

C150 Accucel

150W 10A Smart Battery Balance Charger

Instruction Manual



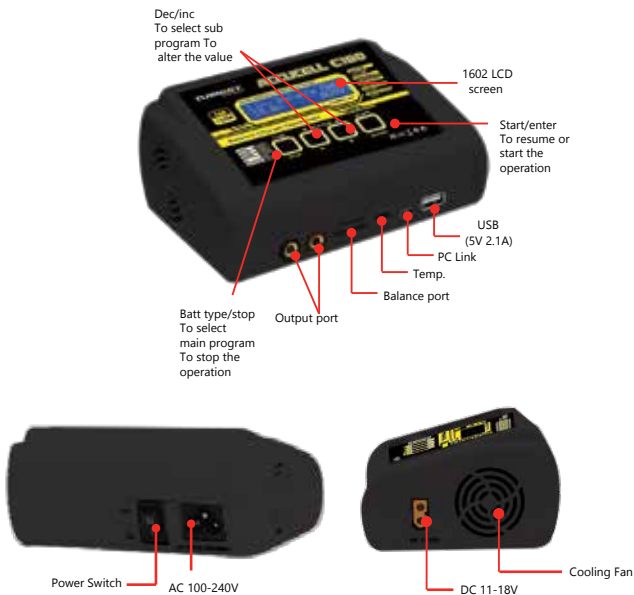
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INTRODUCTION

Thank you for purchasing the Accucel 150W 10A Touch charger. Designed for both rookies and professionals, this system is extremely versatile for the safety and the best use of your system, please read this manual carefully.



ACCUCELL C150

SPECIFICATION

Product Model:	Accucel 150W 10A Smart Battery Balance Charger	Accessories
AC Input Voltage	100-240V	 Adapter Board 1 set
DC Input Voltage	11-18V	
Charge power	150W	
Charge current	0.1-10A	 Extra Cable x1 pc
Discharge current	0.1-2A	
LiIon/LiPo/LiIo/LiFe/LiHV	1-6cells	
NiCd/NiMH	1-15cells	 Extra Cable x1pc
Pb	2-20V	
Smart Battery	I/II/III	
Net weight	0.75Kg	 AC Cord x1pc
Dimension	145x105x64mm	

CAUTION AND NOTES

-  This charger is **ONLY** suitable for charge rechargeable LiPo, 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 of 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 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 preset at 1C. Please read manual carefully of the battery and setup the suitable current to charge the battery. Higher C charging/ discharge current may damage the battery, even cause fire.

BATTERIES INFO and MAX CHARGE CURRENT

Battery Type	No. of Cells	Rated Voltage (V)	Charger Current (A)
LiHV	1	3.8	0.1 - 10.0A
	2	7.6	0.1 - 10.0A
	3	11.4	0.1 - 10.0A
	4	15.2	0.1 - 10.0A
	5	19.0	0.1 - 10.0A
	6	22.8	0.1 - 10.0A
LiPo	1	3.7	0.1 - 10.0A
	2	7.4	0.1 - 10.0A
	3	11.1	0.1 - 10.0A
	4	14.8	0.1 - 10.0A
	5	18.5	0.1 - 10.0A
	6	22.2	0.1 - 10.0A
Lilo	1	3.6	0.1 - 10.0A
	2	7.2	0.1 - 10.0A
	3	10.8	0.1 - 10.0A
	4	14.4	0.1 - 10.0A
	5	18	0.1 - 10.0A
	6	21.6	0.1 - 10.0A
LiFe	1	3.3	0.1 - 10.0A
	2	6.6	0.1 - 10.0A
	3	9.9	0.1 - 10.0A
	4	13.2	0.1 - 10.0A
	5	16.5	0.1 - 10.0A
	6	19.8	0.1 - 10.0A
NiMH / NiCd	1	1.2	0.1 - 10.0A
	2	2.4	0.1 - 10.0A
	3	3.6	0.1 - 10.0A
	4	4.8	0.1 - 10.0A
	5	6	0.1 - 10.0A
	6	7.2	0.1 - 10.0A
	7	8.4	0.1 - 10.0A
	8	9.6	0.1 - 10.0A

Battery Type	No. of Cells	Rated Voltage (V)	Charger Current (A)
NiMH / NiCd	9	10.8	0.1 - 10.0A
	10	12	0.1 - 10.0A
	11	13.2	0.1 - 10.0A
	12	14.4	0.1 - 10.0A
	13	15.6	0.1 - 10.0A
	14	16.8	0.1 - 10.0A
	15	18	0.1 - 10.0A
Pb	1	2	0.1 - 10.0A
	2	4	0.1 - 10.0A
	3	6	0.1 - 10.0A
	4	8	0.1 - 10.0A
	5	10	0.1 - 10.0A
	6	12	0.1 - 10.0A
	7	14	0.1 - 10.0A
	8	16	0.1 - 10.0A
	9	18	0.1 - 10.0A
	10	20	0.1 - 10.0A
	11	22.0	0.1 - 10.0A
	12	24.0	0.1 - 10.0A

LiPo	Voltage Level : 4.2V/Cell Max Charge Voltage : 3.7V/Cell Discharge Voltage Cut off Level : 3.0V/Cell or Higher
Lilo	Voltage Level : 4.1V/Cell Max Charge Voltage : 3.6V/Cell Discharge Voltage Cut off level : 3.0V/Cell or Higher
LiFe	Voltage Level : 3.8V/Cell Max Charge Voltage : 3.3V/Cell Discharge Voltage Cut off Level : 2.0V/Cell or Higher
LiHV	Voltage Level : 4.35V/Cell Max Charge Voltage : 3.8V/Cell Discharge Voltage Cut off Level : 3.2V/Cell or Higher
NiMH NiCd	Voltage Level : 1.6V/Cell Max Charge Voltage : 1.2V/Cell Discharge Voltage Cut off Level : 0.80V/Cell or Higher
Pb	Voltage Level : 2.45V/Cell Max Charge Voltage : 2.0V/Cell Discharge Voltage Cut off Level : 1.50V/Cell or Higher

PROGRAM OF Lilon/LiPo/LiIo/LiFe/LiHV

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

```
LiPo BALANCE CHG
10.0A 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
10.0A 22.2V(6S)
```

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

```
LiPo FAST CHARGE
10.0A 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 2.2V(6S)
```

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

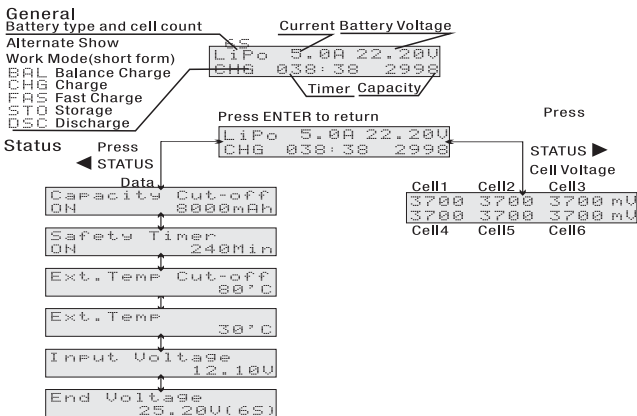
Battery Type: LiPo/LiIo/LiFe		Work Mode(selected)
Current	LiPo CHARGE 10.0A 22.2V(6S)	Cell Count

The character will blinking during being select

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

Charger detected Cell Count	R:6SER S:6SER CONFIRM(ENTER)	User set Cell Count CANCEL(STOP)
-----------------------------	---------------------------------	-------------------------------------

WORKING INTERFACE



Work Finished

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



PROGRAM OF NiMH/NiCd

Press +/- to shift the work modes between the battery and the charger.

Press ENTER to select

Press STOP to quit

```
NiMH CHARGE
10.0A
```

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

```
NiMH DISCHARGE
2.0A 10.0V(10S)
```

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

```
NiMH CYCLE
C-D Times: 3
```

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

Battery Type: NiMH/NiCd

```
NiMH CHARGE
10.0A
```

Work Mode: Charge

Current

Battery Type: NiMH/NiCd

```
NiMH DISCHARGE
2.0A 10.0V(10S)
```

Work Mode: Discharge

Current

Cell Count

Battery Type: NiMH/NiCd

```
NiMH CYCLE
C-D Times: 3
```

Work Mode: Cycle

Order

Times

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

Current

Battery Voltage

NiMH 10.0A 10.20V
CHG 038:38 2668

Timer

Capacity

Work Finished

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

Press

STATUS

Data

NiMH 5.0A 22.20V
CHG 038:38 2668

CaCapacity 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

Pb CHARGE
10.0A 12.0V(6S)

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

Pb DISCHARGE
2.0A 12.0V(6S)

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

Current Pb CHARGE
10.0A 12.0V(6S) Cell Count Work Mode:Charge

Current Pb DISCHARGE
2.0A 12.0V(6S) Cell Count Work Mode:Discharge

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

Current

Battery Voltage

```

6S
Pb 10.0A 12.00V
CHG 038:38 2868
    
```

Timer

Capacity

Status

Press ENTER to return

```

Pb 10.0A 12.00V
CHG 038:38 2868
    
```

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
    
```

```

End Voltage
        14.70V(6S)
    
```

Work Finished

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

```

FULL Pb 0.5A 14.70V
CHG 058:38 4988
    
```

PROGRAM OF USER SETTINGS

PROGRAM SELECT User Settings	Key Beep On Buzzer On	LiPo Charge TUC 4200mU/s
	Completion Ring Beep 1Min	LiPo Discharge TUC 3200mU/s
	Cycle Waste Time 5Min	LiHV Charge TUC 4350mU/s
	Low Input VOLT Cut-Off 10.0V	LiHV Discharge TUC 3300mU/s
	Ext-TEMP Cut-off	LiFe Charge TUC 3600mU/s
	Capacity Cut-off On 5000mAh	LiFe Discharge TUC 2500mU/s
	Safety Timer On 240Min	LiFe Charge TUC 3600mU/s
	Charge Power Limit 240W	LiFe Discharge TUC 2500mU/s
	LiXx Balance Control Standard	NiMH Sensitivity D.Peak 4mU
	Termination Voltage Control	NiMH Discharge TUC 800mU
	Reset Factory Default Setting	NiCd Sensitivity D.Peak 7mU
		NiCd Discharge TUC 1000mU
		Pb Charge TUC 2400mU/s
		Pb Discharge TUC 1500mU/s

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. Keep 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 mode 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 your 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 100-6000mAh 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 240W

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

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

LiPo Charge
TUC 4200mV/s

Range from 4150-4250 mV/s
Default: 4200mV/s

LiPo Discharge
TUC 3200mV/s

Range from 3000-3850mV/s
Default: 3200mV/s

LiHV Charge
TUC 4350mV/s

Range from 4300-4400 mV/s
Default: 4350mV/s

LiHV Discharge
TUC 3300mV/s

Range from 3100-3950mV/s
Default: 3300mV/s

LiIo Charge
TUC 4100mV/s

Range from 3750-4200mV/s
Default: 4100mV/s

LiIo Discharge
TUC 2500mV/s

Range from 3000-3750mV/s
Default: 3100mV/s

LiFe Charge
TUC 3600mV/s

Range from 3300-3800mV/s
Default: 3600mV/s

LiFe Discharge
TUC 2500mV/s

Range from 2500-3300mV/s
Default: 2500mV/s

NiMH Sensitivity
Default

Range from 4-20mV
Default: 800mV/s

NiMH Discharge
TUC 800mV/s

Range from 500-1000mV/s
Default: 800mV/s

NiCd Sensitivity
0. Peak 7mV

Range from 4-20mV
Default: 7mV

NiCd Discharge
TUC 1000mV/s

Range from 500-1000mV/s
Default: 1000mV/s

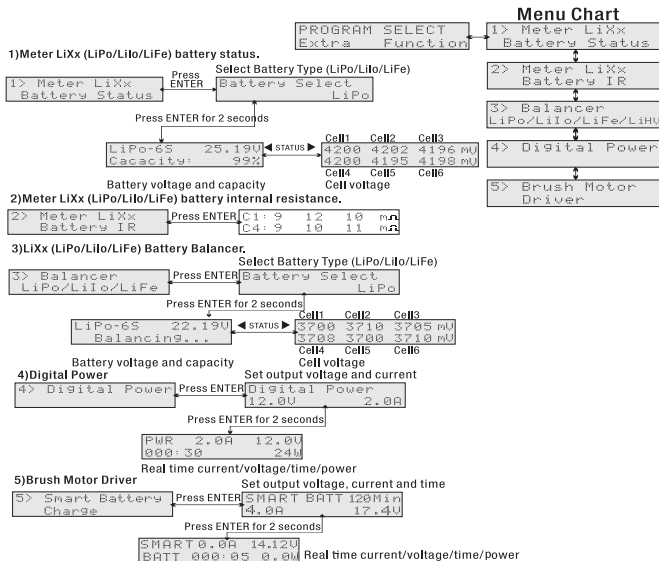
Pb Charge
TUC 2.4W/s

Range from 1500-2500mV/s
Default: 2400mV/s

Pb Discharge
TUC 1.5W/s

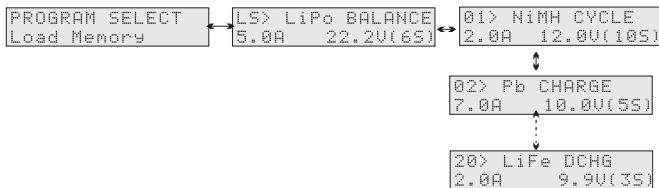
Range from 1000-1500mV/s
Default: 1500mV/s

PROGRAM OF EXTRA FUNCTION



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.

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.

SUPPORT AND SERVICES

WARRANTY

Hobbyking 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.

LIABILITY EXCLUSION

This charger is designed and approved exclusively for charge the types of battery stated in this manual. **HobbyKing** do not accept any liability if the charger is used for any purpose other than that stated. We are unable to ensure you follow the instructions come with the charger, and we have no control over the methods you employ for using, operating and maintaining this device. For this reason we are obliged to deny the liability for loss, damage or costs which are incurred due to the incompetent or incorrect use and operation of this product, or which are connected with such operation in any way. Unless otherwise prescribed by law, our obligation to pay compensation, regardless of the legal argument employed, is limited to the invoice value of those products which were immediately and directly involved in the event in which the damage occurred

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