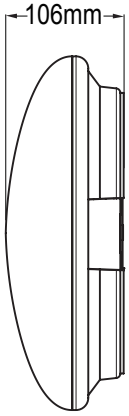
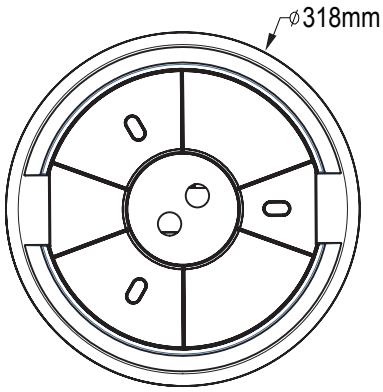
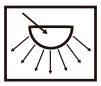
■ Microwave Sensor Lamp
PD-LED2036MDS instruction





Summary

This is a kind of totally newly-designed, intelligent ceiling mounting Microwave sensor LED lamp. When light on, the luminous flux will be more than 1100 lm, equivalent to third that of 60 watt incandescent lamp(≈400lm).It is widely applied in the corridor, washing room, elevator lobby and so forth.The intelligent management of the system enhances the advantages of stability and energy-saving. The MCU will auto-examine each circuit and manage the detected information in reasonable way. When there is no any signal detected, the system will start the power-saving mode and decline the power output progressively. The minimum output is one tenth of the maximum value, which, to large extend, lessens the power consumption, lowers the temperature of the heating elements and reduces the LED light loss resulted from the high temperature. Thus, it promotes the reliability of the product and extends the life span.
This product is designed with two configurations: one is the sensor lamp with the function of supplying power in emergency and the other one is the intelligent sensor lamp without the emergency function. You can make purchase according to the practical need. But in most cases, it is necessary and wise to choose the former one, for that the occasional power outage will cause trouble, or even danger.



Use high quality PC lampshade.Strengthen the flexible refraction of light.And its function of anti-ultraviolet makes the shade not easy to turn yellow and be broken.

LED lamps than incandescent bulbs province electricity 80%;fluorescent lamps province electricity than 50%

Packing list in	*Microwave Sensor Lamp LEDS 180PCS*	*Φ6 Plastic expansion*	*4x30 Screw*
Quantity	***1X***	***4X***	***4X***

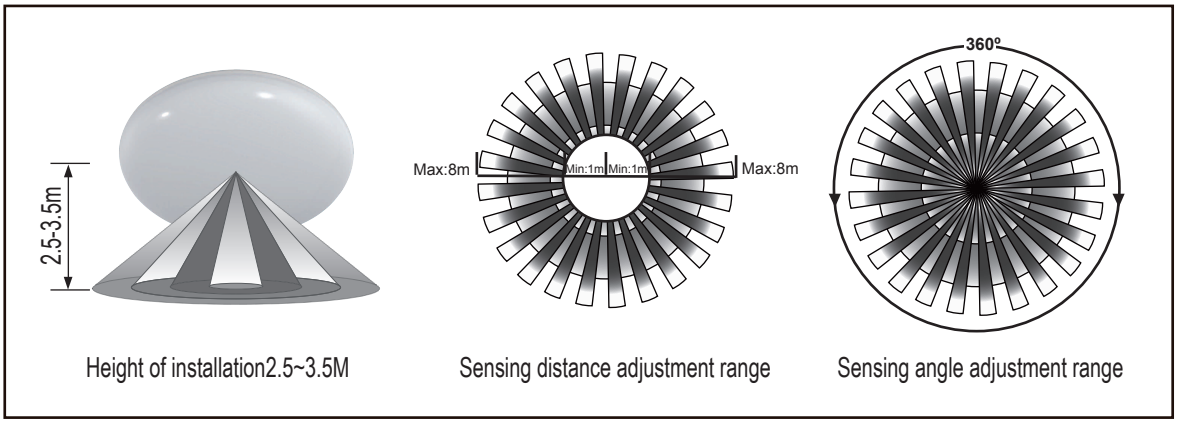
IP 43

Specifications

Power source: 100-240V/AC 50/60Hz
Rated LED: 16W Max.
HF system: 5.8GHz
Power factor: >0.9
Transmission power: <0.3mW
Standby power: <0.9W
Luminous flux: 1100 lm (warm white) □
1100 lm (cold white) □

Time setting: 8sec to 12min (adjustable)
Detection range: 1-8m (radii.) (adjustable)
Light-control: 10-2000LUX(adjustable)
Detection angle: 360°
Installation height: 2.5-3.5m (ceiling mount)
Material: Boden:PC Lampshade:PC
Protection:IP43,Class2
LED quantity: 180PCS (T2835)
Working Temperature:-10-+55℃

Sensor informatioon



Setting manner :potentiometer

It may take times to adjust values before they satisfy your need.

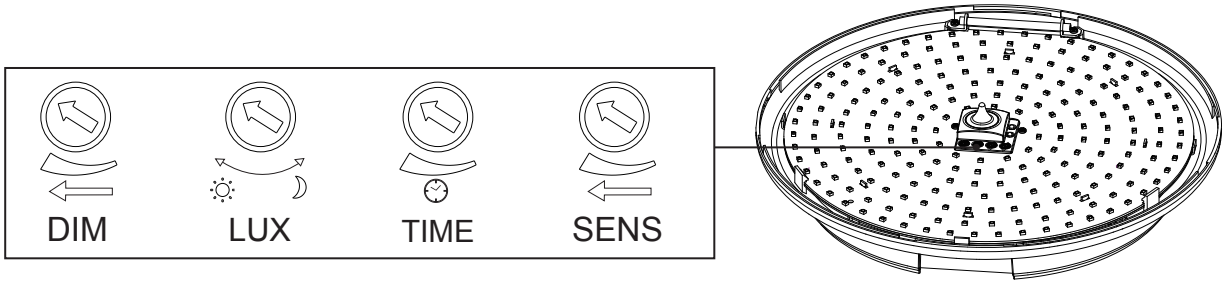
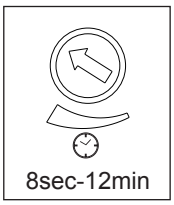


Fig.1

Time setting

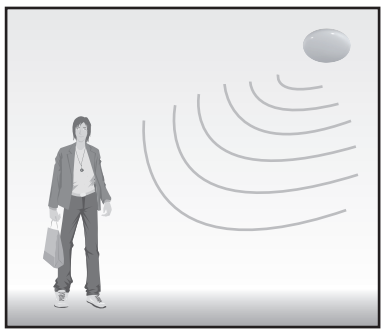


The light can be set to stay ON for any period of time between approx. 8sec(turn fully anticlockwise) and a maximum of 12min(turn fully clockwise). Any movement detected before this time elapse will re-start the timer. It is recommended to select the shortest time for adjusting the detection zone and for performing the walk test.

Note: after the light switches OFF, it takes approx. 1sec before it is able to start detecting movement again. The light will only switch on in response to movement once this period has elapsed.

It is mainly for the adjustment of the delay time from the moment the signal detected and light auto-on till the light auto-off. In order to convenient installation and production,after first put on electrict,first three times detection delay will be 3 seconds,then enter to normal mode(the specific delay time subject to potentiometer).You can define the delay time to your practical need. But you'd better lower the delay time for the sake of energy saving, since the microwave sensor has the function of continuous sensing, that is, any movement detected before the delay time elapses will re-start the timer and the light will keep on only if there is human in the detection range.

Warning: in the process of installation test ,please far away from the sensor lamp,because it will turn on once detect you or test staff.



Please keep a certain distance with sensor lamp when test,otherwise,the sensor lamp will turn on once detect you in the detection range.

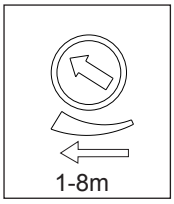
Fig.2

Light-control setting

The chosen light response threshold can be infinitely from approx. 10-2000lux. Turn it fully anti-clockwise to select dusk- to-dawn operation at about 10 lux. Turn it fully clockwise to select daylight operation at about 2000lux. The knob must be turned fully clockwise when adjusting the detection zone and performing the walk test in daylight.

Installation location:
Due to the existence of a light transducer in sensor lamp, the light transducer must keep in the location where daylight is sufficient, on the other hand,we have to avoid other light source,otherwise,the light transducer will do a improper judgment for environment ray.
Due to the needs of different customers,such as installation location,lux and so on ,the location of potentiometer knob is different.when used, it maybe require you to adjust many times in order to meet with your needs.
Change the location of light transduce to the location where the daylight is visible.

Detection range setting(sensitivity)



Detection range is the term used to describe the radii of the more or less circular detection zone produced on the ground after mounting the sensor light at a height of 2.5m, turn the detection control fully anticlockwise to select minimum detection range(approx.1m radii), and fully clockwise to select maximum detection range (approx. 8m radii).

Note: the above detection range is gained in the case of a person who is between 1.6m~1.7m tall with middle figure and moves at a speed of 1.0~1.5m/sec. if person's stature, figure and moving speed change, the detection distance will also change.

ATTENTION: When use this product, please adjust the sensitivity to an appropriate position you need, please do not adjust the sensitivity to maximum, to avoid the product does not work normally caused by wrong motion.Because the sensitivity is too high easily detect the wrong motion by wind blowing leaves & curtains, small animals, and the wrong motion by interference of power grid & electrical equipment. All those lead the product does not work normally !
When the product does not work normally, please try to lower the sensitivity appropriately, and then test it.

The detection distance may multiply for the reflection on microwave electromagnetic field by the metal or glass materials. Thus, lower the sensitivity to reach the appropriate detection distance. Never turn the SENS knob to the maximum value to avoid error detection. Also the surrounding environment will lead to error action, e.g. the automobiles passing by or the wandering objects caused by the wind. Products should be installed more than 4 meters one from the other, otherwise the interference among them will cause error action.

The proper use of Sensitivity potentiometer: as the photograph show, the knob is specialized in adjusting sensitivity.when use,user can adjust the knob to the middle.of course, in the process of the practical usage,if you feel the sensitivity is ok ,you don't need to adjust it. If you feel it is low,you could adjust it higher properly. Due to some environment led to wrong action,such as car passing,wind making object fly and so on(as fig.4 fig5),so we advise sensitivity hadn't be adjusted to the max.

Fig.3

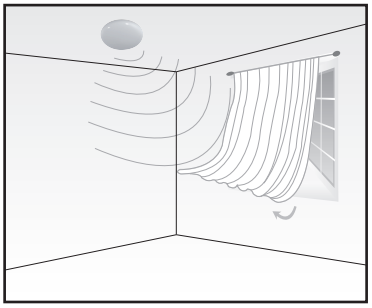
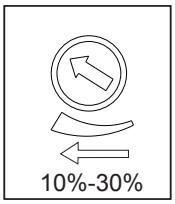


Fig.4

Note: please don’t adjust the three functional buttons to excess. That is because the three functional buttons were connected to the components directly, there is a small stopper in each of the three components, when you adjust the buttons from start to end, the excessive turn will damage the stopper, and lead to the 360°non-stop turn around. The adjust range limit is 270°, please do pay attention to this.

Percentage dimmable lighting



It can be defined in the range of 10%~30%. When the ambient light is less than 70 lux, the system starts dimming mode. If there is no signal detected during the delay time, it will enter the percentage lighting. Once signal detected, it recovers to 100% lighting. It will auto exit dimming mode, when the ambient light is over 100 lux. The dimming mode works digitally and independently.

When you adjust the knob to the minumum value ,the DIM function off .
When you adjust the knob to other value ,the DIM function on.

For example : the lamp is installed in the room ,DIM function on.
When no body in the room ,the lamp will vestigital less than 30% brightness.(the vestigital brightness can adjust by DIM knob). The vestigital brightness will keep on until the ambient light > 70LUX,when the ambient light >70LUX ,the vestigital brightness will turn off.
Maybe you have question that why is 70LUX ? Because when the ambient light > 70 LUX,we can see more clear not need any vestigital brightness, so we set the vestigital brightness turn off. And the 70LUX is "factory settings" ,we can adjust as customer's requirements before production.

Procedure of installation

Warning!

1. Please keep it away from the children.
2. Please avoid fire/high temperature/damp places for installation.
3. Please confirm when shut off the power cord access.

Note:Please bring the following tools

Pencil　Electric drill　Hammer　Screwdriver

• Step1 Rotating chimney down chimney(as follow: the product should be separated into two parts as A and B)

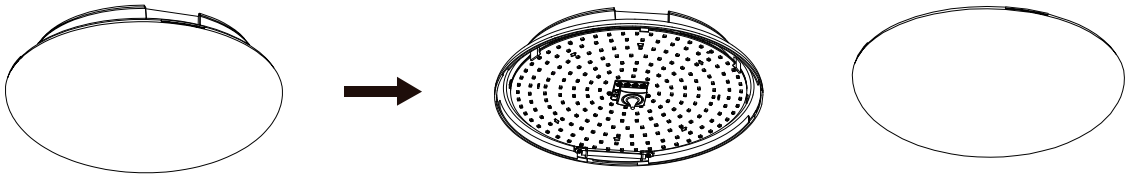


Fig.5　A　B

• Step2 Turn the knobs to the ideal conditions.
(Please define the settings as per the above FUNCTION part mentioned.).

• Step3 Unscrew lampshade,open the lamp plate to expose the mounting holes .（as fig.6）

Fig.6

• Step4 Put the base of the product on the ceiling to make the drilling mark.（as fig.7）

• Step5 Install the product on the place where you marked.（as fig.8）

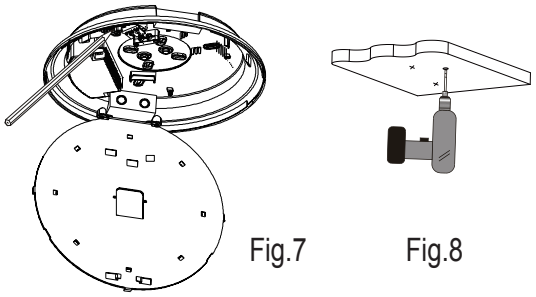


Fig.7

Fig.8

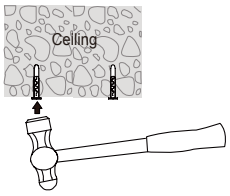
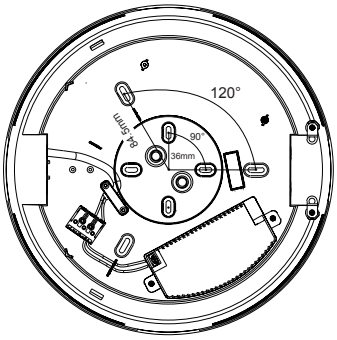


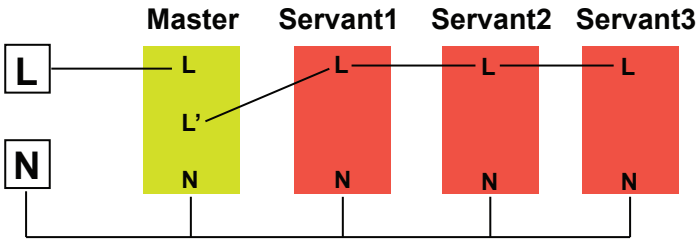
Fig.9



• Step6 Knock the plastic expansion screw into the hole which you drill.（as fig.9）

Our lamp have **synchronization function** ,also can call them **"master and servant"** function.
"**Master**" is with sensor's lamp ,"**Servant**" is without sensor's lamp"
When the "**Master**" lamp turn on ,the "**Servant**" will follow turn on .
When the "**Master**" lamp turn off ,the "**Servant**" will follow turn off .

If you need this function ,connecting method is that :
N is for master and servant(**N** parallel), **L** is for master ,**L'**is for servant .



• Step7 Put the power line through the line hole to connect on the wiring.
The lamp bottom and the side of each has two wiring hole，choose one of the access terminal. (as fig.10)

• Step8 Fix the base of the product on the selected place with the screws.

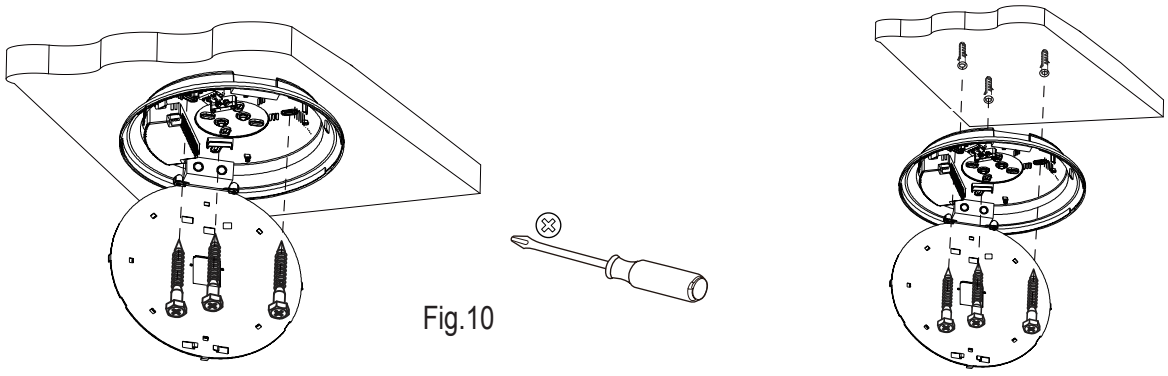


Fig.10

Concrete ceiling

• Step9 Cover the lamp plate.

• Step10 Will rotate, cover chimney on base.

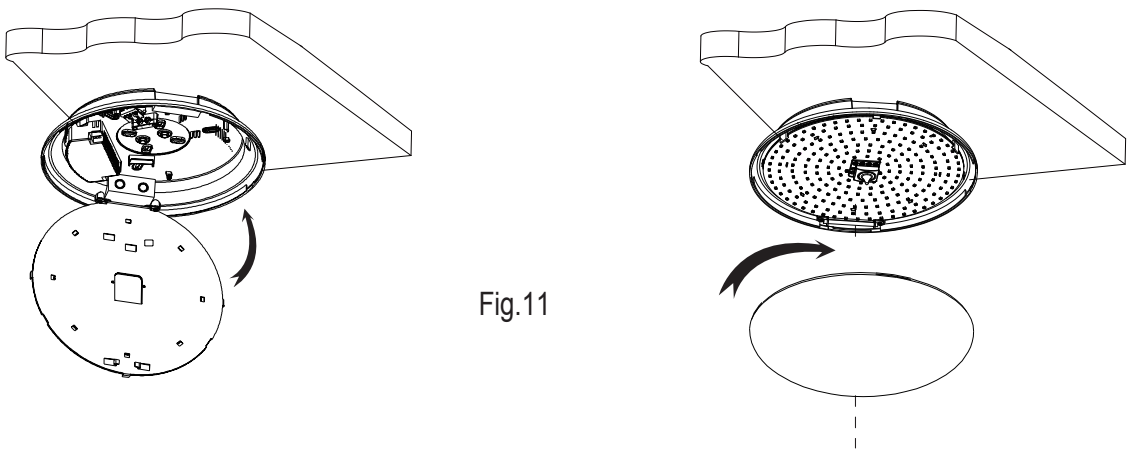


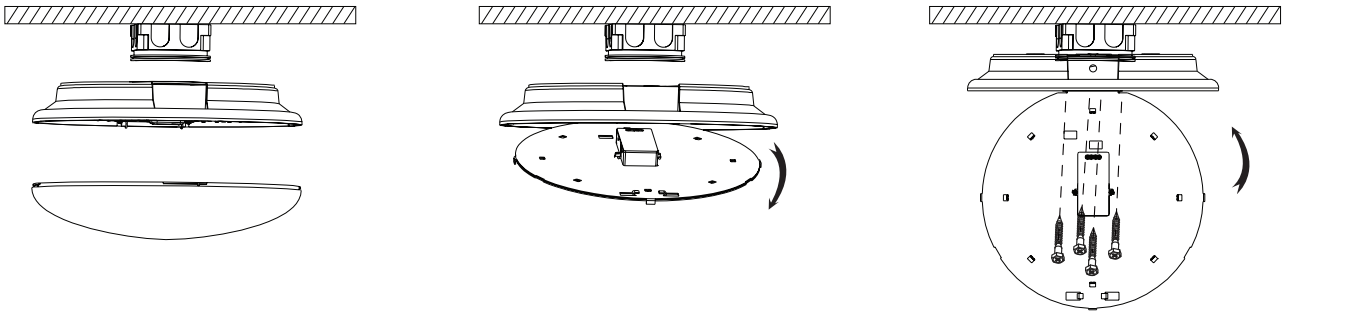
Fig.11

• Use installation process that standard installation accessories.（as fig.12）

① Unscrew lampshade.

② Open the lamp plate to expose the mounting holes .

③ Fix the base of the product on the installation accessories with the screws.



④ Cover the lamp plate.

⑤ Will rotate, cover chimney on base.

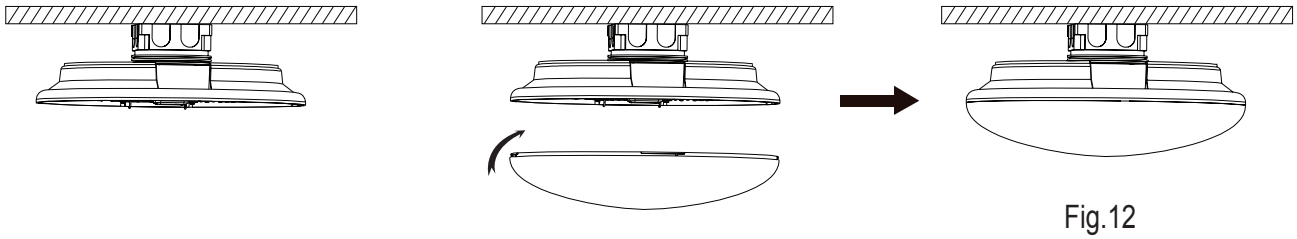
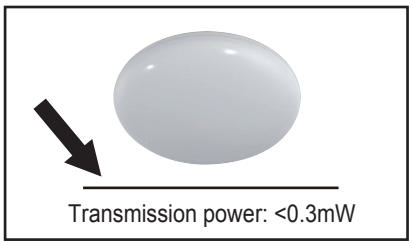


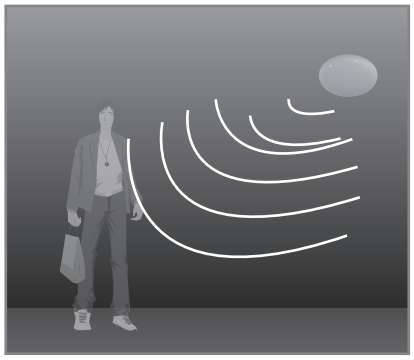
Fig.12

Fault and the solution

Fault	Failure cause	Solution
The load fails to work.	Light-illumination is set incorrectly.	Adjust the setting of the load.
	The load is broken.	Change the load.
	The power is off.	Turn the power on.
The load works all the time.	There is a continuous signal in the region of the detection.	Check the settings of the detection area.
The load works when there is no motion signal detected.	The lamp isn't installed well so that sensor fails to detect reliable signals.	Re-adjust the installation place.
	Moving signal is detected by the sensor (movement behind the wall, the movement of small objects, etc.)	Check the settings of the detection area.
The load fails to work when there is motion signal detected.	The motion speed is too fast or the defined detection area is too small.	Check the settings of the detection area.

Note: the high-frequency output of this sensor is<0.3mW- that is just one 3300th of the transmission power of a mobile phone or the output of a microwave oven.





Induction of human movement

Since entering lighting condition

Application

Warning!

1.The LEDS in serial can function when all the seals installed in place.
2.Please don't remove or connect with other lamp when powered on.
3.When the LEDS in serial are damaged ,you need experienced technician to repair using the same rating LEDS.

●Please confirm with profession installation.
●Please cut off power supply before installation and removal operations.
●Make sure that you have cut off the power for safety purposes.
●Improper operation caused losses, the manufacturer does not undertake any responsibility.

We are committed to promoting the product quality and reliability, however, all the electronic components have certain probabilities to become ineffective, which will cause some troubles. When designing, we have paid attention to redundant designs and adopted safety quota to avoid any troubles.