

**imax**

**B6AC+**



# Instruction Manual

Professional Intelligent Digital Balance Charger

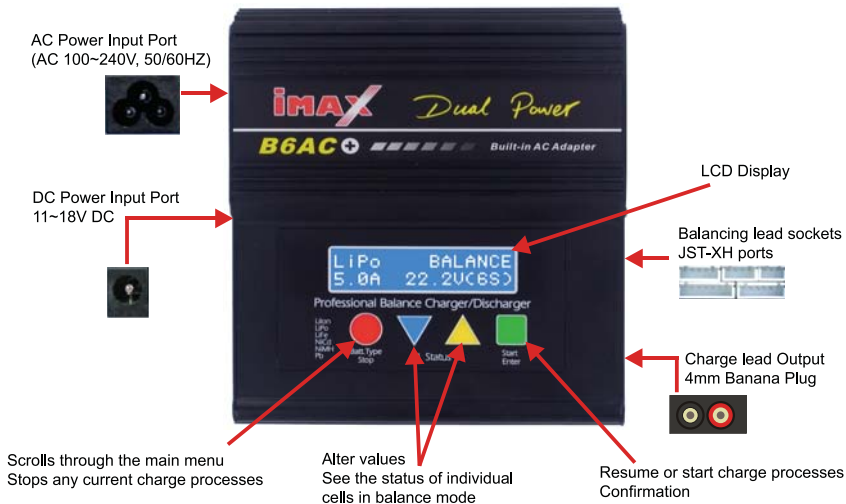
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# Introduction

Thank you for purchasing the B6AC+ LiPo balancing charger from SKYRC. This product is a rapid charger with a high performance microprocessor and specialized operating software. Please read the operating manual carefully before using this product, as it covers all aspects of operation and safety.



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## ***Special features***

### **Optimized operating software**

The B6AC+ features an AUTO detection function that sets the feeding current during charging and discharging. This can prevent overcharging, especially for lithium cells, which may lead to battery failure. If any malfunction is detected an alarm will sound and the charger will automatically disconnect the charging circuit. All the programs are monitored in this way to achieve maximum safety and minimize failure. All the internal settings can be configured by the user.

### **Internal independent lithium battery balancer**

The B6AC+ employs an individual cell voltage balancer. This means it is not necessary to use an external balancing system.

### **Balancing individual cells battery discharging**

While discharging the B6AC+ can monitor and balance each cell on the battery individually. If during discharging it detects any abnormal cell voltages it will automatically stop and inform you.

### **Adaptable to various types of lithium battery**

All types of lithium cells are covered with charge options for Li-ion, LiPo and LiFe series cells.

### **Fast and storage mode for lithium battery**

There are two charge modes for your lithium cells. 'Fast' is the normal charge mode for everyday use. 'Store' mode allows you to preset the voltage cut off of the charge process at a low level. This is ideal for storing your lithium cells.

### **PC based analysis using USB communication**

B6AC+ offer PC based program can analysis the characteristic of the battery via USB port. It shows a graph of voltage, current, capacity curves. It also shows the individual voltage of each cell in the Lithium battery pack.

PC-LINK USB adaptor can be purchased separately.

**Maximum safety**

Delta-peak is a charge termination program based on voltage detection. When the battery's voltage exceeds the threshold the charge process will automatically stop.

**Automatic charging current limit**

It is possible to manually set the maximum charging current when charging your NiCd or NiMH battery packs. When charging low impedance and capacity NiMH packs the 'AUTO' charging mode is useful.

**Capacity limit**

The charging capacity is always calculated as charging current multiplied by time. If the charging capacity exceeds your chosen limit, the charge process will be terminated automatically.

**Temperature threshold\***

The cell's internal chemical reaction while charging will cause the temperature of the cell to rise. If the threshold is reached the charging process will be terminated.

\*This function is available when connecting the temperature probe. Available as an optional part.

**Input power monitoring**

If a DC power supply is being used for operating the charger, the DC voltage is constantly monitored to make sure that it does not fall below an acceptable limit. If this limit is reached the charger will stop any processes automatically.

**Data store/load**

Simplify charging by storing up to 5 battery pack profiles for charging different types of car/plane batteries, transmitter pack, receiver batteries and more.

**Cyclic charging/discharging**

Revive battery packs for periodic maintenance or after a long storage. The charger safely charges the battery to full capacity then slowly discharges it to a safe level up to 5 times. Ideal if you don't use your batteries regularly.

## MAXIMUM CIRCUIT POWER CHART

The total circuit power of this charger; (1) Charge : 50 Watts, (2) Discharge: 5Watts  
 For the voltage of battery more than 10V, the actual amount of charge current delivered to the battery will automatically be limited. The actual feeding current will be as follows;

	No. of Cells	Rated Voltage(V)	Max. Charge Voltage(V)	Charge Current (A)	Discharge Current(A)		No. of Cells	Rated Voltage(V)	Max. Charge Voltage(V)	Charge Current (A)	Discharge Current(A)	
NiCd/NIMH	1	1.20	1.50	5.00	1.00	LiFe	1S	3.30	3.60	5.00	1.00	
	2	2.40	3.00	5.00	1.00		2S	6.60	7.20	5.00	0.69	
	3	3.60	4.50	5.00	1.00		3S	9.90	10.80	5.00	0.46	
	4	4.80	6.00	5.00	0.83		4S	13.20	14.40	3.79	0.35	
	5	6.00	7.50	5.00	0.67		5S	16.50	18.00	3.03	0.28	
	6	7.20	9.00	5.00	0.56		6S	19.80	21.60	2.53	0.23	
	7	8.40	10.50	5.00	0.48		Lilon	1S	3.60	4.10	5.00	1.00
	8	9.60	12.00	5.00	0.42			2S	7.20	8.20	5.00	0.61
	9	10.80	13.50	4.63	0.37			3S	10.80	12.30	4.63	0.41
	10	12.00	15.00	4.17	0.33			4S	14.40	16.40	3.47	0.30
	11	13.20	16.50	3.79	0.30			5S	18.00	20.50	2.78	0.24
	12	14.40	18.00	3.47	0.28			6S	21.60	24.60	2.31	0.20
	13	15.60	19.50	3.21	0.26		Pb		6.00	6.90	5.00	0.72
	14	16.80	21.00	2.98	0.24				8.00	9.20	5.00	0.54
	15	18.00	22.50	2.78	0.22				10.00	11.50	5.00	0.43
LiPo	1S	3.70	4.20	5.00	1.00			12.00	13.80	4.17	0.36	
	2S	7.40	8.40	5.00	0.60			14.00	16.10	3.57	0.31	
	3S	11.10	12.60	4.50	0.40			16.00	18.40	3.13	0.27	
	4S	14.80	16.80	3.38	0.30		18.00	20.70	2.78	0.24		
	5S	18.50	21.00	2.70	0.24		20.00	23.00	2.50	0.22		
	6S	22.20	25.20	2.25	0.20							

---

## ***Lithium polymer balance charge program connection diagram***

This diagram shows the correct way to connect your battery to the B6AC+ Charger while charging in the balance charge program mode only.

### **WARNING:**

Failure to connect as shown in this diagram will damage the charger.



The main battery leads must be connected along with the balance lead connector as shown before charging your battery.

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### **WARNING:**

- ❗ If crocodile clips are being used to connect the battery, please make sure they are unable to touch together!

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 **Warning and safety notes**

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These warnings and safety notes are particularly important. Please follow the instructions for maximum safety; Your batteries, charger and person can be damaged if this product is misused.

- 
- ❗ Never leave the charger unattended when it is connected to its power supply. If any malfunction is found, Turn off the charger and refer to the operation manual.
- 
- ❗ Keep the charger well away from dust, damp, rain, direct sunlight, and vibrations.  
Do not drop it
- 
- ❗ The allowable input voltage is 11-18V DC & 100-240V AC (Auto-switchable)
- 
- ❗ This charger and any battery you wish to charge should be put on a heat resistant, non flammable and non conductive surface. Never charge on your car seat, carpet or similar.  
Keep all inflammable volatile materials away from your charging area.
- 
- ❗ Make sure the specifications of the battery to be charged or discharged meet the requirements of this charger. An incorrect charge program can damage your battery and lead to fire or explosion due to overcharging. The warranty is not valid for any damage or subsequent damage arising as a result of misuse or failure to observe procedures outlined in this manual.
-



### NiCd/NiMH

Voltage Level: 1.2v/cell

Allowable fast charge current: 1-2C (Depends on the performance of the cell)

Discharge voltage cut off level: 0.85v/cell (NiCd), 1.0v/cell (NiMH)

### Li-ion

Voltage Level: 3.6v/cell

Max charge voltage: 4.1v/cell

Allowable fast charge current: 1C or less

Discharge voltage cut off level: 2.5v/cell or higher

### LiPo

Voltage Level: 3.7v/cell

Max charge voltage: 4.2v/cell

Allowable fast charge current: 1C or less

Discharge voltage cut off level: 3.0v/cell or higher

### LiFe

Voltage Level: 3.3v/cell

Max charge voltage: 3.6v/cell

Allowable fast charge current: 4C or less

Discharge voltage cut off level: 2.0v/cell or higher

### Pb

Voltage Level: 2.0v/cell

Max charge voltage: 2.46v/cell

Allowable fast charge current: 0.4C or less

Discharge voltage cut off level: 1.75v/cell or higher

## WARNING AND SAFETY NOTES

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- ❗ To avoid a short circuit between the charge leads always connect the charge cable to the charger first, then connect the battery. Reverse the sequence when disconnecting.
- ❗ Do not connect more than one battery pack to the charger at any one time.
- ❗ Never attempt to charge or discharge the following types of batteries:

- A battery pack that contains different types of cells (including different manufacturers)
- To recharge a battery that has just been fully charged or is already fully charged.
- Non rechargeable batteries (explosion hazard)
- Batteries that require a different charge technique from NiCd, MiMh, LiPo or Pb/Lead acid/Gel cell
- A faulty or damaged battery
- A battery fitted with an internal charge circuit or protection circuit
- Batteries installed in a device or which are electrically linked to other components
- Batteries that are not expressly stated by the manufacturer to be suitable for the currents that the charger can deliver during the charge process

**!** Please be aware of the following before commencing charging:

- Has the correct program been selected for the type of battery you wish to use?
- Did you set an adequate current for charging or discharging?
- Have you checked the battery voltage? Lithium battery packs can be wired in parallel and in series, 2 cell pack can be 3.7v (in parallel) or 7.4v (in series)
- Have you checked that all the connections are firm and secure? Make sure there are no intermittent contacts at any point in the circuit.

**!** **Charging**

The Maximum charge current varies depending on the battery type or its performance, and this information can be found in the manufacturer's battery instructions. Only batteries that expressly state they are capable of being quick charged are allowed to be charged at higher rates than the standard charge current.

When connecting the battery pack to the charger: Red is Positive and Black is Negative. Always make sure that the connection leads are of an adequate conductive cross section and that the connectors used are of high quality, normally gold plated. This reduces the resistance and allows the charger to function correctly.

## WARNING AND SAFETY NOTES

Always refer to the battery manufacturers instructions for charging methods, recommended charging currents and times.

This is especially true for Lithium batteries. Also note that Lithium cells can be wired in both parallel and in series. Please make sure you have the correct voltage and capacity before commencing charging.

Do not attempt to disassemble the battery pack arbitrarily.

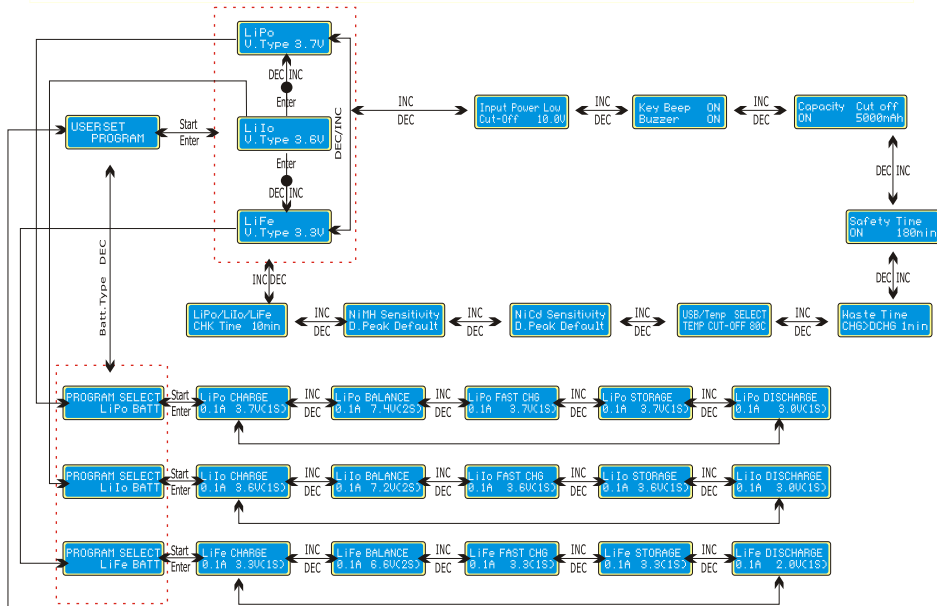
### Discharging

The main purpose of discharging is to clean residual capacity, or to reduce the battery voltage to a defined level. The same attention should be paid to the discharge process as charging. The final defined discharge voltage should be set up to avoid deep discharging. Lithium cells are especially prone to this, if discharged below a minimum voltage it will cause a rapid loss of capacity or total failure of the cell.

Some rechargeable batteries (NiCd & NiMh) have a memory effect. If they are partly used and then recharged, they can “remember” this and will only use that part of their capacity next time. A discharge cycle can help return the battery to its normal operating cycle.

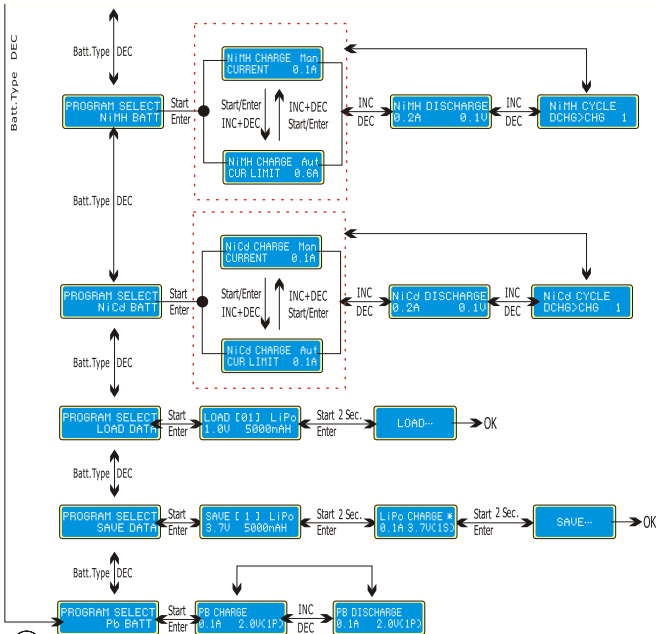
It is not recommended to fully discharge and charge Lithium Battery packs. Always keep partially charged. From new a lithium cell's full capacity can be optimized by putting the pack through 10 or more charge cycles. The cycle process of charge and discharge will optimize the capacity of the battery pack.

# PROGRAM FLOW CHART



Continued on the next page!

# PROGRAM FLOW CHART



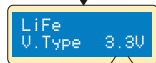
## INITIAL PARAMETER SETUP (USER SETUP)

As default this charger will be set to typical user settings when it is connected to AC 100-240v or DC 11-18v for the first time. The screen displays the following information in sequence and the user can change the parameter on each screen.

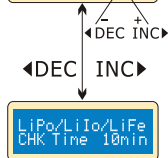
If you need to alter the parameter value in the program, press “Start/Enter” key to make your selection blink then change the value with the “INC” or “DEC” keys. The value will be stored by pressing “Start/Enter” key once.



User setup starting screen.

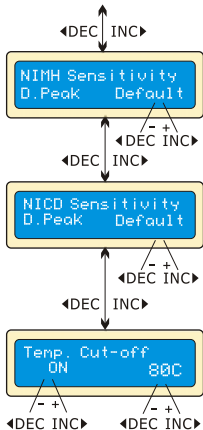


The screen displays the nominal voltage of the Lithium battery. There are three kinds of Lithium cell: LiFe(3.3v), Li-ion(3.6v) and LiPo(3.7v). It is very important that you check the battery carefully and set the correct battery type before charging.



The B6AC+ will recognize the cell count of the lithium battery automatically at the beginning of the charge or discharge process. A re-check time can be set into the process to prevent an incorrect reading, this can happen with a deeply discharged battery. Normally 10 minutes is enough for the charger to correctly perceive the cell count. You can increase or decrease this time depending on the capacity of the battery pack and the overall charge time. The default setting will cover most applications.

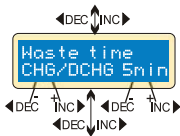
## INITIAL PARAMETER SETUP (USER SETUP)



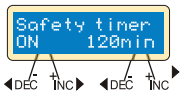
This shows the trigger voltage for the automatic charge termination of NiMH and NiCd batteries. The effective values range from 5 to 20mV per cell. If the trigger voltage is set higher, there is a danger of over charging the battery. If the value is set lower then a premature termination is likely. Please refer to the technical specifications of your battery. (Default settings: NiCd: 12mV, NiMH: 7mv)

With use of the optional temperature probe you can set the temperature cut off to ON or OFF. If you set to ON, you can set the maximum temperature at which the charger should allow the battery to reach during charge. Once a battery reaches this limit, the charge process will be stopped to protect the battery.





The battery becomes warm after process cycles of charge/discharge. This program will insert a time delay after each charge/discharge process to allow the battery to cool down before beginning the next cycle. The value ranges from 0 to 60 minutes.



When a charge process starts, the integrated safety timer starts to run. If an error is detected or the delta peak circuit can not detect whether the battery has fully charged or not, this program will prevent overcharging.

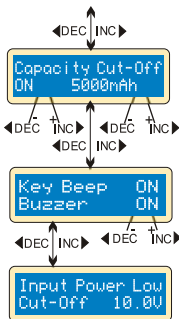
### Safety Timer Calculation

When charging NiCd or NiMH batteries, divide the capacity of the pack by the charge current, then divide the result by 11.9. Set this number as minutes for the value in the safety timer menu. If the charger stopped at this time about 140% of the capacity will have been fed into the battery.

### For Example:

Capacity	Current	Safety Time
2000mAh	2.0A	$(2000/2.0=1000)/11.9=84$ Minutes
3300mAh	3.0A	$(3300/3.0=1100)/11.9=92$ Minutes
1000mAh	1.2A	$(1000/1.2=833)/11.9=70$ Minutes

## INITIAL PARAMETER SETUP (USER SETUP)



This program provides a maximum charge capacity protection function.

If the delta peak voltage can not be detected and the safety timer has not cut in, the charge process will stop automatically when the battery reaches the user set maximum charge capacity.

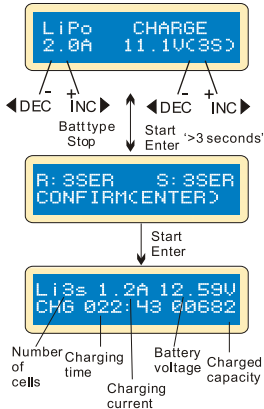
Key Beep is the sound that plays every time a button is pressed. Buzzer is the sound that plays at various times during operation to confirm different mode changes. These can both be switched ON or OFF.

This function monitors the input voltage of the battery used to power the charger. If the voltage becomes lower than the user set value, the program will end forcibly to protect the input battery.

## ***Lithium (LiPo/Li-ion/LiFe) program***

This program is only suitable for the charging/discharging of Lithium(LiPo/Li-ion/LiFe) batteries with a nominal voltage of 3.3/3.6/3.7v per cell. Different batteries have a different charge technique. There are two methods, constant voltage and constant current. The charge current varies depending on the battery capacity and specification. The final voltage is very important. It should precisely match the voltage of the battery: LiPo is 4.2v, Li-ion is 4.1v and LiFe is 3.6v. The current and voltage of the battery should be set correctly. When you want to change the parameters, press START/ENTER key to make your selection blink then use DEC or INC to change the value. The START/ENTER key will then confirm and store the value.

## Charging a lithium battery



The left side on the first line shows the type of battery you chose. The value on the left on the second line is the current. After setting the current and voltage, press START/ENTER key for 3 seconds or more to start the process. (Current: 0.1-5.0A Voltage: 3.7-22.2v)

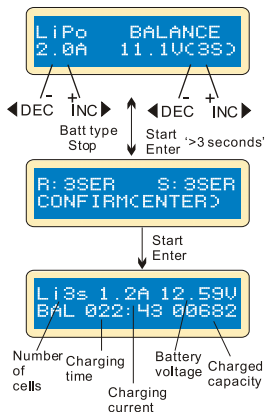
This display shows the number of cells detected by the charger and the number set manually by the user. "R" is the chargers reading. "S" is the user set value, set previously. If both numbers are the same you can start charging by pressing the START/ENTER Key. If not press BATT.TYPE/STOP key to go back and amend if needed.

This screen shows the real time status during the charge process. Press BATT>TYPE/STOP key once to stop the charge process.

## Charging lithium battery in charge mode

The "CHARGE" charging mode is for charging LiPo/Li-ion/LiFe battery without the balancing lead.

## Balance charging a lithium battery



The value on the left on the second line is the current. After setting the current and voltage, press START/ENTER key for 3 seconds or more to start the process. (Current: 0.1-5.0A Voltage: 3.7-22.2v)

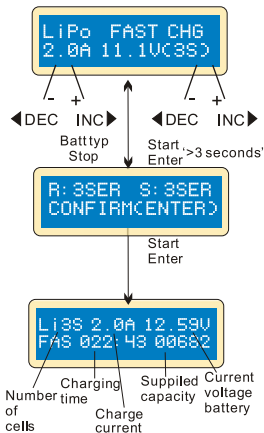
This display shows the number of cells detected by the charger and the number set manually by the user. "R" is the chargers reading. "S" is the user set value, set previously. If both numbers are the same you can start charging by pressing the START/ENTER Key. If not press BATT.TYPE/STOP key to go back and amend if needed.

This screen shows the real time status during the charge process. Press BATT>TYPE/STOP key once to stop the charge process.

## Charging a lithium battery in balance mode

The "BALANCE" function is for balancing the voltage of Lithium-Polymer battery cells while charging. In balance mode, the battery needs to have the balancing lead connected to the balance port on the right side of the charger. The power leads must also be connected to the positive and negative terminals. Charging in this mode means the built-in processor monitors individual cell voltage and controls the input current fed into each cell to equalise the voltage of that individual cell with the others in the pack.

## Fast charging a lithium battery



The left side on the first line shows the type of battery you chose. The value on the left on the second line is the current. After setting the current and voltage, press START/ENTER key for 3 seconds or more to start the process. (Current: 0.1-5.0A Voltage: 3.7-22.2v)

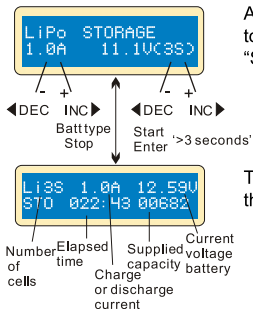
This display shows the number of cells detected by the charger and the number set manually by the user. "R" is the chargers reading. "S" is the user set value, set previously. If both numbers are the same you can start charging by pressing the START/ENTER Key. If not press BATT.TYPE/STOP key to go back and amend if needed.

This screen shows the real time status during the charge process. Press BATT>TYPE/STOP key once to stop the charge process.

### Charging a lithium battery in the fast charge mode

The "FAST CHG" function is for fast charging your battery. During this process the charger will reduce the current fed to the battery towards the end of the charge process. The charging current will reduce to 1/5th in the last 1/10th of the charge process. The charge capacity will be a little smaller, but charging times are greatly reduced.

## Storage control of a lithium battery



At this screen, the user can set up the current and voltage of the battery pack to be stored. Charging and discharging will bring the battery to the “STORAGE” voltage level.

This screen shows the real time status of the charge/discharge process. Press the BATT.TYPE/STOP key once to stop the process.

## Charging a lithium battery in storage mode

The “STORAGE” function is for charging/discharging batteries which you wish to put away for use later. This program is designed to bring a battery pack to a partially charged state suitable for storage. The voltage level by type is: 3.75v Li-ion, 3.85v LiPo and 3.3v LiFe. The program will automatically discharge the pack if the voltage exceeds the storage level of that type of battery pack.

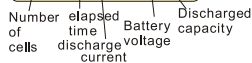
## Discharging of a lithium battery

```
LiPo DISCHARGE
1.0A 11.10C3S>
```



The value of the discharge current on the left of the screen can not exceed 1C, and the value on the right can not be under the voltage recommended by the manufacturer to avoid deep discharging. Press START/ENTER for more than 3 seconds to start discharging.

```
Li3S 0.4A 12.59V
DSC 022:43 00682
```



This screen shows the real time status of the discharging, you can press BATT.TYPE/STOP key to stop discharging at any time.

```
BATTERY VOL ERR
CELL LOW VOL
```

INC ▶

```
4.14 4.16 4.09
2.18 0.00 0.00
```

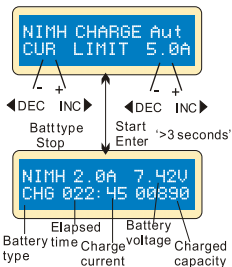
If this screen shows, the processor has detected that the voltage of one cell is too low.

This screen can show the listed voltage of each cell. In this case the 4th cell is damaged. The voltage levels can be seen if the charger auto detects a problem.

## Voltage balancing and monitoring during the discharge process

The processor monitors the voltage of each cell during the "STORAGE" and "DISCHARGING" process. If the voltage of any cell is abnormal, the B6AC+ will show an error message and stop the current process. By pressing the "INC" key a report can be seen which will let you know which cells are reading abnormally.

## Charging a NiCd/NiMH battery



This program is for charging NiCd/MiMH batteries associated with R/C applications. The user can press START/ENTER key to make the selection blink and then "INC" or "DEC" to change the value. Press START/ENTER again to store the value.

This screen shows the real time status of the charge process. Press BATT.TYPE/STOP at any time to end the program.

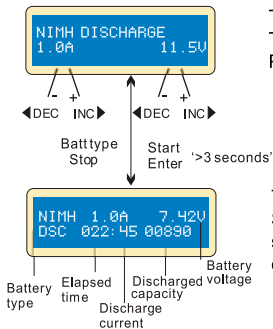
## Charging a NiCd/NiMH battery in charge mode

This program will charge the battery at the current the user sets manually. In the "AUTO" function an upper limit should still be set, to avoid excessive feeding of current. Some batteries with low resistance and capacity can lead to a high current charge in "AUTO". To change between "AUTO" and "MANUAL" highlight the top line and press "INC" or "DEC" to swap between the two modes.

NB: Allowable fast charge current: 1-2C



## Discharging a NiCd/NiMH battery



The discharge current is set on the left and the final voltage on the right. The current value can range from 0.1-1.0A. The voltage range is 0.1-25.0v. Press the START/ENTER for more than 3 seconds to start the program.

This screen shows the real time discharging status. The user can press START/ENTER key to alter the discharge current at any time and again to store the value. Press BATT>TYPE/STOP key at any time to stop the discharge process.

## Charge/discharge cycle of a NiCd/NiMH battery

```
NIMH CYCLE
DCHG>CHG 3
```

← DEC INC →   ← DEC INC →

Batttype Stop   Start, >3seconds' Enter

```
NIMH 1.0A 7.42V
D>C 022:45 00890
```

Battery type   Elapsed time   Battery voltage or discharged or charged capacity  
Discharge or charge current

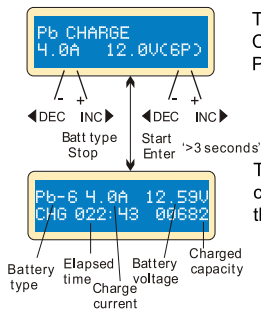
```
DCHG 1 1314mAh
CHG 1 1430mAh
```

The type of sequence can be set on the left and the number of cycles in the sequence can be set on the right (1-5)

This screen shows the real time status. The current can be altered by pressing the START/ENTER key and again to confirm the new setting. The BATT.TYPE/STOP will stop the process at any time.

When the process is reaching the end, you can press "INC" or "DEC" to see the results from each cycle.

## Charging a Pb battery



The charge current can be set on the left and the nominal voltage on the right. Current range: 0.1-5.0A The voltage should match the battery being charged. Press START/ENTER key for more than 3 seconds to start charging.

This screen shows the real time status. Press START/ENTER to alter the current and again to confirm the selection. The BATT.TYPE/STOP key will stop the process at any time.

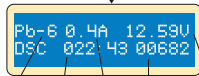
### Charging a Pb (lead-acid) battery in charge mode

The "Pb CHARGE" program is only suitable for charging Pb (lead acid) batteries with a nominal voltage from 2-20v. Pb batteries can only deliver current lower in comparison to their capacity. The same restriction applies to the charging process. Consequently, the optimum charge current can only be set at 1/10th of the capacity. Pb batteries can not be fast charged. Please follow the instructions from the manufacturer. Due to the Characteristics of a Pb battery, the cut off point can be difficult to detect. We recommend that a user set capacity cut off is used to protect the battery.

## Discharging of a Pb battery



The discharge current is set on the left and the nominal voltage is set on the right. Discharge value ranges from 0.1-1.0A. The voltage should match the battery that is being discharged. Press START/ENTER key for more than 3 seconds to start the process.

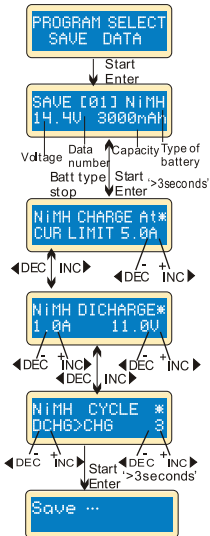


Battery type    Elapsed time    Discharge capacity  
Discharge current    Battery voltage

This screen displays the real time status. Press START/ENTER key to alter the discharge current and again to confirm the selection. Press the BATT.TYPE/STOP key at any time to stop the process.

## Data storage program

For your convenience the B6AC+ has the ability to store and load your program data. It can store up to 5 sets of battery data. You can recall this data when charging or discharging without the need to set up the program again.



Pressing START/ENTER will then allow you to cycle through your saved data "INC" or "DEC" will select the next saved battery. Pressing the START/ENTER key will select that data. The example is a NiMH battery which has 12 cells and a capacity of 3000mAh.

Once selected the charge current can be altered, or the current limit in "AUTO" mode. Press "INC and "DEC" simultaneously to make the current field blink to switch the charge mode.

In "DISCHARGE" mode you can set up the discharge current and final voltage

In "CYCLE" mode you can set the cycle charge/discharge sequence and the number of cycles.

Saving the data.

## ***Loading a data program***

This program allows you to load a previously saved battery data program. Press the START/ENTER key to highlight the data field and “INC” or “DEC” for more than 3 seconds to load the data.

PROGRAM SELECT  
LOAD DATA

Start  
Enter

LOAD [01] NiMH  
14.4V 3000mAh

Start '>3seconds'  
Enter

Load ...

Choose the data save number you want to call back. Each save will have its data displayed on the screen.

Loading the data.

## Various program information screens

During the charging or discharging process the user can access various information about the program settings. By pressing the “DEC” key the B6AC+ will display the users settings in order. By pressing the “INC” key a display of each cells voltage is shown.

End Voltage  
12.6v(3s)

If the program has ended then the final voltage will be displayed.

◀DEC

Capacity Cut-Off  
On 5000mAh

The capacity cut off settings are displayed.

◀DEC

Safety Timer  
ON 200min

The safety timer settings are displayed.

◀DEC

Temp Cut-OFF  
ON 80C

The temperature cut off settings are displayed.

◀DEC

Ext.Temp 26C

The temperature probe readings are shown when in use.

◀DEC

INPOWERVOLTAGE  
12.56V

The real time internal DC voltage is displayed.

4.14 4.16 4.09  
0.00 0.00 0.00

If the battery is connected via the balancing lead, then you can check the voltage of each cell in the pack by pressing the “INC” key. Up to 6 cells can be displayed.

## ***Warning and error messages***

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The B6AC+ has a variety of safety checks and functions that constantly check all the current processes and electronics. If it finds an error the screen will display the cause and it will emit an audible sound.

REVERSE POLARITY

Polarity incorrectly connected.

CONNECTION BREAK

Battery connection has been interrupted.

SHORT ERR

A short circuit of the output connectors.

INPUT VOL ERR

The input voltage (operating voltage) for the charger is too low.

VOL SELECT ERR

The voltage selection for the Lithium battery pack is incorrect.  
Please check the voltage of the battery pack.

BREAK DOWN

The charger has an internal malfunction.  
Please speak to your retailer.

BATTERY CHECK  
LOW VOLTAGE

The voltage of the battery pack is lower than the manual selection.  
Please check the number of cells in the battery pack.



## WARNING AND ERROR MESSAGES

BATTERY CHECK  
HIGH VOLTAGE

The voltage is higher than the manual setting.  
Please check the number of cells in the battery pack.

BATTERY VOLTAGE  
CELL LOW VOL

The voltage of one cell in the battery pack is too low.  
Please check the voltage of each cell.

BATTERY VOLTAGE  
CELL HIGH VOL

The voltage of one cell in the battery pack is too high.  
Please check the voltage of each cell.

BATTERY VOL ERR  
CELL CONNECT

The connector is not plugged in correctly.  
Please check the connector and cables.

CONTROL FAILURE

The central processor is unable to control the feeding current.  
Please check the input electricity supply.

## RECOMMENDED ACCESSORIES



Software Kit



Temperature Sensor Cable



EH Adaptor



TP/FP Adaptor



XH Adaptor



HP/PQ Adaptor



Futaba RX charging cable



Dean charging cable



Tamiya charging cable



TRAXXAS charging cable



Glow charging cable



Bullet charging cable



EC3 charging cable



Crocodile clip charging cable

## CONFORMITY DECLARATION

B6AC+ satisfy all relevant and mandatory EC directives and FCC Part 15 Subpart B: 2008.

For EC directives:

The product has been tested to meet the following technical standards:

Test Standards	Title	Result
EN 55014-1:2006	Electromagnetic compatibility-Requirements for household appliances, electric tools and Similar apparatus - Part 1: Emission	Conform
EN55014-2:1997+A1:2001	Electromagnetic compatibility-Requirements for household appliances, electric tools and Similar apparatus - Part 2: Immunity-Product family standard	Conform
EN61000-6-1(2007)	Electromagnetic compatibility (EMC) -- Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments	Conform
EN61000-6-3(2007)	Electromagnetic compatibility (EMC) -- Part 6-3: Generic standards-Emission standard for residential, commercial and light-industrial environments.	Conform



This symbol means that you must dispose of electrical from the General household waste when it reaches the end of its useful life.

Take your charger to your local waste collection point or recycling centre.

This applies to all countries of the European Union, and to other European countries with a separate waste collection system.

## ***Specifications***

Operating voltage range	DC 11.0~18.0 V
	AC 100~240V
	50/60HZ
Circuit Power	Max. Charge power 50W
	Max. Discharge power 5W
Charge current range	0.1~5.0A
Discharge current range	0.1~1.0A
Current drain for balancing LiPo	300mA/cell
NiCd/MiMH battery cell count	1~15 cells
LiPo/Lilon/LiFe cell count	1~6 cells
Pb battery voltage	2V~20V
Net weight	645g
Dimension	145 x 134 x 40mm

## ***Warranty and service***

We guarantee this product to be free of manufacturing and assembly defects for a period of one year from the time 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.

You will be required to produce proof of purchase (invoice or receipt). 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 procedures outlined in this manual.

**Manufactured by**  
**SKYRC TECHNOLOGY CO., LTD.**  
**[www.skyrc.com](http://www.skyrc.com)**

All specifications and figures are subject to change without notice.  
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