



GKB GROUP CO., LTD.

Add: No.98 He Dong Road Fang Cun District, Guangzhou, 510380 P.R.China

Tel: 0086-20-81570688 Fax: 0086-20-81558466

www.gkbgroup.com

E-mail: marketing@gkbgroup.com



Wireless Two-way Intelligent Control System



User Manual



ZG107-1

Brief Introduction	1
Main functions	1
Product models	2
LCD panel/LCD controller	3
Operation temperature	3
Parameters	3
Optional elements	4
Accessories	4
Attention	4
Cleaning an LCD screen	4
Cleaning the surface of an LCD panel	4
Outside view of an LCD panel	5
Outside view of LCD controller	6
Installing a panel	7
Installing a LCD controller	8
Installing Batteries	9
Receiver instructions	9
Installing a receiver	10
System code setting	11
Receiver code setting	13
Force start/shut down	15
Reading a receiver code	16
Reading a system code	16
Setting a relay	16
Operating instructions	17
Shortcut functions	25
Dimmer functions	27
Controlling curtain positions	28
Wireless controller	29
Operation temperature	29
Parameters	29
Accessories	29
Attention	29
Outside view	30
System code setting	31
Receiver code setting	32
Operation instructions	34
Dimming Receiver	35
Reference Standards	35
Definition	35
Parameters	35
Accessories	35
Dimming functions	36

Receiver	37
Reference Standards	37
Definition	37
Parameters	38
Accessories	38
Receiver functions	38
Receiver code setting	39
System codes setting	41
Code reading	42
Setting a relay	43
Force start/shut down	43
Smart Socket	44
Reference Standards	44
Definition	44
Parameters	45
Functions	45
Key functions	45
Two-way transmission	47
Relay functions	47
Curtain receiver	48
Air conditioner receiver	48
Reference Standards	48
Definition	48
Parameters	49
Functions	49
Code setting	50
Code Reading	52
Force start/shut-off	53
Setting a relay	53
Controlling curtain positions	54
Learning function description	55
Outside view	56
Key functions of Air conditioner receiver	57
Learning function of Air conditioner receiver	58
Setting relay functions of Air conditioner receiver	59
Installation of Curtain receiver	59
Installation of Air conditioner receiver	60
Troubleshooting	61

Wireless two-way intelligent control system

Brief Introduction

DigitHome is an intelligent control system utilizing wireless transmission, MCU control etc., suitable for controlling household appliances. This intelligent system consists of LCD control panels and receivers etc. The battery-powered panels permit wireless connection and can be mounted on the wall or placed in any positions. Receivers can be fixed beside or inside electric appliances even inside ceilings.

The LCD control panels and receivers are capable of wireless transmission. Keys on the LCD control panels can control the switches inside the receivers, so that lights and electric appliances can be turned on/off. The product is able to control up to 48-line lights or electric appliances.

Main functions

- | | |
|-------------------------|---|
| 1. Central control | Any one of the panels can control all the electric appliances. |
| 2. Central display | LCD control panels can display all the electric appliances status. |
| 3. Multipoint control | An electric appliance load can be controlled by multiple control panels. |
| 4. LCD controller | By RF wireless transmission control, the control panels can server as LCD controllers. |
| 5. Two-way transmission | Control panels and receivers have two-way transmission. The control panels can display all the electricity status. |
| 6. Lock functions | A certain load can be locked by a control panel and is not controllable by another controller |
| 7. Setting passwords | Passwords for every intelligent system and serial numbers for every receiver can be set by control panels and receivers. |
| 8. Full on/off function | Press the full on/off key to turn on/off all the loops. |
| 9. Setting scenes | Five scenes can be set to adapt to various lighting environments. |
| 10. Energy-saving mode | If no operation is performed or no signal is received on the panel within 20 seconds, the display will be automatically turned off and energy saving mode will be activated. You can restore the display by pressing any key. |
| 11. Relay functions | Any of the receivers can be set as a relay to reinforce the accuracy of the signal received, but one system can only have one relay. |
| 12. Luminous display | The background color of an LCD is blue at normal status. |

- | | |
|---|---|
| 13. Force start/shut down function | Press 2 keys on a receiver can force start or shut down a loop. |
| 14. Reading password | With the control panels and receivers together, password and receiver codes of receivers displayed can be read on the control panels. |
| 15. Control of curtain moving positions | Moving positions of a curtain can be controlled. |
| 16. Dimmer functions | Intensity of light can be adjusted. |
| 17. Telephone LCD controller | All loads can be LCD controllerled through telephone. |
| 18. Control of an air-conditioner | Use the control panel to turn on/off the air-conditioner |

* "load" means electric appliance such as air conditioners, curtains, electric cookers, washers, mini-fans and incandescent lamps.

Product models

- | | |
|--------------------------------|--|
| 1. Mobile panel models: | GKB7UIR-3B /50
GKB7UIR-3DB/50
GKB7UIR-3A1/50 |
| 2. Receiver models: | GKB7U-3B/50
GKB7U-3B/60
GKB7U-3/50
GKB7U-3/60
GKB7U-3/3/50
GKB7U-3/3/60
GKB7U/10/50
GKB7U/10/60
GKB7U-3C/50
GKB7U-3E/50 |

Designs and specifications are subject to change without further notice.

Please carefully read the instructions before operations.

LCD panel

GKB7UIR-3B/50



LCD controller

GKB7UIR-3DB/50



Operation temperature

The operation temperature of the system ranges from 10-60°C.
 It is recommended not to use the system in places too hot or too cold.
 It is normal if the LCD is a little fuzzy below 0°C.
 The operation humidity of the system is below 90%.

Parameters

- 2 high-energy alkaline batteries of 1.5V (No. 7) are used for the LCD panel (LCD controller).
- The maximum load capacity of the receiver:
 - 1) Air conditioner: 10A-16A
 - 2) 1-in-1 receiver: 7A
 - 3) 3-in-1 receiver: 7A
 - 4) Curtain: 10A
 - 5) Dimmer receiver: 2A
 (Incandescent lights, fluorescence lights, air conditioners, electric curtains, electric cookers, etc. can be controlled.)
- Voltage of the receiver: 110V-230V+10%; Frequency: 50Hz/60Hz.
 Red wire: wire under voltage; Black wire: zero line; White wire: load line
- The transmission distance must not be less than 30 meters (in non-open area), and the transmission frequency is 433.9mhz+10ppm.
- System transmission power: less than 10mw; receiving sensitivity: less than -103dBm

Optional elements

- | | |
|-------------------|-----------------------------|
| 1. Master box | 5. Receiver (III) |
| 2. LCD controller | 6. Dimmer receiver |
| 3. Intel-switch | 7. Air conditioner receiver |
| 4. Smart socket | 8. Curtain receiver |

Accessories

- Plastic hanging plate (1)
- Leather sheath (1)
- Screws (4)
- Dust-proof blind nut (4)
- Instruction manual (1)
- Installation card for service card (1)

Attention

1. Magnetic fields of specific frequencies may affect receiving sensitivity.
2. Signal blind area may appear in some positions and affect receiving sensitivity.
3. Do not shake or knock the product.
4. Do not install the receiver on a metal plate (net or rack, etc), which may affect receiving sensitivity.

Cleaning an LCD screen

Use tools (not attached to the product) for cleaning the surface of LCD screens (such as removing dusts, etc.).

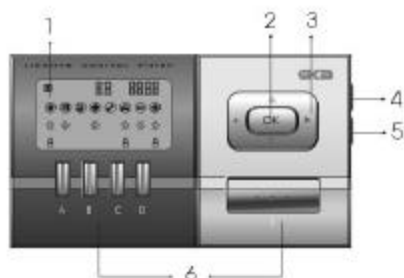
Cleaning the surface of an LCD panel

Use a piece of soft cloth with a little water to clean the LCD panel (LCD controller), then wipe it with a piece of dry cloth. Do not use any solvent that may damage the surface coating or the housing.

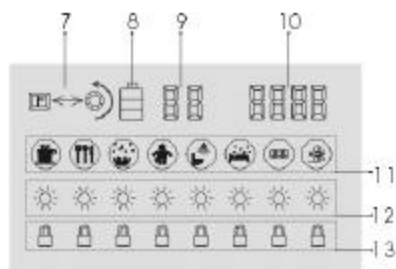
Notes:

As operations of the panel and the LCD controller are similar, this manual only demonstrates the operations of the panel. However, the operations of the LCD controller will be described when necessary.

Outside view of an LCD panel



- 1-LCD**
- 2-OK key**
- 3-Up/down/left/right movement keys**
- 4-Full shut down key**
- 5-Function key**
- 6-Shortcut**

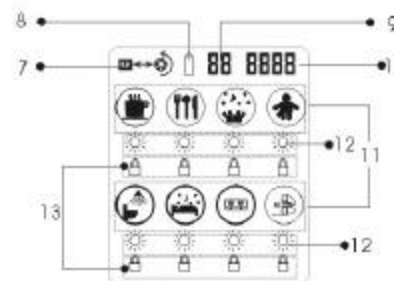


- 7-Password setting pattern**
- 8-Quantity of electricity**
- 9-Page number**
- 10-Password /receiver address code**
- 11-Receiver position**
- 12-On/off status**
- 13-Lock/scene status**

Outside view of LCD controller



- 1- LCD**
- 2- OK key**
- 3- Up/down/left/right movement keys**
- 4- Full shut down key**
- 5- Function key**
- 6- Shortcuts**

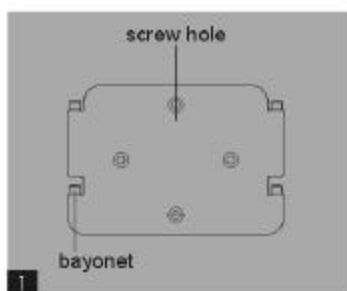


- 7- Password setting pattern**
- 8- Quantity of electricity**
- 9- Page number**
- 10- Password /receiver address code**
- 11- Receiver position**
- 12- On/off status**
- 13- Lock/scene status**

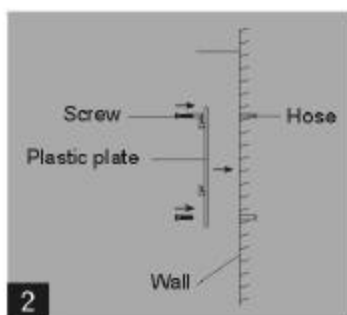
Installing a panel

The panel can be put on a table or mounted on a wall. It has a plastic plate that can be mounted on the wall. Mount the plate and hang the panel on it.

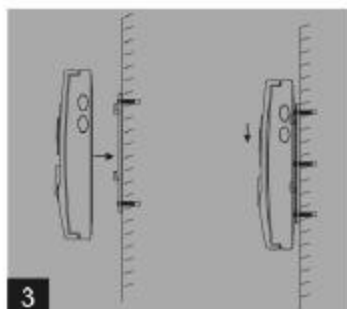
Steps:



1. Drill holes on the wall according to the screw holes on the plastic plate.
(Or mount on the Model 86mm mounting box.)



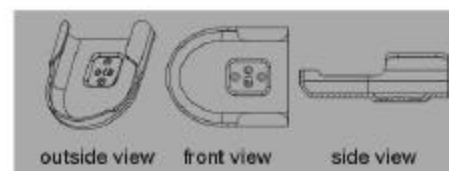
2. Mount the plastic plate on the wall with screws, and put on the dust-proof blind nuts.



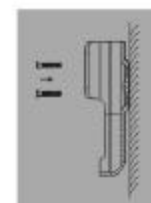
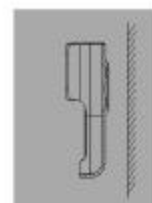
3. Secure the panel on the bayonets of the plastic plates.

Installing a LCD controller

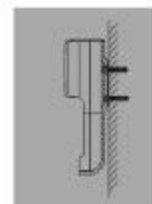
The LCD controller can be put on a table or mounted on a wall. It has a mounting box. Mount the box and insert the control in it.



1. Drill holes according to the positions of the screw holes on the iron sheet.



2. Fix the iron sheet on the wall with screws.

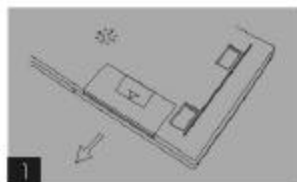


3. Insert the control directly into the mounted box.

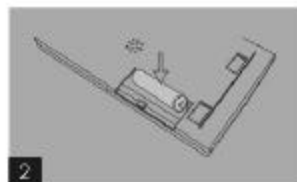


4. Completion of the installation is demonstrated in the pictures.

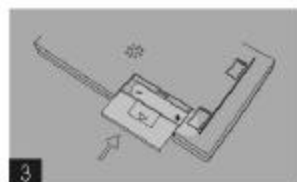
Installing Batteries



1. Slide the battery cover towards the direction as indicated by the arrow, and open it.



2. Put batteries in it. The +/- electrodes of the batteries must correspond to the marks in the battery box.



3. Press the batteries and put back the cover.
A click indicates that the battery cover is in place.

Indication of battery volume

indicates insufficient battery volume and the batteries need to be replaced.

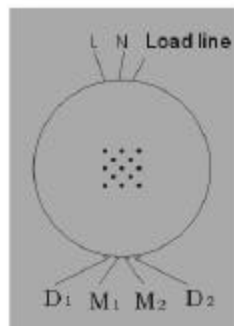
Note:

In order to install the batteries of the LCD controller, refer to the above method and direction marks in the battery box.

Receiver instructions

Notes:

A receiver () is exemplified for the instructions, installation and operations of the receiver. Refer to the operation instructions of the receiver and this instruction with respect to other receiver models.



M1 The key to set system codes: set system codes with the panel.

M2 The key to set the receiver code.
set receiver codes with the panel.

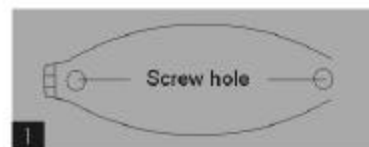
D1 The red indicator light for setting the system codes

D2 The red indicator light for setting the receiver code

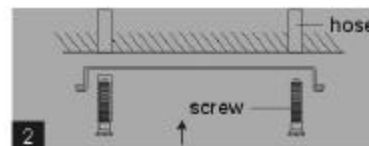
M2+M1 Keys for force start

Installing a receiver

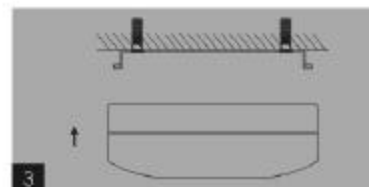
The receiver has a piece of mounting iron sheet. Mount the sheet and connect the power cords. Then rotate the receiver into the sheet.



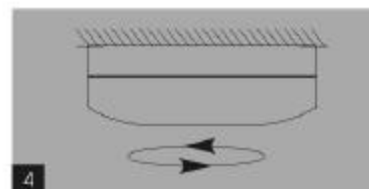
1. Drill holes on the wall according to the screw hole positions on the iron sheet.



2. Mount the iron sheet on the wall with screws.



3. Secure the receiver on the bayonets on the iron sheet.



4. Rotate the receiver clockwise until you hear a click.

Note:

The panel is exemplified in the following four pictures. The operation of the LCD controller is similar to the LCD panel.

Before installation, set the system codes and the receiver code first.

The setting is as follows:

System code setting



1. Press the function key, then press .



2. appears and flashes, and 0000 appears.



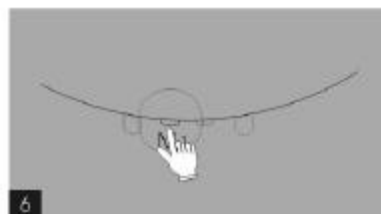
3. Press A again and 0000 appears. Now system code numbers can be set.



4. Press keys to set a four-digit system code number at your will.



5. Press OK, the system codes will be transmitted by the panel.



6. Press M1 (key for all receiver's system code).



7. The corresponding red indicator light flashes. The light will go off if the receiving is over.



8. Press the function key to exit the setting.

Note:

All the panels and receivers in a system can only have one system code. The factory-set system code is 0000, and it must be set again.

Receiver code setting



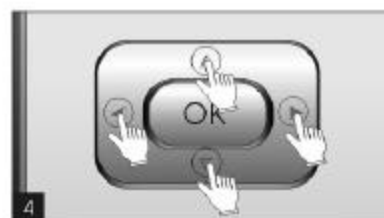
1. Keep pressing the function key and press ►.



2. **P** → **→** appears and flashes. Now receiver code numbers can be set.



3. **000** appears, the first digit indicates the page number, and the third digits indicate the address code. For instance, a bathroom is indicated as **105**.

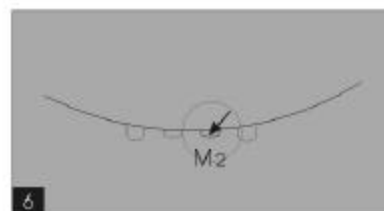


4. Press **◀▶▲▼** to change the latter three-digit number, for setting the receiver code. For instance, **105** is set as **105**, and the receiver will be installed in **105**.

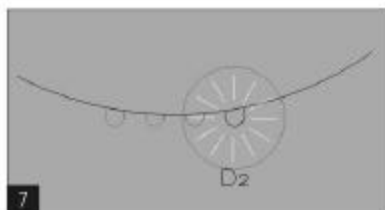
At the moment, the setting of the receiver code has been completed, and it must be sent to the receiver. Steps are as follows:



5. Continue the fourth step above, press OK. The signal of the receiver code will be automatically sent into the air.



6. Simultaneously press receiver code M2 of a certain receiver to receive the signal.



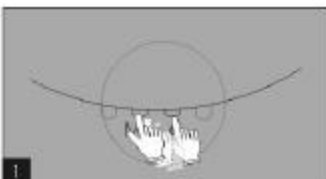
7. The corresponding red indicator light D2 flashes and then goes off, indicating the setting of the receiver code is completed.

8. Press the function key to exit setting.



9. Repeat steps 1-8, set all the receiver codes of the receiver. Do not repeat the receiver codes.

Force start/shut down



1. Keep pressing M2 of the receiver, and press M1 (system code key), then release the two keys simultaneously. The load is automatically started or shut down by the receiver.

Reading a receiver code



1. Keep pressing the function key and press ▼ key once, then the function is activated.



2. --- Appears on the right upper corner of the panel, indicating the serial number can be read now.
3. Press M2 on the receiver needed to be read.
4. The receiver code of the receiver is displayed on the right upper corner of the panel.
5. Press the function key to exit.

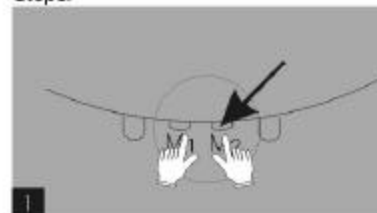
Reading a system code

1. Keep pressing the function key on the panel and press ▼ key, and then the function is activated.
2. --- appears on the right upper corner of the panel, indicating the system code can be read now.
3. Press M1 of the receiver which needed to be read.
4. The system code (a four-digit number) is displayed on the right upper corner of the panel.
5. Press the function key to exit.

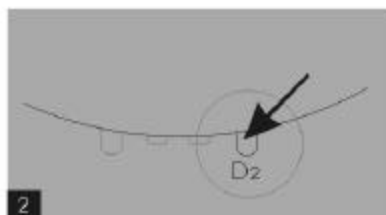
Setting a relay

In an individual application, the receiving effects of a system may be affected by the environment. In this case, you can set any one of the receivers as a relay. All the communication between the panel and receivers can be transmitted through the relay. Steps are as follows: (It is suggested that the receiver to be set as a relay be installed in the center of a house, and only 1 relay can be set.)

Steps:



1. First press M1, and then press M2, then release both of them.



2

2. The lamp D2 comes on.

3. The setting is completed and the receiver has become a relay.
(Attention: One system can only have one relay.)

Operating instructions

Controlling 8 positions in a page



For instance, to open the lamp in a kid's room.

Steps:



1

1. Press ◀▶ to go to ☰.



2

2. ☰ Flashes.



3

3. Press the OK key.



4

4. ☀ Under ☰ is on, indicating the lamp has been turned on.



5

5. Press the OK key again.



6

6. ☀ Goes off, indicating the lamp has been turned off.

7. In order to control other positions, please repeat steps 1-6.

Control over eight positions

If there are more than 8 positions to be controlled, for instance, 12 positions, the other 4 positions can be set in another page, with 8 in the first page and 4 in the second one. Refer to the above steps 1-6 for controlling 8 positions in a page.

Steps to control the other 4 positions are as follows:



1. Press ▲ to change P to P2.



2. To control the four positions in P2, follow the above steps 1-6.



Up to 48 terminals can be controlled via the LCD panel of the system, with 8 in one page and 6 pages totally (P1-P6).

Controlling rooms in multi-floor houses.

For instance, to turn on the lights in, and on the first, second and third floor respectively.

Steps:



1. Press ▲▼ to change the display to P1 or P2 or P3, all of which indicating the first, second and third page respectively.



2. In the display P1, press ◀▶ to go to P1.



3. Flashes.



4. press OK.



5. ☀ under 🏠 indicates that the lamp in the living room is has been turned on.

6. repeat steps 1-5 to control lamps in pages 2 and 3.
(Select 🏠 and 🏠 this time.)

Five typical scenes can be set with this system.
(For instance: party, reading, dinner, audio-video, romantic time)

Scene setting---Only one lamp in a scene



1. First keep pressing the function key, and press ▲.



2. P appears, and release both of the keys.



3. Press any one of A, B, C, D and E.
(For instance, A)



4. Press ◀▶▲▼ to select a position for storage, for instance the master's room 🏠.



5. Press OK, and ☀ under 🏠 flashes.



6. Press the function key to exit, and the setting is completed.

7. The lamps in the master's room can be controlled by the key A.

Scene setting---More than one lamp in a scene

Steps 1-3 are the same with the above ones 1-3. (A is exemplified.)



4. Press ◀▶▲▼ to select the master's room.



5. Press OK, and under flashes.



6. Press ◀▶▲▼ to select the living room.



7. Press OK, and under flashes.



8. Press ◀▶▲▼ to select the dinning room.



9. Press OK, and under flashes.



10. Press the function key to exit, and the setting is completed.
(The scene is automatically stored.)

11. The lamps in the master's room, the living room and the dining room can be controlled by the A key.

It is suggested that the E key be set as standard. If there are more than one LCD controller panels in the room, set the E key to control the lamp in the same position as the panel. For instance, the E key on the panel in the master's room is set to control the lamp in the master's room. This will make operation more convenient.

Shortcut functions

ALL ON/OFF



All loads can be turned on by simultaneously pressing F and ①, (Refer to the picture on the left). All loads can be shut off by only pressing ① (Refer to the picture on the right).

Lock functions



Keep pressing the function key and press OK, then release both of them to lock a certain unit.

If the lamp in the living room has been turned on, steps to lock it are as follows:



1. Press ◀ to move the cursor to 🏠.



2. Keep pressing the function key and press OK once.



3. 🏠 under 🏠 flashes, indicating that the lamp in the living room has been locked.

Dimmer functions



1. Press ▲▼◀▶ key or the scene key to select a position for dimmer control. (The cursor flashes.)



2. Keep pressing ▲ key for over 2 seconds to make the lamp brighter. Release it to stop adjusting.



3. Keep pressing ▼ key for over 2 seconds to make the lamp dimmer. Release it to stop adjusting.

Attention:

The lamp intensity can be adjusted only when the load is turned on.

Controlling curtain positions



1. Press ▲▼◀▶ key or the scene key to select a position where curtain need to be open. (The cursor flashes.)



2. Keep pressing ▼ key for over 2 seconds to close the curtain. It will stop moving after releasing the key.



3. Keep pressing ▲ key for over 2 seconds to open the curtain. It will stop moving after releasing the key.



Wireless controller

GKB7UIR-3A1/50

Operation temperature

The operation temperature of the control ranges from 10-60°C. It is recommended not to use the control in places too hot or too cold.
The operation humidity of the control is below 90%.

Parameters

1. Transmission frequency: 433.9MHz±10ppm
2. Max. transmission power: 10mW

Accessories

- Plastic hanging plate------(1)
- Bag------(1)
- Screws------(4)
- Dust-proof blind nuts------(4)
- Instruction manual------(1)
- Installation card and service card---(1)

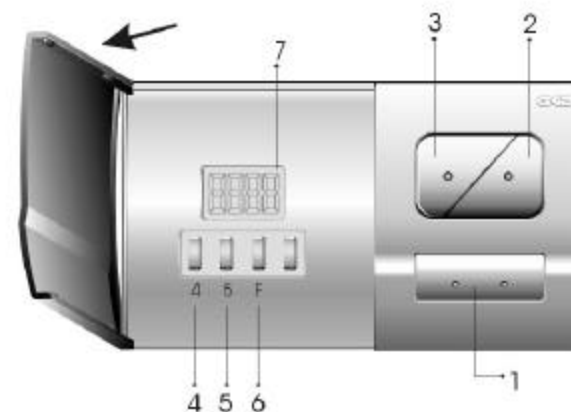
Attention

1. Magnetic fields of specific frequencies may affect the transmission reliability of signals.
2. Signal blind area may appear in some positions and affect receiving sensitivity.
3. Do not shake or knock the product.

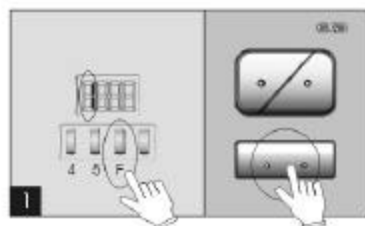
Outside view



- 1-----Key 1
2-----Key 2
3-----Key 3



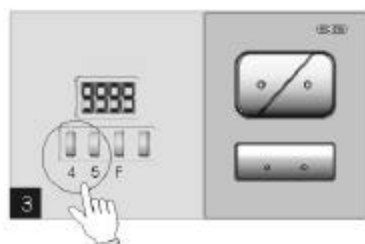
- 4-----Function key (key 4)
5-----Function key (key 5)
6-----Function key (key F)
7-----LCD

Setting a system code


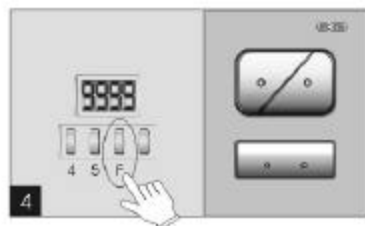
1. Keep pressing key F and press key 1, then release both of them. The first digit on the left flashes, indicating that the setting of the system code is activated.



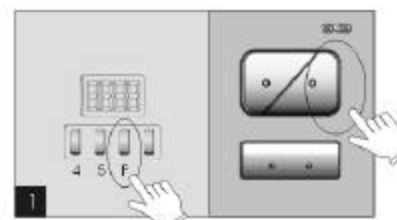
2. At this moment, keys 2-5 become four keys for adjusting the LCD. Keys 2 and 3 can control the left and right movement of the LCD.



3. Keys 4 and 5 can be used to change the digits. (For instance, 1...9)



4. The password can range from 0000 to 9999. You can set the digit when it flashes. After setting, press F to exit and save the digit. The factory-set password is 0000.

Receiver code setting


1. Keep pressing key F and press the key 2, then release both of them to set the number of the lamp to be controlled. (may range from 101 to 608)



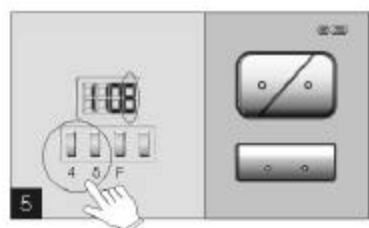
2. The key 1 can be used for choosing the control button. Keep pressing the key 1, the first digit on the left will change from 1 to 2, 3, 4, 5, and appears repeatedly. If the first digit on the left is 1, it indicates that the key 1 can be set to control a certain receiver.



3. The remaining three-digit number on the LCD indicates the receiver code of the lamp to be controlled. If the number is 108, it means that the key 1 can be used to turn on/off the lamps in unit 108. At the moment, the LCD displays 1108.



4. The keys 2 and 3 can be used to set the floor number (up or down). For instance, if setting 108, press the keys 2 and 3 to adjust the number to 1.



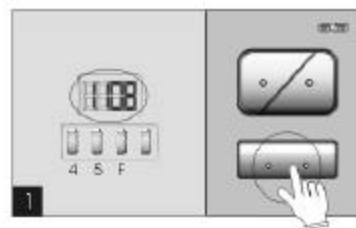
5. The keys 4 and 5 can be used to set the lamp number (up or down). For instance, if setting 108, press the keys 4 and 5 to adjust the number to 8. It is unnecessary to set the 0 in the middle.



6. After setting all the digits, press the key F to confirm and exit.



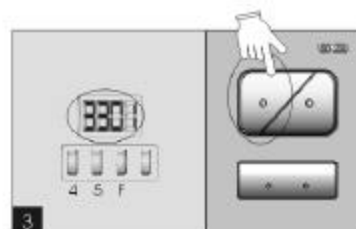
7. To set the keys 2 and 3 for controlling other units, you can refer to steps 1-6.

Operation instructions


1. After finishing the control setting of the wireless control, press the keys 1, 2 and 3 to turn on/off the lamps/electric appliances in these places. For instance, press key 1 to turn on/off the lamps/electric appliances in unit 108.



2. For instance, press key 2 to turn on/off the lamps/ electric appliances in unit 203.



3. For instance, press key 3 to turn on/off the lamps/ electric appliances in unit 301.

Dimming Receiver

Models: GKB7U-3B/50 (230V/50Hz)
GKB7U-3B/60 (110V/60Hz)



Reference Standards

GB16915.1-1997 Switches for home appliances and fixed electric installations with similar purposes Part One: General Requirements

GB16915.2-2000 Switches for home appliances and fixed electric installations with similar purposes Part Two: Special Requirements

Section 2: Electronic Switches

GB16915.3-2000 Switches for home appliances and fixed electric installations with similar purposes Part Three: Special Requirements

Section 2: Remote Switches

Definition

Utilizing wireless two-way transmission, MCU control etc., dimmer receivers are switches for intelligent light control systems, suitable for residential constructions, villas and hotels etc.

On the base of a 1-in-1 receiver, the product utilizes function of dimmer additionally. Keys on the control panel may control the switch inside a receiver, so that incandescent lamps can be turned on/off. Dimmer keys on the panel may adjust the intensity of incandescent lamps at your will, so that you can have the desired effects.

Parameters

- (a) Operating voltage of the driver: 230VAC \pm 10%; 110VAC \pm 10%;
frequency: 50Hz/60Hz;
- (b) Max. load current: 2 A
- (c) Type of load: incandescent lamp
- (d) Wireless transmission frequency: 433.9MHz \pm 10ppm
- (e) Max. transmission power: 10mW, receiving sensitivity: less than -103dB

Accessories

Iron sheet (1) Screws (2) Hoses (2) Certificate of qualification (1)

Dimming functions

After turning on the lamp load (With respect to turning on a load, refer to the operation instructions of the panel.), adjust the intensity of the lamp according to the following steps:



1. Keep pressing ▲ for over 2 seconds to increase brightness of the lamp. Release the key to stop adjusting.



2. Keep pressing ▼ for over 2 seconds to reduce brightness of the lamp. Release the key to stop adjusting.



Receiver

GKB7U-3/50	230V/50Hz	1-in-1 receiver (I)
GKB7U-3/60	110V/60Hz	1-in-1 receiver (I)
GKB7U-3/3/50	110V/60Hz	3-in-1 receiver (III)
GKB7U-3/3/60	110V/60Hz	3-in-1 receiver (III)

Reference Standards

GB16915.1-1997	Switches for home appliances and fixed electric installations with similar purposes	Part One: General Requirements
GB16915.2-2000	Switches for home appliances and fixed electric installations with similar purposes	Part Two: Special Requirements
		Section 2: Electronic Switches
GB16915.3-2000	Switches for home appliances and fixed electric installations with similar purposes	Part Three: Special Requirements
		Section 2: Remote Switches

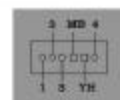
Definition

The receiver (I) and the receiver (III) are reinforced products adding some functions on the basis of the receiver (I). In cooperation with panels, they are switches for intelligent light control systems. They utilize wireless two-way transmission, MCU control etc., suitable for residential constructions, villas and hotels etc. The products can control two-line loads and three-line loads simultaneously. The receiver can be installed besides or in a lamp or inside a ceiling. The transmission between the panel and the receiver is wireless. Keys on the panel can control the switches inside the receiver, so that lamps can be turned on/off. The product can control up to two-line or three-line loads.

Parameters

- Supply Voltage: AC85-265V, 50Hz or 60Hz
 GKB7U-3/3/50 Voltage AC230V \pm 10% Frequency 50HZ
 GKB7U-3/3/60 Voltage AC100V \pm 10% Frequency 60HZ
- Wireless transmission frequency: 433.9MHz \pm 10ppm
- Transmission power: no more than 10 mW;
 Receiving sensitivity: less than -103db.
- Max. load current: 7A per line
- Type of load: incandescent lamps, fluorescent lamps and motors etc.
- Signal intensity: inductive(not touch)-30 \pm 1db
 coupling(through capacitance touch)10.8 \pm 1db

Wiring: red wire under voltage black zero line
 GKB7U-3/3 Receiver (III): Yellow load line(LD1), green load line(LD2), White load line(LD3)
 GKB7U3/3/60: Yellow load line(LD1,LD2,LD3)



Indicator lights of keys



Wiring of receiver (III)

Accessories

Iron sheet (1) Screws (2) Hoses (2) Certificate of qualification (1)

Receiver functions

- YH is the key for system code setting. You can set the system code with the panel.
- MB is the key for receiver code setting. You can set the receiver codes with the panel.
- 4 is the indicator light for system code setting.
- 1, 2 and 3 are the indicator lights for setting receiver code.

Indicator light No. 3 ————— Key for receiver code setting
 Indicator light No. 2 ————— Key for system code setting
 Indicator light No. 1 ————— Indicator light No. 4

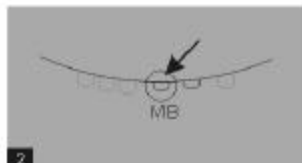


YH is the key for system code setting. There must be one specific system code for all panels and receivers of a DigitHome system, so that other DigitHome systems will not be disturbed.

The product can be installed directly inside a non-metal ceiling, or besides a lamp or an electric appliance.

Receiver code setting


1. You can set receiver codes with the panel. For instance, to set the receiver code of the first load of the receiver as 105.



2. Operate on the panel, and the receiver code 105 will be transmitted.
(Refer to operation instructions of the panel.)

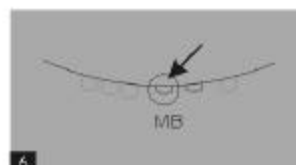
3. Press MB on the receiver (III) once.



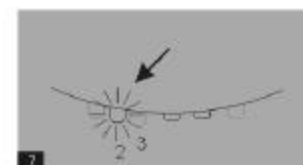
4. The indicator light No. 3 flashes and goes off.



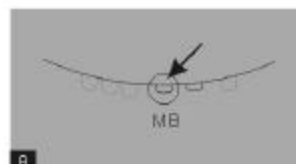
5. Press the MB key on the receiver (III) quickly for twice.



6. Repeat step 2, and the receiver code 106 will be transmitted.



7. The indicator light No. 3 flashes and goes off. The indicator light No. 2 starts flashing and goes off after receiving the signal of the receiver code.



8. Press the MB key of the 3-in-1 receiver quickly for three times.



9. Repeat step 2, and the receiver code 107 will be transmitted.



10. The indicator light No. 3 flashes and goes off. Indicator light No. 2 flashes and goes off. The indicator light No. 1 flashes and goes off on receiving the signal of the receiver code.

Three-line loads can have continuous receiver codes or discontinuous ones.

Setting system codes



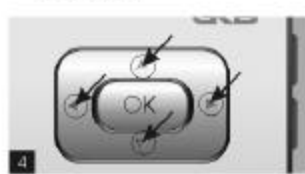
1. First press the function key on the panel, and press **OK**.



2. **P** → appears and flashes, indicating system code setting is activated.



3. Press **A** on the panel and **----** will appear.



4. Press **←→↑↓** to set a four-digit number at your will.



5. Press **OK**, the system code will be transmitted.



6. Press the **YH** key for all the receivers.



7. Indicator light No. 4 flashes and goes off, indicating completion of the setting.

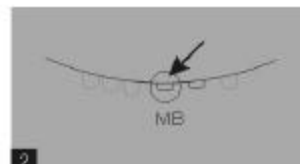


8. Press the function key to exit setting.

Attention: All the panels and receivers in a system can only have one system code. The factory-set system code is **1000**, and it must be set again.

Code reading

1. To read the receiver code for every load, the panel must be set.



2. Press **MB** once.



3. The indicator light No. 3 flashes and goes off.



4. The receiver code **105** is transmitted and displayed on the panel.

5. Repeat steps 1-4, the other 2 receiver code can be read (but press **MB** twice or three times, and the corresponding indicator light is No. 2 or No. 1)

1. To read the system code, the panel must be set.



2. Press **YH**, once.



3. The indicator light No. 4 flashes and goes off.



4. The system code is transmitted and is displayed on the panel.

Lamps No. 1-4 perform indicating functions when setting code numbers. They will flash in the course of setting and go off automatically after setting is finished. If they don't go off automatically, it indicates that the code information is not received. When they flash, no relevant information can be received or transmitted.

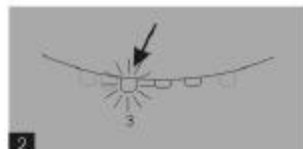
Attention:

Receiver (I), Receiver (III) and Dimming Receiver can be installed in one single system.

Setting a relay



1. Keep pressing YH and press MB, then release both of them.



2. The indicator light No. 3 comes on, indicating that relay setting is activated.

3. The receiver becomes a relay receiver if setting is completed.

4. Steps to cancel relay and to set relay are the same.

Force start/shut down

- (1) Keep pressing MB on the receiver and press YH (the system code key).
- (2) Release both of the keys, the first line load will be automatically started or shut down.

Notes: Relay can only be set in the first line load.

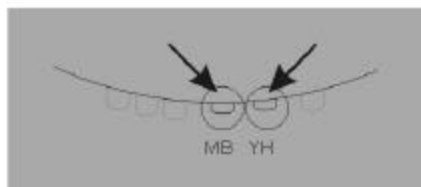
1, 2 or 3 loads can be driven simultaneously by the receiver. Three loads have independent receiving functions.



Receiver (230V/50HZ)
Model: GKB7U-3/3/50



Receiver (110V/60HZ)
Model: GKB7U-3/3/60



Smart Socket

GKB7U/10/50
GKB7U/10/60



Reference Standards

- GB2099.1-1996 Connectors for homes and similar purposes
- GB16915.1-1997 Switches for home appliances and fixed electric installations with similar purposes
- GB16915.2-2000 Switches for home appliances and fixed electric installations with similar purposes
- GB16915.3-2000 Switches for home appliances and fixed electric installations with similar purposes

Definition

DigitHome smart sockets utilize wireless two-way transmission, MCU control etc., suitable for intelligent light control systems in residential constructions, villas and hotels etc. The product must be used with an LCD panel (For operation, refer to operation instructions of the LCD panel), and it can be used together with other receivers to compose a control system.

The smart socket to which the load directly connected can be immediately connected to a typical three-prong connector. It features no wiring, plug and play, and convenience. The transmission between the LCD panel and the smart socket is wireless. Keys on the panel can control the switch inside the socket, so that the load can be turned on/off.

Parameters

- (a) Operating voltage of the Smart Socket: GKB7U/10/60: AC230V/50Hz
GKB7U/10/60: AC110V/60Hz
Frequency: 50HZ/60HZ
- (b) Pull-out resistance: Max. 50N for multi-connector;
Min. 1.5 N for single connector
- (c) Max. load current: 10 A
- (d) Type of load: incandescent lamps, fluorescent lamps and motors etc.
- (e) Wireless transmission frequency: $433.9\text{MHz} \pm 10\text{ppm}$
- (f) Transmission power: Max. 10 mW, receiving sensitivity: less than -103dBm.

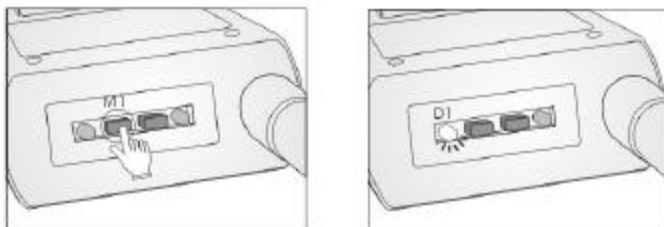
Functions



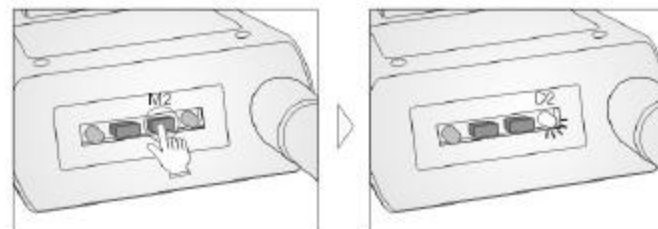
M1 is the key for setting the system code.
 M2 is the key for setting receiver code of the smart socket.
 D1 is the indicator light for system code setting.
 D2 is the indicator light for receiver setting.

Key functions

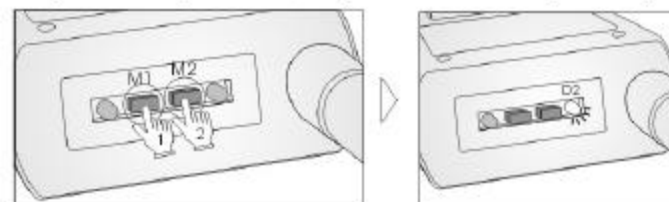
1. M1 is the key for setting the system code. It must be used with the panel. When the system code is sent by the receiver, press M1. The D1 lamp starts to flash for number of times, and if it goes off, it means a successful reception.



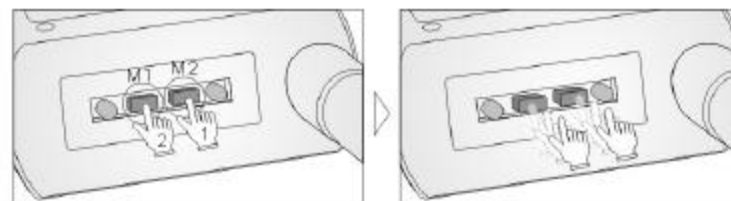
2. M2 is the key for setting receiver code of the smart socket. It must be used with the panel. When the receiver code is sent by the receiver, press M2. The D2 lamp starts to flash for a number of times, and if it goes off, it means a successful reception.



3. First keep pressing M1 and press M2, then release both of them simultaneously. The D2 lamp comes on, then press M1 to set a relay with the panel.

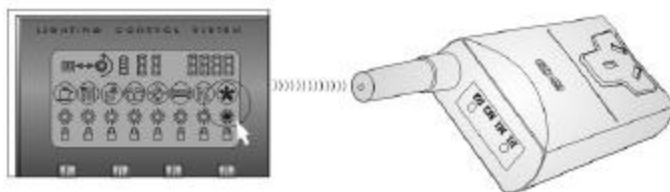


4. For force start/shut-down, first keep pressing M2, and press M1, then release both of them simultaneously.



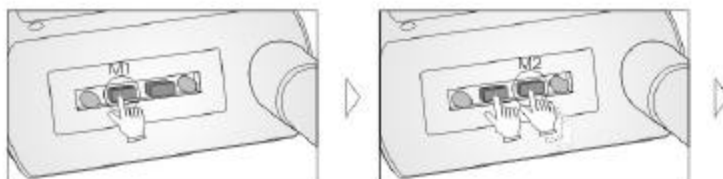
Two-way transmission

The smart socket utilizes RF wireless transmission control and two-way transmission is employed between the panel and the socket. You can see all the loop status on the panel.



Relay functions (must be set with the panel)

Press M1 and M2, then release them simultaneously. The indicator light D2 comes on, indicating that the unit is set as a relay. All the communication between the panel and the receiver is relayed by the unit to increase receiving accuracy.



The relay distance is no less than 50 meters. The relay code is the same as the system code, so it is unnecessary to reset it.

Curtain receiver GKB7U-3E/50

Air conditioner receiver GKB7U-3C/50



Reference Standards

- GB16915.1-1997 Switches for home appliances and fixed electric installations with similar purposes Part One: General Requirements
- GB16915.2-2000 Switches for home appliances and fixed electric installations with similar purposes Part Two: Special Requirements
- GB16915.3-2000 Switches for home appliances and fixed electric installations with similar purposes Part Three: Special Requirements
- Section 2: Electronic Switches
- Section 2: Remote Switches

Definition

The Curtain receiver and the air conditioner receiver are 2 special receivers for a GKB DigitHome system. They are switches utilizing technologies such as wireless two-way transmission, MCU control, infrared ray learning and remote control etc., suitable for residential constructions, villas and hotels etc. They need to be used with the panel.

1. A main curtain and a secondary curtain can be controlled simultaneously by the curtain control. The receiver can be installed beside the curtain. The transmission between the panel and the receiver is wireless. The signal transmission between the receiver and the Curtain receiver is realized by infrared-ray LCD controller or wire control. Keys on the panel can be used for controlling infrared-ray transmission signals and conversion of the switch voltage, so that the curtain's movement can be controlled. The product can control up to 2 lines.

2. Utilizing wireless two-way transmission, MCU control etc., GKB DigiHome air conditioner receivers are sockets for intelligent light control systems, suitable for residential constructions, villas and hotels etc. The product must be used with a LCD panel (Refer to the operation instructions of the panel for operations.), and can be used together with other receivers to compose a control system.

The receiver to which a load is immediately connected can be installed directly on a typical 86*86 bottom box. It features no wiring, plug and play and convenience. The transmission between the LCD panel and the receiver is wireless. Keys on the panel can be used for controlling infrared ray transmission signals, so that an air conditioner can be turned on/off.

Parameters

- a. Operating voltage of the receiver: AC85V-265V
 Frequency: 50Hz/60Hz
- b. Max. load current: air conditioner receiver 16 A
 curtain receiver 10A
- c. Wireless transmission frequency: 433.9MHz±10ppm
- d. Max. transmission power: 10mW, receiving sensitivity: less than -103dB

Functions



1) M1 is the key for system code setting.

2) M2 is the key for receiver code setting.



3) 1 is the indicator light for system code setting. 2 and 3 are indicator lights for setting the receiver code.

4) D2 is the key for learning setting. D1-D6 are indicator lights for setting learning functions.

Code setting

M1 is the key for system code setting. There must be one specific system code for all panels and receivers of a Digihome system, so that other Digihome systems will not be disturbed. Refer to operation instructions of the panel for setting steps. M2 is the key for receiver code setting. The steps to set the system code are as follows:



1. First press the function key, and press ←.



2. [P]→ appears and flashes, indicating code number setting is activated.



3. Press A for confirmation, then 8888 appears.



4. Press ← to set four numbers at your will.



5. Press OK, then the system code is transmitted by the panel.



6. Press the M1 key for setting system codes of all the receivers.



7. The corresponding red indicator light 1 starts flashing and goes off when the receiving is completed.



8. Press the function key to exit setting. At the moment, the receiver has received the system code.

Now we are going to set the receiver code.



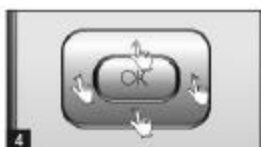
1. First press the function key, and press **▶**.



2. **P** → appears and flashes, indicating receiver code setting is activated.



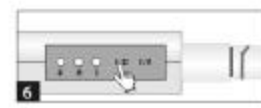
3. **888** appears, the first digit indicates the page, and the second and third ones indicate the address code. For instance, set the receiver code as 105.



4. Press **◀▶▲▼** to change the last three-digit number, which is the receiver code of the receiver. For instance, set 105 as the receiver code of the receiver.



5. After step 4, press **OK**, then the number is automatically transmitted by the panel.



6. Press **M2** (the key for setting receiver code of the receiver) to receive the number.



7. The corresponding red indicator light 3 starts flashing.

8. The red indicator light goes off, indicating setting the receiver code of the receiver is completed.

Follow 1-7step can set the 2nd load

Code Reading

To read system code information, the panel must be used.



1. First press the function key, and press **▼**.



2. **P** → appears on the upper right corner of the panel.



3. Press **M1**, the key for system code setting, the corresponding indicator light 1 starts flashing, after the system code is transmitted it will go off.

2. appears and flashes, indicating receiver code setting is activated.

To read receiver code, the panel must be used.



1. First press the function key, and press **▼**.



2. **---** appears on the right upper corner of the LCD, indicating that the receiver code can be read now.



3. Press **M2** (the key for receiver code setting), and the corresponding indicator light 3 will start flashing and go off after the receiver code is sent.

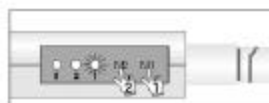


4. The receiver code of the load is displayed on the panel.



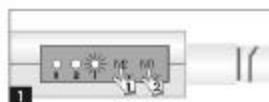
5. Press M2 twice continuously. The indicator light 2 starts flashing and then goes off, indicating that the receiver code of the second load is sent. The receiver code of the load is displayed on the panel.

Force start/shut-off



Press M1 and M2 of the receiver, then release both of them, and the driver will automatically start or shut off the first line load.

Setting a relay



1. First press M2, and press M1, then release both of them. The indicator light 1 comes on, indicating the setting is completed. The driver has become a relay one.



Notes:

1. The relay is only effective to the first line load. Lamps No. 2 and 3 perform indicating functions when setting receiver codes. They will flash in the course of setting and go off automatically after setting is finished successfully. If they do not go off automatically, it indicates that the information set is not received. When they flash, no relevant information can be received or transmitted.
2. The curtain receiver can be installed in a single system with other receivers.

Controlling curtain positions



1. Press ▲▼◀▶ key or the scene key to select a position where curtain need to be open. (The cursor flashes.)



2. Keep pressing ▼ key for over 2 seconds to close the curtain. It will stop moving after releasing the key.



3. Keep pressing ▲ key for over 2 seconds to open the curtain. It will stop moving after releasing the key.

Learning function description

M1 is the key for setting learning function. Every curtain receiver can learn 6 orders. The orders can be divided into standard codes and non-standard codes. After learning the codes, relevant infrared orders can be sent by the receiver to control a curtain. You can choose to send an order once or twice to meet the requirements of different curtains. Follow the steps to set learning function.

1. Keep pressing M3 for six seconds after the power is connected, the indicator lights D1-D6 will present the following indications:



- Only D1 flashes, indicating all the orders will be sent once.
- Both D1 and D2 flash, indicating all the order will be sent twice.
- D4, D5 and D6 are on, indicating a non-standard status.
- D3, D4, D5 and D6 are on, indicating a standard status.

2. If indicator lights flash, release M3, and press M3 again. The times to send the instruction can be set (once: D1 flashes; twice: D1 and D2 flash).

3. After setting, the indicator lights flash for ten seconds and then go off. Then the LCD controller learning can be started.

Align the control to the infrared window of the receiver, and press the learning key on the LCD controller. If the learning is successful, the indicator lights D1-D6 will be on (standard code manner) or D4-D6 will be on (non-standard code manner). After learning one order, press M3 once again, and D2 will flash.

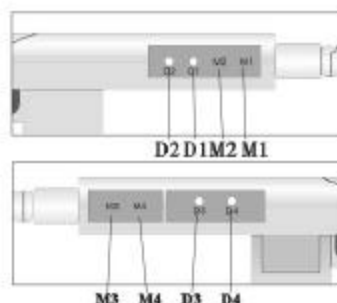
In a typical case, you can set as follows: D1: open a main curtain, D2: close the main curtain, D3: stop the main curtain, D4: open the attached curtain, D5: close the attached curtain, D6: stop the attached curtain.

4. Repeat the first step to change the code manners (standard or non-standard).

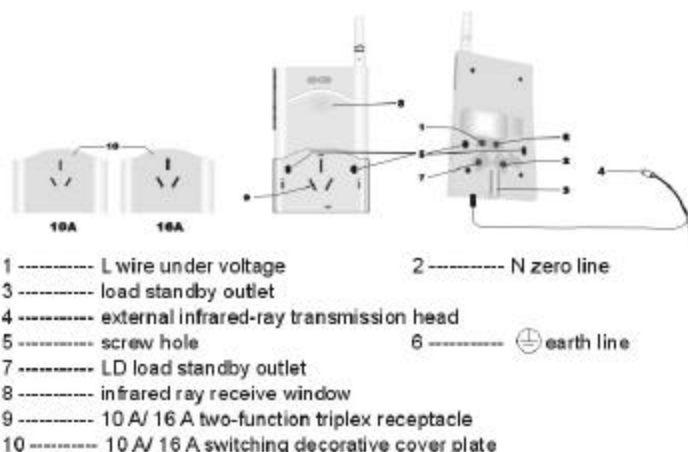
The ex factory setting is standard, i.e. send orders only once.

During learning, if it is unsuccessful or control cannot be achieved after learning, you can choose a non-standard code manner or send the learning orders twice.

Outside view



- 1) M1 is the key for setting the system code. It must be used with the panel.
 - 2) M2 is the key for setting receiver code. It must be used with the panel.
 - 3) D1 is the indicator light for receiver code setting.
- D2 is the indicator light for serial number setting.
M3 is the learning setting key.
M4 is the key to confirm on/off.



- 1 ----- L wire under voltage
- 2 ----- N zero line
- 3 ----- load standby outlet
- 4 ----- external infrared-ray transmission head
- 5 ----- screw hole
- 6 ----- earth line
- 7 ----- LD load standby outlet
- 8 ----- infrared ray receive window
- 9 ----- 10 A/ 16 A two-function triplex receptacle
- 10 ----- 10 A/ 16 A switching decorative cover plate

Key functions of Air conditioner receiver



1. M1 is the key for setting the system code. Set the code with the panel. After the code is transmitted by the panel, press M1, and D1 will start flashing. If it goes off after flashing for a number of times, the reception is successful.



2. M2 is the key for setting receiver codes. Set the code with the panel. After the number is transmitted by the panel, press M2, and D2 will start flashing. If it goes off after flashing few times, the reception is successful.



3. Keep pressing M1 and press M2, then release both of them. If D2 is on, relay setting is activated.



4. Force start/shut-off: Keep pressing M2, and press M1, then release both of them to turn on/off the air conditioner.

Learning function of Air conditioner receiver

Press M3 to choose the function to be learned, and press M4 to confirm it (start/shut-off). Steps are as follows:

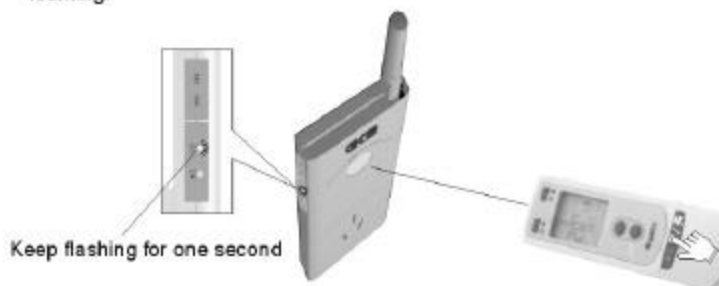
1. Press M3 once, and D3 comes on. Then press M4 to confirm. Now order to turn on the air conditioner can be learned.



2. Press M3 twice, and D4 comes on. Then press M4 to confirm. Now order to turn off the air conditioner can be learned.

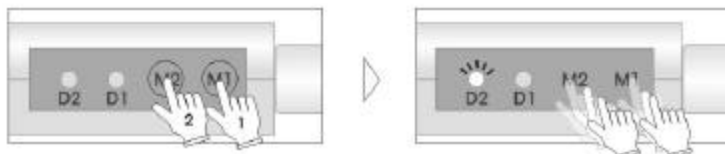


3. Set the parameters of the LCD controller for the air conditioner (such as temperature, humidity and wind speed etc.).
4. If the LCD controller is off, align the control with the infrared ray receive window of the air conditioner receiver. Press the On key, the corresponding indicator light D3 will keep flashing for one second and then go off, indicating a successful learning.
5. If the LCD controller is on, align the control with the infrared ray receive window of the air conditioner receiver. Press the Off key, the corresponding indicator light D4 will keep flashing for one second and then go off, indicating a successful learning.



When the air conditioner receiver has a successful learning, you can turn on/off the air conditioner with the LCD panel, LCD controller and a host telephone.

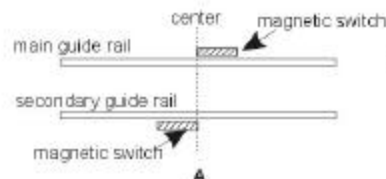
Setting relay functions of Air conditioner receiver



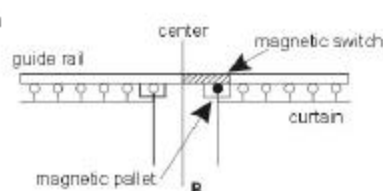
A. First keep pressing M1, and press M2, then release both of them. D2 comes on, indicating the unit is set as a relay. All the communication between the panel and the receiver is relayed by the unit to increase receiving accuracy. The panel is able to identify the relay automatically.

Installation of Curtain receiver

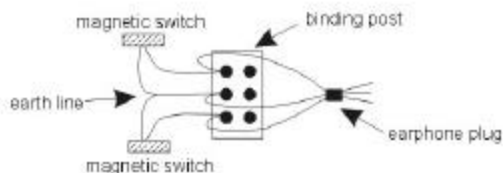
Mount the magnetic switch in the center of the guide rail with stainless steel screws (refer to Figure A). If there are main and secondary guide rails, the distance between the two magnetic switches shall be as far as possible. Mount them on both sides of the two curtains.



Mount the magnetic pallet on the gliding block in the front of the curtain and fix it with AB glue. The minimum distance between the magnetic switch and the magnetic pallet shall be no more than 1.5 cm.



Insert the connecting wire (tape cable of 3m, with red, white and earth lines.) into the socket hole J2 of the curtain receiver, and connect with the magnetic switch.



Attention:

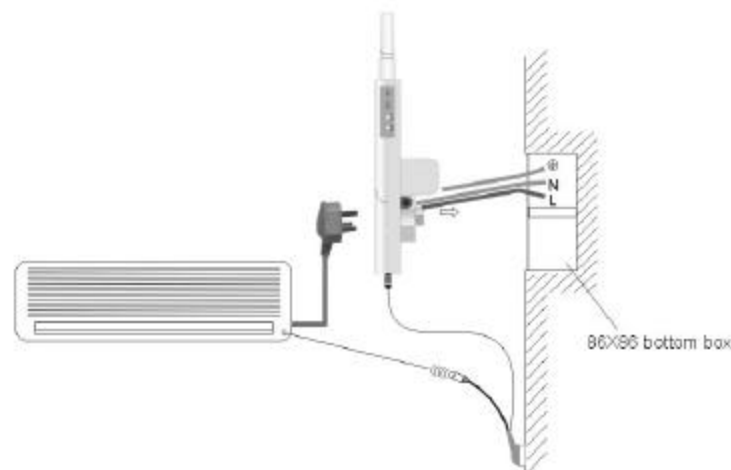
1. After installing the switch, make sure that the positions of the main and attached curtains are correct. How to check: change the curtain's position with the system of the curtain, and check that if the status on the panel is changed.
2. If the infrared ray transmitter cannot make the curtain run normally, insert the infrared-ray transmission head into the gang socket hole J1, and align the transmission head with the infrared receive head on the curtain.

3. If the Curtain receiversystem has no infrared LCD controller, control the main curtain (corresponding to the plug J4) and the attached one (corresponding to the plug J3) with three-core connect wire plugs inserting into the connect plugs J4 and J3. Every three-core cable contains red, white and earth lines. Connect the earth line with the one of the curtain control, the white one with the closing signal line, the red one with the opening signal line. Use the binding post for transition in the middle.

4. If the control line is defined as low electrical level, it is effective.

5. Do not connect a signal line over 30 V.

Installation of Air conditioner receiver



Troubleshooting
LCD Panel and LCD controller

Trouble	Reason	Solution
Fuzzy display, giving out sound alarm, appearing the pattern □.	Insufficient battery volume	→ Replace the batteries.
Signal can't reach a few positions, or the LCD controller can't receive signals.	Signal blind area System codes are not totally the same.	→ Change the operation positions. → Reset system codes as instructed above.
No display on the LCD	No battery volume	→ Replace batteries
Lamps can't be controlled occasionally.	Incorrect battery installation System failure The receiver has error-correcting capability. Probably it is correcting errors or resetting.	→ Install batteries correctly. → 020-81805408 → Wait a few seconds.
The LCD controller displays abnormally, or can't be controlled.	The panel is in halted state. The receiver is in halted state.	→ Take out the batteries and reinstall them after 3 seconds. → Shut off the general supply and restart it.

Curtain receiver

	Troubleshooting
Status feedback is incorrect.	A. Incorrect positions for the switch and the magnetic pallet. B. Make sure that the wiring for the magnet switch is correct.
Unable to run the curtain	A. Make sure that whether you need to add an infrared transmission head. B. Make sure that the receive head isn't blocked or in a position unable to receive signals.
Can't be controlled	A. Make sure that the system code setting is correct. B. Make sure that the receiver code setting is correct. C. Make sure that the infrared ray order learning is correct (learn it once more if necessary), and D1, D2, D3, D4, D5 and D6 are off.

Air conditioner receiver

	Troubleshooting
Unable to remote-control the air conditioner.	A. Make sure that the receiver codes and system codes are set correctly. B. Make sure that the distance between the LCD panel and the receiver is not too far. C. Check the battery volume for the LCD panel, replace the batteries if necessary.
Unable to control despite a successful control displaying on the receiver.	A. Make sure that the orders for turning on/off an air conditioner are learned, or the learning is successful. B. Make sure that the infrared transmission head is aligned with the infrared receiver. C. Make sure that the contact between the infrared transmission ray plug and the socket is good.
Displayed operating status is opposite to running status.	A. Make sure that the order learning process is correct, re-learn the orders if necessary.