

*Electric* **WINCH**

Sizes: 50kg/100kg/150kg/250kg

Installation and Operation Manual





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# ATTENTION

## CAUTION WHEN INSTALLING

1. Please refer to the diagrams first to avoid the damage occurred by improper installation and connection.
2. When you complete the installation of the lifter, the winch must have more than 5kg weight on the steel wire rope on the installation or the lifter will not operate.
3. When the winch is in use, keep a distance of at least 2 metres to stand or pass underneath a load to avoid any accident occurring.
4. The winch is not allowed to operate when carrying over capacity.
5. The winch should be tested before use
6. The ways of inspection are as follows:
  - A. To check whether the connection between winch and the expansion bolt of the ceiling is fixed well and whether the ceiling is with its strong carrying capacity.
  - B. To check whether the power connection and earth wire is reliable.
  - C. Press 'DOWN' button on the remote control to descend the steel cable first (for around 60 seconds), then press any key to stop. After that, press 'UP' to raise the steel cable.

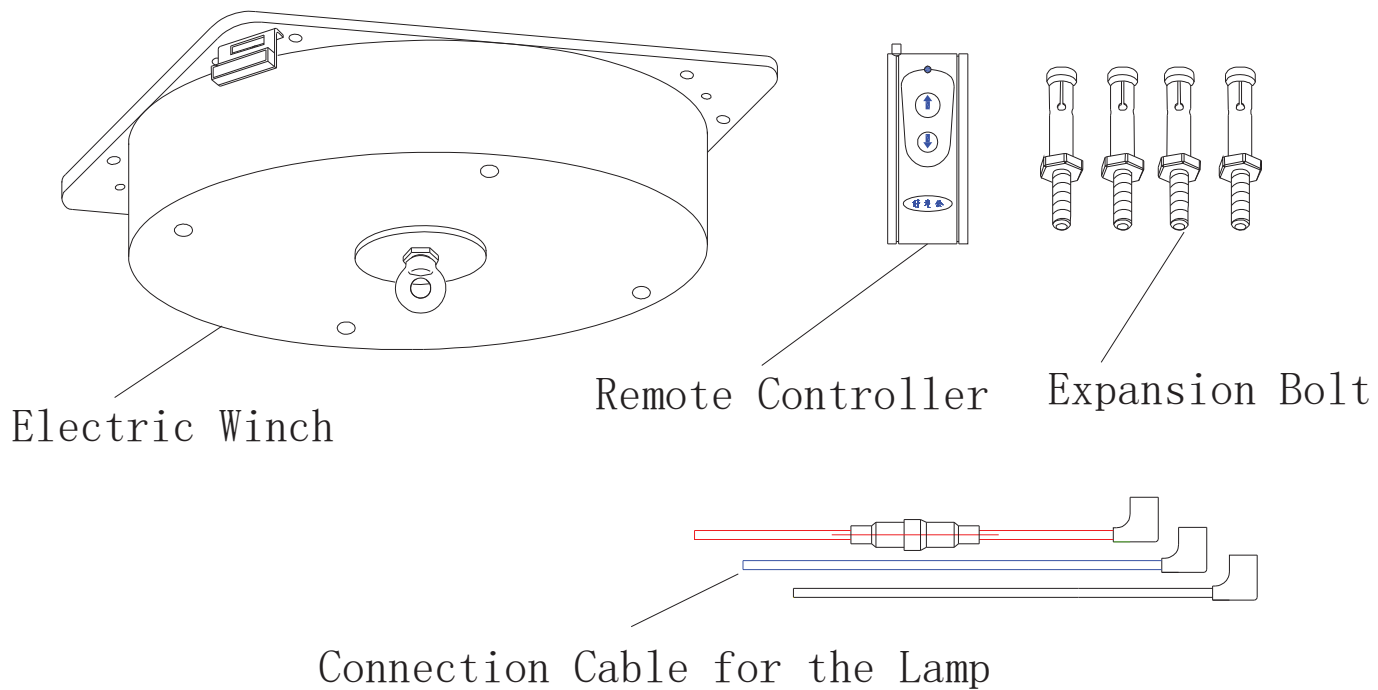
## CAUTION WHEN OPERATING

1. The remote electric winch only can be operated when it is carrying more than 5kg weight.
2. The remote is only active for 3 minutes after you power on the electric winch. If you have powered on the winch exceeding 3 minutes, and you want to operate the winch, please re-power on the winch for it to be active again.
3. Do not clean the steel wire rope with water or corrosive cleaner that can damage the steel wire rope.
4. Examine the steel wire rope regularly while in the process of cleaning lamps for any rusty, corrosive or damage.
5. Please apply a coat of anti-rust grease on the steel wire rope after cleaning the lamps.
6. Please entrust a professional technician for its maintenance.

## CAUTION WHEN OPERATING

If the electric winch is installed inside the ceiling, the ceiling must have an access panel which allows the future inspection and maintenance when any necessary. Recommended size of the ceiling access panel is 500mm x 500mm.

# BASIC COMPONENTS



## Optional Accessories

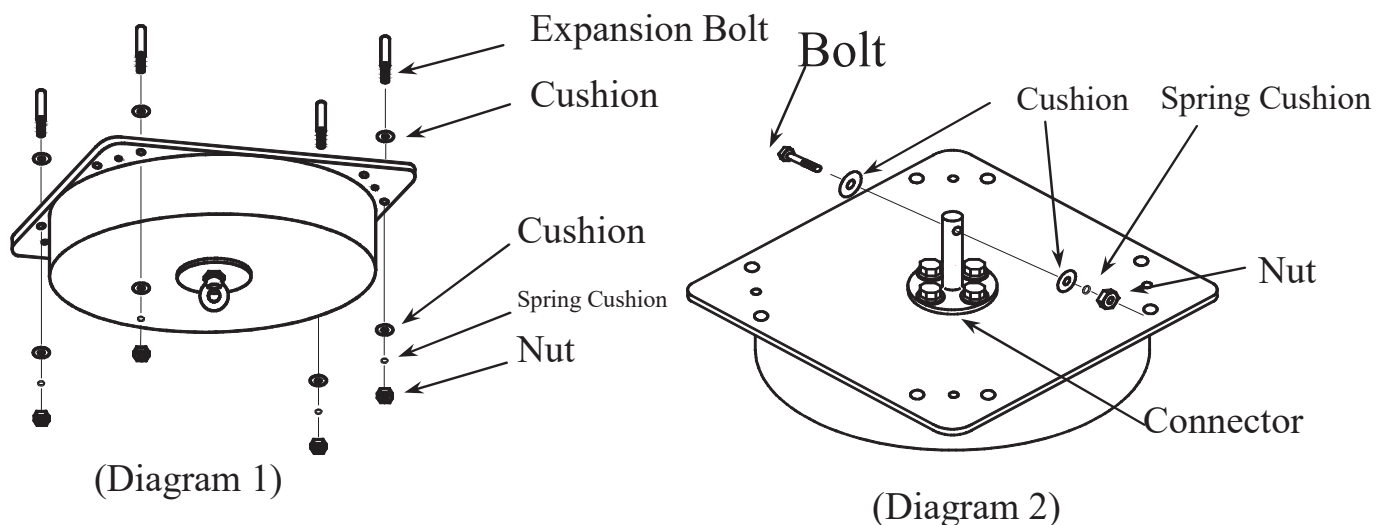
**NOTE:** The optional accessories for electric winch should be conformed to the correct model as sizing may vary



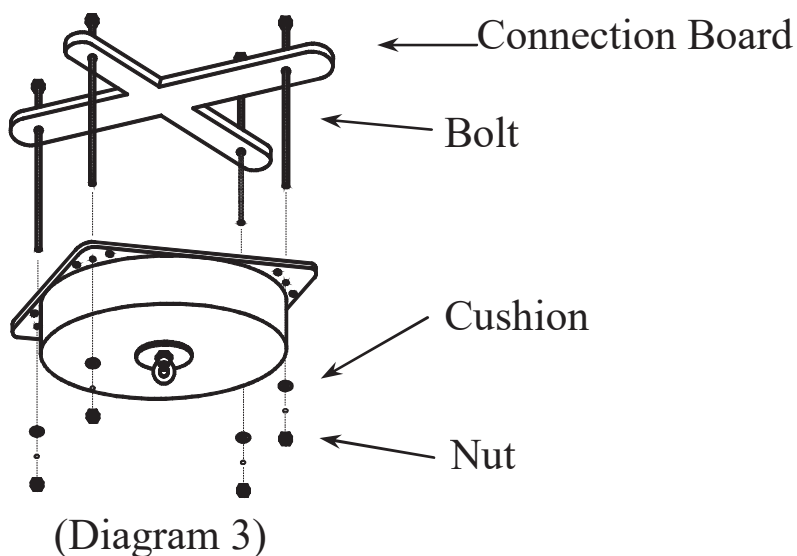
# INSTRUCTION FOR INSTALLATION

## I. How to connect the upper part of electric winch (Choose one)

1. The winch can be installed directly on the ceiling concrete slabs with 4 expansion bolts. This is suitable for winch rated load below 150kg. (Diagram 1)
2. There is a fixed connector at the center of the upper square cover board with a column drilled an across hole on the out cylinder. This connector may be connected with the ceiling beam easily. This is suitable for winch rated load below 150kg. (Diagram 2)

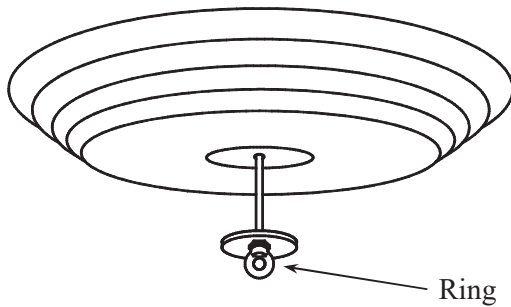


3. There are four corners at the upper cover board of the winch which is assembling 4 full threaded screws. The space between winch and ceiling is adjustable according to the sunshade height. This is suitable for lifter rated load below 250kg. (Diagram 3)

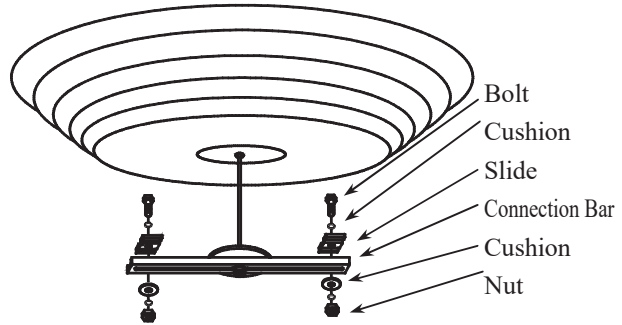


## II. How to connect the lower part of electric winch (Choose one)

1. The lamp should be linked with the ring (universal) at the center of the lower part of the winch. (Diagram 4)
2. The center place of the lower part of the winch is equipped with a bar (optional part). There are 2 screws and nuts on the bar, which are for center distance adjustment. This connection method is suitable for the lamp with the weight of less than 50kg. (Diagram 5)

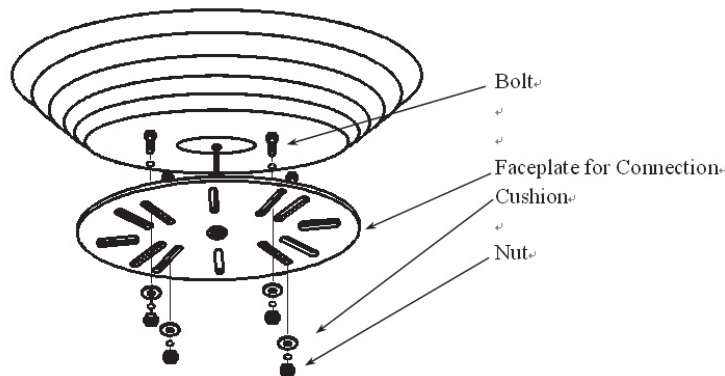


(Diagram 4)



(Diagram 5)

3. There is a faceplate (optional part) at the lower part of the winch which provides multiholes for the bolt connection. This is suitable for the bigger ceiling mounted. This connection method is suitable for the lamp with weight of less than 100kg. The attachment is optional accessories. (Diagram 6)

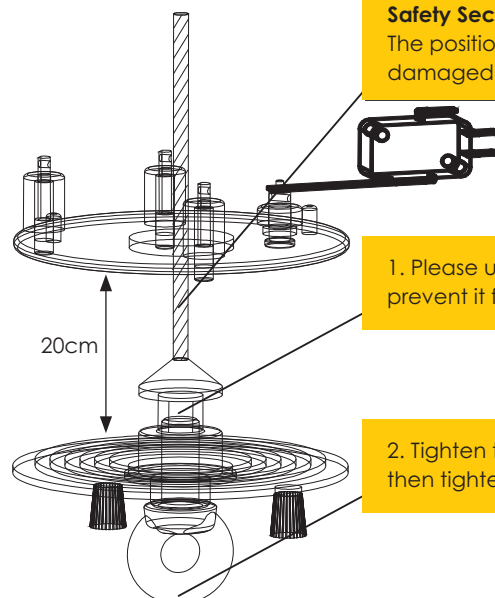


(Diagram 6)

4. Assembling way for bolt of hanging ring.

### WARNING!

Before the winch lower down the lower electric conductor, be sure not to assemble or disassemble the hanging ring unless the steel cable wire is extended 20cm at least from the winch's body. When you assemble or disassemble the hand ring, please make sure the steel cable wire is not to be rotated. This is to ensure the steel cable not to be damaged by improper operation.



### Safety Security

The position showing here is the easiest damaged section for the steel cable wire.

1. Please use a tool to fix this part so as to prevent it from being rotated

2. Tighten the hanging ring bolt first, then tighten its nuts

### III. The requirements and caution of the connection of upper part of the electric winch:

1.0 Tightened with expansion bolt(s). Please refer to Diagram 1.

1.1 All drilled holes should be handled strictly according to the technique requirements on the (Drilled hole Specification for concrete slab – Table I). The spare holes are located on the square board of the winch for special condition use if there is reinforced when you are drilling the holes.

**Drilled hole specification for concrete slab – Table I**

Model	Specification of Expansion Bolt (mm)	Diameter of Drilled Hole and Distance of Hole (mm)	Depth of Drilled Hole (mm)	Quantity of Bolts
<b>50 kg</b>	M6 X 60	φ8 x 344 x 344	Min. 50	4
<b>100 kg</b>	M6 X 60	φ8 x 344 x 344	Min. 50	4
<b>150 kg</b>	M14 X 120	φ10 x 382 x 382	Min. 80	4
<b>250 kg</b>	M14 X 120	φ10 x 484 x 484	Min. 80	4

1.2 Tighten the nuts firmly to ensure the force balance of each bolt.

Please refer to (Nut tightening force moment – Table II).

**Nut tightening force moment – Table II**

Hexagon Head Set Nut (Screw) M5	3.24N/m	<b>NOTE:</b> The performance level of the nut ≥ Grade 5; The performance level of the screw ≥ Grade 6.8. Galvanized coated with grease before tightening and the tightening force moment should not be lower than the reference data on this table
Hexagon Head Set Nut (Screw) M6	5.5N/m	
Hexagon Head Set Nut (Screw) M8	15.5N/m	
Hexagon Head Set Nut (Screw) M10	26.4N/m	

2.0 Roof beam installation (refer to Diagram 2)

2.1 There is a connector in the middle of the electric winch, which is for steel pipe connection. The wall thickness of steel pipe should be more than 3mm. The across hole on the steel tube is drilled based on the bolt diameter.

2.2 The connection of steel pipe and steel beam should be completed by qualified technicians to ensure the connection is reliable.

3.0 Connection with 4 long screws (refer to Diagram 3)

3.1 Make a square board according to the technique requirement of the attached diagram. The connection of the square board and steel beam should be completed by qualified technicians to ensure the connection is reliable.

3.2 The lengths of the screws are subject to the size of decoration spaces. Assemble with 4 long screws to adjust the upper cover board of the winch in proper level position, then, tighten the nuts. (refer to Diagram 3)



4.0 Connection reliability test must be applied when completing the upper part installation of the winch. The test weight should be 1.5 times the rated load and hold for 5 minutes to confirm installation and cable strength is reliable.

Instructions for testing reliability:

- Install the electric winch on the ceiling correctly, then lower the cable to the position where is 20mm away from the ground. Please note that the lifter must have a 5kg weight at least on the cable before it is lower.
- Once installed, attach 1.5 times of the loading weight of the electric winch. For example, it is a 50kg electric winch, with 50kg lifting weight, then our testing weight will be 75kg. This 75kg will be loaded on the cable in two parts, the complete weight, followed by additional 50% of weight. Example: attach 50kg of weight first, then attach another 25kg. Once there is 75kg on the cable, leave for 5 minutes to test the cable strength is sufficient.
- Then unload it from the cable.

#### **IMPORTANT WARNING:**

The operators have to wear the safety helmet during operation. When the winch is in use, people should keep the distance of at least 2 meters to stand or pass underneath a load. You have to use the steel tube which the length is 2m to carry the heavy by 2 persons when you would like the winch become heavier. This is to prevent from dropping off due to the unqualified concrete slab strength.

#### **IMPORTANCE:**

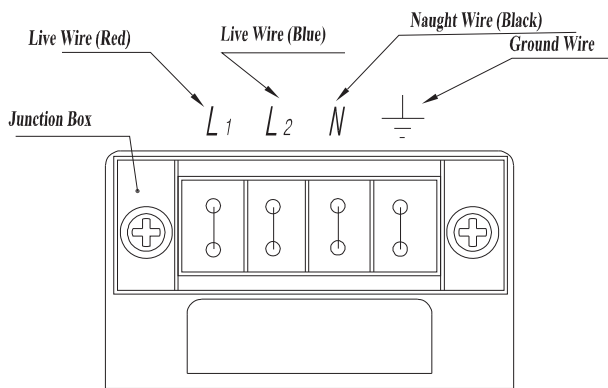
The electric winch must have more than 5kg weight on the steel wire rope on the installation before start, only then, it may descend. When the winch is fully earthed, you have to pay attention to the steel wire rope after releasing the ring to avoid people is hurt. You have to stretch the steel wire rope first before you carry on the connection testing.

#### **IV. The requirements and caution of the connection of lower part of the winch and the lamp:**

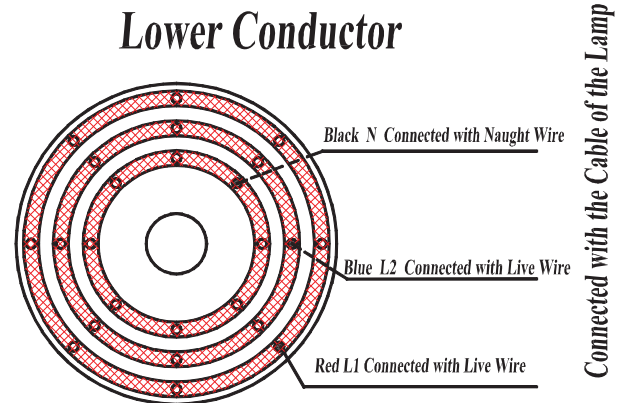
1. The attached U-shape ring may be connected firmly to the lamp by the installer. Please refer to diagram 4. The Specifications for the bolts must be accord with the following:  
M10 bolt is used for the lamp than 150-250kg. The bolts have to accord with the criterion of Hexagon Head set nut (screw with) with grade C GB/T5780-1986.
2. Place the attached bar into the center screw position for the lower part of winch by the installer, then, tighten the bolts and nuts. Move the nut which is slide on the bar to the proper bolt hole of the lamp. Tighten the screw according to the requirements of nut tightening force moment-table II. (refer to Diagram 5)
3. Assemble the attached faceplate into the center hole position for the lower part if winch by installer, then, tighten the nuts according to the requirements of nut tightening force moment-table II. (refer to Diagram 6)
4. The decoration cover should be installed after the upper part of the winch is complete and qualified (before the lower part of the winch is installed).

## V. The connection of power supply and caution

1. Connect the live, neutral and earth wire of the input, supply to the corresponding points with the voltage of Ac220-240V. (refer to Diagram 7)
2. You have to connect the power supply and lower conductor of the Vencha Electric Winch according to wiring diagram 8. Please connect the live wire into L1 if the power of the lamp is lower. There are a lot of live wires when the power of the lamp is higher. Please divide the lamp power wires into two groups if the power is larger and connect them into L1 and L2 separately.



Wiring Diagram for Power Supply Input  
(Diagram 7)



Wiring Diagram for Power Supply Output  
(Diagram 8)

### 2a Connecting L1 L2 Wires:

#### L1 wires:

This powers both Winch and Light.

When turned on, and winch is fully up and connected, this will turn the connected light on.

#### L2 wires:

This can be used to power Light fitting separately.

This will require two switches, switch one to activate L1 being the winch. Switch two being the light.

Once cable is lowered from winch, this will still disconnect from the light, power is only connected when winch cable is completely up and connected to winch motor. Connecting L2 wire allows for light fitting to be dimmed if desired.

### 2b Dimming:

Lights connected can be dimmed. Dimming requires light fitting to be connected to L2 Wire, completely separate from L1 Wire, which is powering winch. (refer to 2a for wiring)

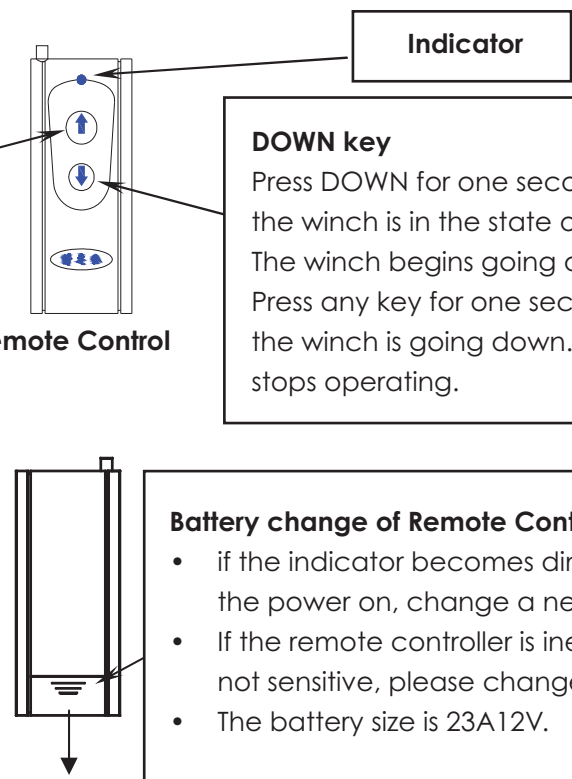
3. Please make sure the exposed wires which are corresponding to the terminal are properly in place while you connect the wires as to prevent them from contacting the metal conductor surrounding and power leakage.
4. The stamped screws should be tightened and rechecked one by one to ensure the connection is fixed well when in the process of connection.

**WARNING - Attention to maintenance between Remote Electric Winch and Lamp**

1. After the lamp drop and winch stop later, the winch still contains electric, please turn off the switch which control this lamp, only then, you may carry on in the maintenance work.
2. There are not allow having the wet water, greasy dirt, coherences metal and so on appear at the electric conduction contact face while maintenance.
3. You should keep the tension with 5kg of the steel wire rope while in maintenance. When the steel wire rope descend too long, it will twist or loop itself and be able to affect of using the steel wire rope.

# INSTRUCTION FOR OPERATION

## Operation instruction of Remote Controller



**UP key**  
Press UP for one second when the winch is in the state of stop. The winch begins going up. Press any key for one second when the winch is going up. The winch stops operating.

**DOWN key**  
Press DOWN for one second when the winch is in the state of stop. The winch begins going down. Press any key for one second when the winch is going down. The winch stops operating.

**Indicator**

**Remote Control**

**Points to Attention**

- Pull out the antenna when the remote controller is in use.
- Point the remote controller to the winch when it is in use.
- The effective distance of remote control is 25m.
- Not allow liquid enter into the remote controller. To avoid direct sunlight.
- Don't throw the remote control

**Battery change of Remote Control**

- if the indicator becomes dim or is off when the power on, change a new battery.
- If the remote controller is ineffective or is not sensitive, please change the battery.
- The battery size is 23A12V.

### 1. Operation instruction of Remote Controller

- The electric winch can only be operated up and down for 3 minutes when you first power on the winch. That is said the hand remote will only be effective for 3 minutes after you power on the device. If you have powered on the winch exceeding 3 minutes, and you want to re-operate the winch, please switch off/on to re-power the winch.
- **“UP”**: Please ‘UP’ button on the remote control to raise the steel wire rope. The operation is ineffective if you press any key to stop within 2 seconds. At this time, the winch will not operate. Test for the upper limit position: The switch of the upper limit position will switch off and the winch will stop automatically when the steel wire rope going up until the upper limit position. At this time, the operation is ineffective if you press ‘UP’ button again.
- **“DOWN”**: Press ‘DOWN’ button on the remote control to descend the steel wire rope. Press any key to stop it. If the steel wire rope going down to the lower limit position which you setting before and stop automatically. At this moment, the operation is ineffective if you press ‘DOWN’ button again.

- 2. Memory function setup for lower limit position of remote control (Instruction 2) Setup the lower limit position of remote control:** Press ‘DOWN’ button on the remote control to descend the steel wire rope around 5 seconds when you turn on the winch. When the steel rope goes down to the required height, please keep pressing ‘DOWN’ button until the winch stops automatically. After that, please use another hand to press ‘UP’ button on the remote control when the steel wire rope goes up a little bit again. Please release the two buttons when the steel wire rope goes up a little bit again. Please release the two buttons when the steel wire rope goes down again. At this moment, the memory lower limit position of control unit has been set up successfully.

If there is operation applied suddenly during the steel wire rope going down, the lower limit position of the wire rope will not be controlled by then main unit memory. At this time the lower limit position should be controlled by people. However, the memory lower limit position of control unit will remain same and auto stop function is still effective when the winch goes down next time.

### 3. Reset memory function for lower limit position of remote control

- **Cancel the setup:** Please keep pressing 'DOWN' button for around 8-10 seconds and release it when the lifter has reached its lower limit position. After that, press 'UP' button on the remote control, the winch will reached its upper limit position and stop automatically. At this time, the memory setup has been canceled.
- **Renew the setup:** The memory datum of the winch will be renewed if you reset it according to the instruction 2.

### 4. Function for reset signal code:

Keep press up and down buttons for around 8-10 seconds and release it after the winch is electrified within 5 seconds. The winch will go down if you press 'DOWN' button on the remote controller. At this time, the instruction for signal code has been reset successfully. You have to reset the memory function for remote control lower limit position otherwise it is ineffective.

#### WARNINGS!

- After the electric winch set up the height of lower limit position, the lower limit position of the winch will not be controlled by the main unit memory if the artificial operation halts the lifter suddenly while it is going down. At this time, the winch should be controlled by people and you have to pay attention to the safety
- If power suddenly cut off while winch is operating, it will cause the signal code lost and malfunction.
- If minimum weight load taken off while winch is operating, winch will stop suddenly and it will cause malfunction.
- When the winch is operating, the lighting fixture rotates slightly. Please not to hold the lighting fixture and not to prevent it from rotating, otherwise, the steel cable wire will be broken or become loose and cause any accident.

**WARNING!! The winch must have 5 kg weight on it before it is operated. Please read the instruction manual carefully before you install it. When it is installed/repared, please power off the winch first.**

#### **Troubleshooting: Cable not raising:**

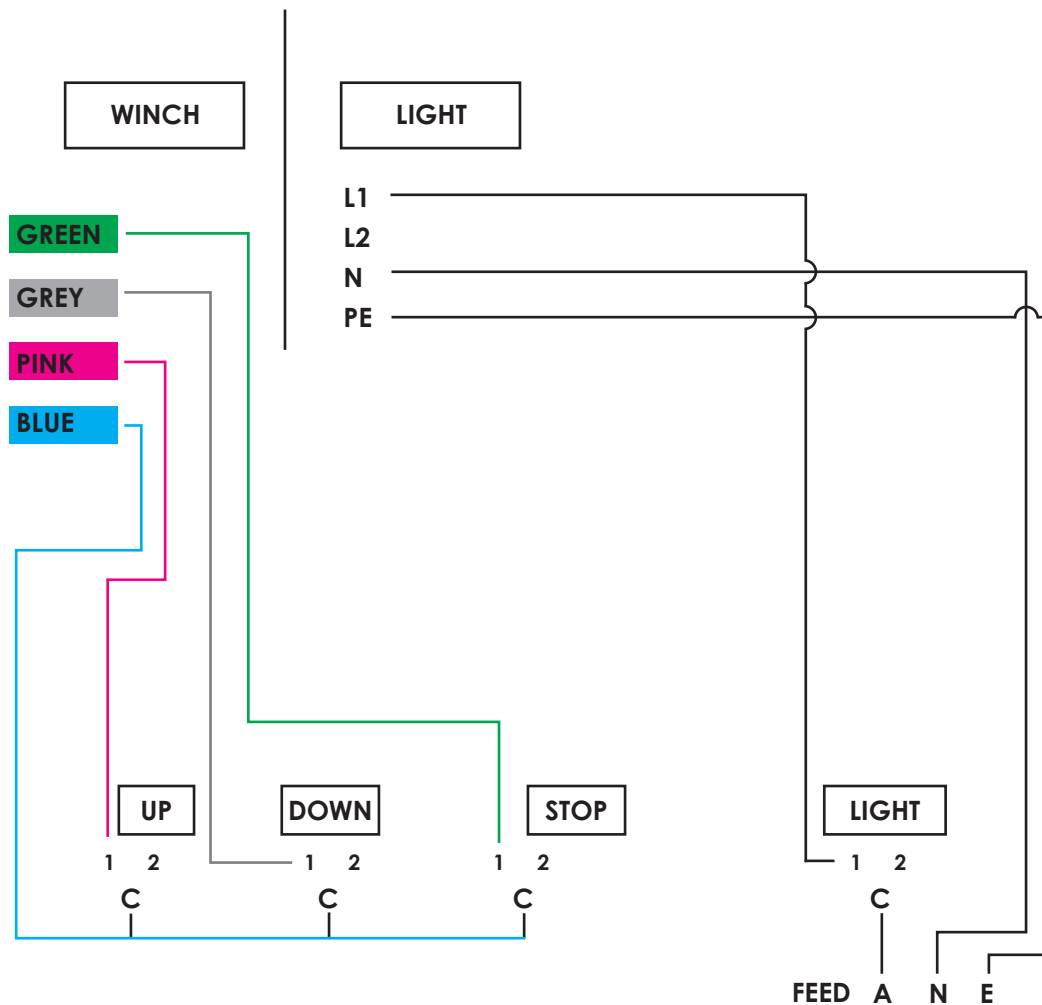
- If winch doesn't move upwards after turning on. Switch off unit and restart, press "Down" to activate the lifter, then immediately press "up" for lifter to raise the cable.

# CONNECTING WALL CONTROL:

1. Connect supplied wall control cable to electric winch. Connector should simply plug into connector attached to winch.



2. Follow wiring diagram and connect colour cables to corresponding switches.



3. Coloured cables for wall control will convert to three switches:

“UP”

“DOWN”

“STOP”

4. The Winch & Light is powered from a separate switch.

**\*Please note:** Switches for wall control are not supplied.

These are to be supplied by electrical installer to comply with wiring regulations AS3000.



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