# BG-8S BatteryGO

User manual Ver 1.1.178

Disclaimer and Warning

Thank you for using the product from SHENZHEN ISD TECHNOLOGY CO.,LTD

This product is specifically designed for RC, not appliance in other areas. We strongly recommend you read our user's guide before using BC-8S. ISDT accepts no liability for damage, injury or any legal responsibility incurred directly or indirectly from the use of this product.

ISDT reserves the right to update the design, appearance, function and usage requirement without notifying.

23-Nov-16
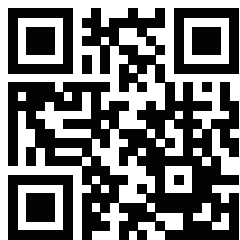
Revolution Starts Here

www.isdt.co

Specifications

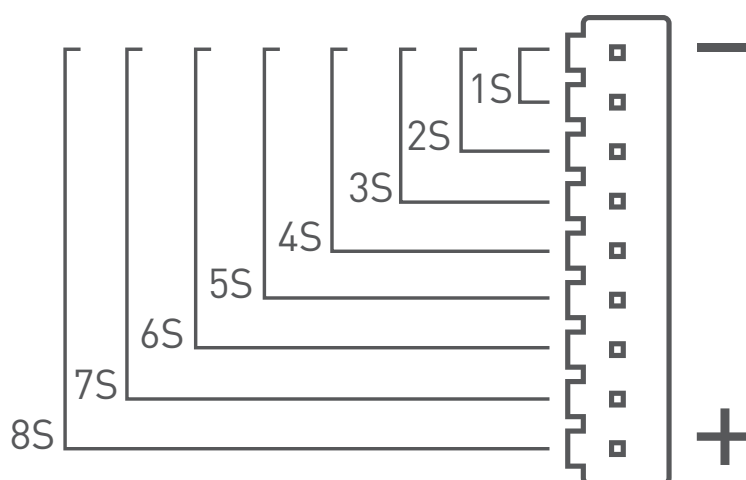|	
Working voltage :	5.0V - 36V
Input voltage 1s :	0.8V - 15V
Input voltage 2-8S :	0.8V - 4.8V
Battery cells :	1-8s
Voltage measurement accuracy :	±0.005V @ 4.2V
Balancing cells accuracy :	< 0.005V
Support USB charging :	QC3.0, BC1.2, Maximum output 12V/2A
Support smart battery :	Charging and discharging setting, read battery info and usage history.
Dimension :	80 X 55 X 19 mm
Weight :	59 g

Port diagram

This product is suitable for the lithium battery which has the XH 2.54 balance port, connect the balance port align from BAT- as showed in the figure. When connecting 1S battery, input Voltage from XT60i must be more than 5V.
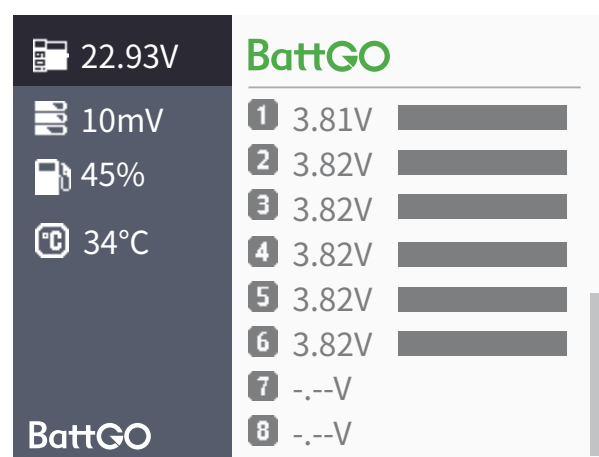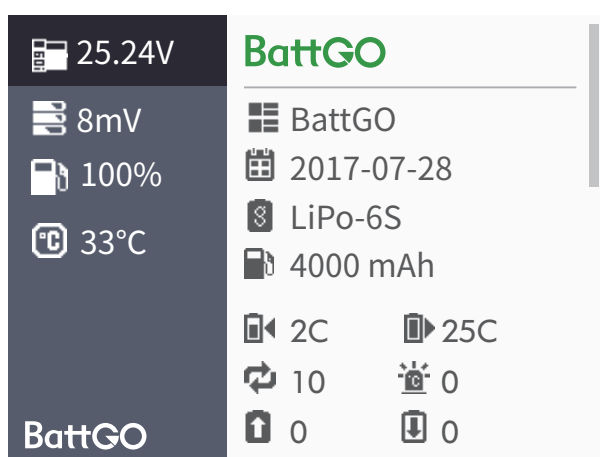
Function button

Breathe light

Up
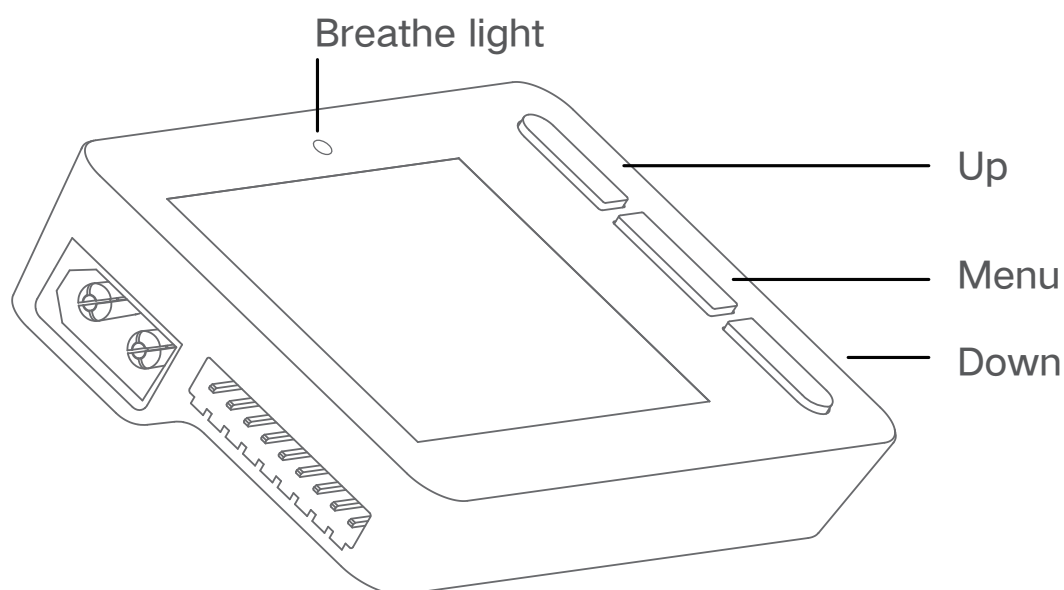
Menu

Down

Menu button Short press to enter setting menu.
Long Press to enter smart battery menu

Up/Down Button Go up down, choose different setting options.

Measurement display

25.24V

8mV

100%

33℃

BattGO

BattGO
- BattGO
- 2017-07-28
- LiPo-6S
- 4000 mAh

◧◀ 2C   ◧▶ 25C
⟳ 10   0
▮ 0   ▯ 0

01

22.93V

10mV

45%

34℃

BattGO

BattGO
1 3.81V
2 3.82V
3 3.82V
4 3.82V
5 3.82V
6 3.82V
7 -.--V
8 -.--V

02

When XT60i connecting to smart battery

In this mode, BG-8S can read smart battery info. After plug in XT60i, default display is 01，press down button go to 02 to read battery cells voltage

XT60i Input voltage — 25.24V

Cells voltage difference — 8mV

Remaining capacity — 100%

Battery temperature — 33°C

Max Charging C — 2C

Battery circulation — 10

Battery over charging — 0

BattGO

BattGO

BattGO — Battery brand

2017-07-28 — Production date

LiPo-6S — Battery type

4000 mAh — Battery capacity

25C — Max discharging C

0 — Over temperature

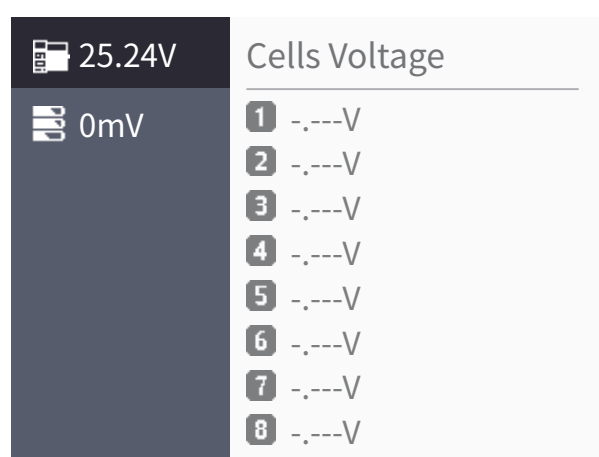0 — Battery over discharging

---

22.93V

10mV

45%

34°C

BattGO

BattGO

1 3.81V
2 3.82V
3 3.82V
4 3.82V
5 3.82V
6 3.82V
7 -.--V
8 -.--V

The histogram shows the voltage differences

Cells voltage

When XT60i connecting to normal battery

25.24V

0mV

Cells Voltage

1 -.---V
2 -.---V
3 -.---V
4 -.---V
5 -.---V
6 -.---V
7 -.---V
8 -.---V

When XT60i connecting to normal battery, BG-8S would only show total voltage, balance port need to be connected to check each cell voltage.

PS:Only XT60i was connected, short press menu button twice to start USB charging

	Cells Voltage
🔋 23.19V	
⬛ 14mV	1 3.855V ▭
	2 3.869V ▭
	3 3.868V ▭
	4 3.865V ▭
	5 3.861V ▭
	6 3.868V ▭
	7 -.---V
	8 -.---V

When battery connecting to balance port, BG-8S will show

PS: 当仅连接平衡口输入时，短按 '菜单键' 两次，可快速执行电芯平衡任务。

Function Setting

Short press menu button to see system function menu below:

| 🔲 Function	
🔤 Language	English
☀ Backlinght	Middle
🔊 Volume	High
💬 System Information	...
🎚 Receiver Tester	...
🔔 Alarm Tone	Repeat
🔋 Low Voltage Alarm	18.0V
USB Charge	Start
Cells Balance	Start
← Back	

Language	Support up to 7 languages
Backlinght	Back light adjustment, back light will automatically turn off in 2 minutes if no operation(In balancing 20 seconds)
Volume	Support high, middle, low and 0 volume. Alarm sound can not be turned off.
System Information	Show firmware version
Receiver Tester	Support multiple prototype testing, PWM\ S.Bus
Alarm Tone	Low voltage alarm can be set to beep once or beep per minute
Low Voltage Alarm	Connecting XT60i port, User can select voltage 5-30v as low voltage alarm threshold. Connecting balance port, user can select single cell voltage 2.5-3.9v as low voltage alarm threshold. Connecting BattGo smart battery, BG-8S will automatically select battery's lowest discharging voltage as alarm voltage
USB Charge	When XT60i is connecting to battery, BG-8S can support USB charging
Cells Balance	When balance port is connecting to battery, BG-8S can support cells balancing.
Back	Exit function menu

When connecting to smart battery,
in standby press and hold menu button you can go into system setting.

BattGO

🕑 Auto Storage	240h
🏠 Storage Voltage	3.80V
☑ Charge Current	2.6A
🔋 Charge Voltage	4.20V
💬 Exception Record	...
← Back	
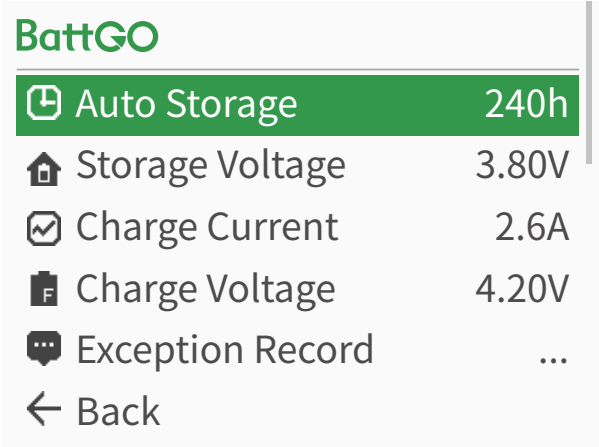
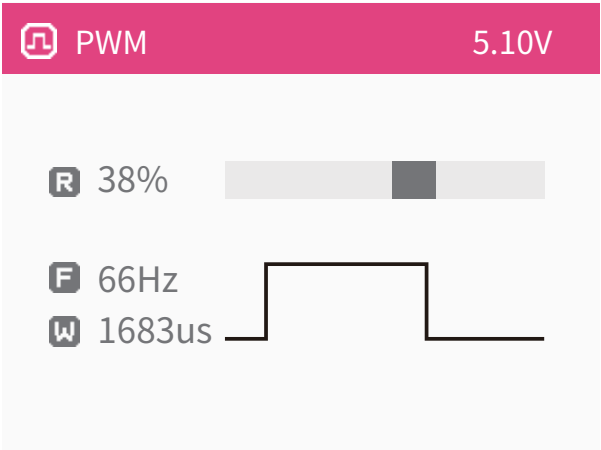| Auto Storage	Select after how many hours , Battgo smart battery would initiate auto storage function.
Storage Voltage	Set storage voltage
Charge Current	Set charge current
Charge Voltage	Set full voltage
Exception Record	Check exception records of over charging/discharging/temperature
Back	Exit function menu

Receiver signal testing

S.Bus		17 ✕	18 ✕	🔲
1	-2	9	128	
2	0	10	128	
3	97	11	0	
4	0	12	0	
5	-46	13	0	
6	97	14	0	
7	128	15	0	
8	19	16	0	
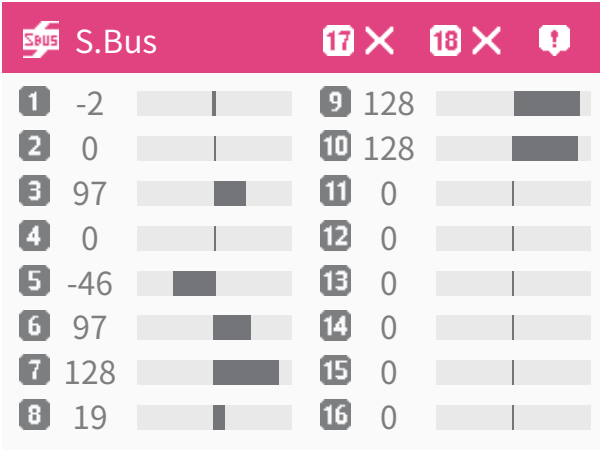
PWM测试 💬

航模控制信号PWM协议解析，连接舵机接收机信号输出，自动检测PWM输出的信号周期和脉宽，💬
并且转换成舵机输出轴转角值。

PWM	5.10V
R 38%	
F 66Hz	
W 1683us	

S. Bus testing

S.Bus protocol analysis, support up to 18 channels servo control data analysis, servo receiver failure protection testing.

When XT60i is connected to the battery, BG-8S could perform USB charging function. In USB charging, after 2 minutes without operation. display will turn off, and light up breath light to purple.
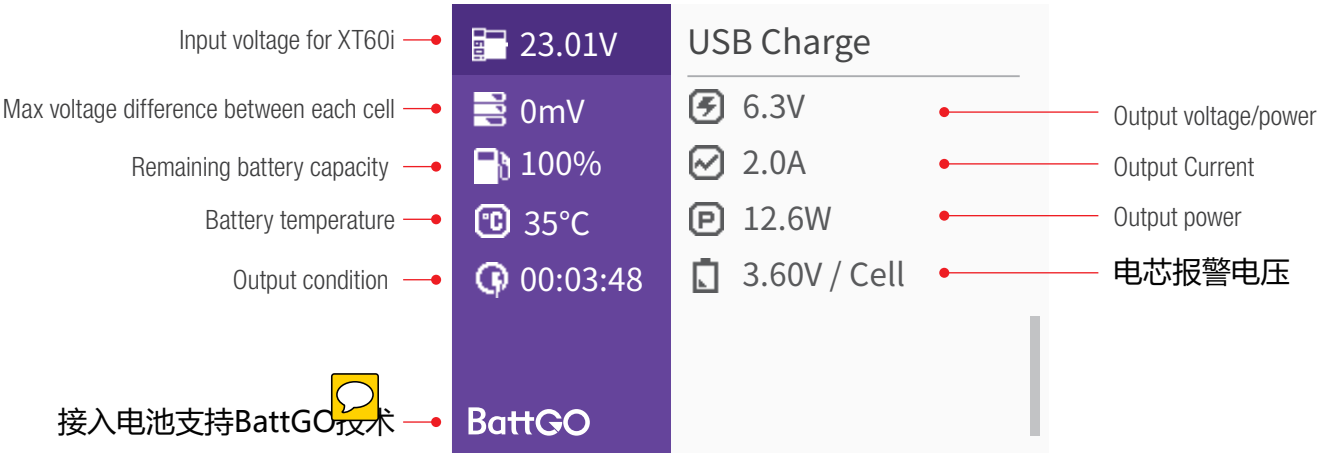
If current is more than 3A or power is more than 26W it will turn off USB charging.

If temperature is more than 60 °, it will stop charging until temperature is lower than warning level. It will recharge automatically.

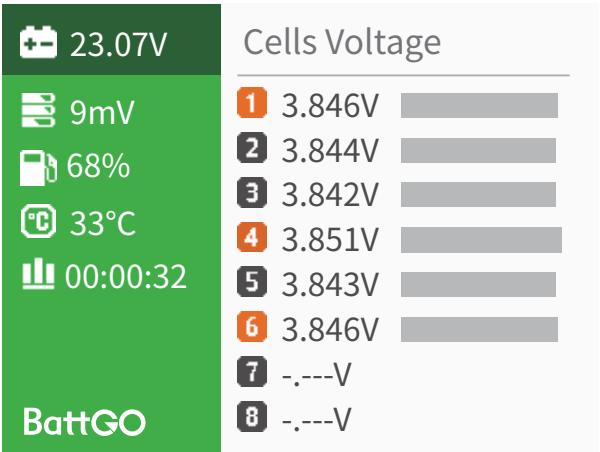Battery capacity and BattGo mark would appear only smart battery is connected.

Lowest input voltage: For normal battery, if balance port is connected single cell protection voltage would be displayed as lowest input voltage, without balance port connected battery total protection voltage would be displayed as lowest input voltage. For smart battery, single cell protection voltage would be always showed as lowest input voltage.

Devices with QC:　　　Devices without QC:

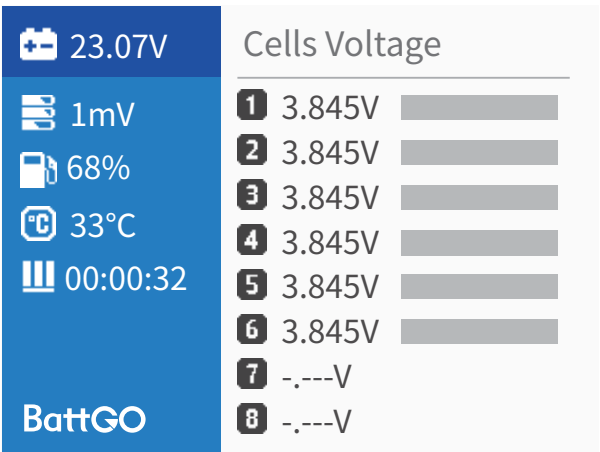| Input voltage for XT60i	23.01V	USB Charge	
Max voltage difference between each cell	0mV	6.3V	Output voltage/power
Remaining battery capacity	100%	2.0A	Output Current
Battery temperature	35°C	12.6W	Output power
Output condition	00:03:48	3.60V / Cell	电芯报警电压
接入电池支持BattGO技术	BattGO		

Cells balancing

When balance port is connected, user can initiate cells balancing task. During task, display will turn off, breath light will turn on within 20s, if no operation is detected。
battery capacity percentage, temperature BattGo mark will only show when smart battery is connected,

23.07V	Cells Voltage	
9mV	**1** 3.846V	
68%	**2** 3.844V	
33°C	**3** 3.842V	
00:00:32	**4** 3.851V	
	5 3.843V	
	6 3.846V	
	7 -.---V	
BattGO	**8** -.---V	

In balancing cells would show as yellow, and breath light is green during operation.

23.07V	Cells Voltage	
1mV	**1** 3.845V	
68%	**2** 3.845V	
33°C	**3** 3.845V	
00:00:32	**4** 3.845V	
	5 3.845V	
	6 3.845V	
	7 -.---V	
BattGO	**8** -.---V	

After balancing completed, left side would turn to blue, breath light would turn to blue.

本电量计适用电池类型：

LiHv (1-8S) / LiPo (1-8S) / LiFe(1-8S) / LiIon (1-8S) / NiMH/Cd(1-10S)

本电量计必须以"BAT-"极对齐连接电池平衡接口，电量计内部有反接保护电路，当反插时不会对电量计造成损坏。

本电量计为模型应用而设计，请勿用于计量领域。

作为机载使用时，为保证能发出足够响亮的报警声，请勿堵塞或遮挡蜂鸣器发声孔。

长时间不使用时，应将电量计与电池的连接断开，防止电量计耗尽电池电能。

WWW.ISDT.CO

Shenzhen ISD Technology CO.,LTD

Address: 5th Fl., Bldg. 9, Mabian Industrial Zone, Yangtian Rd.,
Block 72, Xin'An Street,Bao'An District, Shenzhen, PRC

Email:hi@isdt.co