

How to Assemble and Use the Supplement Wind Power Generator

Assembly time
Approx.
20 minutes

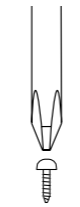
Parts in the Kit

Things you will need

Phillips screwdriver, plastic bottle (with capacity of 1.5 liter or more), thin plastic sheet (the plastic sheet wrapping the supplement can be used.)

Notes for tightening screws

The types of screws used for the supplement are those that carve grooves into the plastic as they are inserted (self-threading). When tightening screws, firmly press the provided screwdriver straight against the screws and turn. It is said that 70 percent of the force applied is used for pushing against the screw and 30 percent for turning it. Precision screwdrivers are hard to turn, so use a small screwdriver with a grip diameter of about 2 cm.



Full-scale diagram of screwdriver



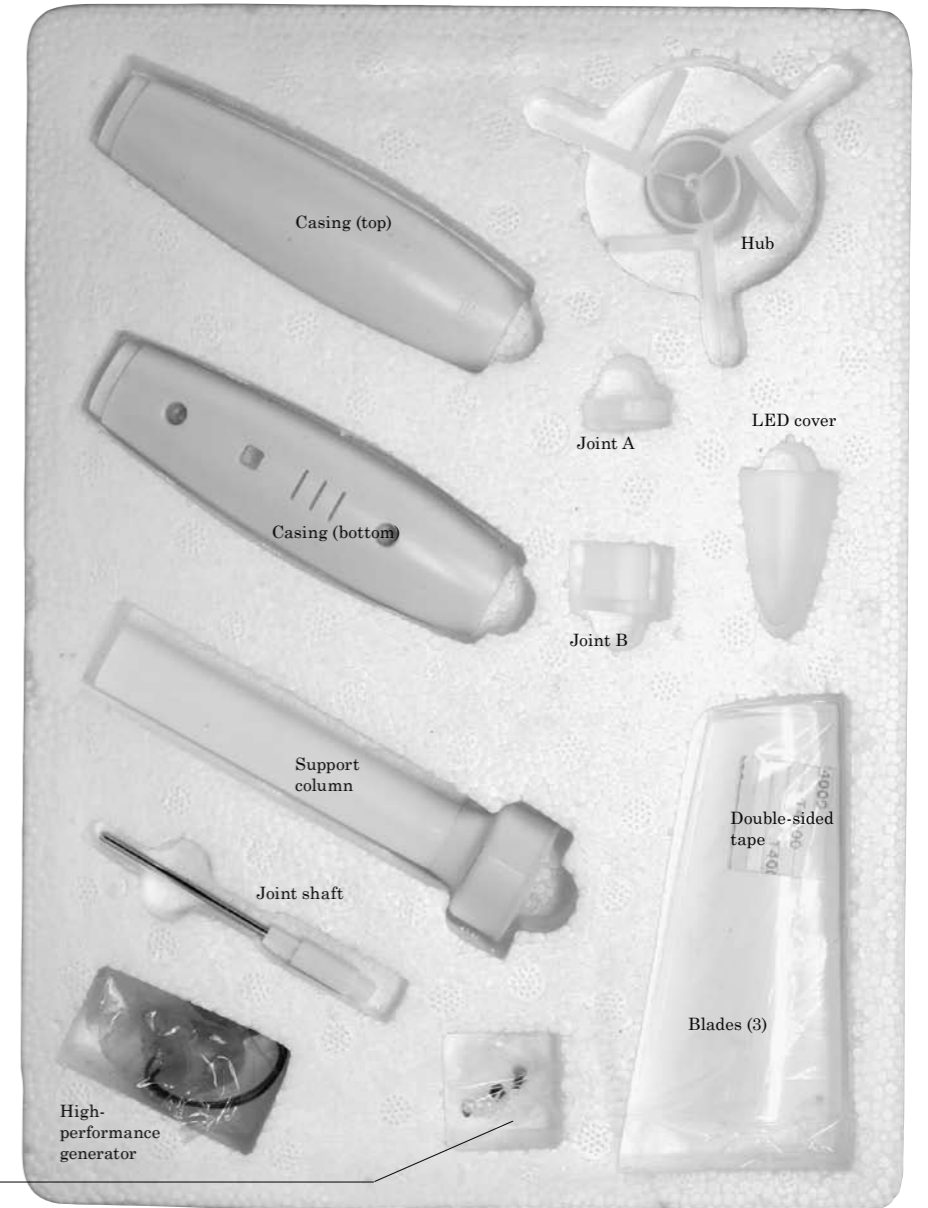
Screws (2)



Ultra-bright red LED



Fastener



CAUTION

Please be sure to read the following instructions before assembling this kit.

- Take necessary caution when handling parts with pointed edges. There is a risk of injury.
- This kit includes screws and other small parts. Be careful not to swallow them. There is a risk of suffocation.
- If placing the wind power generator on a balcony or the like, be careful not to let it fall. It would be extremely dangerous, in particular, for the wind power generator to fall from an upper floor of a tall building.
- Take the wind power generator into the house when it is raining or there are strong winds. Failure to do so may cause the wind power generator or casing to become damaged.
- Do not touch the blades with your hands when they are rotating at high speed. There is a risk of injury.
- Please read the instructions and cautions thoroughly before trying it out.
- For your safety, be sure to follow the instructions in this manual. In addition, do not use any parts that have become damaged or deformed during use.
- Keep this kit out of the reach of small children after using.

Plastic materials used in this kit

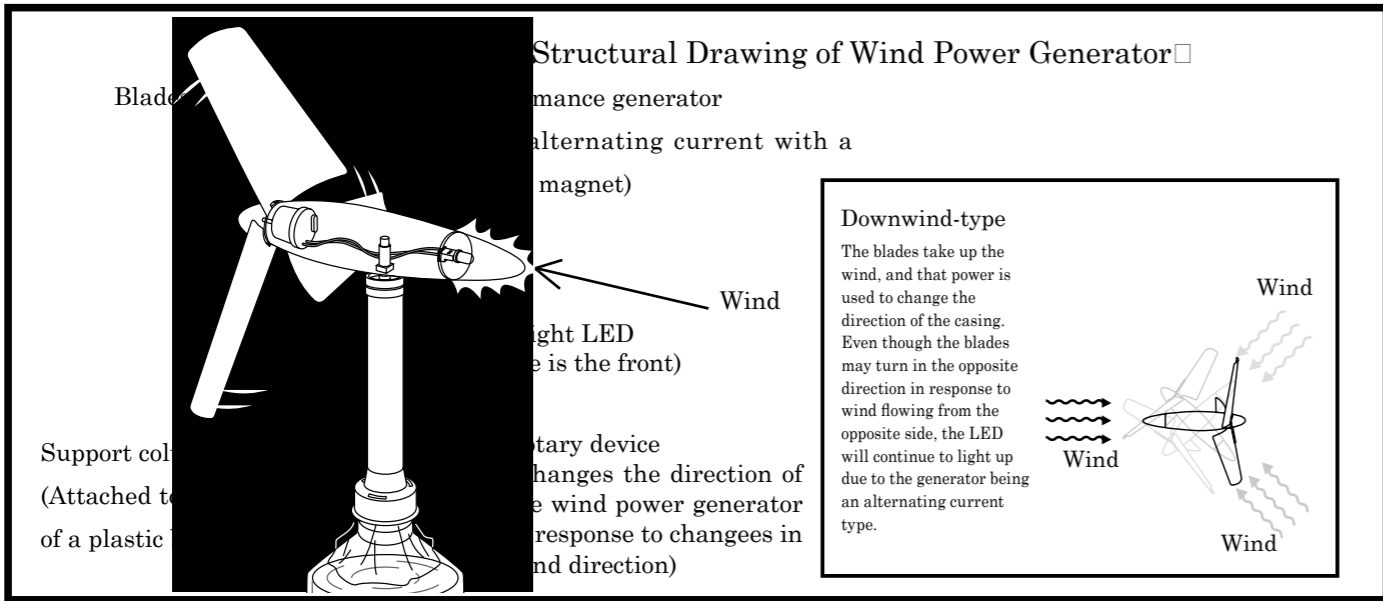
Casing/bottle cap (white): ABS
Hub (white)/LED cover/generator cover (semi-transparent): PP
Joint A/joint B/fastener (white): POM
Support column (white): PS
Generator shaft bearings (semi-transparent): PC
Blades (white): PET

* Lead wires are covered in vinyl chloride resin.

Metallic materials used in this kit

Rotation shaft of casing: Iron/nickel plating
Generator shaft: Stainless steel
Magnet: Neodymium magnet
Screws: Iron
Coil: Covered copper wire

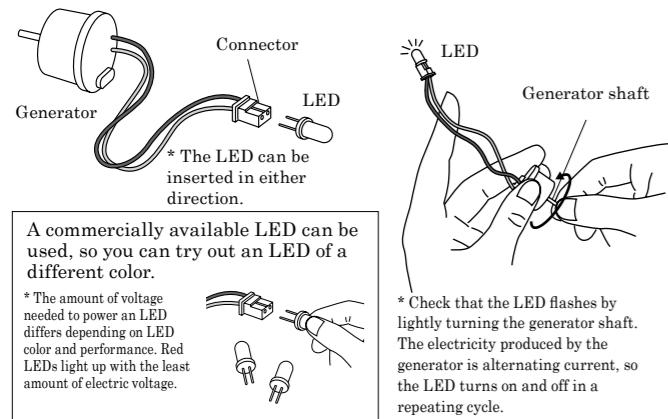
* Please dispose of this product in accordance with local regulations.



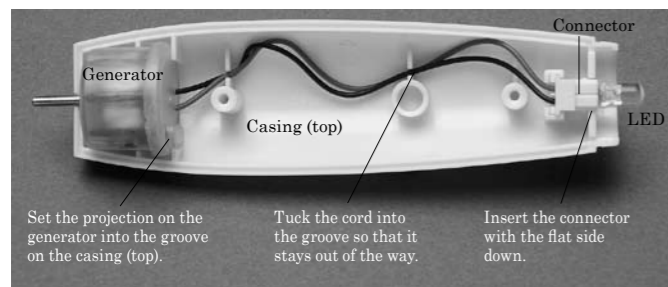
Assembling the Body

1 Put the generator and LED together

1. Insert the LED into the connector on the end of the generator.

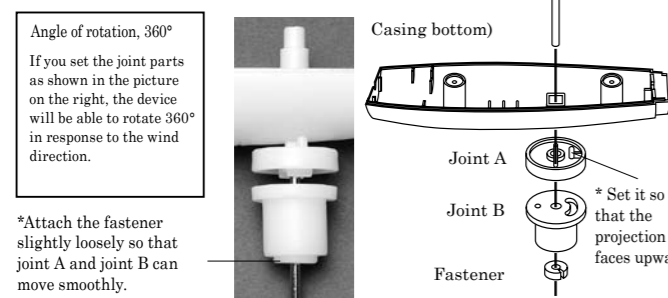


2. Set the generator and the connector inside the casing (top).

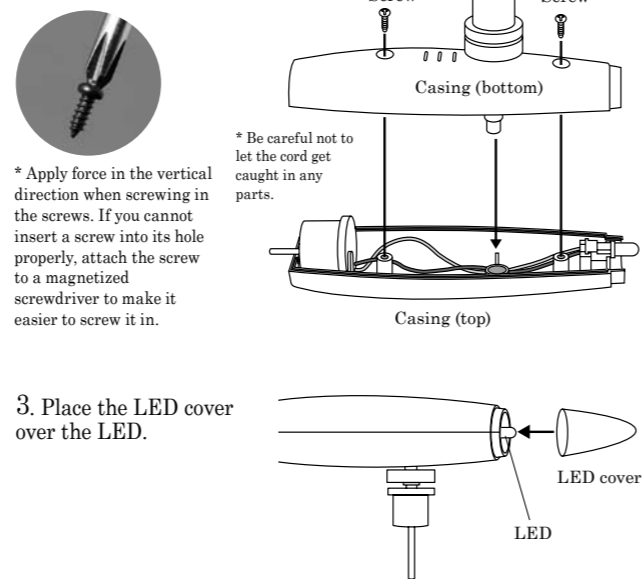


2 Make the rotary device

1. Pass the joint shaft through the hole on the casing (bottom), and slide joint A, joint B, and the fastener onto the shaft.

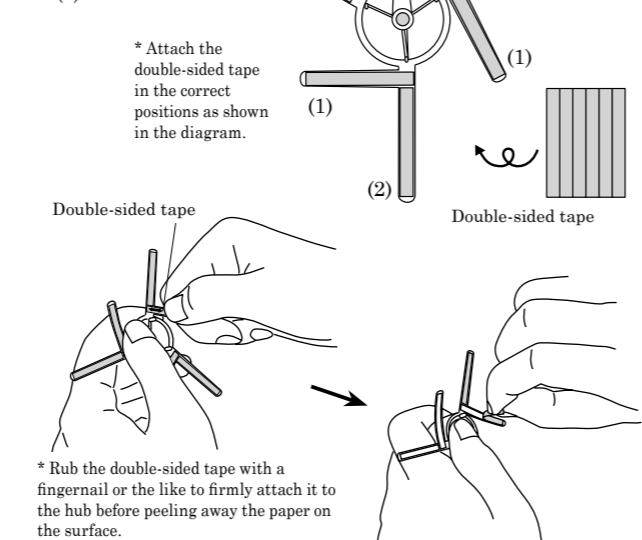


2. Place the casing (bottom) onto the casing (top), and affix with screws.

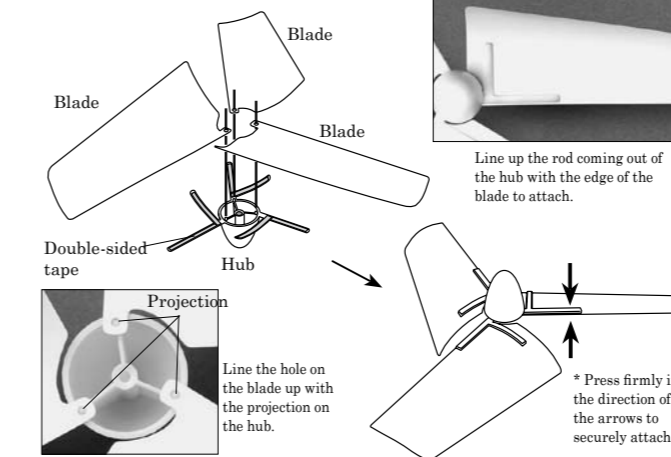


3 Attach the blades.

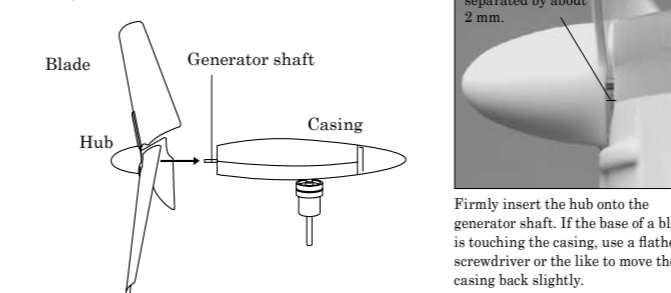
1. Attach the double-sided tape to the hub in the order of (1) and (2).



2. Attach the blades to the hub.

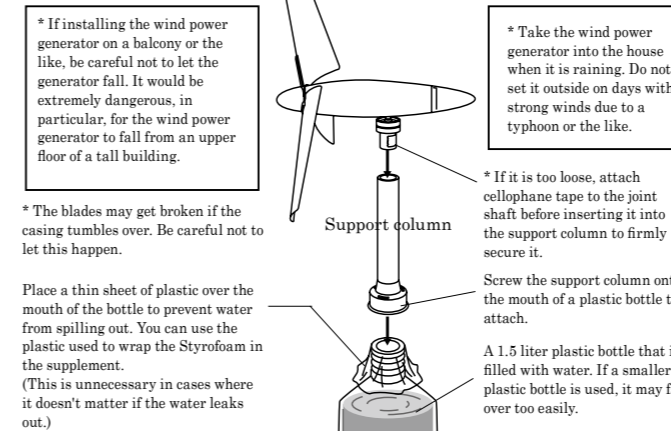


3. Insert the hub onto the generator shaft, and attach the blades.



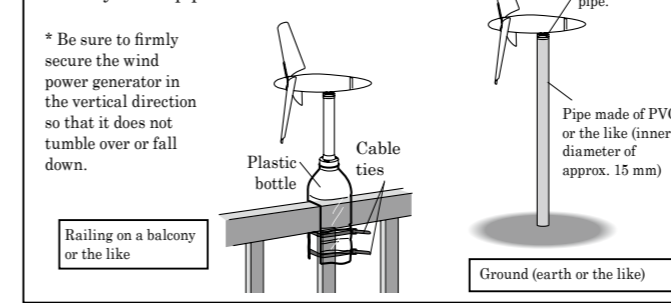
Installing the Generator

As shown in the picture below, the support column is made to be attached to a plastic bottle. This is convenient because it allows the wind power generator to be moved, so try it out with it inserted into a plastic bottle.



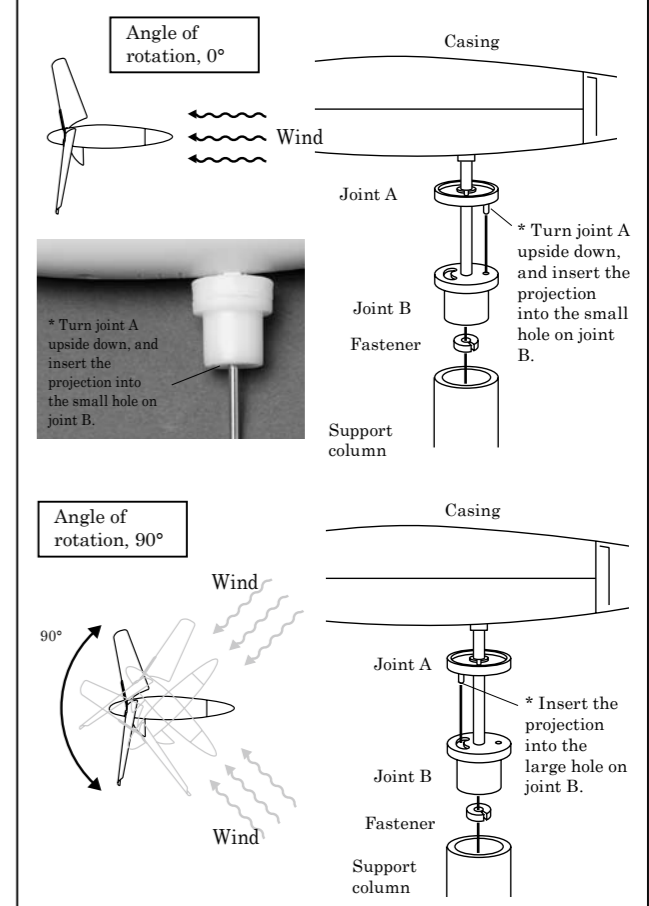
How to install on a balcony railing or in the ground

As shown in the picture, rework a plastic bottle or insert the wind power generator directly into a pipe to secure.



Changing the rotation angle

The angle at which the generator rotates can be changed, depending on how the joint parts are put together. In locations where the direction in which the wind flows changes little, limiting the rotation angle may improve the efficiency of the generator.



Q: The LED does not light up.

A: Check to see if the generator and the cord and LED are connected.

Ensure that the LED is firmly inserted into the connector and that it flashes when the generator shaft is turned by hand.

Q: The blades do not rotate.

A: Check for any contact between the blades and the casing. If the blades are making contact with the casing, rectify by pulling the hub slightly out of the generator shaft.

A: Check whether the generator shaft can rotate smoothly.

If the wind power generator is exposed to rain or the like for an extended period of time, rust may form on the generator shaft. In such a case, apply some light machine oil or the like to the shaft.

Q: The wind generator does not turn to face the wind.

A: Check the support column for tilting.

If the support column is not perfectly vertical, the generator will not be balanced, and instead of turning to face the wind, it will tilt towards its heavier side. In such a case, reorient the column so that it is perfectly vertical.

