INSTRUCTION MANUAL

Professional Balance Charger/Discharger

HTRC®

B6 mini v2

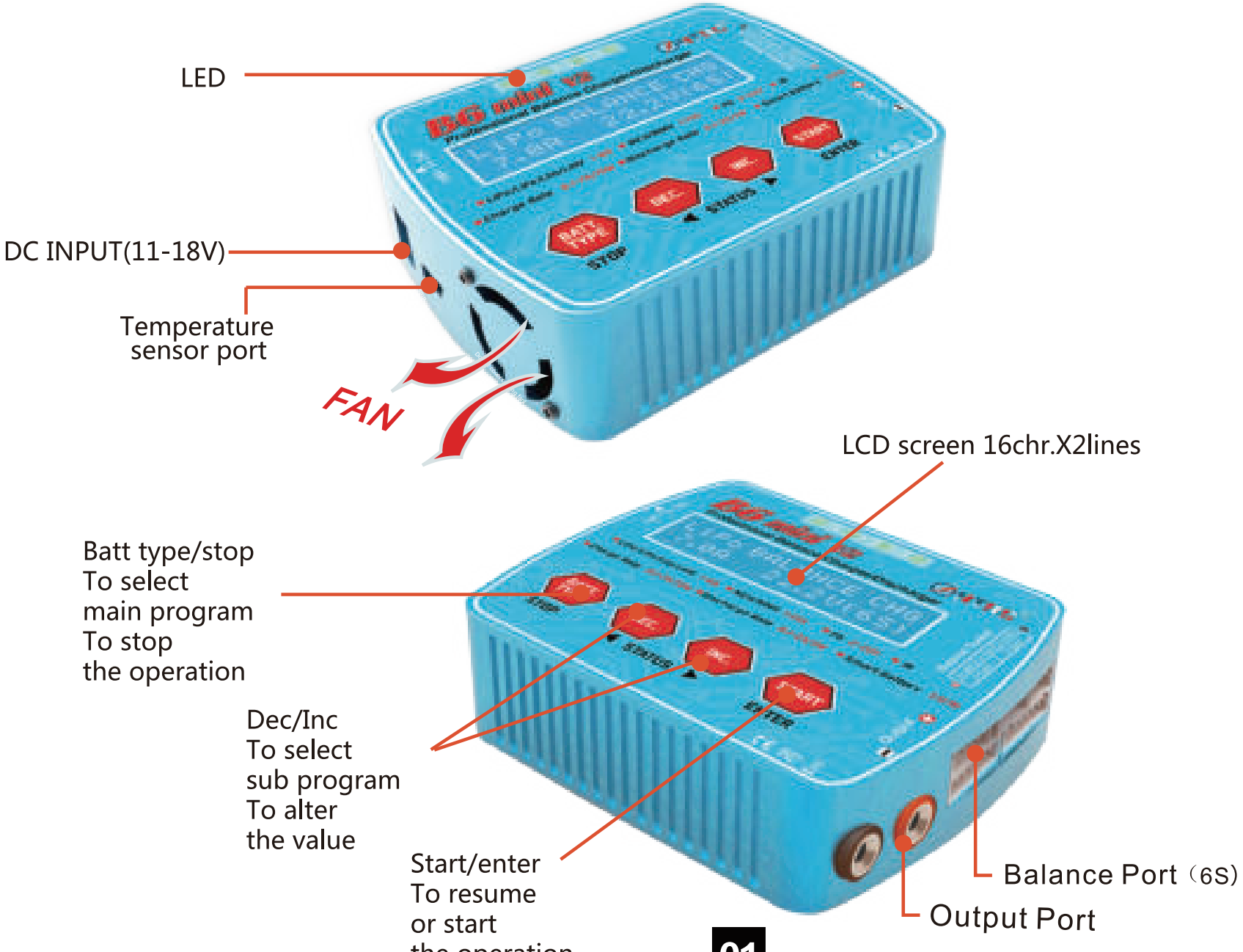
B6AC mini v2

TABLE OF CONTENTS

INTRODUCTION

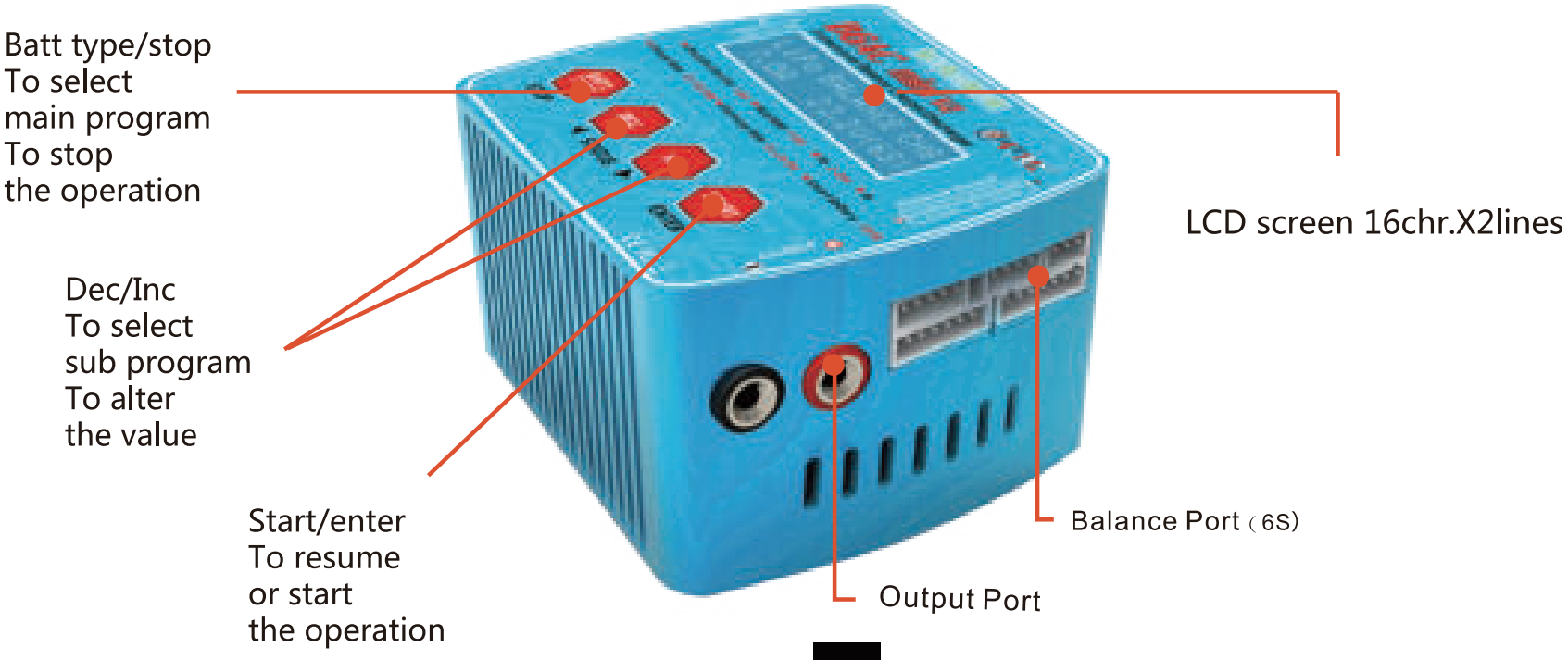
B6 mini V2

Thank you for purchasing the HTRC® charger. Designed for both rookies and pro-fessionals, this system is extremely versatile For the safety and the best use of your system, please read this manual carefully



INTRODUCTION

B6AC mini V2



Exquisite appearance and compact

Hold it in my hand

B6 mini V2

B6AC mini V2

Advantage

- Self-contained fan
- Increase LED light,high-end and handsomely design
- Support Lipo/ LiFe/Lilo/LiHV
  Nicd/NiMH/Pb/Smart Battery
- It can automatic identification of battery cells
- meter the internal resistance

Knowledge information of led

1 Standby:The four lights was flashing slowly
2 Charging:Turn lights from right to left
3 Discharging:Turn lights from left to right
4 Errors: The four lights flashing frequently
5 Fully: The four lights were solid blue.

Charging connection diagram

B6 mini V2

B6AC mini V2

SPECIFICATION

B6 mini V2

	B6 mini V2
Power Supply	DC 11-18V
Display	1602 LCD Screen
Supported Battert	LiPo,LiIon,LiFe,LiHV 1-6 cells
	NiCd,NiMH 1-15 cells
	Pb(Lead Acid) 2-20V
	Smart Battery I/II/III
Charge Power	80W
Charge Current	0.1- 7 A
Discharge Power	5W
Discharge Current	0.1-2.0A
Balancing current	400mA
USB Output	—
Sub Function	Digital Power, Balancer, IR Test
Languages	English
Ext.Temp socket	**Futaba 3P socket**
Memory	10 memories
Dimensions	L103* W 84* H32mm
Weight	220g
Smart battery	5-25V,0.1-7A

Accessories	
	1pcs
	1pcs
	1pcs
	1pcs
	1pcs
	1pcs

SPECIFICATION

B6AC mini V2

	B6AC mini V2
AC INPUT	100-240V
Power Supply	DC 11-18V
Display	1602 LCD Screen
Supported Battert	LiPo,LiIon,LiFe,LiHV 1-6 cells
	NiCd,NiMH 1-15 cells
	Pb(Lead Acid) 2-20V
	Smart Battery I/II/III
Charge Power	80W
Charge Current	0.1- 7 A
Discharge Power	5W
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Balancing current	400mA
USB Output	—
Sub Function	Digital Power, Balancer, IR Test
Languages	English
Ext.Temp socket	**Futaba 3P socket**
Memory	10 memories
Dimensions	L103* W 84* H55mm
Weight	435g
Smart battery	5-25V,0.1-7A

Accessories	
	1pcs
	1pcs
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	1pcs
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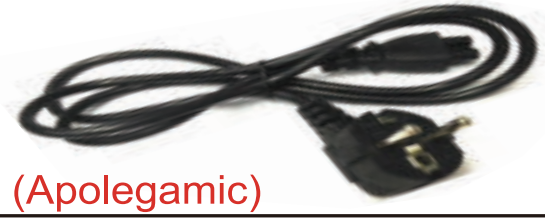
	1pcs
 (Apolegamic)	1pcs

CAUTION and NOTES

- This charger is ONLY suitable for charge rechargeable LiPo, LiIo, LiFe,LiHv , NiCd, NiMH, Smart and Pb batteries Do not attempt to charge dry cells. Charge other types of batteries may cause fire or explosion.
- Set up the Input Power Limit/Low Input VOLT Cutoff correctly in the USER SETTING for the DC power supply.
- Pay attention to the charger during use. Do not leave the charger unattended.
- Never charge the dead or damaged batteries.
- Do not attempt to charge a battery pack containing different types of batteries.
- Do not use a too short or damaged cables.
- Do not use the charger close by a flammable object. Use only in well-ventilated areas.
- Only charge the rechargeable batteries that meet the product specifications of this charger.
- Do not allow water, moisture or foreign objects into the charger.
- Do not use in humid locations. Do not operate with wet hands.
- Do not attempt to disassemble the charger.
- Do not use the charger on fleecy materials, such as carpets, blankets, beds and cushions.
- Do not block the cooling fan and the air inlet.
- Strongly recommend balancing Lithium packs. An unbalanced pack may damage during discharging.
- General default charging current is 1C. Read the manual of the battery and setup the suitable current to charge the battery Higher charge/discharge current will damage the battery, even cause a fire.

BATTERIES INFO and MAX CHARGE CURRENT

Battery Type	No.o f Cells	Rated Voltzge(V)	Charger Current(A)
LiHV	1	3.8	0.1-7.0A
	2	7.6	0.1-7.0A
	3	11.4	0.1-7.0A
	4	15.2	0.1-7.0A
	5	19.0	0.1-7.0A
	6	22.8	0.1-7.0A
Lipo	1	3.7	0.1-7.0A
	2	7.4	0.1-7.0A
	3	11.1	0.1-7.0A
	4	14.8	0.1-7.0A
	5	18.5	0.1-7.0A
	6	22.2	0.1-7.0A
LiIo	1	3.6	0.1-7.0A
	2	7.2	0.1-7.0A
	3	10.8	0.1-7.0A
	4	14.4	0.1-7.0A
	5	18	0.1-7.0A
	6	21.6	0.1-7.0A
LiFe	1	3.3	0.1-7.0A
	2	6.6	0.1-7.0A
	3	9.9	0.1-7.0A
	4	13.2	0.1-7.0A
	5	16.5	0.1-7.0A
	6	19.8	0.1-7.0A
NiMH /NiCd	1	1.2	0.1-7.0A
	2	2.4	0.1-7.0A
	3	3.6	0.1-7.0A
	4	4.8	0.1-7.0A
	5	6	0.1-7.0A
	6	7.2	0.1-7.0A
	7	8.4	0.1-7.0A
	8	9.6	0.1-7.0A

Battery Type	No.o f Cells	Rated Voltzge(V)	Charger Current(A)
NiMH /NiCd	9	10.8	0.1-7.0A
	10	12	0.1-7.0A
	11	13.2	0.1-7.0A
	12	14.4	0.1-7.0A
	13	15.6	0.1-7.0A
	14	16.8	0.1-7.0A
	15	18	0.1-7.0A
Pb	1	2	0.1-7.0A
	2	4	0.1-7.0A
	3	6	0.1-7.0A
	4	8	0.1-7.0A
	5	10	0.1-7.0A
	6	12	0.1-7.0A
	7	14	0.1-7.0A
	8	16	0.1-7.0A
	9	18	0.1-7.0A
	10	20	0.1-7.0A
	11	22.0	0.1-7.0A
	12	24.0	0.1-7.0A

Lipo	Voltage Level: 3.7V/cell Max Charge Voltage:4 .2V/Cell Discharge Voltage Cut off Level: 3.0V/cell or Higher
LiIo	Voltage Level: 3.6V/cell Max Charge Voltage: 4.1V/Cell Discharge Voltage Cut off Level: 3.0V/cell or Higher
LiFe	Voltage Level: 3.3V/cell Max Charge Voltage: 3.8V/Cell Discharge Voltage Cut off Level: 2.0V/cell or Higher
LiHV	Voltage Level: 3.8V/cell Max Charge Voltage: 4.35V/Cell Discharge Voltage Cut off Level: 3 .2V/cell or Higher
NiMH /NiCd	Voltage Level: 1.2V/cell Max Charge Voltage: 1.6V/Cell Discharge Voltage Cut off Level: 0.80V/cell or Higher
Pb	Voltage Level: 2.0V/cell Max Charge Voltage:2 45V/Cell Discharge Voltage Cut off Level: 1.50V/cell or Higher

MAIN MENU INFO

PROGRAM SELECT Lithium Batt	Enter this program, you can set the work mode(Balance Charge/ Charge/Fast Charge/ Storage /Discharge) and parameter of the LiPo/LiIo/LiFe /LiHV batteries.
PROGRAM SELECT NiMH/NiCd	Enter this program you can set the work mode(Charge/Discharge/ Cycle) and parameter of the NiMH/NiCd batteries.
PROGRAM SELECT Pb(Lead Acid)	Enter this program, you can set the work mode (Charge/Discharge) and parameter of the Pb (Lead Acid) batteries.
PROGRAM SELECT User Settings	Enter this program, you can set the parameter of the charger, some important parameter will affects the work performance of the charger .
PROGRAM SELECT Extra Function	Enter this program, you can generate the extra functions of the charger, such as Meter LiXx Battery Status, Meter Internal Resistance, LiXx Balancer...etc.
PROGRAM SELECT Load Memory	Enter this program, you can load 20 sets memories that the charger had worked you can modify the work mode or start working directly

PROGRAM of LiPo/LiFe/Lilo/LiHV

Press +/- to shift the work modes between the battery and the charger. Press ENTER to select
Press STOP to quit

```
LiPo BALANCE CHG
 7.0A        AUTO
```

BALANCE CHARGE: With this mode, the charger will charge the battery to the termination voltage and balance each cell of the battery pack.
Balance port of the battery must be connected.

```
LiPo CHARGE
 7.0A   22.2V(6S)
```

CHARGE: With this mode, the charger will charge the battery to the terminationvoltage by CC-CV mode, and stop at 1/10 of setting current.

```
LiPo FAST CHARGE
 7.0A   22.2V(6S)
```

FAST CHARGE: With this mode, the charger will charge the battery to the termination voltage by CC-CV mode, and stop at 1/5 of setting current.

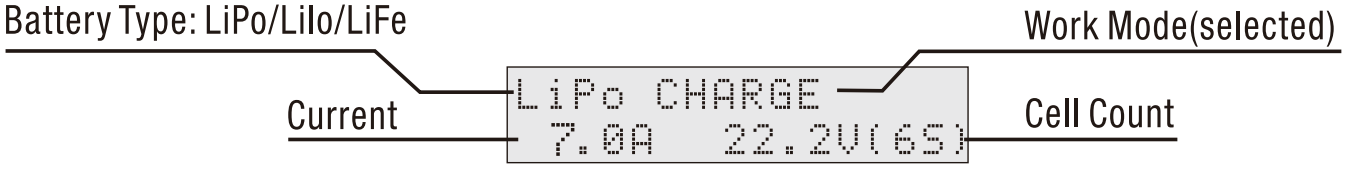
```
LiPo STORAGE
2.0A    22.2V(6S)
```

STORAGE: With this mode, the charger will charge or discharge the battery to the storage voltage.
(LiPo: 3.85V/S Lilo: 3.75V/S LiFe: 3.45V/S LiHV:3.90V/S)

```
LiPo DISCHARGE
2.0A    22.2V(6S)
```

DISCHARGE: With this mode, the charger will discharge the battery to the termination voltage.

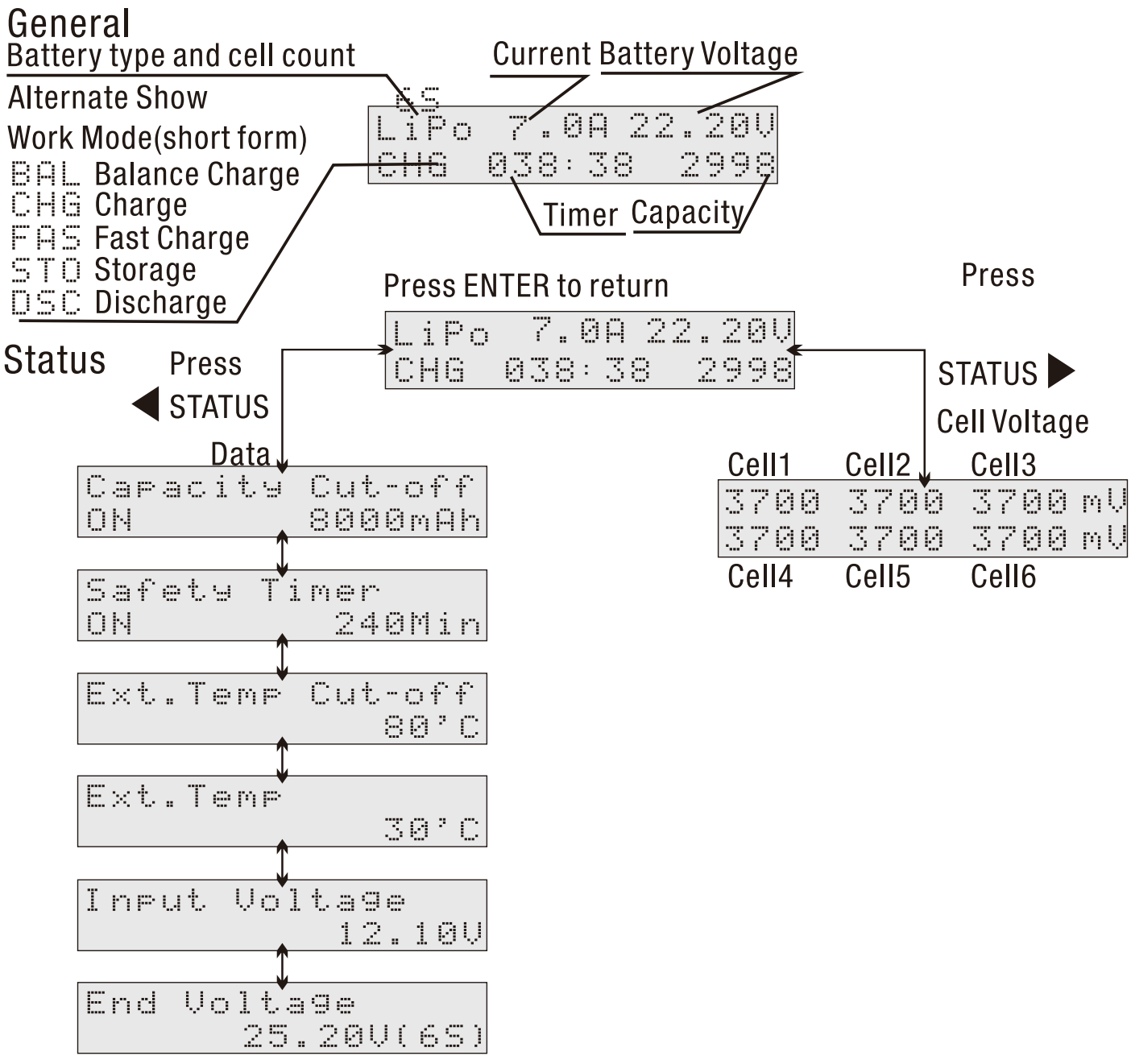
Select Battery Type/Current/Cell Count after work mode selection.
Press +/- button to shift or increase/decrease
Press ENTER to select
Press STOP to quit



The character will blinking during being select

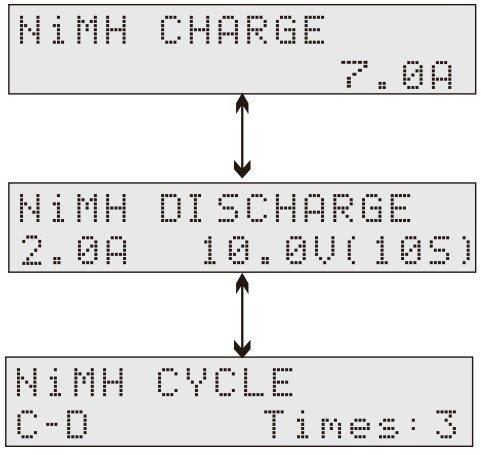
Press ENTER for 2 seconds, the charger will check the battery then enter confirm nterface. Press STOP to cancel, press ENTER to start working.

PROGRAM of LiPo/LiFe/Lilo/LiHV



PROGRAM of NiMH/NiCd

Press +/- to shift the work modes between the battery and the charger.
Press ENTER to select
Press STOP to quit

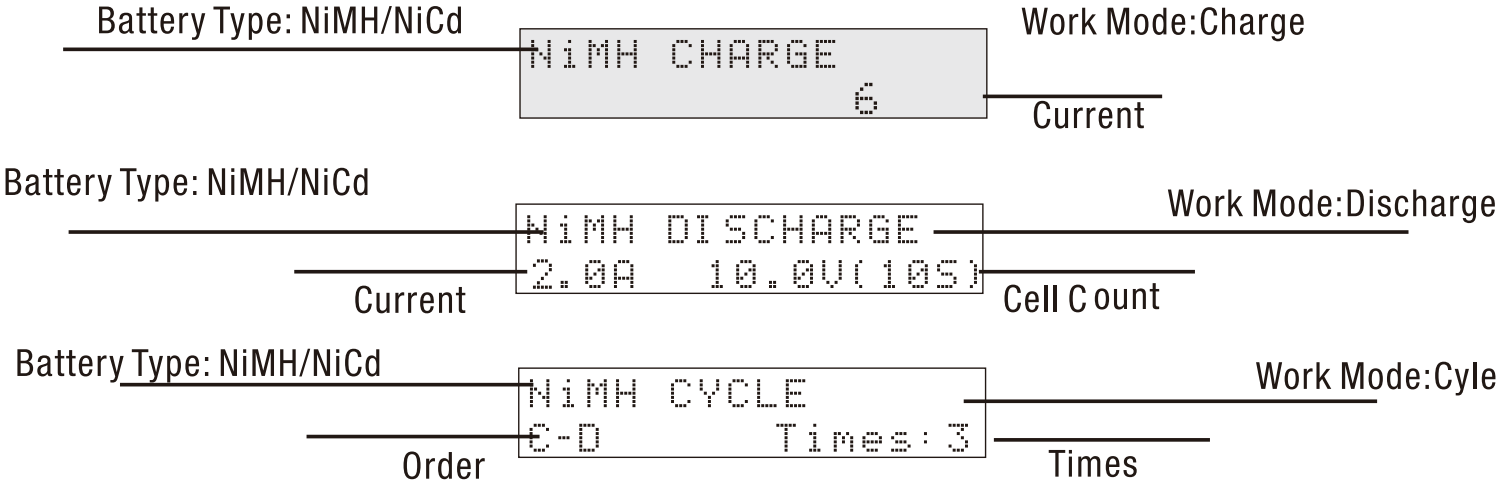


CHARGE: With this mode, the charger will automatically detect the cell count of the battery and charge the battery to the termination voltage.

DISCHARGE: With this mode, the charger will discharge the battery to the termination voltage.

Cycle: With this mode, the charger will charge and discharge the battery by the user s setting.(Current, Cell Count separately set in Charge and Discharge mode)

Select Battery Type/Current/Cell Count after work mode selection.
Press +/- button to shift or increase/decrease
Press ENTER to select
Press STOP to quit



The character will blinking during being select

Press ENTER for 2 seconds, the charger will start working.

WORKING INTERFACE

General

Battery type and cell count

Alternate Show

Work Mode(short form)
CHG Charge
DSC Discharge
C-D/D-C Cycle

Work Finished

Current

Battery Voltage

Timer

Capacity

```
NiMH  7.0A 10.20V
CHG  038:38  2668
```

Show alternated between battery type/cell count with FULL(END).

```
FULL
NiMH  0.4A 16.00V
CHG  058:38  4968
```

Status

Press ENTER to return

```
NiMH  7.0A 22.20V
CHG  038:38  2668
```

Press ◀ STATUS

Data

```
Capacity Cut-off
ON          8000mAh
```

```
Safety Timer
ON           240Min
```

```
Ext.Temp Cut-off
                80'C
```

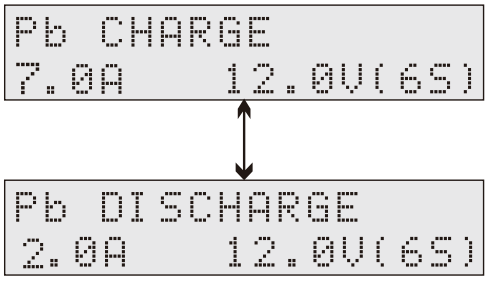
```
Ext.Temp
                30'C
```

```
Input Voltage
              12.10V
```

```
NiMH Sensitivity
D-Peak          7mV
```

PROGRAM of Pb(Lead-Acid)

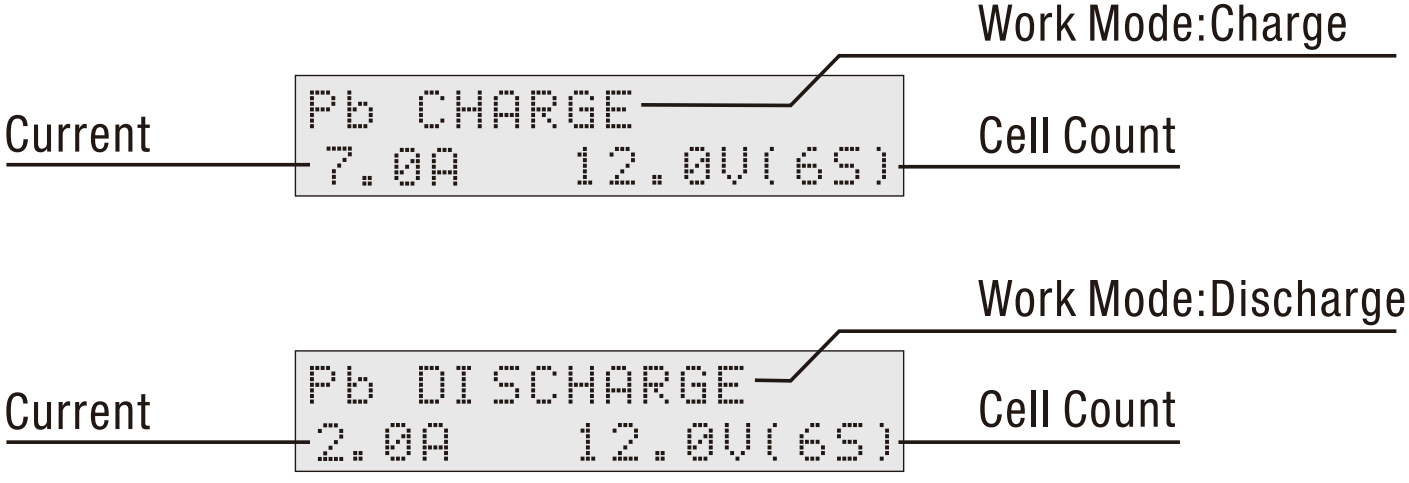
Press +/- to shift the work modes between the battery and the charger.
Press ENTER to select
Press STOP to quit



CHARGE: With this mode, the charger will charge the battery to the termination voltage.

DISCHARGE: With this mode, the charger will discharge the battery to the termination voltage.

Select Current/Cell Count after work mode selection.
Press +/- button to shift or increase/decrease
Press ENTER to select
Press STOP to quit

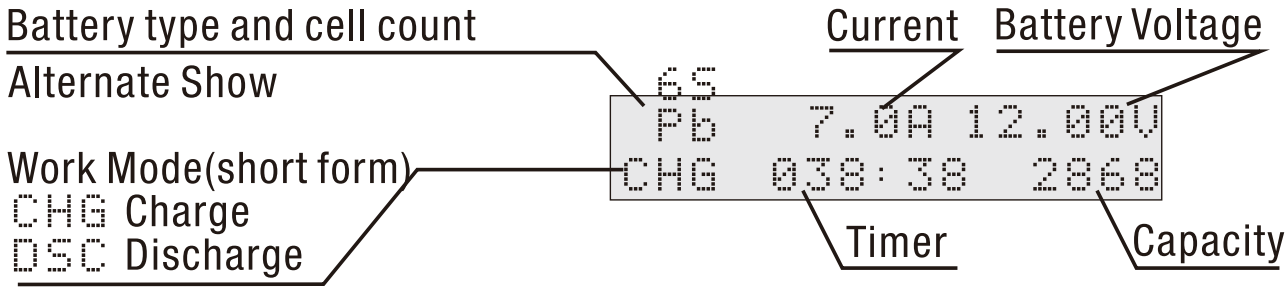


The character will blinking during being select

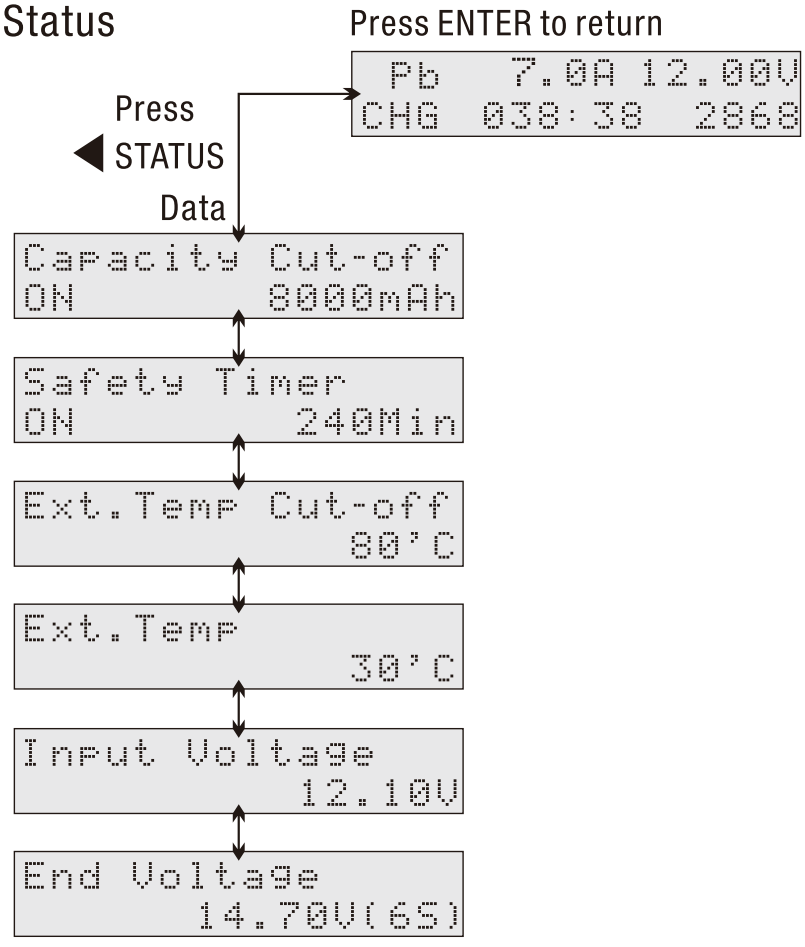
Press ENTER for 2 seconds, the charger will start working.

WORKING INTERF ACE

General



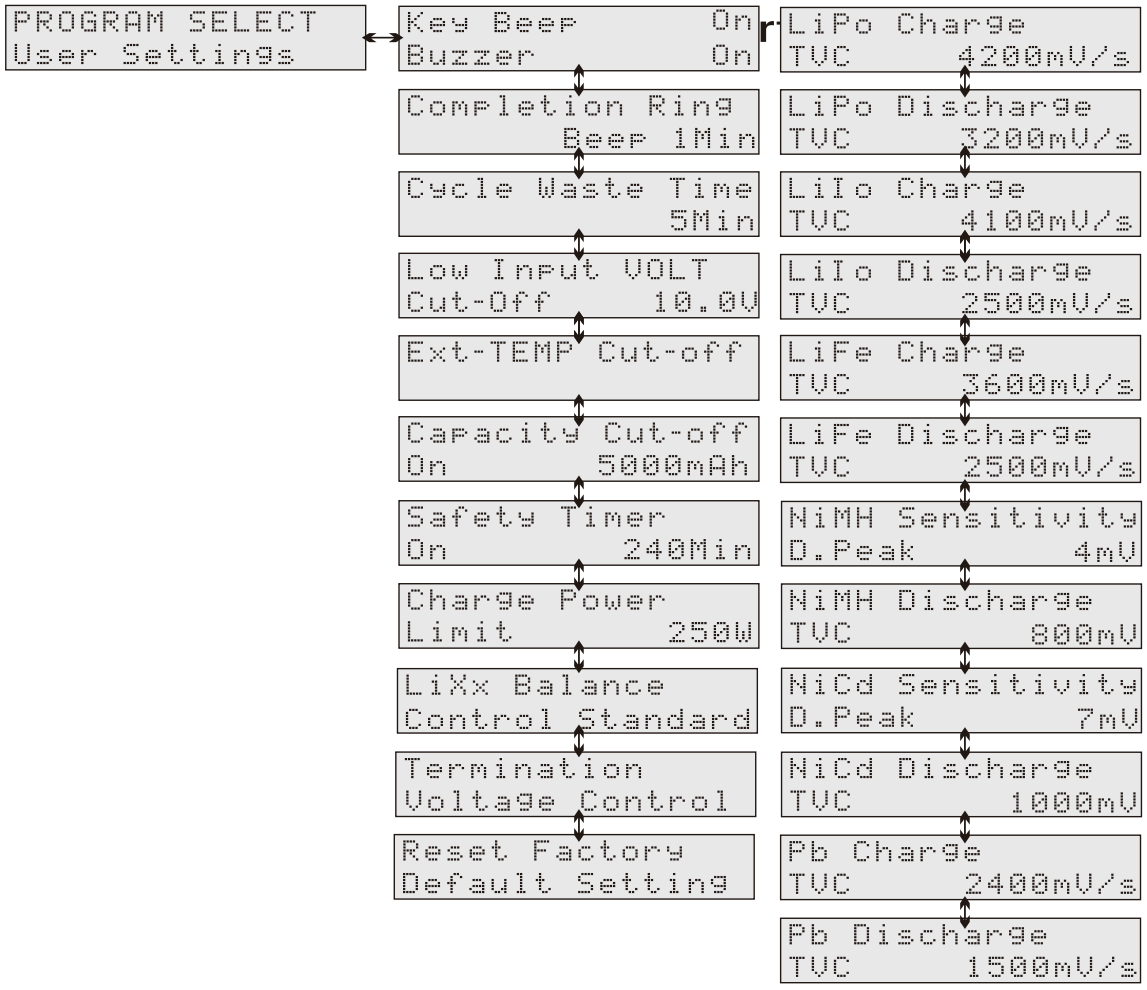
Status



Work Finished

Show alternated between battery type/cell count with FULL(END).

PROGRAM of User Settings



Key Beep On Buzzer VOL LOW	In this menu, you can turn on/off of the key sound and set the volume of the buzzer. Key Beep default: On . Buzzer default: Low
Completion Ring Beep 1Min	In this menu, you can set the completion ring, 1-5 minutes/off/always optional. Default: 1Min
Cycle Waste Time 5Min	In this menu, you can set the waste time between charge and discharge in NiMH/NiCd cycle mo Range from 1-60Min, Default: 5Min
Low Input VOLT Cut-Off 10.0V	In this menu, you can set the cutoff input voltage of the power supply of the charger to protect y power supply. The charger will cutoff working when input voltage lower than the setting value. Range from 10.0-18.0V, Default: 10.0V
Ext-TEMP Cut-off ON 80'C	In this menu, you can set the cutoff external temperature to protect your battery. The charger will cutoff working when the external temperature is higher than the setting value (a external temperature sensor is needed). On/Off optional, range from 30-90°C,Default: 80°C
Capacity Cut-off ON 5000mAh	In this menu, you can set the cutoff capacity to protect your battery. The charger will cutoff working when the capacity is more than the setting value. On/Off optional ,range from 100-60000mAh ,Default: 8000mAh

PROGRAM of User Settings

Safety Timer On 240Min	In this menu, you can set a safety time to protect your charger and battery. The charger will cutoff working when the safety time is up to the setting value. On/Off optional, range from 10-720 minutes, Default: 240 minutes
Charge Power Limit 250W	In this menu, you can set the charge power limit to meet your power supply. The charge will work under the setting value. Range from 10-250 watt,Default: 250 watt
LiXx Balance Control Standard	Balance control of LiPo/LiIo/LiFe, you can set the balance control to meet your demand. Standard/Fast/Accurate optional. Default: Standard *Fast: Balance speed fastest, less accurate. *Accurate: Balance speed lowest, more accurate. *Standard: balance speed and accurateness between Fast and Accurate·
Reset Factory Default Setting	Reset factory default setting.

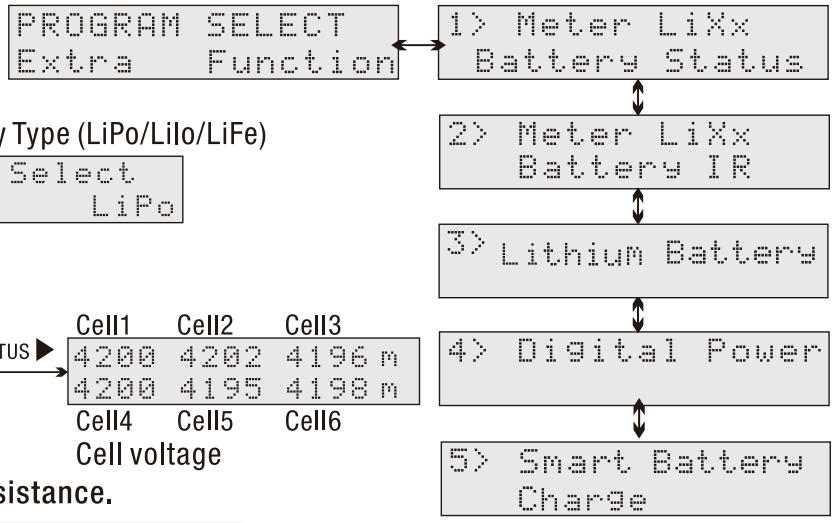
Termination voltage control per cell of all the batteries this charger support. You can set the value according to your request.

Termination Voltage Control	
LiPo Charge TVC 4200mV/s	Range from 4150-4250mV/s Default: 4200mV/s
LiPo Discharge TVC 3200mV/s	Range from 3000-3850mV/s Default: 3200mV/s
LiIo Charge TVC 4100mV/s	Range from 3750-4200mV/s Default: 4100mV/s
LiIo Discharge TVC 2500mV/s	Range from 3000-3750mV/s Default: 3100mV/s
LiFe Charge TVC 3600mV/s	Range from 3300-3800mV/s Default: 3600mV/s
LiFe Discharge TVC 2500 mV	Range from 2500-3300mV/s Default: 2500mV/s
NiMH Sensitivity	Range from 4-20mV
NiMH Discharge TVC 800mV	Range from 500 1000mV/s Default: 800mV/s
NiCd Sensitivity D.Peak 7mV	Range from 4-20mV Default: 7mV
NiCd Discharge TVC 1000mV	Range from 500-1000mV/s Default: 1000mV/s
Pb Charge TVC 2.4V/s	Range from 1500-2500mV/s Default: 2400mV/s
Pb Discharge TVC 1.5V/s	Range from 1000-1500mV/s Default: 1500mV/s

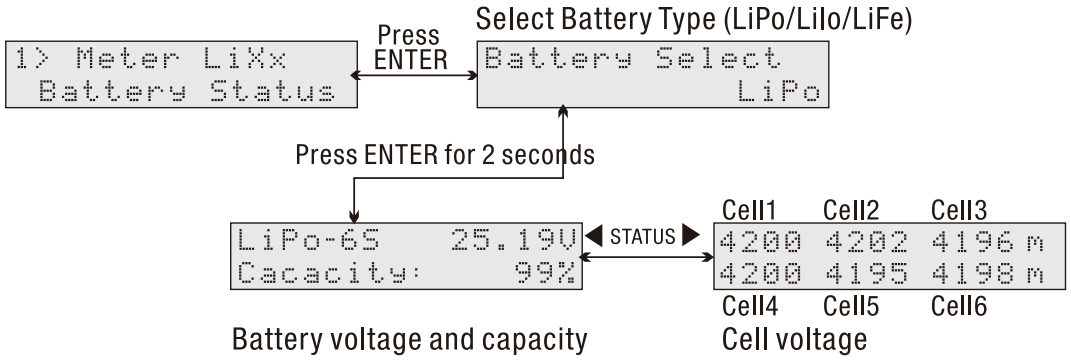
For LiHV (4350Mv/s)
1.For the LiHV Battery,it needs to modify the spec data, and then enter into the LiPo Mode,
2.For the LiHV,or LiPo Battery,it needs to set the spec data, and the syestem can't autom-identify

PROGRAM of Extra Function

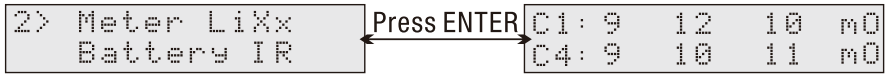
Menu Chart



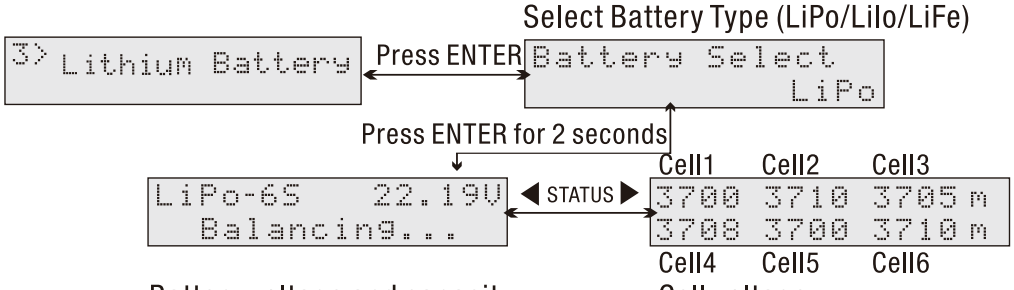
1)Meter LiXx (LiPo/LiIo/LiFe) battery status.



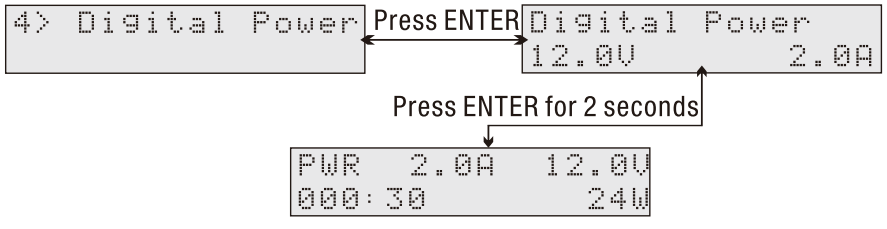
2)Meter LiXx (LiPo/LiIo/LiFe) battery internal resistance.



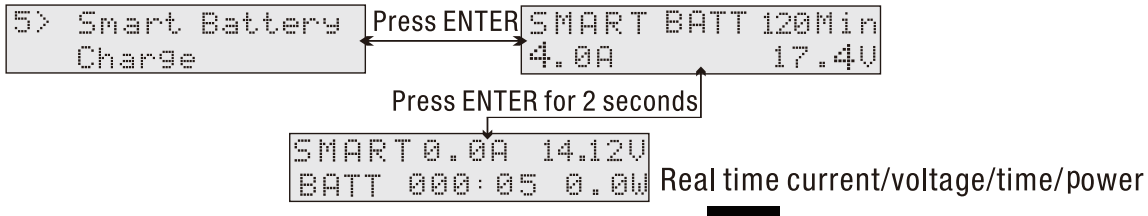
3)LiXx (LiPo/LiIo/LiFe) Battery Balancer.



4)Digital Power



5)Brush Motor Driver

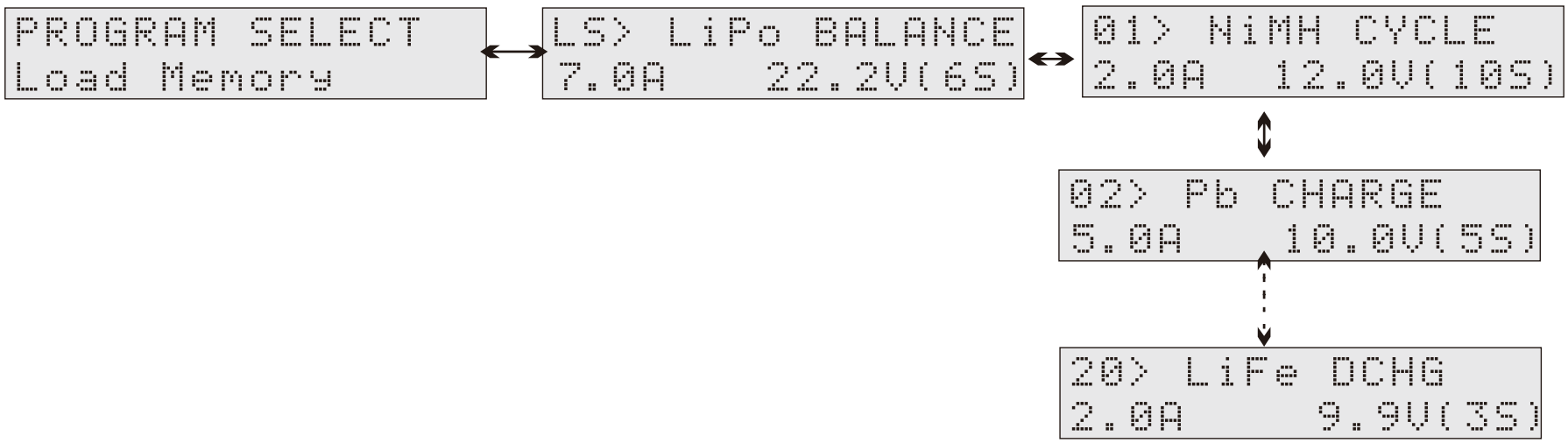


ERROR INFORMATION

INPUT VOLTAGE TOO HIGH	Input voltage is higher than 18V, check the power supply, then restart the charger.
INPUT VOLTAGE TOO LOW	Input voltage is lower than the value of LOW INPUT VOLTAGE CUT- OFF, check the power supply, then restart the charger.
REVERSE POLARITY CHECK	Reverse polarity, check the connection between the charger and the battery, correct the connection, then restart the work.
BATTERY CHECK DISCONNECT	Battery disconnect, check the connection between the charger and the battery, then restart the work.
BATTERY CHECK OVER VOLTAGE	Total voltage of the battery is over the termination voltage control(TVC), check the battery and the TVC setting, then restart.
BATTERY CHECK LOWER VOLTAGE	Total voltage of the battery is lower than the termination voltage control(TVC), check the battery and the TVC setting, then restart.
BATTERY CHECK CELL COUNT ERROR	Cell count detected by the charge is different from the setting, check the battery cell count and reset the cell count of the work.
BATTERY CHECK OVER CELL VOLT	Cell voltage of the battery pack is over the termination voltage control(TVC), check the battery and the TVC setting, then restart.
BATTERY CHECK LOWER CELL VOLT	Cell voltage of the battery pack is lower the termination voltage control(TVC), check the battery and the TVC setting, then restart.
BATTERY CHECK FULL BATTERY	Full battery, no need to charge.
OVER Ext.TEMP CUTOFF	External temperature is higher than the setting value, cutoff.
OVER CAPACITY CUTOFF	Capacity is over than the setting value, cutoff.
SAFETY TIME OUT CUTOFF	Time is up to the setting value of Safety Timer, cutoff.

PROGRAM of Load Memory

Menu Chart



There are 20 memories record the work of the charger. LS=latest record. Press +/- to shift the memories, press ENTER to revise, then press ENTER for 2 seconds to start working.

SUPPORT and SERVICES

WARRANTY

SHENZHEN HUITUO provide a period of one year product warranty from the date of purchase. The warranty only applies to material or operational defects, which are present at the time of purchase During that period we will repair or replace free of service, charge for products deemed defective due to those causes. This warranty is not valid for any damage or subsequent damage arising as a result of misuse, modification or as a result of failure to observe the use guideline in this manual.

Add:3rd Floor,NO.2 Building.Gangzai Industrial Park,Furong Industrial Area, ShaJing, BaoAn,Shenzhen,China

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