

LP-2025

Portable Wind Power Generation Kit

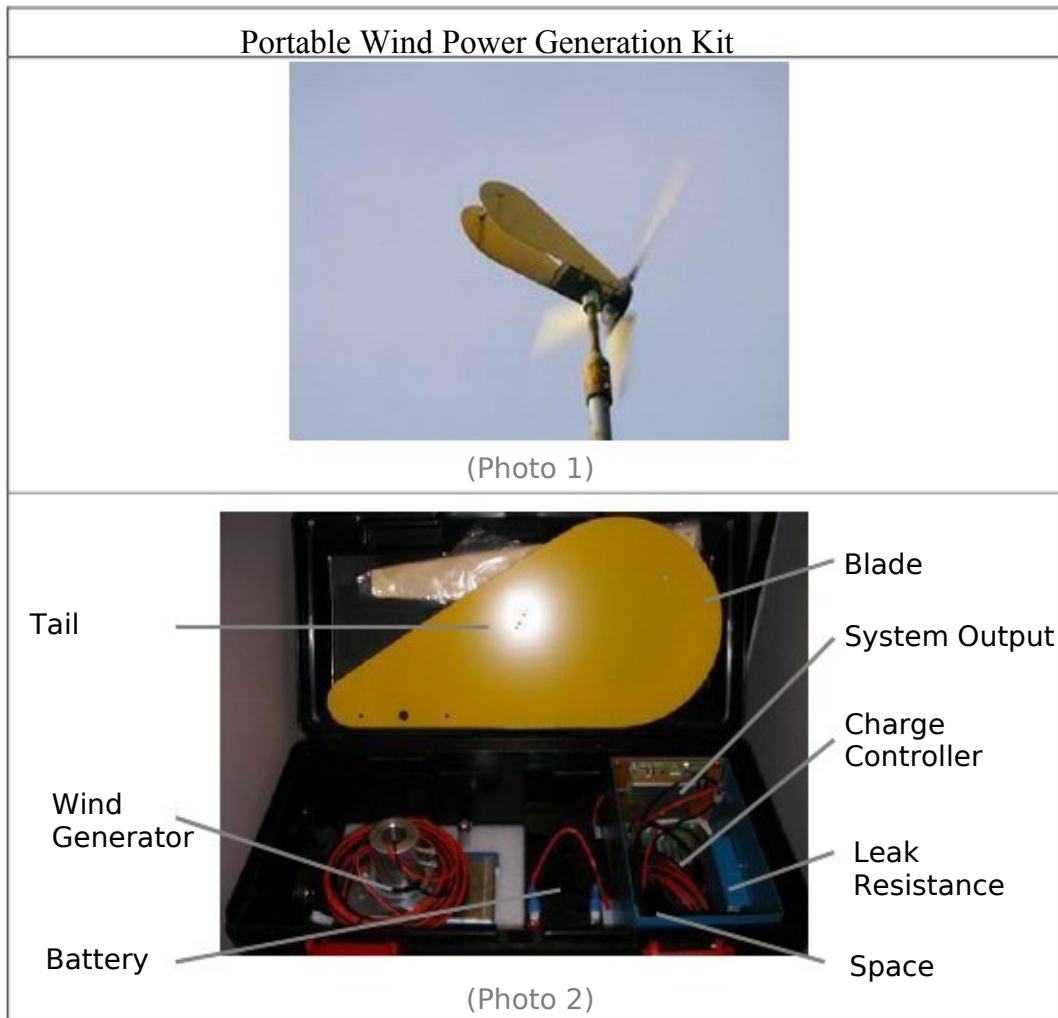


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1. Introduction:

The wind generator, electrical storage devices, wind-and-solar complement charge controller and output system are all in the suitcase. The blade and tail fix on the cover.

There is a large space in the box right side for storing cables, lamps and other accessories. Apart from the pole, all of the accessories are all in the box which make the product very high mobility. .



2. System Accessories

1. Wind generator

Efficient use of light and small size electrical generator., no iron core & brush
low loss, start easily. The appearance is concise and beautiful

2. System output(Photo 3)

It provides 12V and 5V power output. The 12V is for the battery voltage which is able to connect to external automatic peripheral product. The 5V is USB A type which is able to connect of mobile, fan or light. When the battery switch is ON position, the right LED is lighting, the charge and discharge are opening at the same time. When the battery switch is OFF position, the battery is no power, the system is grounding.



3. Wind-and-solar complementary charge controller (photo 4)

Dual-input which can connect to wind and solar panels. It has built-in the blocking diode to separate the two input and avoid reflux of battery. The unloading-side connect to power resistors. When the battery voltage is more than 14V, it will provide another load, in order to avoid excessively operating of wind generator.

4. Storage Power Equipment

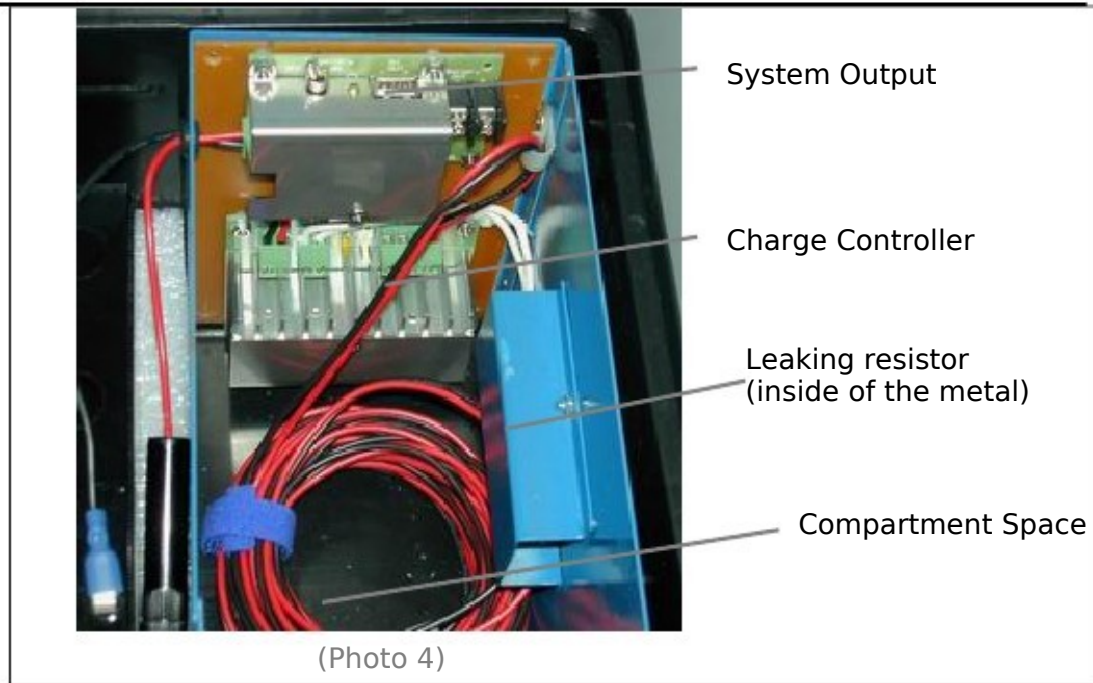
Use 12V, 10Ah maintenance-free lead-acid battery, REC12-10 or equivalent specifications, deep-cycle battery.

5. Leaking resistor

The 10 ohm, 50 watt power resistor installed in the right inside of the metal cover (Photo 4). When the charging voltage is greater than 14V, the extra energy become to thermal energy and consumed.

6. Compartment space

The right side of the suitcase space is for cable, lamps and other equipments.



7. Portable box
PP material, very strong.

3. Features:

1. Compact design which make for carrying out or collections very convenient.
2. Easy to install, most of the cables have been settled, just simply assembling the blades and tail.
3. Wind and solar charge control dual-input, able to directly connect to external solar panels which up to 120W.
4. USB jack which able to recharge mobile, MP3, GPS and other portable devices. On the other hand, able to connect to lighting, fan and other computer peripheral products.
5. Large case space for cable and other accessories.
6. The wind generator has the strong-wind-deviation function. Usually, the blades surface the wind, if face the strong wind, the blade will deviate correct angle to reduce the impact for the generator.

4. Specifications:

- | | |
|-------------------------------|---------------------------------------|
| 1. Blade cycle diameter: | 75 cm |
| 2. Start wind speed: | 2 m /s |
| 3. Start charging wind speed: | 2.5 m /s |
| 4. Charging voltage: | 12V |
| 5. Charge current: | (12 m /s): 2.3A |
| 6. Battery: | sealed deep cycle lead-acid battery |
| 7. Weight: | 8.6 kg (including battery) |
| 8. Dimension: | 445mm (W) x 240mm (depth) x 205mm (H) |

5. Applications:

1. Portable monitoring system experiment.
2. Small wind power generation systems and power supply experiments.
3. For the green energy industry thematic studies. Using the different accessories to understand the wind power system.
4. Able to use for small power utility applications:
 - A. Garden and landscape lighting.
 - B. Portable LED or low power consumption use.
 - C. Use of outdoor activities.
 - D. The various lighting for family use.

6. System Installation:

1. Please prepare a galvanized pipe with top diameter of 21.6mm (1/2 inch) as the stand pole.
2. The wire go through the center pole. Fix the wind generator on the pole.
3. Connet the wind generator lead and the charge controller input lead.
4. Install the tails on the body sides (photo 5). Only screw the total four screws around the front and back. Lock the screw for the top cover.



(Photo 5)



(Photo 6)

5. Fix the tail wing bar (Photo 6).

6. Fix the blades on the two holes of the triangle left arm. The concave side face the wind (Photo 7).



7. Upright the stand pole. Pull the cable to increase the support.
8. Switch on the battery (photo 3). If the right LED light, it means that the system complete the installation. Then, you can operate.

7. System Dismantling:

1. Wait for the wind stop and switch off the battery. The blades speed will slow down.
2. Put down the pole. Remove the blades.
3. Remove the tails.
4. Separate the leads connectors. Tidy the leads.
5. Put the generator back into the position.
6. Fix the blades and the tails on the top cover.

8. Note:

1. When the wind generator operate, do not remove the battery and leaking resistor.
2. Make sure the battery switch (photo 3) position. Working is ON position, No working is OFF position.
3. It difficult to detect the high-speed operation. The installation height must be more than the people to avoid danger.
4. Whether permanent or temporary installation, please use the cable on the pole for increasing the supported strength.