF) ⇒ 开 (ON) |  |

(★出厂时设定)

● 禁止遥控器:由起控制功能的组件来实现控制遥控器的开关(ON/OFF)等。(例如:触摸屏控制器)

#### (1)设定模式

| 设定  | DIP-开关1 |         | ;¥40;*\  |  |  |
|-----|---------|---------|--|--|--|
| 模式  | No. 1   | No. 2   | 详细说明   |  |  |
| 模式0 | ★关(OFF) | ★关(OFF) | 如开关1收到1个DIP-开关3-5的接点输入,此模式设定为P1运转模式。<br>如开关2收到1个DIP-开关5-5的接点输入,此模式设定为P2运转模式。   |  |  |
| 模式1 | 关(OFF)  | 开(ON)   | 如开关1的1个接点的开关状态从开(ON)转换为关(OFF),此模式把运转模式设定为P1。<br>如开关1的1个接点的开关状态从关(OFF)转换为开(ON),此模式把运转模式设定为P2。   |  |  |
| 模式2 | 开(ON)   | 关(OFF)  | 如开关1的1个接点的开关状态从开(ON)转换为关(OFF),在停止运转后,此模式将在1分钟之内把运转模式设定为P1。<br>如开关1的1个接点的开关状态从关(OFF)转换为开(ON),在停止运转后,此模式将在1分钟之内把运转模式设定为P2。<br>在制冷和制热的运行模式之间进行切换时,请务必先停止运行然后再次选择模式开始运行。此时使用模式2。 |  |  |
| 无设定 | 开(ON)   | 开(ON)   | 不能使用   |  |  |

(★出厂时设定)

- 用 DIP- 开关 2, 3 设定运行状态--- P1
- 用DIP-开关4,5设定运行状态---P2

#### 事例:

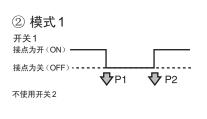
① 模式 0 DIP-开关3-5:开(ON) DIP-开关5-5:关(OFF)

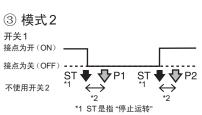
接点为开(ON) ·----

开关2 接点为开(ON) -----

接点为关(OFF) ——

接点为关(OFF) 🗕





\*2 如室内机工作在ST和P1或 ST和P2之间,运转模式将 不会被设定为P1或P2。

**₽**P1

(2)设定运转模式 根据下表,为P1设定DIP-开关2和3,为P2设定DIP-开关4和5。

**₽**P2

| 运转           | DIP-开关2,4 |         |  |
|--------------|-----------|---------|--|
| <b>20</b> 70 | No. 1     | No. 2   |  |
| 不适用          | ★关(OFF)   | ★关(OFF) |  |
| 关(OFF)       | 关(OFF)    | 开(ON)   |  |
| 开(ON)        | 开(ON)     | 关(OFF)  |  |
| SETBACK*1    | 开(ON)     | 开(ON)   |  |
|              | DID ##35  |         |  |

| 开(ON)     | 开(ON)  |  |  |
|-----------|--|--|--|
| DIP-开关3,5 |  |  |  |
| No. 1     | No. 2  |  |  |
| ★关(OFF)   | ★关(OFF)                                      |  |  |
| 关(OFF)    | 开(ON)  |  |  |
| 开(ON)     | 关(OFF)                                       |  |  |
| 开(ON)     | 开(ON)  |  |  |
|           | DIP-开<br>No. 1<br>★关(OFF)<br>关(OFF)<br>开(ON) |  |  |

| 通风扇速度      | DIP-开关3,5 |         |  |
|------------|-----------|---------|--|
| <b>坦</b> / | No. 3     | No. 4   |  |
| 不适用        | ★关(OFF)   | ★关(OFF) |  |
| 高速         | 关(OFF)    | 开(ON)   |  |
| 中速         | 开(ON)     | 关(OFF)  |  |
| 低速         | 开(ON)     | 开(ON)   |  |

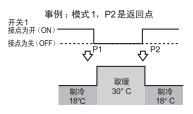
| 设定温度                                       | DIP-开关2,4 |         |         |         |
|--|-----------|---------|---------|---------|
| <b>汉</b> 上温及                               | No. 3     | No. 4   | No. 5   | No. 6   |
| 不适用  | ★关(OFF)   | ★关(OFF) | ★关(OFF) | ★关(OFF) |
| 16° C*2*3 (60° F)                          | 关(OFF)    | 关(OFF)  | 关(OFF)  | 开(ON)   |
| 17° C* <sup>2</sup> * <sup>3</sup> (62° F) | 关(OFF)    | 关(OFF)  | 开(ON)   | 关(OFF)  |
| 18° C (64° F)                              | 关(OFF)    | 关(OFF)  | 开(ON)   | 开(ON)   |
| 19° C (66° F)                              | 关(OFF)    | 开(ON)   | 关(OFF)  | 关(OFF)  |
| 20° C (68° F)                              | 关(OFF)    | 开(ON)   | 关(OFF)  | 开(ON)   |
| 21° C (70° F)                              | 关(OFF)    | 开(ON)   | 开(ON)   | 关(OFF)  |
| 22° C (72° F)                              | 关(OFF)    | 开(ON)   | 开(ON)   | 开(ON)   |
| 23° C (74° F)                              | 开(ON)     | 关(OFF)  | 关(OFF)  | 关(OFF)  |
| 24° C (76° F)                              | 开(ON)     | 关(OFF)  | 关(OFF)  | 开(ON)   |
| 25° C (78° F)                              | 开(ON)     | 关(OFF)  | 开(ON)   | 关(OFF)  |
| 26° C (80° F)                              | 开(ON)     | 关(OFF)  | 开(ON)   | 开(ON)   |
| 27° C (82° F)                              | 开(ON)     | 开(ON)   | 关(OFF)  | 关(OFF)  |
| 28° C (84° F)                              | 开(ON)     | 开(ON)   | 关(OFF)  | 开(ON)   |
| 29° C (86° F)                              | 开(ON)     | 开(ON)   | 开(ON)   | 关(OFF)  |
| 30° C (88° F)                              | 开(ON)     | 开(ON)   | 开(ON)   | 开(ON)   |

(★出厂时设定)

- \*1 设定SETBACK,返回设定开关参数之前的运转状态。
  - (如右图所示,运转状态被设定为返回到转换为P1之前的状态。)

当 SETBACK 被设定为开 (ON) 时,运转模式、风扇速度、温度的设定将变为无效。如需将其设定 为有效,应把SETBACK设为关(OFF)。

- \*2 不能设定运转模式 "取暖", 或把只能用于制冷的空调温度设定 为 "16°C (60°F)", 或 "17°C(62°F)"。这些设定值都不工作。
- \*3 当设定为下述值时,机器将不能正常运转。
  - 当运转在制冷优先的状态时,设定运转模式为"取暖"并且把 温度设为 "16°C (60°F)" 或 "17°C(62°F)"。
  - 当运转在取暖优先的状态时,设定运转模式为"制冷"。
  - 当运转在 "干燥" 模式时,设定通风扇速度。

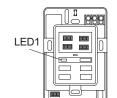


8

# 接通电源

# 

- 请再次确认布线状况。布线错误会引起故障。 1. 检查外部开关控制器的布线和 DIP 开关的设定状况。
- 2. 检查室内机和室外机的布线及电路板开关的设定状况,然后接通室内机和室
- 外机的电源。 3. 如正确地与电源相连接, LED1将点亮。 \*当发生下表所示故障时LED1将闪耀



9

## 显示故障编码

与LED1闪烁的同时显示故障内容。

| 故障编码                    | 目录                        |
|-------------------------|---------------------------|
| 0.5秒钟,ON/0.5秒钟,OFF 闪耀   | 遥控器导线连接故障 (室内机与外部开关控制器之间) |
| 0.5 秒钟,ON/1.0 秒钟,OFF 闪耀 |                           |