

# Maintenance Manual



CONFIDENTIAL

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# 1. Overview

The Maintenance Manual provides maintenance personnel with the information necessary to maintain the product effectively. This will include safety precautions, product preparation details, instructions for opening the product and repairing guidelines which should be clearly identified to minimize the risk of injuries to service personnel and any possible damage to the product.



## 2. Safety precautions

- Do not overheat the power bank.
- Do not get the power bank wet.
- Keep the power bank in a cool and dry place.
- Avoid applying excessive force on the power bank or dropping the power bank.
- Do not allow children to use and play with the power bank.
- Use only recommended solar panels for charging the power bank.

### 3. Preparation

Follow these simple tests before disassembling the device.

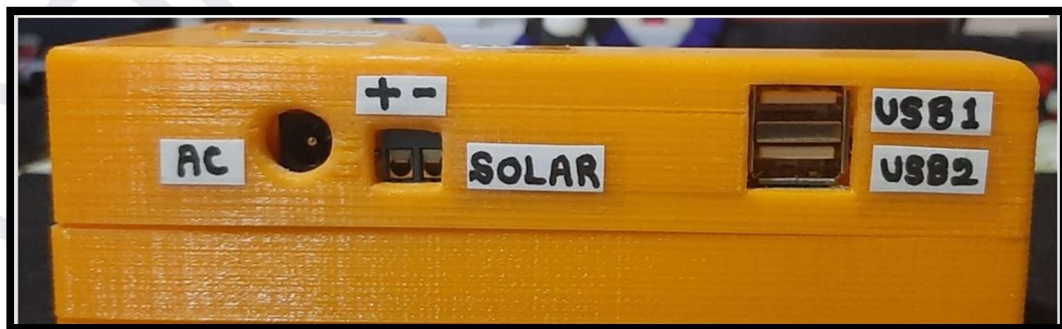
- Check whether the AC power adapter has proper voltage output and the continuity of the power cable.
- Check whether the solar panel has proper voltage output and the continuity of the cable.
- Check whether the polarity of the solar panel cables are connected correctly.
- Observe whether the switches and sockets of the device are operating properly.
- Check the battery level by looking at the indicator.

### 4. Opening the product

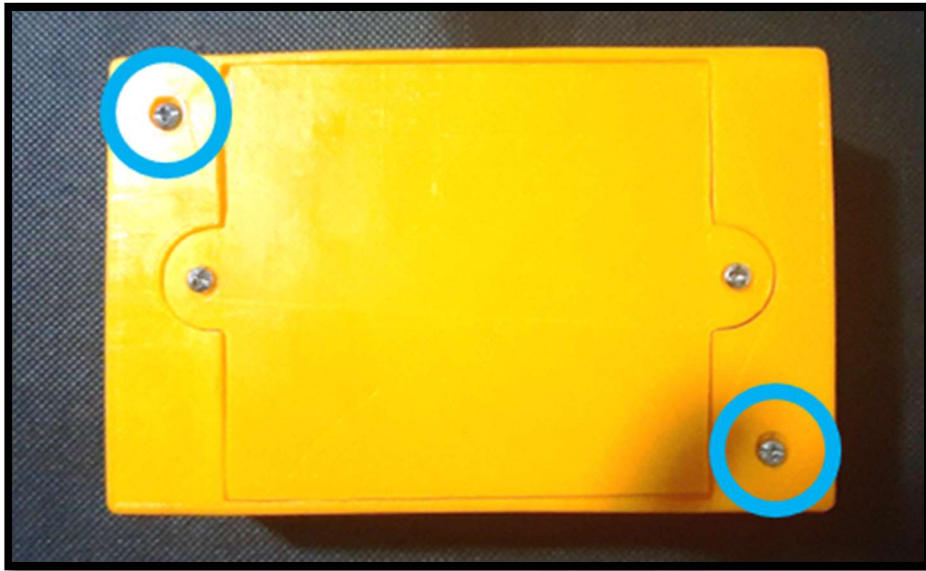
**Important!**

You should remove batteries before opening the product. Steps of removing batteries have been listed under [section 05](#).

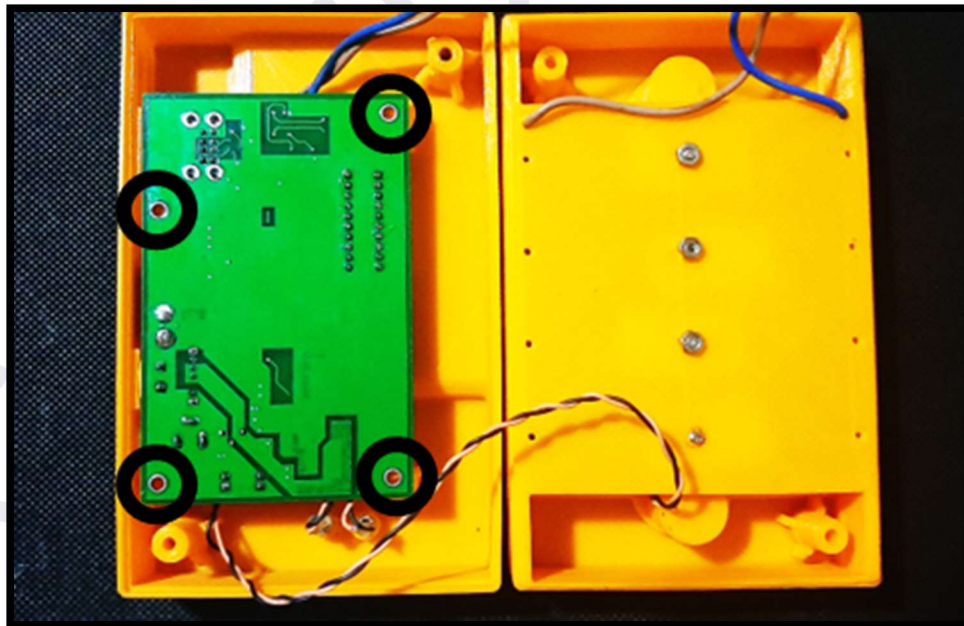
**Step 01** - Disconnect the solar panel cables, the AC adapter, and the USB cables from ports.



**Step 02** - Loosen the two screws at the base and then you will be able to separate the

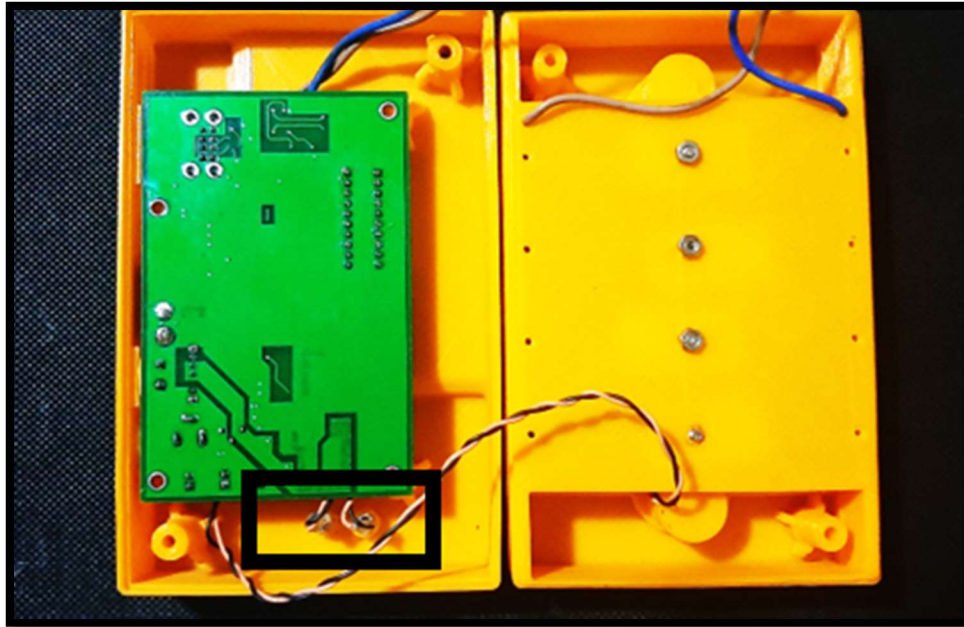


two portions of the enclosure.

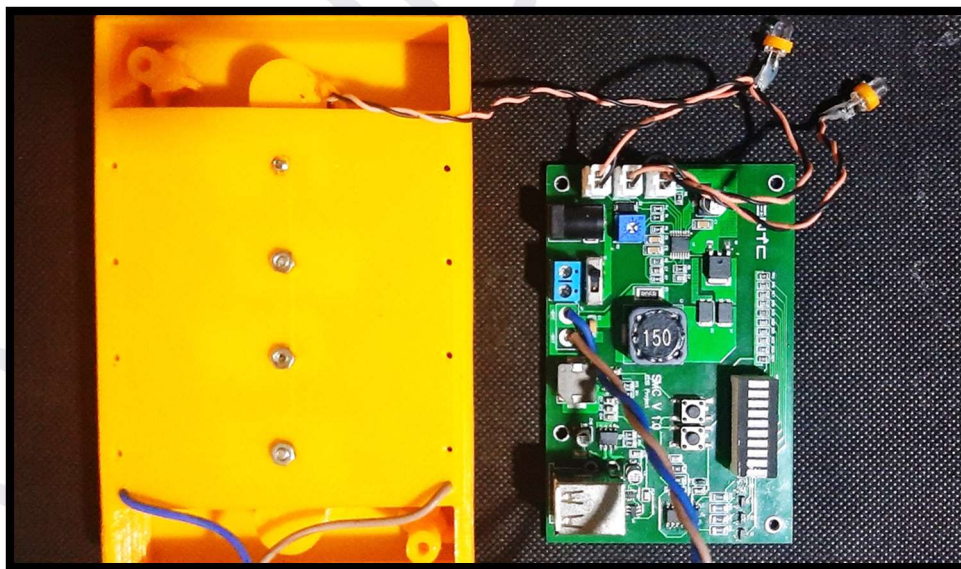


**Step 03** - Then, remove the screws which have been used to mount the PCB.





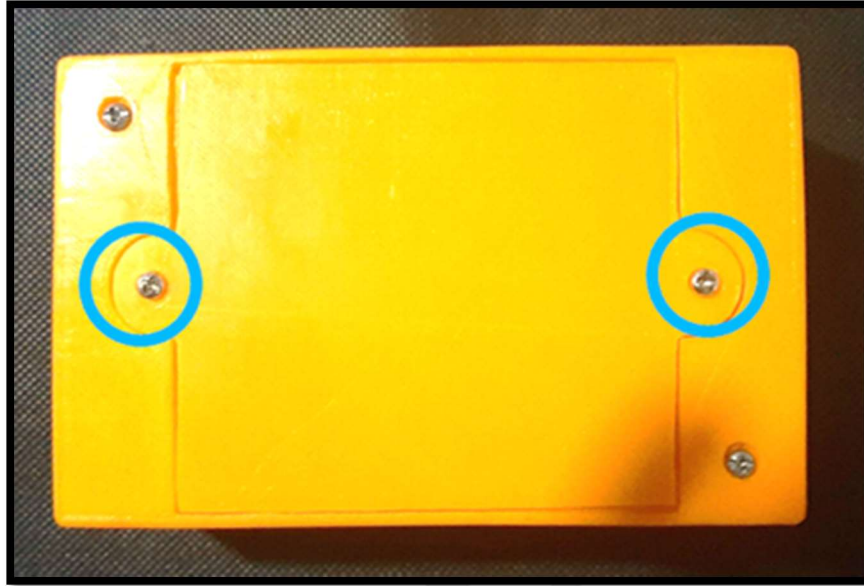
**Step 04** - Now, carefully remove the two indicator LEDs from the enclosure.



**Step 05** - Then you can lift the PCB up for repair.

## 5. Battery Replacement

**Step 01** - Remove these bolts first.

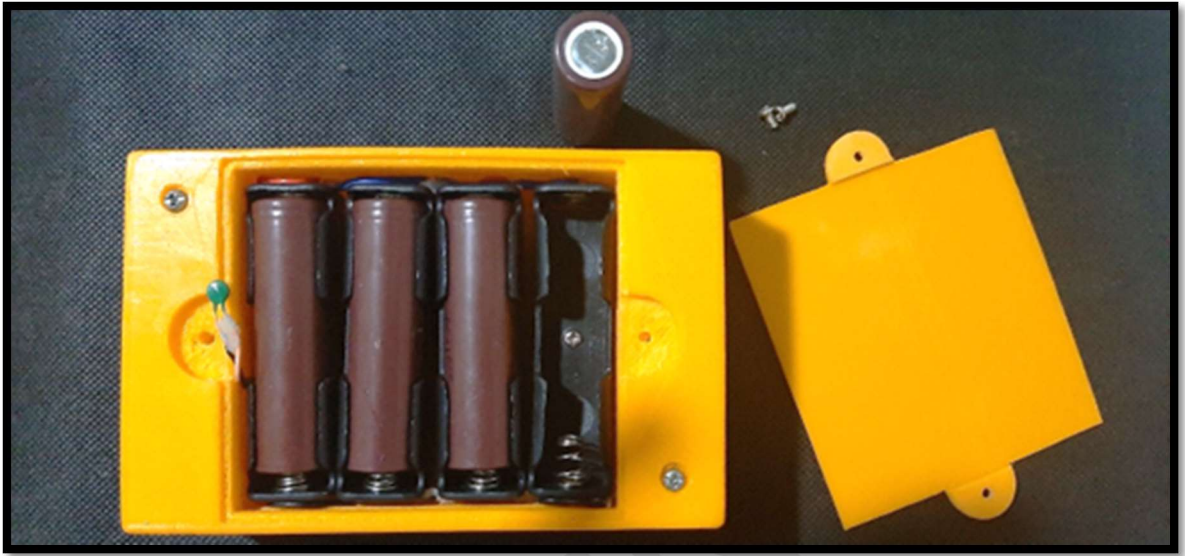


**Step 02** - Carefully remove the thermistor which has been attached to one of the batteries as shown below.





**Step 03** - Then remove batteries one by one. Make sure you remove all four batteries before placing the new batteries.



## 6. Component List

Line #	Designator	Comment	Quantity
1	C1	VT1V470M0605	1
2	C2, C5	1206B104K500NT	2
3	C3	T491A106K016AT	1
4	C4	0805CG110J500NT	1
5	C6	1206B471K500CT	1
6	C7	TCC0805X7R224K500DT	1
7	C8	CL21A106KPFNNNE	1
8	C9, C10	RVT1C220M0405	2
9	C11, C12	CL21A226KOQNNNE	2
10	C13, C14, C15, C16	CC0805KRX7R9BB104	4
11	D1, D2	SB1045L	2
12	D3	SS24	1
13	D4	BZT52C3V3S	1
14	J1	KF301-5.0-2P	1
15	J2	DC-005-5A-2.0	1
16	J3	USB 2XPORT	1
17	J4, J5, J6	B2B -XH -A(LF)(SN)	3
18	J7	BATTERY PAD	1
19	L1	YPRH1508 -150M	1
20	L2	SPM10054T-1R0M-HZ	1
21	Q1	AOD4185	1
22	Q2, Q3, Q4, Q5	2N3904S-RTK/PS	4
23	R1	AECR0805F47K0K9	1
24	R2	POT 3362P-1-502LF	1
25	R3	RTT25R068FTE	1
26	R4	AC0805FR-07200RL	1
27	R5	AR05BTCW5002	1
28	R6	AC0805FR-071ML	1
29	R7	RC0805FR-07120RL	1
30	R8	ERA6AEB683V	1
31	R9, R10	RC0805JR-071KL	2
32	R11	0805W8F7323T5E	1
33	R12	RC0805FR-07100KL	1
34	R13, R14	ARG05FTC1003	2
35	R15, R23, R24	RC0805JR-07120RL	3
36	R16, R17, R18, R19, R20, R21, R22	RS-05K1500FT	7
37	R25, R27, R30, R32	PTFR1206B750RP9	4
38	R26, R29, R31	MCWF12R59R0BTL	3
39	R28	RC0805JR-07300RL	1
40	R33	FRC0805J821 TS	1
41	S1	3_POS_SWITCH	1
42	S2, S3	HP0315AFKP2-R	2
43	U1	CN3722	1
44	U2	TPS61022RWUR	1
45	U3	TPS2066DR	1
46	U4	TPS2513DBVR	1
47	U5	TPD4E1U06DCKR	1
48	U6	LED_Bar_Graph	1
49	U7	LM2902DR2G	1



## 8. Schematic Diagrams

