

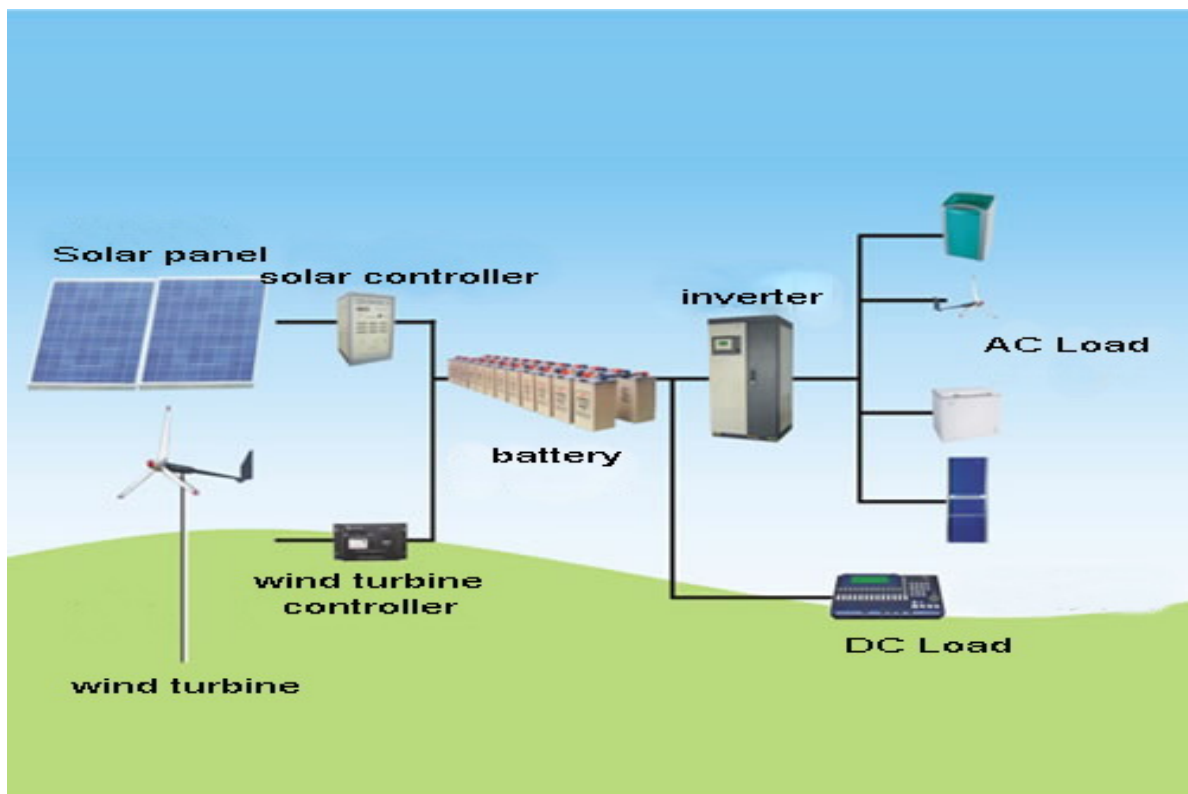


USER MANUAL

Solar & wind Street Lamp system



is the registered trade mark of Qingdao Minshen Wind Power Technology Co.LTD in PRC



Designed and produced by Qingdao Minshen Wind Power Technology Co.LTD

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Product Introduction——Declaration

I Warranty :

The products quality issues caused by non-human error or force majeure natural calamity, our company support following.

Warranty: Battery : 1 Year

LED Lamp : 2 Years

Solar panel : 5 Years

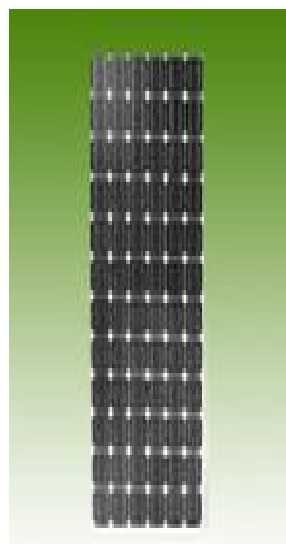
Wind Turbine : 2Years

Items of Cleaning the Slate

a.Our company should not bear any responsibility towards any damage caused by following reasons:nature disasters,such as earth-quake,flood, thunder, fire and so on; the third party operation,stolen, damage, contretemps or any damage caused by improper operation.

b.Our company should not bear any responsibility toward any damage cause by operation which is not obeying this usage manual.

c.Our company should not bear any responsibility toward any damage because of fault cause by using our products combined with other equipment which has nothing to do with our company





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Product Introduction——Product Structure

I Product Structure

1. Main Components

Solar panel



Controller



Storage battery



Lamp-house





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Product Introduction——Product Structure



2. Part List (single unit)

Components	Specification	QTY
Street Pole	Iron Spray-paint coating outside Height: 8M, Pole thickness:0.5cm	1pcs
Solar Panel	60W Monocrystalline	2pcs
Storage Battery	[12V.80AH]	2pcs
Wind turbine		1 pcs
Controller	Solar & Wind hybrid system Controller(DC24V)	1pcs
Lamp	42W, white LED	1pcs
Arm	Length 1.2M	1pcs
Solar panel Bracket	Bracing frame : 1pc Bracket : 2pc	2pcs
Tower Foundation	Orientation plate:1PCS Foundation Bolt: 4PCS	5pcs
Storage Battery Box	Plastic,	No
Other Accessories	Cable Fastener	Some



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Product Introduction——Technical data

3. Storage and Working environment

Storage

- 1) Placed in the ventilation and away from dust and dirt area;
- 2) Environmental temperature: -20 to 60°C;
- 3) Relative moisture less than ninety percent, and without the phenomenon of drip congealed;
- 4) Away from erosive gas and liquid;
- 5) Long-period of no using, discharge and charge once a month.

Working environment

- 1) Working temperature: -15 to 50°C;
- 2) Moisture: should keep it between 0 to 90%;



4. Technical data

Item No.	MS-520W
Spec.	3W*36PCS
Type of Lamp-house	HIGH POWERG ultra-bright white 75 °C LED module
System power	42W
Operation Voltage	DC 24V
Max Luminous	1920Lm
Illuminance	16lux
Operation Temperature	-15°C ~ 50°C
IP Class	IP65
Material	Heat radiation part : die cast aluminum/anti-corrosion



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Installation Manual-----Choosing Site

I Choosing Site

- 1 Choosing the best direction of lamp-house in order to receive the most solar energy.
- 2 The solar street lamp must be installed in the site with best sunshine and without tree shade or building shade.
- 3 It must have wonderful sunshine during 9:30am to 15:30pm.
- 4 It should keep distance from hot source, or its life will be shortened.
- 5 The solar panel should not be irradiated by other lighting in the evening, or it will not work because of receiving the wrong order.
- 6 There should have no other establishment (cable or conduit) underground the solar street lamp.



II Groundwork Manufacture

1 Fixing the pre-buried part

Pass the four iron posts through the eyelet on the dead plate; keep the screw side of the iron post up; fasten the four screw caps; place the top dead plate finally. As following illustration:





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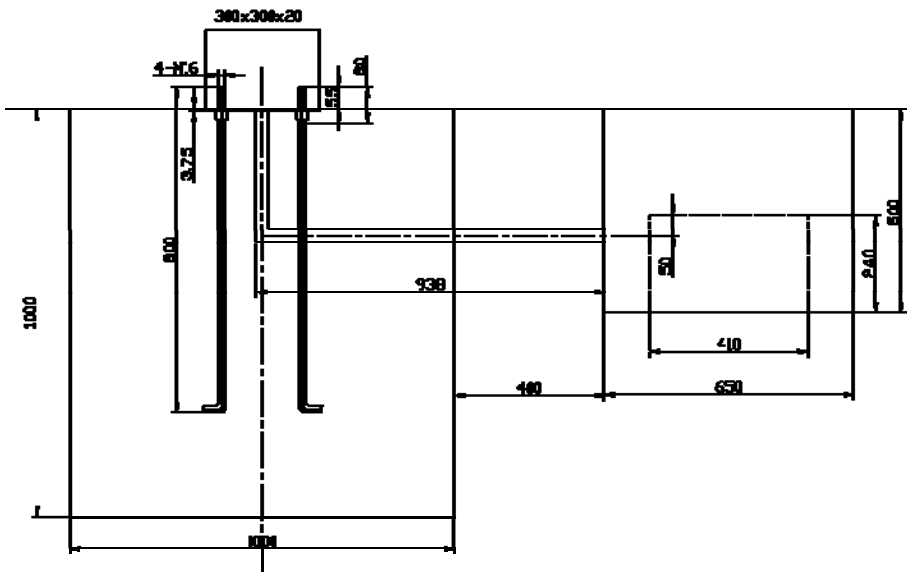
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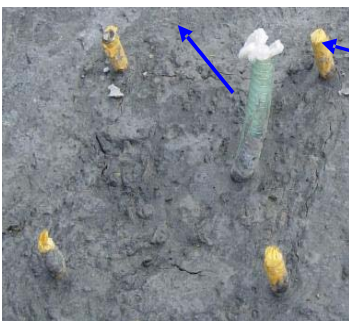
Instruction Manual-Groundwork Manufacture

2 Digging the Groundwork Pit



Unit: mm Pit of groundwork: 1000x1000x1000mm

3 Cleaning and Conservation



a. Sealed both ends of PVC pipe in order to prevent debris or water into it. Clean the bolt with oil and clean the site.

b. Solidification process of concrete, it is necessary to regularly watering; after it is fully solidified (about 2 weeks), then install the street lamp.





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Instruction Manual—Installation of Street Lamp

Installation of Street Lamp

Check each component before installation: specifications, models, quantity and the appearance of the each component. It should be immediately transferred if there have discrepancy, but do not reluctantly construction.

1 Fixing Storage Battery

a. Pull the wire on battery from the up ground end of PVC pipe into the battery box, and connected is with the output wire of battery. Wrap round the link with insulation tape to avoid “+” touch “-”, short-circuit will cause serious accident. Put the battery inside, cover it and screw down the water-proof plastic battery box with screw, then bury the battery box pit.

Remark :

∞ The conjunction between storage batteries must use bolt press in the battery terminal and adopt copper gasket to strengthen electrical conductivity

∞ The connect wire must be pulled through PVC pipe;

∞ The connection between PVC pipe and the waterproof plastic box must be sealed;





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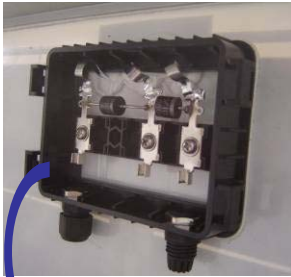
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Instruction Manual—Installation of Street Lamp

2 Mounting solar panel



Open the junction box of solar panel.



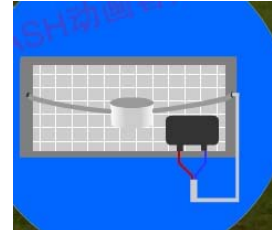
Insert the cable to the junction box, pay attention of the positive and negative



Fixed the cables ◦



Close the box ◦



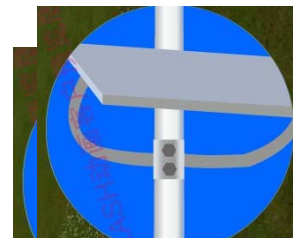
Mounting the solar panel on the bracket



Setting the solar panel bracket



Keep the output wire inside of the pole



Fastening the solar panel bracket & pole, seal the joint with glass glue



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Instruction Manual—Installation of Street Lamp



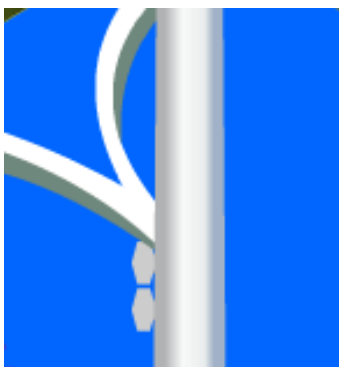
Mounting the arm on the pole



Fixing the turbine on the pole



Fastening the arm & pole, seal the joint with glass glue



Fixing the lamp on the arm





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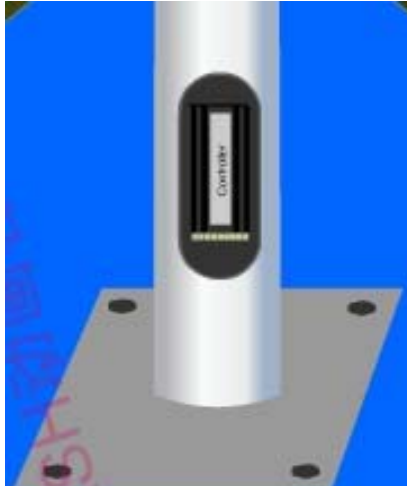
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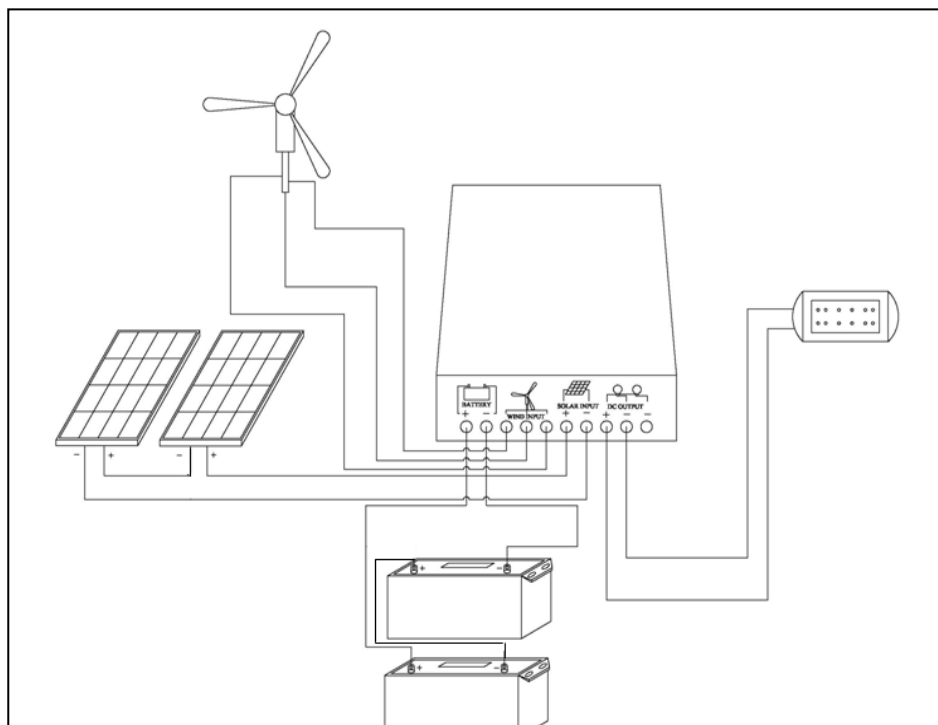
Instruction Manual—Installation of Street Lamp

3 Mounting the Drive



Open the window set the controller inside

Connect the turbine, solar panel, lamp, battery and controller as the map shows, and then test the system.





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Instruction Manual—Installation of Street Lamp

4 Hoisting



Lifting the pole with crane and put it on the underground work.



Screw down two nuts on each bolt

Remark

- ∞ The installation and maintenance must be carried out by corresponding qualified technical staff
- ∞ Please do not use other components to do maintenance but without the proposal of its original manufacture. Or the system might be damaged or in danger.
- ∞ All components of solar street lamp should not be damaged in the installation process;
- ∞ battery should not be inverted or placed in the humid or under sunlight directly in the transport and installation process;
- ∞ not short-circuit the wiring connections (the cathode touch the anode)
- ∞ Connecting order: Storage battery— LED Lamp—Solar panel ;





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Instruction Manual—Installation of Street Lamp

- ∞cutting order: solar panel—LED Lamp—storage battery;
- ∞Solar panel must faces to direct north, it is better to use compass to assure the direction.
- ∞All bolts and connect terminal must be tighten but not loosen, connection must be reliable; please notice each components, storage battery, controller, drive and so on, must not be connected anti-electrode;
- ∞Please notice the wire should not clip in the conjunction of the pole while pulling the wire. The wire conjunction must link firm and tie up with PVC tape;
- ∞The surround of storage battery box must be filled with thin sand around to promise the storage battery has a good operate temperature in winter;
- ∞Strictly forbid to smoke cigarette or light fire while opening the access door to do maintenance, because the storage battery will exhaust hydrogen during working time, it will cause explosion when hydrogen meets fire;
- ∞Because each lighting system is a independence work unit, it is normal with little difference in performance when switch on and off;
- ∞Please clean the dust on solar module every half year, but,do not use water to flush it from top to bottom.





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III Fault and Treatments

Fault Phenomena	Possible Reason	Treatment
Light source not light-up	environmental light is brighter	the light source will light-up when the brightness of environmental light below a certain illuminance
	light source is dead	Replace the same model light source
	output circuit is open circuit, short circuit or earth connection	Check the output circuit connection is correct or not
	The storage battery is open circuit	Check the connection of the battery is correct or not
	fuse is burnt out	Replace the same model new fuse
	The voltage of the storage battery is below 11.1V	1.The days of overcast and raining day is longer than the design time, it can recover automatically in sunny day. 2.the battery is short of voltage caused by the open circuit or short circuit of the solar panel 3.voltage shortage or damage caused by short circuit of the battery
	Something wrong with controller	Maintain or replace the same model new controller
Light-up inaptly	Something covered the solar panel	Clean the solar panel

