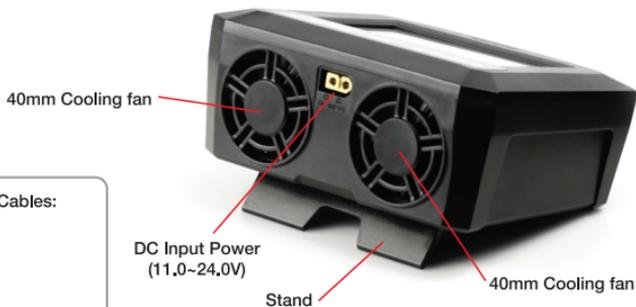


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# EXTERIOR & PARTS VIEW

Thank you for purchasing this Muchmore Racing Cellmaster Specter Charger.  
Please read this manual for helpful operating information.



## Cellmaster Specter Included Cables:

Balancing board: 1  
Multi charging cable: 1  
DC input power cable: 1

# SPECIFICATION

## DC INPUT

11.0~26.0V

## DISPLAY

4.3inch Full Touch Screen LCD

## BATTERIES

Li-Po / Li-Hv / Li-Fe / Li-Ion : 1-6cells  
Ni-Cd / Ni-Mh : 1-15cells  
Pb(Lead Acid) : 2-20V

## CHARGE POWER

40A / 400W

## DISCHARGE POWER

20A / 175W

with DISCHARGE BANK(option)

40A / 350W

## BALANCE CURRENT

1A

## Ext. TEMP SOCKET

Futaba 3P Socket

## MEMORY

8 Model Memory

## DIMENSIONS

155 x 128 x 67.5mm(L x W x H)

## WEIGHT

822g

## FIRMWARE UPGRADE

Support software upgrade



Please read the following instructions carefully before you start using your New Muchmore Cellmaster Specter Charger. Muchmore Racing is not responsible for damage by disregarding our (Not suitable for children under 14 years of age)

This charger is ONLY suitable for charging, rechargeable LiPo, LiHv, LiFe, Lilo, NiCd, NiMh, Smart and PB batteries

Do not attempt to charge dry cells, Charge other types of batteries may cause fire or explosion.

Setup the Input Power Limit / Low Input VOLT Cutoff correctly in the USER SETTING for DC power supply.

Pay attention to the charger during use. Do not leave the charger unattended.

Never charge dead or damaged batteries.

Do not attempt to charge a battery pack containing different types of batteries.

Do not use extra long or damaged charge 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 object 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 un balanced pack may damage during charging.

General default charging current is 1C.

Read the specifications for the battery being charged and setup the correct current to charge the battery.

Higher charge/discharge current will damage the battery, even cause a fire.

# BATTERY INFO

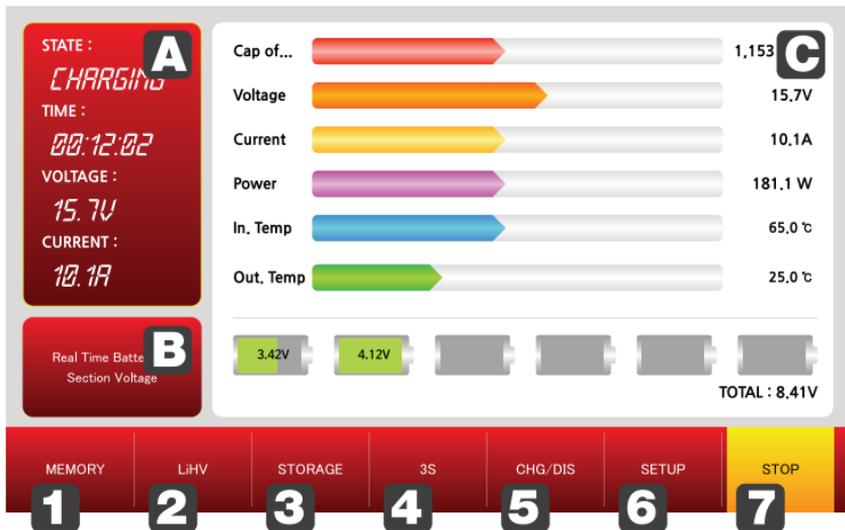
Please read the maximum charging / discharging limit for each type of battery listed below.

※When the battery voltage / charging current is high, the current value is limited according to the maximum output.  
(DC input :upper limit 400W)

BATTERY	CELLS / VOLTAGE ( V )		CHARGE CURRENT	BATTERY	CELLS / VOLTAGE ( V )		CHARGE CURRENT
Li-Po	1	3.7	0.1-40.0A	Li-Hv	1	3.8	0.1-40.0A
	2	7.4			2	7.6	
	3	11.1			3	11.4	
	4	14.8			4	15.2	
	5	18.5			5	19.0	
	6	22.2		6	22.8		
Li-Fe	1	3.3	0.1-40.0A	Li-lo	1	3.6	0.1-40.0A
	2	6.6			2	7.2	
	3	9.9			3	10.8	
	4	13.2			4	14.4	
	5	16.5			5	18.0	
	6	19.8		6	21.6		
Ni-Mh Ni-Cd	1	1.2	0.1-40.0A	Ni-Mh Ni-Cd	9	10.8	0.1-40.0A
	2	2.4			10	12.0	
	3	3.6			11	13.2	
	4	4.8			12	14.4	
	5	6.0			13	15.6	
	6	7.2			14	16.8	
	7	8.4			15	18.0	
	8	9.6					
Pb	1	2	0.1-40.0A	Pb	7	14	0.1-40.0A
	2	4			8	16	
	3	6			9	18	
	4	8			10	20	
	5	10			11	22	
	6	12			12	24	

BATTERY TYPE	Li-Po	Li-Hv	Li-Fe	Li-lo	Ni-Mh/Ni-Cd	Pb
VOLTAGE LEVEL	3.7V/Cell	3.8V/Cell	3.3V/Cell	3.6V/Cell	1.2V/Cell	2.0V/Cell
MAX VOLTAGE CURRENT	4.2V/Cell	4.35V/Cell	3.8V/Cell	4.1V/Cell	1.6V/Cell	2.45V/Cell
DISCHARGE VOLTAGE CUT OFF LEVEL	3.0/Cell or Higher	3.2/Cell or Higher	2.0/Cell or Higher	3.0/Cell or Higher	0.8V/Cell or Higher	1.5V/Cell or Higher

# USER INTERFACE



## ■ INFORMATION

- A. PROGRAM INFO
- B. MENU TITLE & BATTERY INFO VIEW SELECT
- C. BATTERY INFO

## ■ MENU BAR

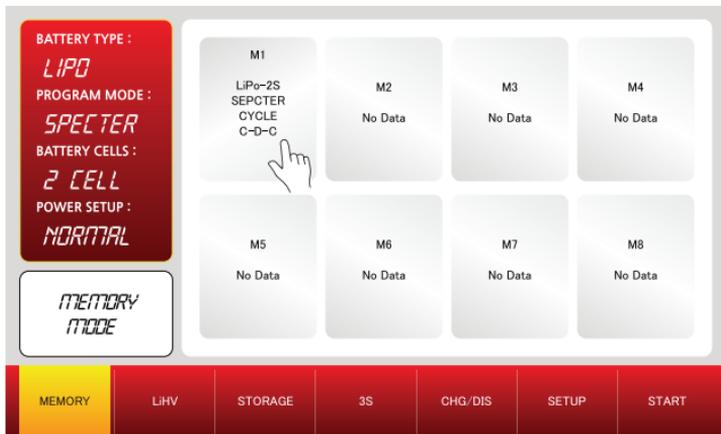
- 1. MEMORY
- 2. BATTERY SELECT MODE
- 3. PROGRAM SETUP
- 4. BATTERY CELL COUNT
- 5. CURRENT SETUP
- 6. SETUP MODE
- 7. START/STOP

# MEMORY

## ■ MEMORY MENU

The Cellmaster Specter charger can store up to 8 model memory.

Depending on the battery you use, you can quickly manage the battery with the required settings.



## ■ HOW TO USE MEMORY MENU

### 1. Memory storage

Before saving the memory, set the battery and charge/discharge data used, then press and hold the menu to be stored until the beep sounds twice.

In the popup window, press "SAVE" among the SAVE, RENAME, DELETE and BACK buttons.

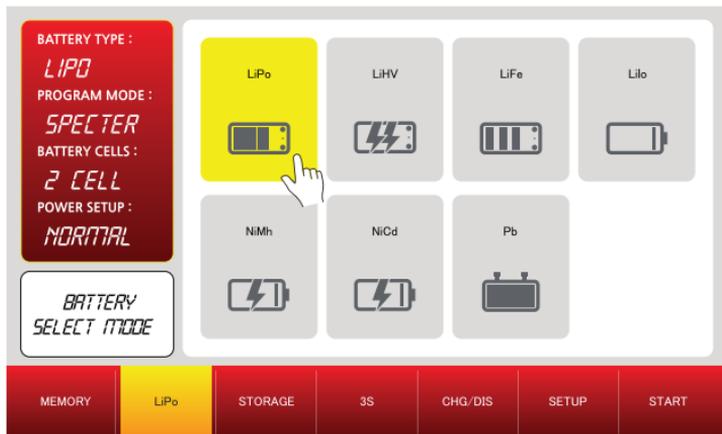
### 2. Use stored memory

When using the stored memory, if you touch the memory briefly, the value set in the memory is applied immediately.

# BATTERY SELECT MODE

## ■ BATTERY SELECT MODE

Choose according to the type of battery you want to use.



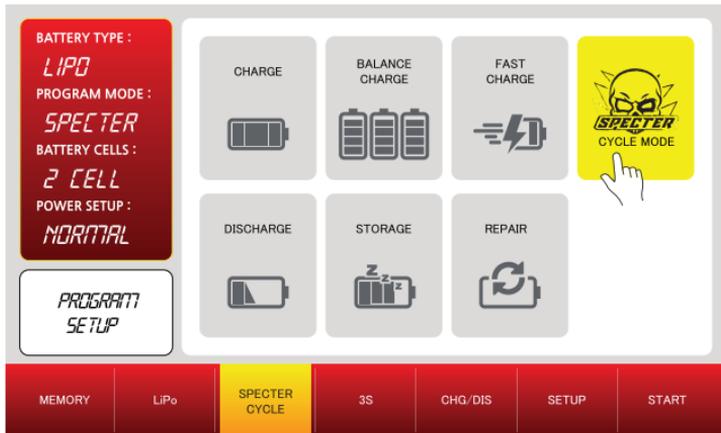
## ■ CAUTION!!!

If you run the program after selecting a different type of battery from the battery connected to the charger, it may cause battery or charger failure. Be sure to check the battery type before use.

# PROGRAM SETUP

## PROGRAM SETUP MODE

Select the mode you want to use.



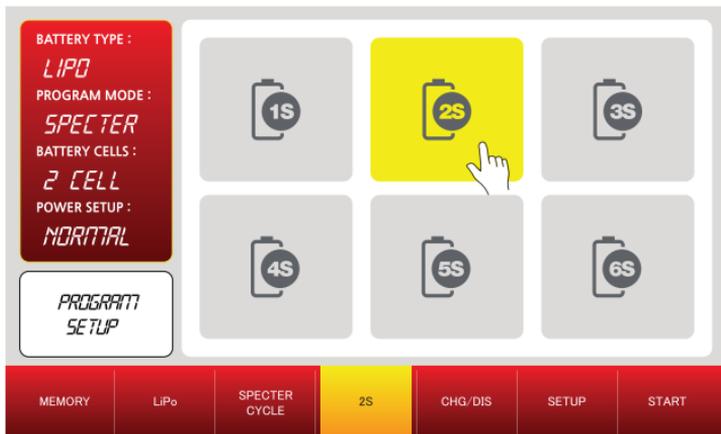
## PROGRAM INFORMATION

- 1. CHARGE** : Charge the battery.
- 2. BALANCE CHARGE** : When charging the battery, it optimizes the balance of each cell and charges it.
- 3. FAST CHARGE** : When charging the battery, it reaches the end voltage and finishes the balancing quickly.  
(After charging, the end voltage may be lower than the balance mode.)
- 4. SPECTER CYCLE MODE** : Optimized mode for checking battery condition or using in races.
- 5. DISCHARGE** : Discharges the battery.
- 6. STORAGE** : Storage mode. It is used to store the battery for long/short.  
(Basic settings differ depending on the type of battery.)
- 7. REPAIR** : Used when the LI-XX (lithium-based) battery is over-discharged and charging is not performed in normal mode.  
(Please set the battery type and the number of cells correctly.)

# BATTERY CELL COUNT

## ■ BATTERY CELL COUNT MODE

Set the number of cells of the battery you want to use.



## ■ BATTERY MAX CELL COUNT

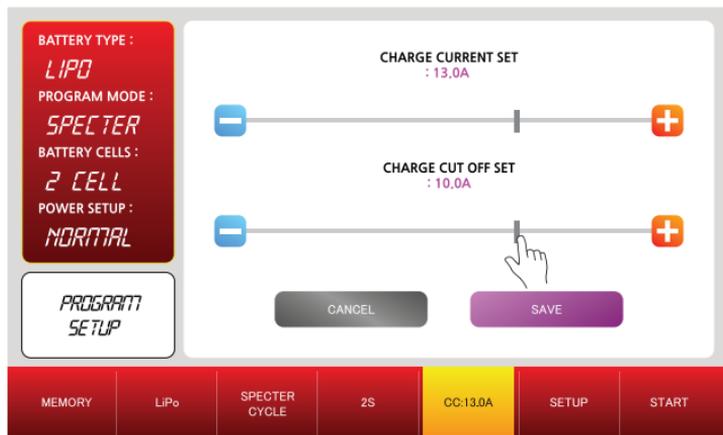
1. Li-Po / Li-Fe / Li-Ion : 6cell
2. Ni-Mh / Ni-Cd : 16cell
3. Pb : 10cell

※ If the number of battery cells is set differently, it may cause battery damage.

# CURRENT SETUP

## ■ CURRENT SETUP

Set the charge/discharge current value and end voltage of the battery.



## ■ CURRENT MENU SETUP VALUE

※ Setup data is displayed differently depending on the battery type and program.

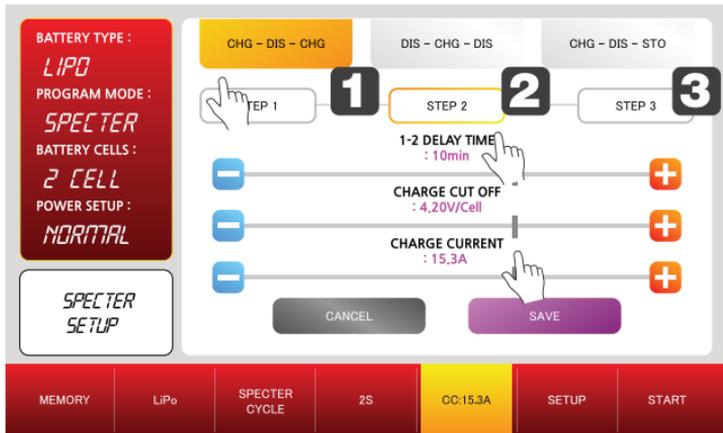
Please familiarize yourself with the information below and use the correct settings for your battery.

1. CHARGE CURRENT : Charging current setting.
2. CHARGE CUT OFF SET : Charging end voltage setting.
3. DISCHARGE CURRENT : Discharge current setting.
4. DISCHARGE CUT OFF SET : Discharge end voltage setting.
5. DELAY TIME : Delay time setting between cycle mode steps. (SPECTER CYCLE MODE only)

# CURRENT SETUP (SPECTER Mode)

## ■ SPECTER SETUP MODE

This is a 3-step cycle mode. Select and use the mode that suits your application.



## ■ SPECTER CURRENT MENU SETUP VALUE

※ Specter cycle mode data setting guide.

1. CHG-DIS-CHG : Charge > Discharge > Charge

: This mode is for battery activation before use. This mode is for using the activated battery immediately.

2. DIS-CHG-DIS : Discharge > Charge > Discharge

: This mode allows you to check the condition of the battery more accurately.

You can check the maximum performance of the activated battery.

3. CHG-DIS-STO : Charge > Discharge > Storage

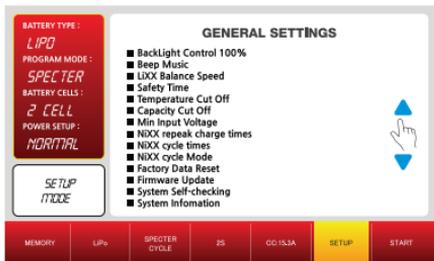
: It is a mode to check the battery performance and store it immediately.

You can quickly check the condition of the battery that has not been used for a long time.

# GENERAL SETTING

## ■ GENERAL SETTING

You can change the default settings of the charger and the settings of each mode.



## ■ SETUP LIST

- |   |  |
|---|--|
| 1. BackLight Control (5~100%)               | : LCD Adjust the brightness of the screen backlight.   |
| 2. Beep Music (On / Off)                    | : Use of beep sound.   |
| 3. LiXX Balance Speed (Low / Medium / High) | : Li-XX battery balance speed.   |
| 4. Safety Time                              | : Automatically shuts down if the battery is charged longer than the set time.                           |
| 5. Temperature Cut Off (Off, 20~100°C)      | : When charging, if the battery temperature is higher than the set value, it is automatically shut down. |
| 6. Capacity Cut Off (Off, 500~50,000mAh)    | : When charging, if the battery capacity is higher than the set value, it is automatically shut down.    |
| 7. Min Input Voltage (11.0 ~ 24.0V)         | : Setting the minimum input power value required to operate the charger.                                 |
| 8. NiXX reapek charge times (1~5times)      | : NiXX battery reapek charge times select.   |
| 9. NiXX cycle times (1~5times)              | : NiXX battery cycle times set.  |
| 10. NiXX cycle Mode (DIS-CHG / CHG-DIS)     | : NiXX battery cycle charge/discharge sequence setting.  |
| 11. Factory Data Reset                      | : Factory Data Reset : Factory reset settings.   |
| 12. Firmware Update                         | : Firmware update menu.  |
| 13. System Self-checking                    | : A function to check whether the charger is abnormal by self-checking the system.                       |
| 14. System Information                      | : Information on the current firmware and hardware version of the charger.                               |

# ERROR MESSAGE



Please read the following instructions carefully before you start using your products.

Muchmore racing cannot be held responsible for damage, and results of onobservance of the warning notes and security advices.

1. Balance Port not Connect ! : The battery pack balance wire is not connected, please connect the battery balance wire correctly as required
2. Connection Break ! : Connection Breaks. The connection between battery and output terminal breaks, or the charging wire is not connected automatically when output operating during charging or discharging.
3. Output short Error ! : The output is short-circuited. Please check the charging wires.
4. Input Voltage Low ! : The input voltage is too low. The voltage of input is lower than the minimum protection voltage.
5. Input Voltage Error ! : The input voltage is error. The voltage of input is lower or higher than the nominal.
6. Battery Voltage Low : The detected battery voltage is low. The voltage detected by processor is lower than the nominal voltage in Lithium Program, please check the cells of batteries in battery pack.
7. Battery Voltage High : The detected voltage is high. The voltage detected by processor is higher than the nominal voltage in Lithium Program, please check the cells of batteries in battery pack.
8. Cell Voltage Low : The cell voltage is low. The voltage of one cell in Lithium battery pack is too low, please check the battery voltage in turn.
9. Cell Voltage High : The cell voltage is high. The voltage of one cell in Lithium battery pack is too high, please check the battery voltage in turn.
10. Output Polarity Reversed ! : The polarity is reversed, The polarity of battery output connected incorrectly.
11. Charger OverHeat ! : The charger has overheated. The internal temperature is very high, so it needs to cool.
12. Current rise too fast ! : The current of charger rises too fast. Please stop charging and re-check charge wiring and data setting.
13. Battery Repair Failed ! : The battery repair failed. The battery failed to reach standard battery voltage after battery repair procedure.

# PRODUCT WARRANTY

## ■ PRODUCT WARRANTY

MUCHMORE RACING warranties our Cellmaster Specter Charger to be free from defects in material and workmanship for a period of 90days from the date of purchase MUCHMORE RACING (or their associated distributors) will repair or replace without charge or refund the purchase price of any product which fails during the warranty period by reason of defect in material or workmanship found upon examination by MUCHMORE RACING to have been the cause of failure. This warranty does not cover any failures attributable to abuse, mishandling, failure to follow operating instruction, alteration or accident, result of normal wear, misuse or improper maintenance.

- Explosion and or Fire
- Damage or abuse to case
- Any circuit board soldering
- Damage to electronic components and circuit boards
- To receive warranty service, the product of all the parts before the first check and troubleshooting instructions.
- To obtain warranty service on products purchased on the receipt of the products you need.

(If you do not have a receipt, the warranty period is not to be recognized.)

- For faster delivery failure or defect repairs and for more information, please fill out the address and contact details

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