

**HITACHI**

# PC-LH3A

## REMOTE CONTROLLER

INSTALLATION AND OPERATION MANUAL  
 MANUAL DE INSTALACIÓN Y FUNCIONAMIENTO  
 INSTALLATIONS- UND BETRIEBSHANDBUCH  
 MANUEL D'INSTALLATION ET DE  
 FONCTIONNEMENT  
 MANUALE D'INSTALLAZIONE E D'USO

MANUAL DE INSTALAÇÃO E DE  
 FUNCIONAMENTO  
 BRUGER- OG MONTERINGSVEJLEDNING  
 INSTALLATIE- EN BEDIENINGSHANDLEIDING  
 HANDBOK FÖR INSTALLATION OCH ANVÄNDNING  
 ΕΓΧΕΙΡΙΔΙΟ ΕΓΚΑΤΑΣΤΑΣΗΣ ΚΑΙ ΛΕΙΤΟΥΡΓΙΑΣ



Do not perform installation work, without referring to our installation manual.  
 No realice la instalación de este equipo, sin antes consultar este manual de instalación.  
 Bei der Installation unbedingt die Hinweise in der Installationsanleitung beachten.  
 Consulter notre manuel avant de réaliser une quelconque installation.  
 Realizzare l'installazione, seguendo quanto indicato in questo manuale.  
 Não inicie os trabalhos de montagem, sem consultar o nosso manual de montagem.  
 Udfør ikke installationsarbejder uden først at konsultere vores vejledning.  
 Voer geen enkele handeling uit om de apparatuur alvorens deze handleiding te hebben doorgelezen.  
 Utför inte några installationsarbeten utan att först läsa var installationsmanual  
 Μην ήσετε στην εγκατάσταση, χωρίς πριν να έχετε συμβουλευθεί αυτο το εγχειρίδιο εγκατάστασης

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**DANGER** – Immediate hazard which WILL result in severe injury or death.

**PELIGRO** – Riesgos inmediatos que PRODUCIRÁN lesiones personales graves e incluso la muerte.

**GEFAHR** – Unmittelbare Gefahrenquellen, die zu schweren Verletzungen oder zum Tod führen.

**DANGER** – Dangers instantanés de blessures corporelles sévères ou de mort.

**PERICOLO** – Pericolo immediato che PRODURRÀ ferite gravi o la morte.

**PERIGO** – Problemas inmediatos que IRÃO resultar em graves ferimentos pessoais ou morte.

**FARE** – Overhængende fare, som VIL resultere i alvorlig personskade eller dødsfald.

**GEVAAR** – Onmiddellijke risico's die ernstige persoonlijk verwondingen of de dood ten gevolge kunnen hebben.

**FARA** – Omedelbar risk som medfór svår personskada eller död.

**KINAYNO** – Άμεσος κίνδυνος που ΘΑ έχει ως αποτέλεσμα σοβαρές σωματικές βλάβες ή θάνατο.



**WARNING** – Hazards or unsafe practices which COULD result in severe personal injuries or death.

**AVISO** – Riesgos o prácticas poco seguras que PODRÍAN producir lesiones personales e incluso la muerte.

**WARNUNG** – Gefährliche oder unsichere Anwendung, die zu schweren Körperverletzungen oder zum Tod führen kann.

**ATTENTION** – Utilisation dangereuse ou sans garantie de sécurité qui PEUT provoquer de sévères blessures personnelles ou la mort.

**AVVISO** – Pericoli o azioni pericolose che POTREBBERO avere come esito lesioni fisiche gravi o il decesso.

**AVISO** – Riesgos o prácticas poco seguras que PUEDEN producir lesiones personales e incluso la muerte

**ADVARSEL** – Farer eller farlig brug, som KAN resultere i alvorlig personskade eller dødsfald.

**WAARSCHUWING** – Gevaren of onveilige praktijken die ernstig persoonlijk letsel of de dood tot gevolg KUNNEN hebben.

**VARNING** – Risker eller osäkra tillvägagångssätt som KAN leda till svåra personskador eller dödsfall.

**ΠΡΟΕΙΔΟΠΟΙΗΣΗ** – Κίνδυνοι ή επικίνδυνες πρακτικές, οι οποίες ΜΠΟΡΕΙ να έχουν ως αποτέλεσμα σοβαρές σωματικές βλάβες ή θάνατο.



**CAUTION** – Hazards or unsafe practices which COULD result in minor personal injury or product or property damage.

**PRECAUCIÓN** – Riesgos o prácticas poco seguras que PODRÍAN provocar lesiones personales de menor importancia o daños en el producto u otros bienes.

**VORSICHT** – Gefährliche oder unsichere Anwendung, die geringfügigen Personen-, Produkt- oder Sachschaden verursachen kann.

**PRECAUTION** – Utilisation dangereuse ou sans garantie de sécurité qui PEUT provoquer des blessures mineures ou des dommages au produit ou aux biens.

**ATTENZIONE** – Pericoli o azioni pericolose che POTREBBERO avere come esito lesioni fisiche minori o danni al prodotto o ad altri beni.

**CUIDADO** – Perigos e procedimentos perigosos que PODERÃO PROVOCAR danos pessoais ligeiros ou danos em produtos e bens.

**FORSIGTIG** – Farer eller farlig brug, som KAN resultere i mindre skade på personer, produkt eller ejendom.

**LET OP** – Gevaren of onveilige praktijken die licht persoonlijk letsel of beschadiging van het product of eigendommen tot gevolg KUNNEN hebben.

**VARSAMHET** – Risker eller farliga tillvägagångssätt som KAN leda till mindre personskador eller skador på produkten eller på egendom.

**ΠΡΟΣΟΧΗ** – Κίνδυνοι ή επικίνδυνες πρακτικές, οι οποίες ΜΠΟΡΕΙ να έχουν ως αποτέλεσμα την πρόκληση ελαφρών σωματικών βλαβών ή καταστροφή περιουσίας.

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## 1 SAFETY SUMMARY



### **DANGER:**

DO NOT pour water into the remote control switch (hereafter called "controller"). This product is equipped with electrical parts.  
If poured, it will cause a serious electrical shock.



### **WARNING:**

DO NOT perform installation work and electrical wiring connection by yourself. Contact your distributor or dealer of HITACHI and ask them for installation work and electrical wiring by service person.




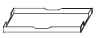

### **CAUTION:**

DO NOT install the indoor unit, outdoor unit, at such places as:

- Where there is oil vapor and the oil is dispersed.
- Where the hot springs are near (in a sulfuric environment).
- Where generation, flowing, staying or leaking of flammable gas is detected
- Where the sea is near ( in the salty, acid or alkaline environment).
- DO NOT install the indoor unit, outdoor unit, within approximately 3 meters from strong electromagnetic wave radiators such as medical equipment.
- In case that there is electric noise at the power source for the indoor unit, provide a noise filter.
- Do not turn ON the power source, unless the preparation for test running is completed.
- Read this manual carefully before installation work for correct performance.

## 2 BEFORE INSTALLATION AND OPERATION

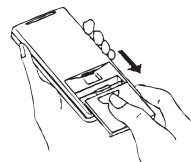
- The packing contains the following parts. Check the contents and the number of the parts.

Name		Q'ty	Remark
Wireless Remote Control Switch (Controller)		1	For Operation Control
Holding Bracket		1	For Controller
Battery (AAA/1.5 Dry Cell)		2	For Power Source Controller
Screw		4	For fixing "Holding Bracket" onto Wall

## 3 SETTING BATTERIES

- Set the batteries (AAA/1.5Vx2) for the controller as follows.

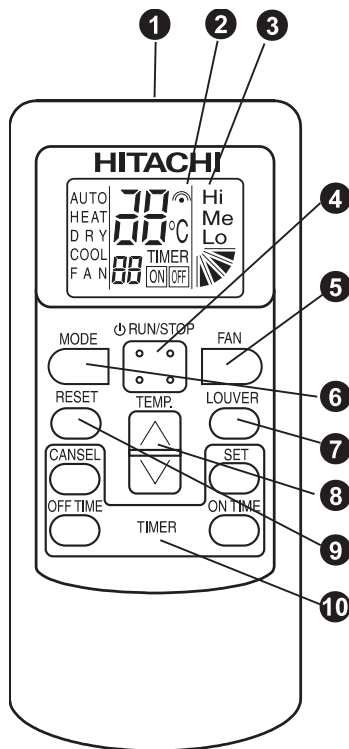
- 1 Remove the battery cover by sliding toward the arrow direction by pushing the part of the cover as shown in the figure below.
- 2 Set the batteries.  
(Insert the batteries according to the marks of + and - on the case.)



## 4 NAME OF PARTS

### ■ Controller

This controller is used to send commands about operation mode, timer setting, etc. to the indoor unit. Face the transmitter of the controller toward the receiver of the indoor unit and press the switch of required operation so that commands (by infrared rays) are sent to the indoor unit. The distance for transmitting is approximately 6 meters as a maximum. (The capable distance for transmitting will get shorter in case that the transmitting angle is not vertical to the receiver or an electronic type light is used in the room, etc.).



#### 1 Transmitter

Point the transmitter towards the receiver of the indoor unit when sending commands. The Transmitting indication on the liquid crystal display flashes when sending commands.

#### 2 Transmitting Indication

#### 3 Liquid Crystal Indication

The set temperature, timer operation, position of air louver, operation mode, air flow mode, etc.. are indicated. The diagram of the display shown on the left is for explanation purposes only. The display will differ during actual operation.

#### 4 Run/Stop Switch

Operation of the unit can be started or stopped by pressing this switch.

#### 5 Fan Speed Switch

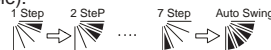
Press this switch to select the fan speed. By repeatedly pressing the button, the setting will change sequentially through HIGH, MED and LOW. (Fan speed is fixed at low for dry operation).

#### 6 Mode selection switch

By repeatedly pressing the mode switch, the unit cycles through the different operating modes in the order of HEAT, DR, COOL and FAN. To select auto operation, press the switch for more than 3 seconds. If the switch is pressed again, it will return to FAN mode.

#### 7 Louver Angle Switch

The airflow angle and auto-louver operation can be set by this switch. When pressing the switch, the angle is changed in the following order. (In cool or dry operation modes, steps 1-5 and Auto swing are available).



#### 8 Temp. Switch

The setting temperature can be adjusted using the switch.

#### 9 Reset Switch

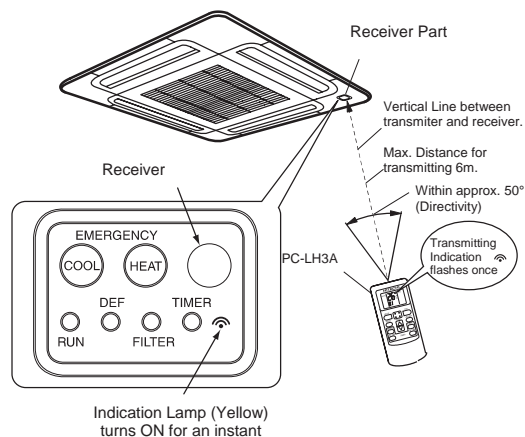
(1) Press RESET to turn off the filter indicator lamp after filter cleaning.  
 (2) If the unit is stopped abnormally due the protection devices etc... press the RESET switch to cancel the control stoppage after the cause of abnormality has been remove.

#### 10 Timer Switches

Four switches control the timer operation. The set time can be changed by pressing "ON TIME" or "OFF TIME" and is set by pressing the "SET" switch. Timer operation can be cancelled using "CANCEL".

## 5 SENDING COMMANDS FROM CONTROLLER

- The operation commands are sent by pressing the required operation switch by facing the transmitter of the controller toward the receiver of the indoor unit.
- 1 When the commands are sent, the '📶' indication on the liquid crystal display of the controller flashes once.
  - 2 The indication lamp (yellow) on the receiver part of the indoor unit turns ON for an instant when the indoor unit receives the commands.



### ATTENTION:

- In case that the indication lamp (yellow) does not turn ON although the commands are sent, the commands are not received by the indoor unit. In such a case, send the commands again.
- The transmitter of the controller has the vertical directivity to the receiver, and the permissible angle for transmitting is within 50°. However, the capable distance for transmitting gets half when the transmitting angle is 50°, and also get shorter in case that an electronic type light is used in the room.



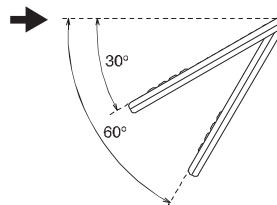
### NOTE:

The above figure shows the case of a 4-way cassette type indoor unit. The figures for other models are different partially.

- LCD (Liquid Crystal Display) Indication

When viewed from certain angles the LCD can be difficult to read.

The viewing angle ranges from an optimal of 60° down to 30°, as shown in the diagram on the right.



## 6 OPERATION

- When operating the controller, face the transmitter toward the receiver of the indoor unit and press the switch for the required operation as described in the item '4. Sending Commands from Controller'.



**ATTENTION:**

*In case that two indoor units are installed side by side, the commands from the controller may be received by both indoor units. The function to identify each indoor unit not applicable.*

## 7 INSTALLING ONTO THE WALL OR PILLAR



**ATTENTION:**

*When the commands are sent by the controller hooked onto the wall, the receiver of the indoor unit may not receive the commands.*

- 1) Select the suitable place for handling and install the controller with the customer's acceptance.  
Do not install the controller at the places as shown in the below.
  - \* where children can touch
  - \* where the air from the air conditioner is directly discharged
  - \* where there is oil vapor and the oil is dispersed
  - \* where the humidity is high
- 2) Pay attention to the following points in case that the controller is installed in a place where there is medical equipment radiating electromagnetic waves.
  - a) Install the controller in a place where electromagnetic waves are not radiated directly toward the electrical box of the indoor unit and the controller.
  - b) Keep a distance more than 3 meters away from the equipment radiating electromagnetic waves, the receiver of the radio, etc. for prevention of the noise through the air.
  - c) In case that there is electric noise at the power source for the indoor unit, the treatment such as providing a noise filter is required.
- 3) Do not install the controller in a place where generation, flowing, staying or leaking of flammable gas is detected.
- 4) Install the controller in a place where there is a distance more than 30cm from the power supply cable when installing the controller onto the wall.
- 5) Install the holding bracket (accessory) onto the wall by using screw (accessory) and attach the controller to the holding bracket. Test Running by Controller



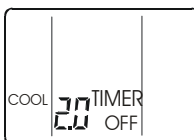
## 8 TEST RUNNING BY CONTROLLER



### ATTENTION:

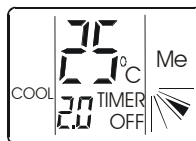
Test running by the controller can not be performed in case that the wired remote control switch is used together; in case that multiple units are operated simultaneously (SET-FREE and UTOPIA Series). In such cases, perform the test running by the wired remote control switch.

- 1) Perform the test run after the installation work is completed.
  - a) Set the batteries for the controller.
  - b) Turn ON the power supply for the indoor and outdoor units.
  - c) '📶' lamp (yellow) on the receiver of the indoor unit flashes (0.25 seconds ON ⇔ 0.25 seconds OFF), and then turns OFF. While the lamp is flashing, the unit will not operate because it is initialising.
- 2) Set the test run mode by pressing 'SET' and 'OFF TIME' switch simultaneously for more than 3 seconds. The LCD should be as shown in the figure on the right.



Test Run Mode is under suspension

- 3) Set the operation mode by pressing the 'MODE' switch.



Test Run Mode is under Operating

- 4) Operate the Test Run by pointing the transmitter towards the receiver of the indoor unit and press the 'RUN/STOP' switch. When the commands are received by the indoor unit, the '📶' lamp (yellow) of the receiver will come on briefly. Check the commands are received well and the mode selected 3) is set correctly. In the test run mode, the red lamp (RUN) of the receiver is turned ON and the green lamp (TIMER) flashes (0.5 seconds ON ⇔ 0.5 seconds OFF) (\*2). And then set off timer for 2 hours.



### NOTE:

1. In the case that the '📶' lamp (yellow) does not turn ON, the controls may not have reached the receiver. Send the commands again.
  2. (\*2) In the case of RPK model, 'TIMER' lamp is turned OFF.
- 5) Adjust the angle of the air louver as follows. The air louver has a mechanism for the auto-swing function. Do not move the louver by hand forcefully.
    - a) Select the FAN mode by pressing the 'MODE' switch.
    - b) Set the louver angle by pressing the 'LOUVER' switch.
  - 6) Stop the Test Run
    - a) Test Run is stopped after 2 hours automatically.
    - b) Test Run is stopped by pressing 'RUN/STOP' switch again. After Test Run is finished, check that the red lamp (RUN) and the green lamp (TIMER) turn OFF.

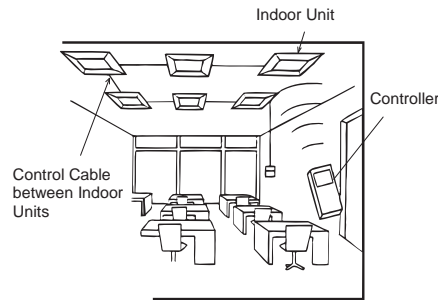
## 9 SIMULTANEOUS OPERATION OF MULTIPLE INDOOR UNITS

The multiple indoor units (Max. 16 units) can be started and stopped simultaneously by one controller. Perform this operation only in case that multiple indoor units are installed in a room as shown in the figure.



**CAUTION:**

*Do not perform this operation in case that the multiple indoor units are installed in different rooms separately. It may happen that some indoor units remain unchanged*



■ Procedures

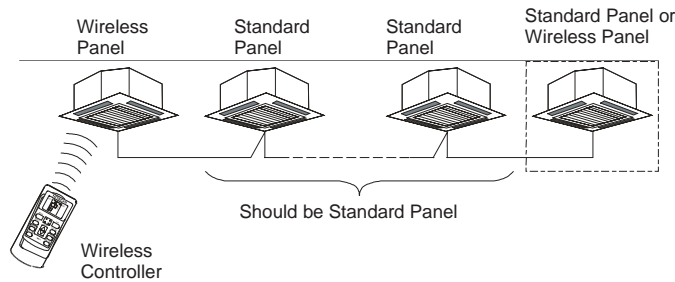


**ATTENTION:**

*Turn OFF all the power source before the following procedures such as wiring, setting the rotary switch, etc.*

1) Installation of Air Panel for Wireless Control

In case of simultaneous operation of plural (up to 16) units by the wireless remote control switch, apply the air panel for wireless control only to the unit to be operated, and apply the standard panels (for wired control) to other units. In case of applying plural air panels for wireless control, up to 2 air panels for wireless control can be used.



In case of applying two (2) air panels for wireless control, the setting of main and sub receiver part is required. Refer to the receiver kit installation manual.

- 2) Perform wiring between indoor units by referring to the receiver installation manual.
- 3) Fix the connecting control cable (do not use the white cord of the 3-core cable) between indoor units at certain points with bands not to run along the power supply cable inside of the indoor unit. The same wiring is required outside of the indoor unit; keep a distance more than 30cm between the control cable and the power supply cable, or ground one end of a conduit tube after inserting the control cable in the metal conduit tube.

- 4) Set the rotary switches (RSW) on the printed circuit boards in the electrical box of each indoor unit as shown in the figure below.

	No. 0 Unit	No. 1 Unit	No. 2 Unit	No. 3 Unit	No. 4 Unit	No. 5 Unit	No. 6 Unit	No. 7 Unit
Rotary switch Setting								
	No. 8 Unit	No. 9 Unit	No. 10 Unit	No. 11 Unit	No. 12 Unit	No. 13 Unit	No. 14 Unit	No. 15 Unit
Rotary switch Setting								



**ATTENTION:**

*In case that the setting of the rotary switch is not performed correctly, an abnormal operation (irregular run/stop) may occur when test running or actual operation.*

- 5) Check the Number of Indoor Units Connected

Check the number of indoor units connected when test running.

- \* The 7-segment indication of the receiver part shows the number of the indoor units connected in case that the test running is performed by the controller. However, the number can not be indicated for some models. In such a case, check the number by the wired controller PC-P1HE.

