

1.Product Overview:

ThisFSD30W-01hand crank generator is designed to perform as an emergency power supply. It has valuable applications in a variety of conditions , including fighting forest fires, earthquake devastation, survival conditions, emergency communication, long tern power disruption, outdoor activities, geological exploration and marine vessels, etc. In areas without electricity or fuel for electrical power generation, this generator can supply power to different electronic products. It is suitable for low-power radio , interphone, laptop, mobile phone, CD player, MP3-4 player, mobile TV, etc. It is also able to directly charge re-chargeable lithium, nickel-metal hydride and lead-acid batteries, etc.

2.Product Features :

The hand crank generator uses high-tech magnetic conversion technology and rare earth magnets to deliver high efficiency power supply. The outer case is made of high-strength, aluminum - alloy composite materials, imparting light - weight, portable carrying capacity. A wide range of output voltage from 0-28V, is available for charging various electronic products or batteries. It utilizes the pulse-charge method for efficient charging and activating of the battery, to extend battery life. This generator can directly charge electronic devices, re-charge batteries or connect with an DC-DC Converter for various output voltage requirements. In addition, it can also be matched with a Power Inverter to change DC to AC as 110V/220V.

3.The Product Structure:



1.Hand Crank 2.Rettractable Spear 3.Indicator Light 4.Buckle in the Shape of "B" 5.Bracket 6.φ12 Aviation Socket

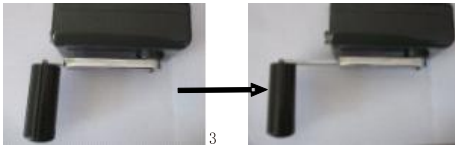
4. Principle of Operation:

1) Fix Hand Crank Generator:

Hand method: Holding the generator firmly in one hand and adjust the bracket so as to tighten onto the fixture. See



Fixation method: Attaching the generator to stem, tree, etc. in the wild or chair legs inside the room, then adjust the bracket so as to tighten onto the fixture. See (Fig.2)



2) Charge up batteries

- 1). Adjust hand bracket, to suite personal comfort. See (Fig.1and Fig.2)
- 2)Pulling out the hand crank of the generator. See (Fig.3 and Fig.4)
- 3). Connect output cable of hand crank generator with re-chargeable battery, so that the positive & negative poles are correctly connected. See (Fig.5)



3) Match Inverter from DC-AC 110V/220V Output:

- 1). Connect battery with DC input Inverter. (Fig.10)
- 2).Connect AC plug (110V/220V) of equipment being charged with Inverter.

- 3). Pulling out the hand crank of the generator. See (Fig.3 and Fig.4)
- 4). Turn Inverter switch ON to work, and all your electronic products work the same as for home power supply. See(Fig.7)
- 5). When battery runs out, the Inverter is off. Re-charge to continue.

***For all other types of batteries or electrical products, repeat the above steps.**

5.Main Technical Performance:

| Rated Power | Output Voltage | Output Current | Weight | Dimension (mm) |
|-------------|----------------|----------------|--------|------------------|
| 30W | | 0-3A | 480g | 106×64×39 |

Output voltage can be adjusted accordingly. The normal output we set is 12V、15.5V、20V、24V、28V (±0.5V) etc.

6. Standard components:

One Hand Crank Generator, one cable (one end: Aviation plug; another: Alligator clip, see Fig. 8), an instruction booklet.



7. Note:

- 1).Before connecting the generator to your products, please read the instruction booklet carefully.
- 2). To prevent damage or accidents, please make sure the voltage of the equipment to be charged, matches the generator output.

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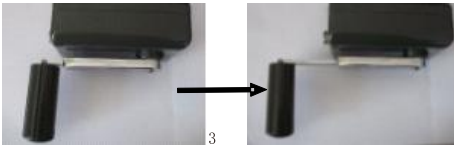
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- 2). To prevent damage or accidents, please make sure the voltage of the equipment to be charged, matches the generator output.

3). Please make sure that the positive and negative terminals are connected correctly between the generator and the equipment being charged.
4). In order to prevent a short circuit in the generator and subsequent transistor damage, operate the crank speed in normal speed as 80-90RPM/min. and load within their specified values ,can't exceed speed 120RPM/min.

8.Guarantee :

This product is guaranteed for 12 months from the purchasing date when operated within the manufacturer's specifications. The company will not honor the warranty if damage is caused by incorrect usage.



FSD20W-30W

Hand Crank Generator

Technical Instructions

ADD : RM306, Xiehe Building, No. 42 Shihua Road
West, Zhuhai, China
P. C. : 519015
Tel.:+86-756-3819871 / 2127861 / 3819869
Fax:+86-756-3819867
E-mail:info@sunshine-zh.com
web : <http://www.sunshine-zh.com>

3). Please make sure that the positive and negative terminals are connected correctly between the generator and the equipment being charged.
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