



# FULL DC INVERTER SYSTEMS

OWNER'S & INSTALLATION MANUAL  
INFRARED INDUCTIVE CONTROLLER

NIM09

COMMERCIAL AIR CONDITIONERS SDV4



Original instructions

- This manual gives detailed description of the precautions that should be brought to your attention during operation.
- In order to ensure correct service of the infra-red inductive controller please read this manual carefully before using the unit.
- For convenience of future reference, keep this manual after reading it.

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# **INSTALLATION**

# I. Safety Precautions

The following contents are stated on the product and the operation manual, including usage, precautions against personal harm and property loss, and the methods of using the product correctly and safely. After fully understanding the following contents (identifiers and icons), read the text body and observe the following rules.



## ■ Identifier description


Identifier	Meaning
 Warning	Means improper handling may lead to personal death or severe injury.
 Caution	Means improper handling may lead to personal injury or property loss.


[Note]:

1. "Harm" means injury, burn and electric shock which need long-term treatment but need no hospitalization
2. "Property loss" means loss of properties and materials.

■ Icon description

Icon	Meaning
	It indicates forbidding. The forbidden subject-matter is indicated in the icon or by images or characters aside.
	It indicates compulsory implementation. The compulsory subject-matter is indicated in the icon or by images or characters aside.

 Warning	Delegate installation	Please entrust the distributor or professionals to install the unit. The installers must have the relevant know-how. Improper installation performed by the user without permission may cause fire, electric shock, personal injury or water leakage.
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 Usage Warning	Forbid	Do not spray flammable aerosol to the infra-red inductive controller directly. Otherwise, fire may occur.
	Forbid	Do not operate with wet hands or let water enter the wire controller. Otherwise, electric shock may occur.

## 2 Installation Accessories

### 1. installation place selection

Do not install at the places where contain oil, steam and sulfur air, otherwise it will cause product's deformation and lead to malfunction.  
Preparation before installation

1) Please confirm that all the following parts you have been supplied.

NO.	Name	Qty	Remark
1	Infra-red sensor	1	_____
2	Infra-red inductive control box	1	_____
3	ST3.9×10 Cross recessed pan head tapping screws	4	_____
4	ST3.9×25 Cross recessed pan head tapping screws	4	_____
5	M4×25 cross groove, panhead screws	4	_____
6	M4×20 cross groove, panhead wood screws	4	_____
7	Plastic pipes	4	_____
8	Installation instructions	1	_____
9	Infra-red inductive controller signal connecting wire groups	8	Use for connecting the signal receiving panel with th infra-red sensor



2) The following assemblies should be prepared at the local installation place.

NO.	Name	Qty	Remark
1	Wiring conduit (insulated sleeve)	1	Pre-embedding into the wall, the longest wiring is 15M.
2	Big cross Screwdriver	1	Use for installing cross recessed pan head tapping screws.
3	Small slotted screw driver	1	Use for striking down wire controller's bottom cover.



#### NOTE

- This instruction describes the installation method and operation instruction of infra-red inductive controller.
  - The infra-red inductive controller must be used with KJR-10B wire controller.
  - The infra-red inductive controller is a low voltage device, so it's forbidden to contact with above 220V or 380V high-voltage cable directly , and it can't be placed at the same wiring pipe with the above described loop and the interval space of the wiring pipes should be at least more than 300~500mm.
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# 3 Installation Method

## 1. Infra-red inductive controller wiring diagram:

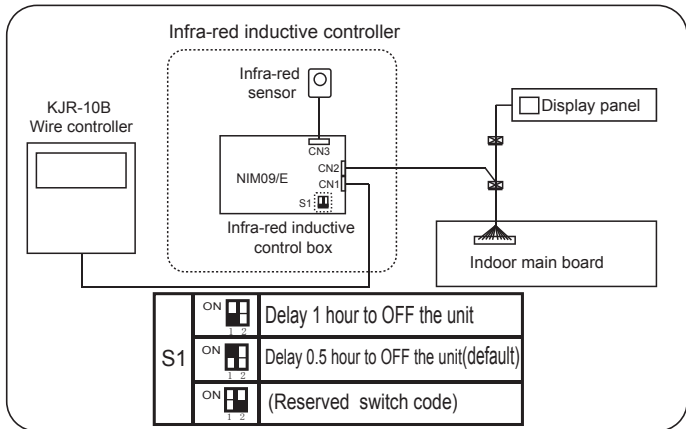


Fig.1

Infra-red inductive controller is divided into infra-red sensor and infra-red inductive control box. When installing, you must connect infra-red inductive control box to the wire controller, indoor unit display panel, and infra-red sensor through CN1, CN2, and CN3 respectively.

## 2. Connecting wire group:

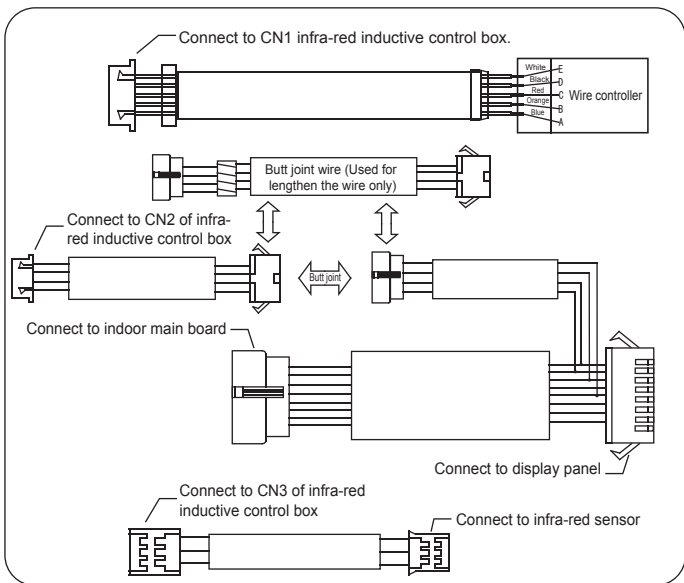


Fig.2

### 3. The installing and wiring diagram of infra-red inductive controller:

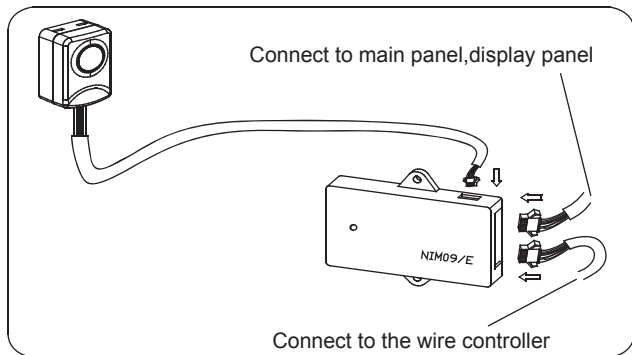


Fig.3

### 4. Installation of infra-red sensor:

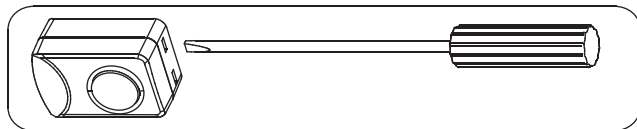


Fig.4

- 1) Before installing, please refer to the following installation dimension and the overall dimension of the product (Unit: mm)

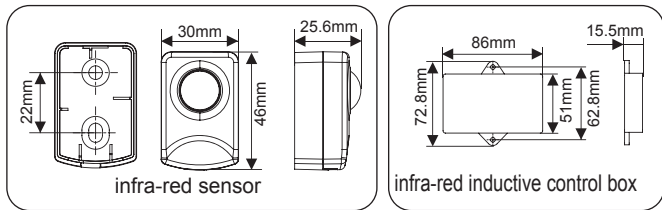


Fig.5

- 2) Turn on the installed infra-red sensor with slot type screw driver as the figure displayed:

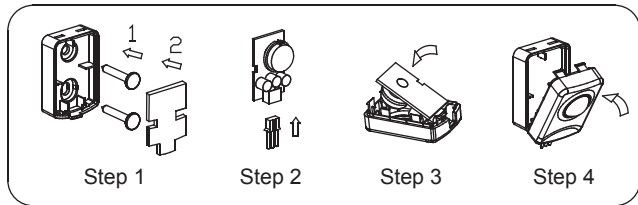


Fig.6

- 3) Use tapping screw in accessories to fix the bottom case, and stick the gasket to the bottom case's inner ground face; (See step 1)
- 4) Insert the plug of infra-red inductive connecting wire group into the corresponding plug of human body infra-red sensor; (See step 2)
- 5) Clip the component installed by step 2 into the panel as displayed ; (See step 3)
- 6) Install the component installed by step 3 into the bottom base as displayed. (See step 4)



#### **NOTE**

Over tighten up the screw will lead to deformation and fracture of bottom case. When installing infra-red inductive connecting wire group, please leave certain length in case for taking down infra-red sensor while under maintenance.

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## **5. Setting the delay OFF time:**

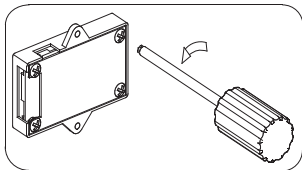


Fig.7

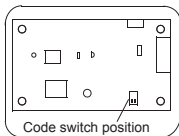


Fig.8

- 1) Take apart the installed infra-red inductive control box with cross screwdriver;
- 2) According to user's requests, adjust the code switch on the main board to the relevant position  
(The code's instruction refers to the following)

## 6. The code's intrusion

Set the code switch S1 in the Infra-red inductive control box to select the delay OFF time while the air-conditioner did not sense the human activities, the specific are displayed as follow:




S1	ON		Delay 1 hour to OFF the unit
	ON		Delay 0.5 hour to OFF the unit(default)
	ON		(Reserved switch code)

Fig.9

## 7. Infra-red sensor installation place:

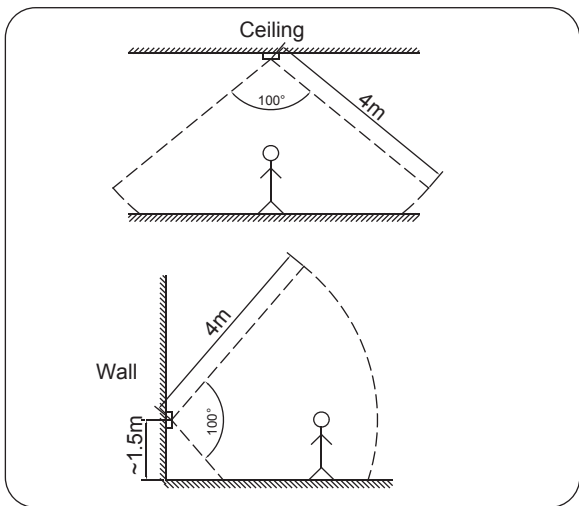


Fig.10

Infra-red sensor installation place should be the ceiling or wall with centralized human activities.





**OPERATION**

# 1 Operation Instruction

- 1) Infra-red sensors can detect human activities in certain area and automatically shut off the air-conditioner if there is no activity. The detecting range and angle is shown as below:

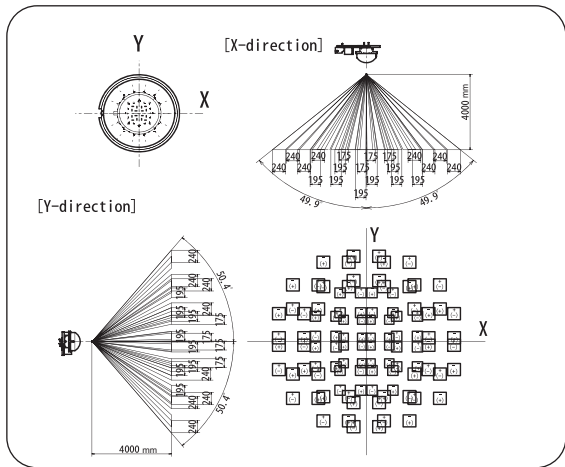


Fig.11

- 2) Make wiring according to the installation diagram, and power on the air-conditioner, delay 60 seconds to wait the infra-red inductive controller finishing its initialization, during initialization only the latest operation instruction from wire-controller will be remembered, this instruction will be transferred to indoor unit after the initialization finishing and the infra-red sensor sensing human activities.
- 3) During air-conditioner operation, if the infra-red does not sense human activities lasting for 30 (or 60) minutes, the inductive controller will turn off the indoor unit automatically. The default time delay is 30 minutes. 60 minutes time delay can be set through the switch S1 in the infra-red inductive control box.
- 4) Every time the indoor unit re-powers, it is required to use the wire controller to turn on the indoor unit and set operation mode for the first time.
- 5) Infra-red inductive controller can remember the last control instruction sent by wire controller (KJR-10B), when it can not sense the human activities in duration 30 (or 60) minutes, it will automatically send two times the OFF instruction; when it senses human activities again, it will send remembered memory with 3 seconds delay, system will continue to operate at last time's setting. Timing instruction will be transferred only, but not remembered.

- 6) Every time re-powering the infra-red inductive controller, a default instruction 'OFF' is sent to indoor unit , the indoor unit will be turn off regardless its operation status.
- 7) The infra-red inductive controller doesn't remember instructions from remote control, it will work only with wired controller.



#### **NOTE**

A mobile phone call may cause the auto-turned off indoor unit start to run again. Please do not put the mobile in a place close to the infra-red sensor when there is no one in the room and the indoor unit is running.

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**Take-back of electrical waste**  
**Information for Users to Disposal of electrical and electronic equipment**  
**(private households)**

Icon on the product or in the accompanying documentation means that used electric or electronic products must not be disposed together with domestic waste. For the correct disposal of the product hand it over to a place for take-back, where it is collected free of charge. By correct disposal of the product you can help to preserve valuable natural resources and help in preventing potential negative impacts to environment and human health, which could be consequence of incorrect disposal of waste. Ask for more details from local authorities, nearest collection point, in Waste Acts of respective country, in the Czech Republic in Act no. 185/2001 Coll., in the wording of later regulations. In case of incorrect disposal of this waste, a fine can be imposed according to national regulations.



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