

# LEDempire

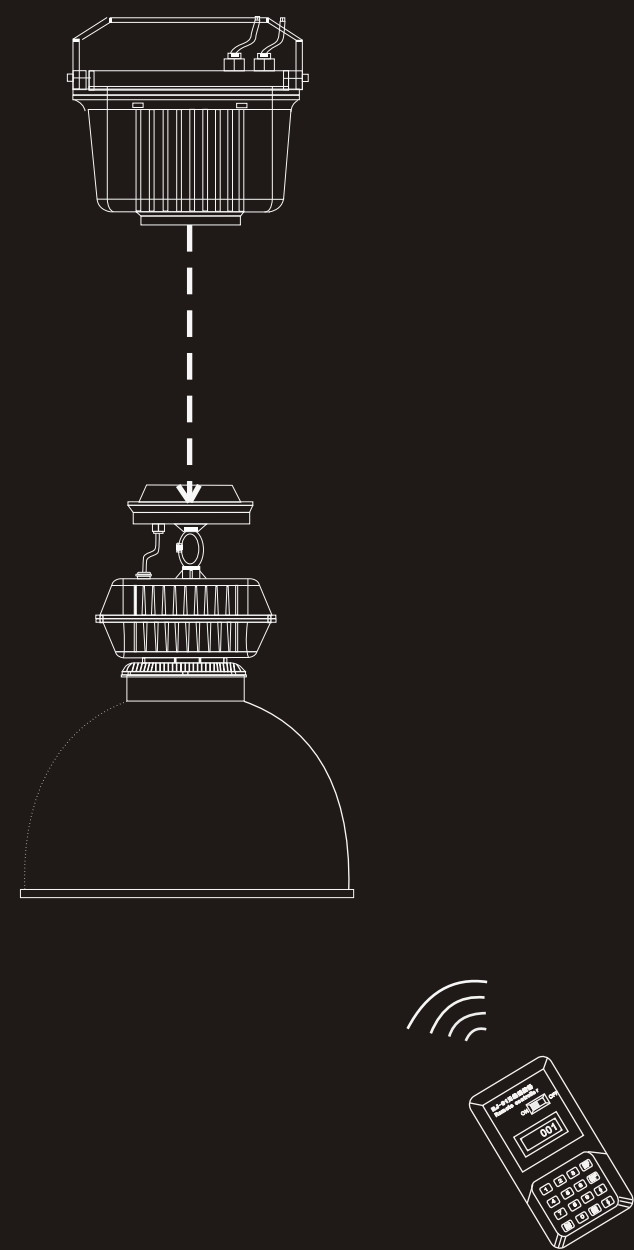
The new age of lighting

## LIGHTING LIFTER

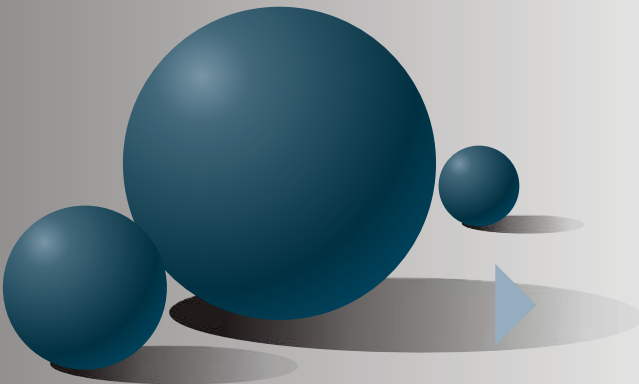


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HIGH QUALITY  
ENVIRONMENTAL PROTECT SAVING ENERGY



**CONTENTS**



Remote control lifter A1



Wire control lifter A2



Remote control lifter B1



Wire control lifter B2



Remote control lifter C1



Wire control lifter C2

### Mechanical Structure



The Lifter are designed to lower and raise lighting equipment.

#### Fast and Easy Installation

Designed lifter with fast and easy install method to save time and cost.

#### Lifting Capacity

Loads from 3kg to 20kg can be lowered depending on the models.

In the interest of safety the mains supply must be isolated and all works are carried out by qualified personnel.

### Advantage

Exclusive patented technology

Precise mechanical structure

Synchronous transmission

### Self-locking device

This product adopts permanent magnet motor and can realize self-locking function after power off, to stop automatically lifting, which won't happen to fall, out of control and other dangerous phenomenon

### High precision mechanical structure

This product adopts the transmission device with high precision gear meshing machinery, to realize synchronous transmission function to lift orderly, stable and reliably.

Gear and gear shaft the special material of low carbon alloy steel which is the same with car transmission gear (20CrMnTi, C < 0.24%)

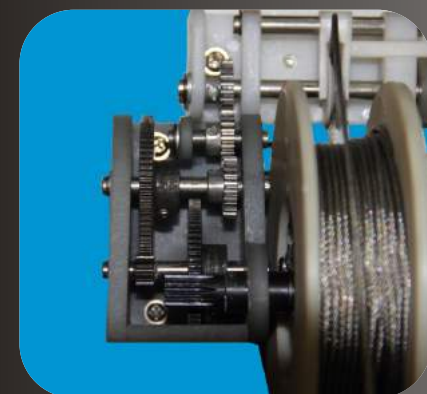


### Rolling Wire Device

This product adopt automatic and adjustable wire-displacement mechanism through high precision mechanical device and synchronization transmission function, to make the wire roll on the wheel to realize to roll sequentially and tight, can Lower and rise many times without cross-winding, overlapping, disordering many times

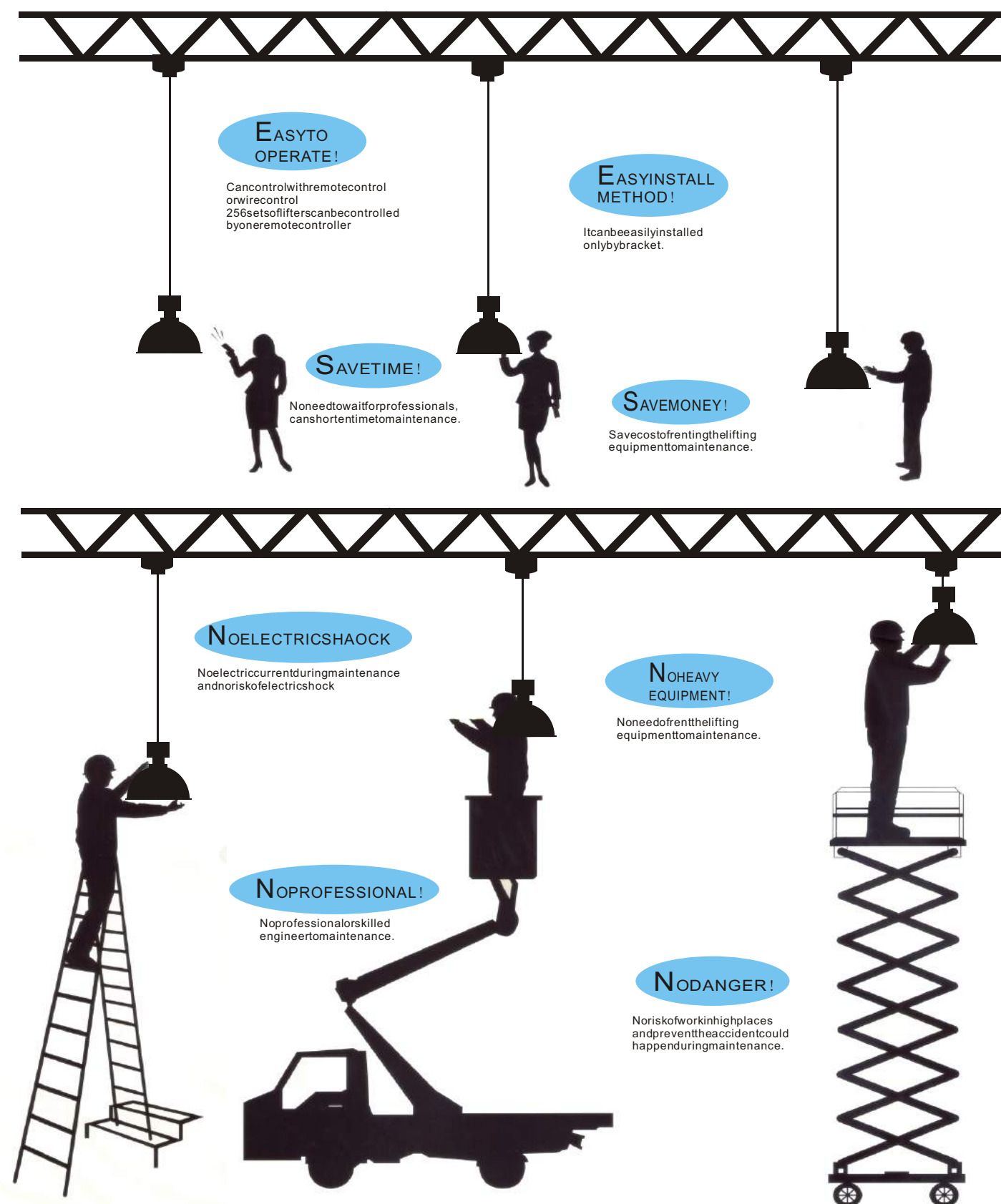
### Low Noise

When the lifter operates, gears meshing runs without noise, wire lifts without friction and interference through high precision mechanical device and the function of wire rolling orderly, to make noise to a minimum.





The Lighting Lifter provides a safe, fast and convenient method for maintaining all types of luminaires. The innovative design comes in a range of options to suit most applications with lifting capacity from 3kg to 20kg.



## PRODUCT SPECIFICATIONS & BENEFITS

**Safety** The personal safety of maintenance worker should be in the first place, it can be completely avoidable for the dangerous conditions of working at high position when the workers maintain lighting.

**Convenient maintenance and cleaning**  
If the light is broken or changed or need cleaning, the lifter can descend to ground and maintenance staff can repair them conveniently and quickly.

**Fast and save time** If the light is broken or changed, no need to rent and wait for the lifting equipment for maintenance or change. It can be done at any time by non professionals to not delay produce.

**Cost saving** No need to rent the lifting equipment or ladder for maintenance or change, so it can save cost.

**Easy to operate, easy to install**

**Weightlessness device**  
The control system has weightlessness protection device to prevent the lifting system from damaging due to operator's negligence when the lifter and light lower to the ground.

## APPLICATIONS





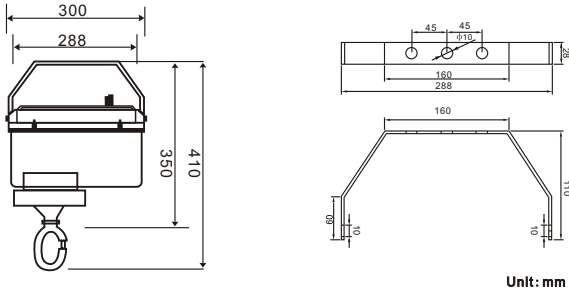
ECO-BM-A1  
Remote controll lifter



RJ-BM-A2  
Wire control lifter

Heavy duty type

Volume : moderate size  
Appearance generosity and heavy  
Lifting capacity : 3-20kg, 20m  
Multi applications :  
commerce, especial for industry



Remote controller

Lifter technical data

|                              |                                |        |                      |        |
|------------------------------|--------------------------------|--------|----------------------|--------|
| Control method               | Remote control                 |        | wire control         |        |
| Model                        | ECO-BM-A1                      |        | ECO-BM-A2            |        |
| Unit net Weight(KG)          | 6KG                            |        | 6KG                  |        |
| Lifting Weight(KG)           | 3-20KG                         | 3-18KG | 3-20KG               | 3-18KG |
| frequency                    | 50HZ                           | 60HZ   | 50HZ                 | 60HZ   |
| Voltage(V)                   | 110-277V                       |        | 110V-277V            |        |
| Lifting Height(M)            | 20M                            |        | 20M                  |        |
| lifting speed(M/Min)         | 1.8M/Min                       |        | 1.8M/Min             |        |
| Application Area Height(M)   | Area below 30 meters           |        | Area below 30 meters |        |
| Protection Grade             | IP54                           |        | IP54                 |        |
| Anti-electric Shock          | I Grade                        |        | I Grade              |        |
| Steel Wire Rope Quantity     | 1                              |        | 1                    |        |
| Wire Rope Diameter(mm)       | 1.8MM(7*7)                     |        | 1.8MM(7*7)           |        |
| Remote Controller Frequency  | 315Hz 413Hz                    |        | /                    |        |
| Remote control Distance      | 35M                            |        | /                    |        |
| Max Remote Control Quantity  | 256PCS/ 1PCS Remote controller |        | /                    |        |
| Max Wire Control Quantity    | /                              |        | 1PCS/1PCS            |        |
| Motor Power(W)               | 35W                            |        | 35W                  |        |
| Type of motor                | AC                             |        | AC                   |        |
| Rated current of illuminator |                                |        |                      |        |
| Package Size                 | 36cm×32cm×29cm                 |        | 36cm×32cm×29cm       |        |

Material

- 1-High pressure die casting aluminum housing; car baking paint with process of anti-corrosion, antistatic, dustproof and waterproof;
- 2-Gear and gear shaft adopt the special material of low carbon alloy steel which is the same with car transmission gear.
- 3-Steel Wire is no rotating rope and material adopts what is specially used for airplane
- 4-Stainless steel fastener (bolts and nuts); silicon rubber sealing ring with high performance and anti-aging

Structure Characteristics

- 1-Adopt permanent magnet motor and can realize automatically self-locking function after power off, it won't happen to fall, out of control and other dangerous phenomenon
- 2- Adopt the transmission device with high precision gear meshing machinery, to realize synchronous transmission function to lift orderly, stably and reliably
- 3- Adopt automatic and adjustable wire-displacement mechanism to realize to roll sequentially and tight, can lower and rise many times without cross-winding, overlapping and disordering.

Performance Features

- 1-Lifting capacity: lifting weight: 3-20kg; lifting height: 20M
- 2-Two control ways (remote control and wire control) can be selected by customer and are easy to operate simply and conveniently which can also be equipped with different model lights and meet the differentiation demand of different customers
- 3-Lighting circuit and lifter circuit are independent each other and are supplied by two divided circuit lines to be reliable and safe.
- 4 -When the light lifts to the top to accurately connect with the lifter, it has no electric spark and no burning.
- 5 -Control system equipped with weightlessness protection device can prevent the lifting system from damaging due to operator's negligence when the lifter and light lower to the ground.
- 6-Low noise: when the lifter operates, gears meshing runs without noise, wire lifts without friction and interference to make noise to a minimum
- 7-can be customized according to customers' requirements in the range of rated lifting height

Installation

Many installation modes can be chosen according to the actual construction situation, which are safe, reliable, simple, and convenient.

Applications

It is more applicable for various industry places, such as factory, workshop, warehouse, stadium, and so on. Especially be suitable for where it is difficult for construction, or maintenance is not convenient, or job is dangerous situations.







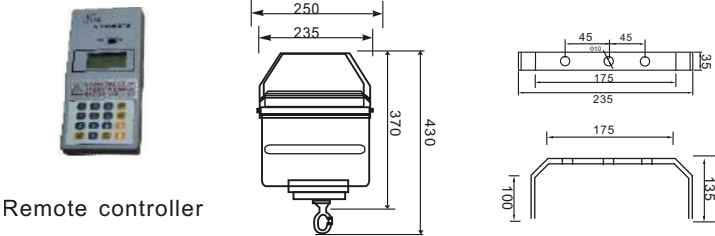
ECO-BM-B1  
Remotecontrollifter



RJ-BM-B2  
Wire control lifter

Compact type

Volume compact  
Appearance grace  
Lifting capacity: 3–16kg, 16m  
Multi applications:  
commerce, industry and home



Remote controller

Lifter technical data

| Control method              | Remote control                 | wire control         |
|-----------------------------|--------------------------------|----------------------|
| Model                       | ECO-BM-B1                      | ECO-BM-B2            |
| Unit net Weight(KG)         | 5.3KG                          | 5.3KG                |
| Lifting Weight(KG)          | 3-16KG                         | 3-16KG               |
| Lifting Height(M)           | 16M                            | 16M                  |
| lifting speed(M/Min)        | 1.8M/Min                       | 1.8M/Min             |
| Application Area Height(M)  | Area below 30 meters           | Area below 30 meters |
| Protection Grade            | IP54                           | IP54                 |
| Anti-electric Shock         | I Grade                        | I Grade              |
| Steel Wire Rope Quantity    | 1                              | 1                    |
| Wire Rope Diameter(mm)      | 1.8MM(7*7)                     | 1.8MM(7*7)           |
| Voltage(V)                  | 110-277V                       | 110V-277V            |
| Remote Controller Frequency | 315Hz 413Hz                    | /                    |
| Remote control Distance     | 35M                            | /                    |
| Max Remote Control Quantity | 256PCS/ 1PCS Remote controller | /                    |
| Max Wire Control Quantity   | /                              | 1PCS/1PCS            |
| Motor Power(W)              | 35W                            | 35W                  |
| Type of motor               | AC                             | AC                   |
| Package Size                | 27cm×28cm×35.5cm               | 27cm×28cm×35.5cm     |

Material

- 1-High pressure plastic housing; car baking paint process, dustproof and waterproof;
- 2-Gear and gear shaft adopt the special material of low carbon alloy steel which is the same with car transmission gear
- 3-Steel Wire is no rotating rope and material adopts what is specially used for airplane
- 4-Stainless steel fastener (bolts and nuts); silicon rubber sealing ring with high performance and anti-aging

Structure Characteristics

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Performance Features

- 1-Lifting capacity: lifting weight: 3-20kg; lifting height: 25M
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Installation

Many installation modes can be chosen according to the actual construction situation, which are safe, reliable, simple, and convenient.

Applications

It is applied to various places of business and industry, such as factory, workshop, warehouse, stadium, exhibition center, station, and supermarket and so on. Especially be suitable for where it is difficult for construction, or maintenance is not convenient, or job is dangerous situations



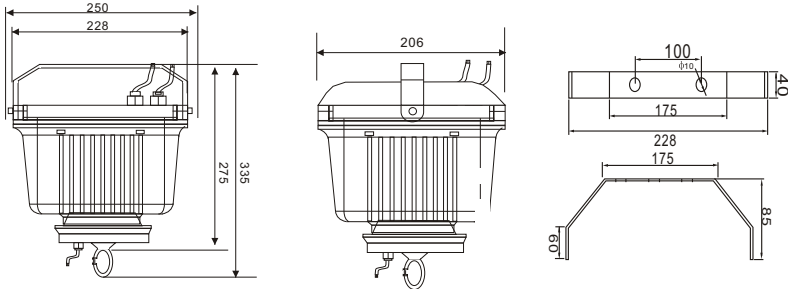


Delicate type:

Volume: small size  
Appearance delicacy  
Lifting capacity: 3-20kg, 25m  
Multi applications:  
business, industry and home



Remote controller



Lifter technical data

| Control method               | Remote control                |        | Wire control             |        |
|------------------------------|-------------------------------|--------|--------------------------|--------|
| Model                        | ECO-BM-C1                     |        | ECO-BM-C2                |        |
| Unit net Weight(KG)          | 4.9KG                         |        | 4.9KG                    |        |
| Lifting Height(M)            | 25M                           |        | 25M                      |        |
| Lifting Weight(KG)           | 3-20KG                        | 3-18KG | 3-20KG                   | 3-18KG |
| Frequency                    | 50HZ                          | 60HZ   | 50HZ                     | 60HZ   |
| Voltage(V)                   | 110-277V                      |        | 110V-277V                |        |
| lifting speed(M/Min)         | 1.8M/Min                      |        | 1.8M/Min                 |        |
| Application Area Height(M)   | Area below 30 meters          |        | Area below 30 meters     |        |
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| Remote control Distance      | 35M                           |        | /                        |        |
| Max Remote Control Quantity  | 256pcs/ 1pc Remote controller |        | /                        |        |
| Max Wire Control Quantity    | /                             |        | 1pc/1pc distribution box |        |
| Motor Power(W)               | 35W                           |        | 35W                      |        |
| Type of motor                | AC                            |        | AC                       |        |
| Rated current of illuminator |                               |        |                          |        |
| Package Size                 | 27cm×27cm×28cm                |        | 27cm×27cm×28cm           |        |

ECO-BM-C1  
Remotecontrollifter



RJ-BM-C2  
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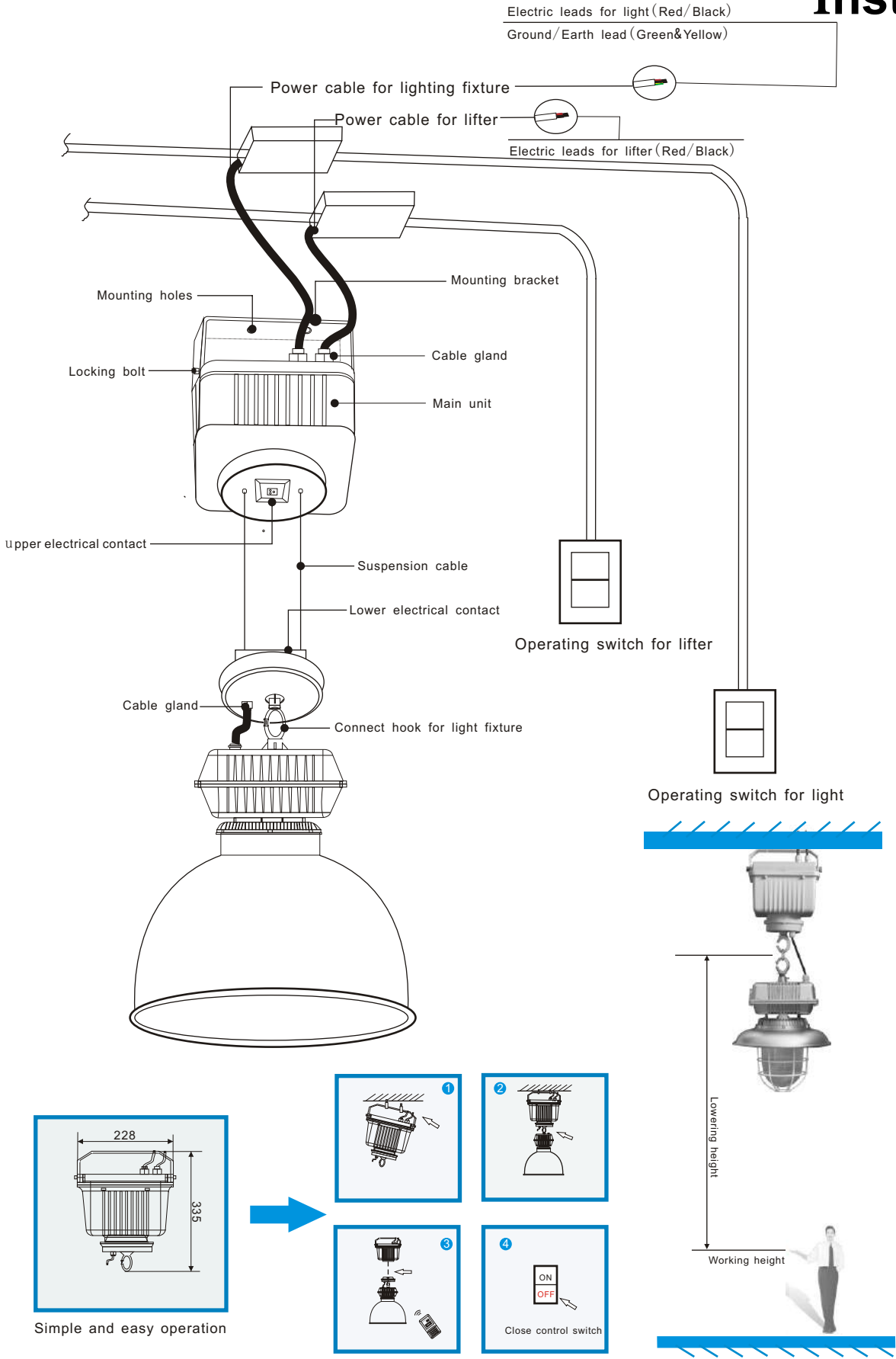
Applications

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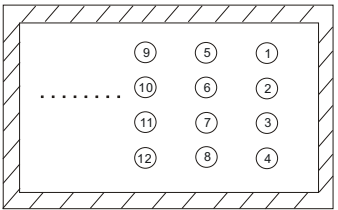




# Installation process

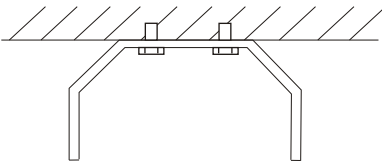


1. Design the drawing of light position and mark the code, as the picture 1 shows, And lay every light and lifter on their corresponding positions and to keep in correspondence with the code.



PICTURE 1: Position drawing of light and lifter

2. First connect the lifter to the power can operate normally or not. (Fix the bracket on the lifter evenly before power on, and then must pull tight the hook by hand through 3kg force or load 3kg weight on the hook and test to operate controller to up, down and stop)

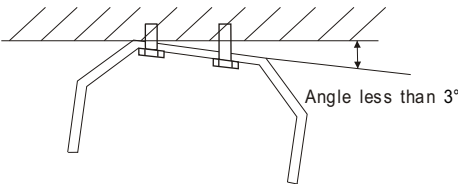


PICTURE 2: Bracket installation drawing

3. Please choose the installation according to the actual conditions.

3. 1 Fixed on the concrete roof.

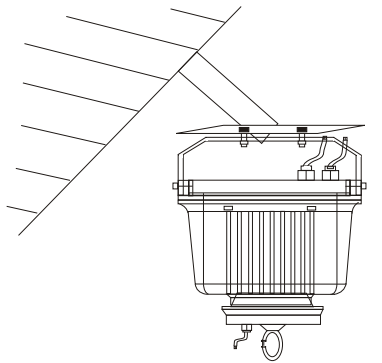
- 1) Fix the bracket on the roof with expansion bolt (the bolt specification is M8\*80 at least), see the picture 2
- 2) Make sure the angle between bracket and roof surface is less than 3°, see the picture 3;
- 3) The installation fixed on the slant well-surface is like picture 4.



PICTURE 3: Installation angle drawing

3. 2 Pipe-shape clamp installation

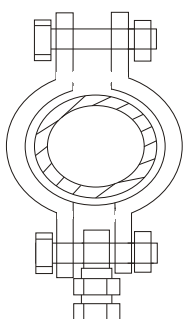
use two sets of pipe-shape clamp and bolts to fix on the pipes, see the picture 5. Install the bracket and also make sure the angle is less than 3°, see the picture 6.



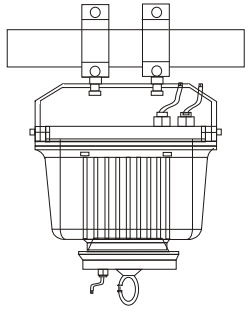
PICTURE 4: The drawing of fixing on the Italic wall surface

3. 3 "H" shape steel (H beam) installation style.

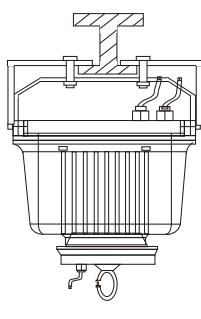
Manufacture two 90° lifing-ears like the picture 7. showing and fix them on the "H" shape steel.



PICTURE 5: Pipe-shape clamp



PICTURE 6: Pipe-shape clamp Installation drawing



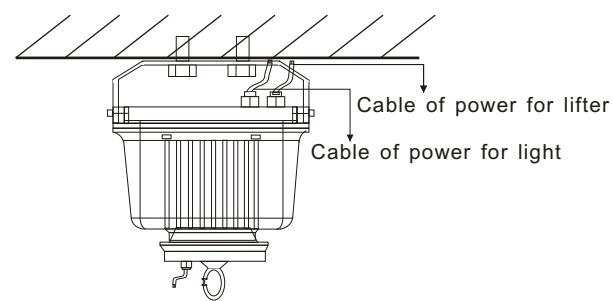
PICTURE 7: "H" shape steel installation drawing

4. Connect electric cable  
 The lighting circuit and the lifter circuit should be connected correctly according to retated standards and regulations.  
 Specially attention:  
 The lighting circuit and the lifter circuit are forbidden to use a same power-supply circuit, should have their respective supply power, and see the picture 8.

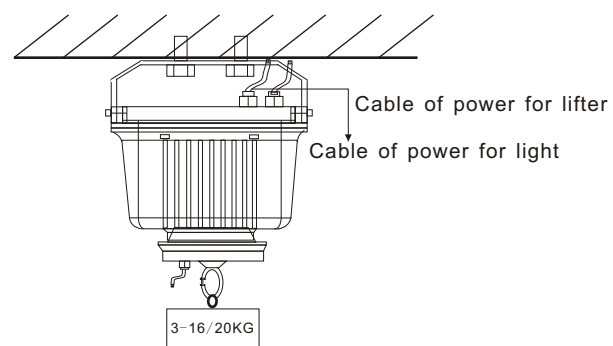
5. Must hang more than 3kg wight for going up and down.  
 First testing the lifter under the 3kg load before hanging the light(in order to protect the light)  
 According to its design, the lifter must load with minimum 3kg weights(but not exceeding 20kg) when the lifter goes up and down, or else it fails to go up and down because the steel cable disorder without any load(see the picture 9)

6. Switch off the supply power of lighting, and open the lifter supply power, please stop it when the lifter go down to 1 meter above the ground, see the picture 10(If the distance between lifter and ground is less than 1M without stopping when going down, the light is easy to be broken).

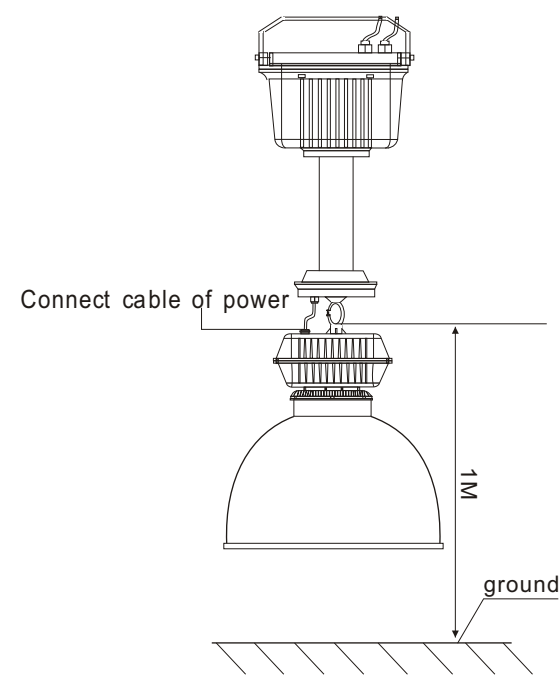
7. When everything is ok after testing lifter, take down the 3kg load, and hang the light (its weight is between 3-16/20kg) and connected the lighting wires.



PICTURE 8: drawing of the lighting circuit and lifter circuit



PICTURE 9: Hanging the 3kg weight load at least

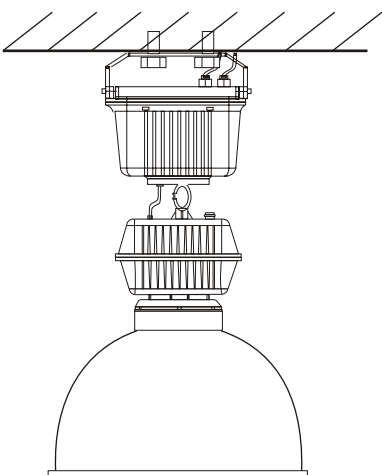


PICTURE 10: Hanging the 3kg weight load hang the light and connect the lighting wires

8. when the lifter go to the top position, it stops automatically, turn on the light switch and it is on.

9. Turn off the lifter supply power and installation is over.

Note:  
 1. The lifer operates continuously not more than 1 hour.  
 2. Please cut off the supply power right now and connect with the professionals or dealer if you have the doubt or find abnormal phenomena for the installation and use.

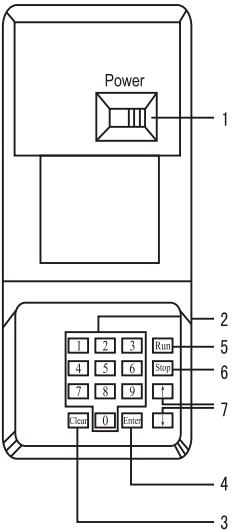


Control Unit



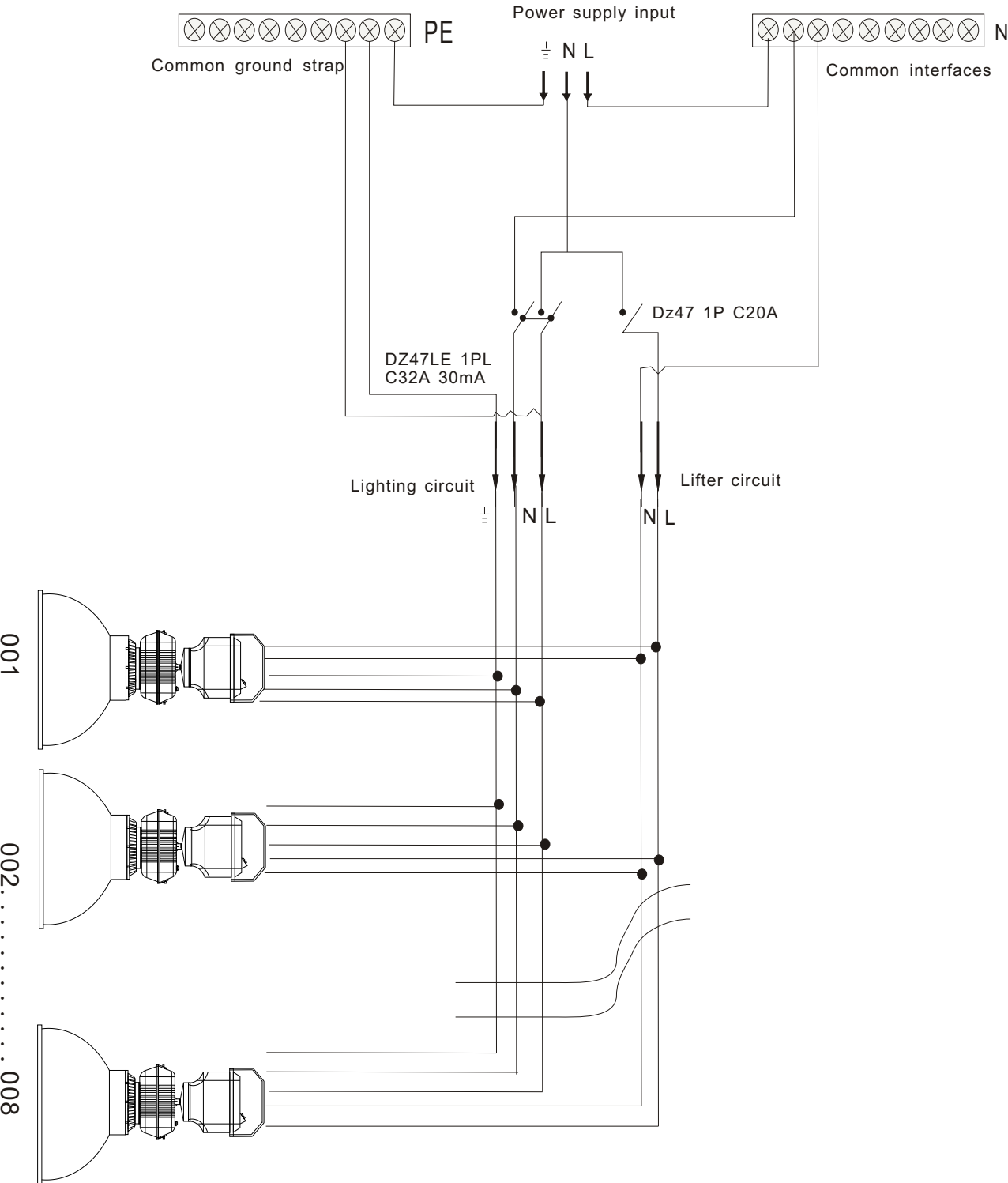
1. Battery Device  
Change the battery of the controller.
2. Power  
Turn on or off the controller.
3. LCD  
Display operational information.
4. Digit buttons  
Input the number of lighting need to operate.
5. "RUN" button  
Press this button, turn on the lifter.
6. "STOP" button  
Press this button, the lifter stop running.
7. "↑" UP button  
Press this button, the lifter will be up.
8. "↓" Down button  
Press this button, the lifter will be down.
9. "ENTER" button  
Enter the number input by operator.
10. "CLEAR" button  
Clear the number input by operator.

- 1 Toggle Power switch  
Liquid crystal display characters and icons.  
Power OFF ON NO: 001
- 2 Input the number of lamp  
The number of lamp is 001-256  
For example: control the 001 lamp, and set No. 001  
NO: 001
- 3 Press CLEAR switch  
Can clear the input number, LCD will be restitution.  
NO: 001
- 4 Press ENTER switch  
Confirm the number after input, if the number is not inside of 001-256, it will clear the number automatic.  
NO: 001
- 5 Press RUN switch  
Input the number of the lamp need to control.  
NO: 001 RUN
- 6 Press STOP switch  
Input the Number of the lamp need to stop.  
NO: 001
- 7 Press ↑ or ↓ switch  
Up and down switches are used to change the running direction of the lifter, if it is not sure the direction, you can press ↑ or ↓ and press RUN .  
NO: 001 UP  
NO: 001 DOWN



- If the remote controller does not work.
- Please check the battery.
- Please check again if the operation according to the specification step by step.
- Please check if there any strong interferon around.
- Please put out the battery from the controller when you don't use it.

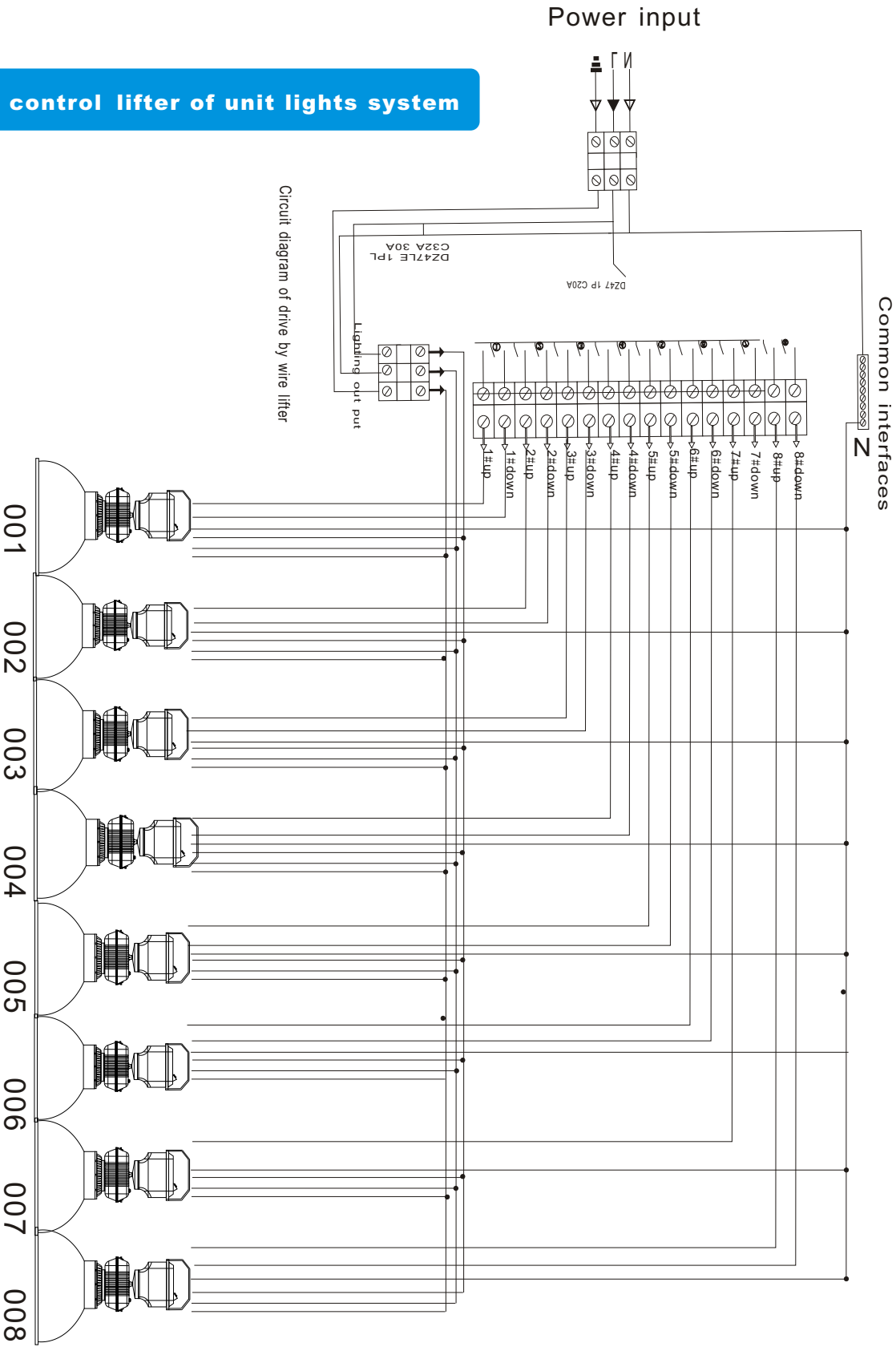
Remote control lifter for unit lights system



Circuit instruction

Remote control lifter contains two groups of divided circuit lines: one is for lighting circuit and the other is for lifter circuit, which are independent of each other. One remote controller can control 256pcs lifter at most. .

Wire control lifter of unit lights system



Circuit instruction

Wire-control lifter contains two groups of divided circuit lines: one is for lighting circuit and the other is for lifter circuit, which are independent of each other. ,  
One Wire-control lifter distribution box can only supply power for 1pc lifter



ACCESSORIES



|         |                  |               |
|---------|------------------|---------------|
| partNo. | Remotecontroller | suitable type |
| R-AS01  | Remotecontrol    | standard      |
|         | shell            | gray          |
|         | battery          | industrial    |



|         |               |                |
|---------|---------------|----------------|
| partNo. | Model         | suitable type  |
| R-AS02  | Remotecontrol | applicable     |
|         | wirecontrol   | applicable     |
|         | color         | grey ish white |



|         |                  |               |
|---------|------------------|---------------|
| partNo. | Mounting bracket | suitable type |
| R-AS03  | Remotecontrol    | applicable    |
|         | wirecontrol      | applicable    |
|         | color            | silver        |



|         |               |                 |
|---------|---------------|-----------------|
| partNo. | Bracketbolts  | suitable type   |
| R-AS04  | Remotecontrol | applicable      |
|         | wirecontrol   | applicable      |
|         | color         | stainless steel |



|         |               |            |
|---------|---------------|------------|
| partNo. | Hook          | type       |
| R-AS05  | Remotecontrol | applicable |
|         | wirecontrol   | applicable |
|         | color         | white/gray |



|         |                 |               |
|---------|-----------------|---------------|
| partNo. | Double end bolt | Suitable type |
| R-AS05  | Remotecontrol   | applicable    |
|         | wirecontrol     | applicable    |
|         | color           | silver        |



|         |               |               |
|---------|---------------|---------------|
| partNo. | lower cover   | suitable type |
| R-AS06  | Remotecontrol | applicable    |
|         | wirecontrol   | applicable    |
|         | color         | white/gray    |



|         |               |               |
|---------|---------------|---------------|
| partNo. | Receptor      | Suitable type |
| R-AS07  | Remotecontrol | applicable    |
|         | wirecontrol   | inapplicable  |
|         | color         | black         |

REFERENCE





