



SHORT USER MANUAL

1-Turbine is **not designed** to work in stormy weathers. In stormy weathers pull the switch that you connected to the charge controller to the **brake** position.

2-Turbine installation points **should be away** from the trees, rooftops, places near rooftops. Installation point should not be in a place where wind's direction is generally changing.

3-If the installed turbine **continuously** rotates around itself, installation point is not suitable due to continuously changing wind direction. This reduces the efficiency of the turbine. You must change the installation point if this problem **continuously** occurs.

4-Turbine produces 3 Phase AC (Alternating Current). So when connecting the turbine cables to the charge controller, connecting order **does not matter**.

5-If the cables that connect the turbine to the charge controller;
-are **shorter** than 10 meters, at least 4 mm² cables must be used
-are **longer** than 10 meters, at least 6 mm² cables must be used.

6-When connecting the cables;

-Firstly the battery connections must be made.

(red is + and black is -)

-Then, the switch that you connected to the charge controller should be switched to the brake position and then the turbine cables should be connected.

-After that, turbine pole can be raised. After it is raised, the switch can be switched back to the normal working position.

7-Charge controller directs the over produced electricity to the resistances behind the charge controller. In this process, red LED in the device blinks. When the blink is detected, you can switch the device to brake position in order to prevent batteries from overloading.

8-We **do not** recommend gel batteries.We recommend deep cycle or lead acid batteries.

9-At least 4 12V 80-100Ah batteries should be used. Increasing the battery number, increases the efficiency got from the turbine.

At the same time;for one turbine, maximum 6 batteries can be used.

10-When batteries are connected;

-If the DC voltage produced from turbine > Voltage levels of batteries

Voltmeter on the charge controller shows the DC voltage that is being produced from the turbine.

- If the DC voltage produced from turbine < Voltage levels of batteries

Voltmeter on the charge controller shows the voltage level of the batteries.

Still, an external voltmeter is recommended to show the voltage levels of batteries.

11- A Table of the 12V lead-acid battery charge/voltage levels:

(For the other types of batteries, similar intervals can be used.)

Battery charge/voltage level is not recommended to go below %40.

Voltage	Battery Charge Level	Zone
12.6+ V	100%	Green Zone
12.5 V	90%	Green Zone
12.42 V	80%	Green Zone
12.32 V	70%	Green Zone
12.20 V	60%	Green Zone
12.06 V	50%	Green Zone
11.90 V	40%	<i>Yellow Zone</i>
11.75 V	30%	<i>Yellow Zone</i>
11.58 V	20%	Red Zone
11.31 V	10%	Red Zone
10.5 V	0%	DEAD BATTERY