redox YGAMMA YGAMMA DUO

Multilingual Instruction Manual

Key Features:
1.Compatible with LiPo/LiIon/LiFe/LiHV
NiMH/NiCd and Pb batteries
2.8 fast Charge、Discharge、Balance Charge.
3.Balance Individual Cells on Discharge
5.Load Memory Function、NiCd/NiMH Cycle

Hauptmerkmale:
1.Kompatibel mit LiPo / LiIonen / LiFe / LiHv、NiMH / NiCd- und Pb-Batterien
2.8x verfügt über die Modi Ladung sofort Entladung, Balancer Ladung und Balancer Entladung
3.Ebenfalls Funktion laden, NiCd / NiMH-Zyklus

Principales características:
1.Compatible con las baterías LiPo / Li-ion / LiFe / LiHv, NiMH / NiCd y Pb
2.8 a la carga, la descarga, la carga equilibrio, la carga rapida, los modos de carga de stockage
3.Función de memoria de cargadores, ciclo NiCd / NiMH

Caracteristiques principale:
1.Compatible avec les batteries LiPo / Li-ion / LiFe / LiHv, NiMH / NiCd et Pb
2.Charge rapide, décharge, charge de equilibre, charge rapide,modes de charge de stockage
3.Fonction de mémoire de charge, cycle NiCd / NiMH

主な機能:
1.リチウムポリマー / LiFe / LiHv、NiMH / NiCd、鉛バッテリーに適合性があります
2.充電、放電、バランス充電、急速充電、ストレージ充電モードがあります
3.ロードメモリ機能、NiCd / NiMH サイクル

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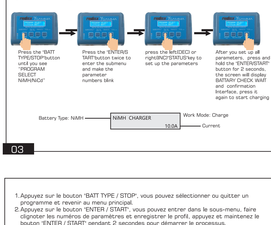
Thank you for purchasing the **GAMMA/DUO** Balance Charger. This product is a rapid charger with a high performance microprocessor and operating software. Please be sure to read this entire operating manual completely before you use this product for the first time,as it covers a wide range of information on operation and safety.

1.Press the'BATT TYPE/STOP'button, you can select or quit a program and back to the main menu.
2.Press the 'ENTER/START'button , you can enter the submenu, make the parameter numbers blink , and save the profile; press and hold the 'ENTER/START'button for 2 seconds to start the process.
3.Press the '-'or '+' button, you can select a program or a submenu, set the parameter; or see the battery charging status

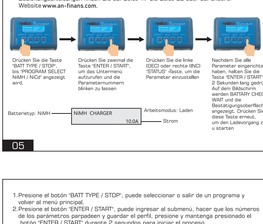
Following is an example of charging NiMH battery, for more operating instructions please refer to Page 17 to Page 32, or Go to our website **www.an-finans.com**.



Vielen Dank, dass Sie sich für das **GAMMA/DUO** Balance Charger entschieden haben. Dieses Produkt ist ein Schnelladegerät mit einem Hochleistungs-Mikroprozessor und einer Betriebssoftware. Bitte lesen Sie die gesamte Bedienungsanleitung vollständig durch, bevor Sie dieses Produkt zum ersten Mal verwenden, da es eine Vielzahl von Informationen zu Betrieb und Sicherheit enthält.

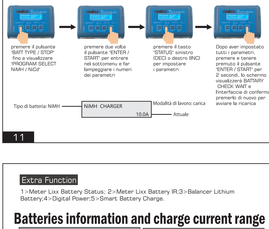
1.Drücken Sie die Taste 'BATT TYPE / STOP'. Sie können ein Programm auswählen oder beenden und zum Hauptmenü zurückkehren.
2.Drücken Sie die Taste 'ENTER / START'. Sie können das Unternehmen aufrufen, die Parameternummern blinken lassen und das Profil speichern. Halten Sie Taste 'ENTER / START' 2 Sekunden lang gedrückt, um den Vorgang zu starten.
3.Drücken Sie auf 'DEC' oder 'INC'. Sie können ein Programm oder ein Unternehmu auswählen, den Parameter einstellen oder den Ladezustand des Akkus anzeigen.

Im Folgenden finden Sie ein Beispiel für das Laden eines NiMH-Akkus. Weitere Bedienungsanleitungen finden Sie auf Seite 17 bis Seite 32 oder auf unserer Website **www.an-finans.com**.

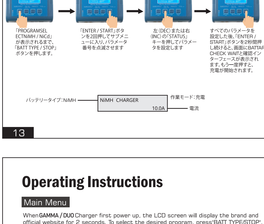


1.Appuyez sur le bouton 'BATT TYPE / STOP', vous pouvez sélectionner ou quitter un programme et revenir au menu principal.
2.Appuyez sur le bouton 'ENTER / START', vous pouvez entrer dans le sous-menu, faire clignoter les numéros de paramètres et enregistrer le profil; appuyez et maintenez le bouton 'ENTER / START' pendant 2 secondes pour démarrer le processus.
3.Appuyez sur 'DEC' ou 'INC', vous pouvez sélectionner un programme ou un sous-menu, définir le paramètre ou voir l'état de charge de la batterie.

Voici un exemple de chargement de la batterie NiMH, pour plus d'instructions d'utilisation, veuillez vous référer à la page 17 à la page 32, ou allez sur notre site Web **www.an-finans.com**.

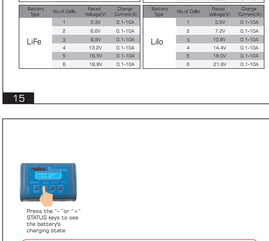


Gracias por adquirir el cargador equilibrado **GAMMA/DUO**. Este producto es un cargador rápido con un microprocesador de alto rendimiento y un software operativo. Asegúrese de leer completamente este manual de instrucciones antes de usar este producto por primera vez, ya que cubre una amplia gama de información sobre operación y seguridad.

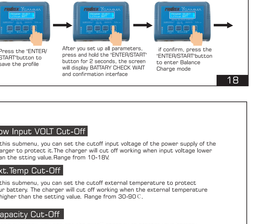


1.Presione el botón 'BATT TYPE / STOP', puede seleccionar o salir de un programa y volver al menú principal.
2.Presione el botón 'ENTER / START', puede ingresar al submenú, hacer que los números de los parámetros parpadeen y guardar el perfil; presione y mantenga presionado el botón 'ENTER / START' durante 2 segundos para iniciar el proceso.
3.Pulse "DEC" o "INC", puede seleccionar un programa o un submenú, configurar el parámetro o ver el estado de carga de la batería.

A continuación se muestra un ejemplo de carga de la batería de NiMH; para obtener más instrucciones de funcionamiento, consulte la página 17 a la página 32 o visite nuestro sitio web **www.an-finans.com**.

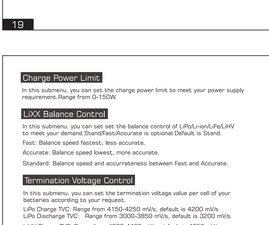


Grazie per aver acquistato il caricatore Balance**GAMMA/DUO**. Questo prodotto è un caricabatterie rapido con un microprocessore ad alte prestazioni e un software operativo. Assicurarsi di leggere per intero questo manuale operativo prima di utilizzare questo prodotto per la prima volta, poiché copre un'ampia gamma di informazioni sul funzionamento e sulla sicurezza.



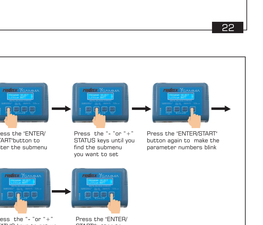
1.Presione el botón 'BATT TYPE / STOP', puede seleccionar o salir de un programa y volver al menú principal.
2.Presione el botón 'ENTER / START', puede ingresar al submenú, hacer que los números de los parámetros parpadeen y guardar el perfil; presione y mantenga presionado el botón 'ENTER / START' durante 2 segundos para iniciar el proceso.
3.Pulse "DEC" o "INC", puede seleccionar un programa o un submenú, configurar el parámetro o ver el estado de carga de la batería.

A continuación se muestra un ejemplo de carga de la batería de NiMH; para obtener más instrucciones de funcionamiento, consulte la página 17 a la página 32 o visite nuestro sitio web **www.an-finans.com**.

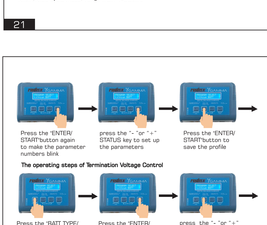


1.Premere il pulsante 'BATT TYPE / STOP', è possibile selezionare o uscire da un programma e tornare al menu principale.
2.Premere il pulsante 'ENTER / START', è possibile accedere al sottomenu, far lampeggiare i numeri dei parametri e salvare il profilo; premere premuto il pulsante 'ENTER / START' per 2 secondi per avviare il processo.
3.Premere il tasto 'DEC' o 'INC', è possibile selezionare un programma o un sottomenu, impostare il parametro o vedere lo stato di carica della batteria.

Di seguito è riportato un esempio di ricarica della batteria NiMH, per ulteriori istruzioni operative fare riferimento a pagina 17 a pagina 32 o visitare il nostro sito Web **www.an-finans.com**.



GAMMA/DUO バランス充電器はご購入いただいたお礼申し上げます。この製品は、高性能マイクロプロセッサと操作ソフトウェアを備えた急速充電器です。操作と安全に関する幅広い情報が含まれているため、このご製品を初めて使用する前に、この操作マニュアルを全体を必ず読みかえしください。



1."BATT TYPE / STOP"ボタンを押すと、プログラムを選択または終了して、メインメニューに戻ることができます。
2."ENTER / START"ボタンを押すと、サブメニューに入り、パラメータ番号を点滅させ、プロファイルを保存し、"ENTER / START"ボタンを2秒間押すと、プロセスを開始できます。
3."DEC"または"INC"を押すと、プログラムまたはサブメニューを選択し、パラメータを設定したり、バッテリーの充電状態を確認したりすることです。

以下は、NiMHバッテリーの充電例です。操作手順の詳細については、17ページから32ページを参照するか、当社のWebサイト**www.an-finans.com**にアクセスしてください。

Key Features

Optimize Operating Software

When charging or discharging **GAMMA / DUO** has an 'AUTO' function that can automatically identifies the cell count of the battery.

Wide Battery Type Compatibility

GAMMA / DUOis compatible with LipoLi-ion/LiFe/LiHv,NiMH/NiCd,and Pb battery . Please select the correct one before charging.

Balance Individual Cells on Discharge

GAMMA / DUOcan also monitor and balance individual cells of the battery pack during discharging.

Fast charge and Storage charge for Li-ion/Li-Polymer batteries

Fast charge mode reduces the charging time of the battery than other charge mode. Storage charge mode controls the final voltage of the battery, suitable for long term storage.

Load Memory Function

For your convenience,**GAMMA / DUO**can store 20 memories for different types of batteries. You can select the data and the process can be executed directly without setting.

NiCd/NiMH Cycle

Continually perform 1 to 5 cycles of charge/discharge NiCds/NiMH batteries.

Function Extra

1>Meter Lixx Battery Status; 2>Meter Lixx Battery IR;3>Balancer Lithium Battery;4>Digital Power;5>Smart Battery Charge.

Batteries information and charge current range

Battery Type	No.of Cells	Rated Voltage(V)	Charge Current(A)
LiPo	1	3.7V	0.1~10A
	2	7.4V	0.1~10A
	3	11.1V	0.1~10A
	4	14.8V	0.1~10A
	5	18.5V	0.1~10A
	6	22.2V	0.1~10A

Battery Type	No.of Cells	Rated Voltage(V)	Charge Current(A)
LiHV	1	3.8V	0.1~10A
	2	7.6V	0.1~10A
	3	11.4V	0.1~10A
	4	15.2V	0.1~10A
	5	19.0V	0.1~10A
	6	22.8V	0.1~10A

Battery Type	No.of Cells	Rated Voltage(V)	Charge Current(A)
LiFe	1	3.3V	0.1~10A
	2	6.6V	0.1~10A
	3	9.9V	0.1~10A
	4	13.2V	0.1~10A
	5	16.5V	0.1~10A
	6	19.8V	0.1~10A

Battery Type	No.of Cells	Rated Voltage(V)	Charge Current(A)
LiIo	1	3.6V	0.1~10A
	2	7.2V	0.1~10A
	3	10.8V	0.1~10A
	4	14.4V	0.1~10A
	5	18.0V	0.1~10A
	6	21.6V	0.1~10A

Battery Type	No.of Cells	Rated Voltage(V)	Charge Current(A)
NiMH /NiCd	1	1.2V	0.1~10A
	2	2.4V	0.1~10A
	3	3.6V	0.1~10A
	4	4.8V	0.1~10A
	5	6V	0.1~10A
	6	7.2V	0.1~10A
	7	8.4V	0.1~10A
	8	9.6V	0.1~10A
	9	10.8V	0.1~10A
	10	12V	0.1~10A
	11	13.2V	0.1~10A
	12	14.4V	0.1~10A
	13	15.6V	0.1~10A
	14	16.8V	0.1~10A
	15	18.0V	0.1~10A

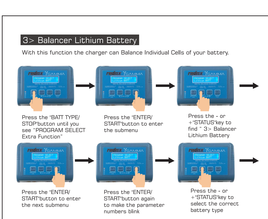
Battery Type	No.of Cells	Rated Voltage(V)	Charge Current(A)
PB	1	2V	0.1~10A
	2	4V	0.1~10A
	3	6V	0.1~10A
	4	8V	0.1~10A
	5	10V	0.1~10A
	6	12V	0.1~10A
	7	14V	0.1~10A
	8	16V	0.1~10A
	9	18V	0.1~10A
	10	20V	0.1~10A
	11	22.0V	0.1~10A
	12	24.0V	0.1~10A

LiPo	Voltage Level: 3.70V/cell Max Charge Voltage:4.2 /cell Discharge Voltage Cut off Level: 3.00V/cell or Higher
LiIo	Voltage Level: 3.60V/cell Max Charge Voltage:4.10V/cell Discharge Voltage Cut off Level: 3.00V/cell or Higher
LiFe	Voltage Level: 3.30V/cell Max Charge Voltage:3.60V/cell Discharge Voltage Cut off Level: 2.50V/cell or Higher
LiHV	Voltage Level: 3.80V/cell Max Charge Voltage:4.35V/cell Discharge Voltage Cut off Level: 3.20V/cell or Higher
NiCD/NiMH	Voltage Level: 1.2V/cell Max Charge Voltage:1.45V/cell Discharge Voltage Cut off Level:0.85V/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

Operating Instructions

Main Menu

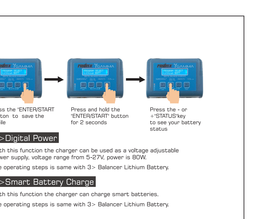
When **GAMMA / DUO**Charger first power up, the LCD screen will display the brand and official website for 2 seconds. To select the desired program, press'BATT TYPE/STOP', and cycle through the options.

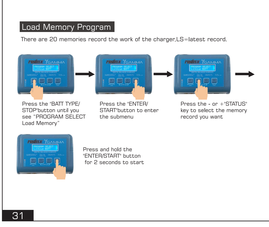


Lithium Batteries Program

Balance Charge Mode

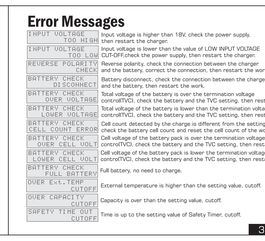
When**GAMMA / DUO**Charger first power up, the Main Menu will display "PROGRAM Lithium BATT SELECT"





- Please make sure to select the correct type of battery.
- Please make sure the charge rate don't exceed the maximum value.
- Use this formula to find the charge rate: Charge rate=Capacity/1000.
- The operating steps of Discharge mode and Cycle mode are same with Charge mode.
- Please make sure the discharge rate don't exceed 2A.

NIMH/NICd and PB Batteries Program-Charge Mode



- Please make sure to select the correct type of battery.
- Please make sure the charge rate don't exceed the maximum value.
- Use this formula to find the charge rate: Charge rate=Capacity/1000.
- The operating steps of Discharge mode and Cycle mode are same with Charge mode.
- Please make sure the discharge rate don't exceed 2A.
- In Cycle mode, ▢→▢ means discharge to charge. C→▢ means charge to Discharge

User Settings

Key Beep and Buzzer VOL

In this submenu, you can turn on/off the key beep and set the volume of buzzer.

Completion Ring Beep

In this submenu, you can set the completion ring time from 1 to 5 minutes.

Cycle Waste Time

In this submenu, you can set the waste time between charge and discharge in NiMH/NiCd cycle mode, range from 1-60Min.

Low Input VOLT Cut-Off

In this submenu, you can set the cutoff input voltage of the power supply of the charger to protect it. The charger will cut off working when input voltage lower than the sting value.Range from 10-18V

Ext. Temp Cut-Off

In this submenu, you can set the cutoff external temperature to protect your battery. The charger will cut off working when the external temperature is higher than the setting value. Range from 30-90℃ .

Capacity Cut-Off

In this submenu, you can set the cutoff capacity to protect your battery. The charger will cut off working when the capacity is more than the setting value. Range from 100-60000mAh.

Safety Timer

In this submenu, you can set a safety time to protect your charger and battery. The charger will cut off working when reach the setting value. On/Off is optional. range from 10-720 minutes.

Charge Power Limit

In this submenu, you can set the charge power limit to meet your power supply requirement.Range from 0-150W.

LiXX Balance Control

In this submenu, you can set set the balance control of LiPo/Li-ion/LiFe/LiHV to meet your demand.Stand/Fast/Accurate is optional.Default is Stand.

Fast: Balance speed fastest, less accurate.

Accurate: Balance speed lowest, more accurate.

Standard: Balance speed and accuratreness between Fast and Accurate.

Termination Voltage Control

In this submenu, you can set the termination voltage value per cell of your batteries according to your request.

LiPo Charge TVC: Range from 4150-4250 mV/s, default is 4200 mV/s
LiPo Discharge TVC: Range from 3000-3850 mV/s, default is 3200 mV/s

LiHV Charge TVC: Range from 4300-4400 mV/s, default is 4350 mV/s
LiHV Discharge TVC: Range from 3000-3750 mV/s, default is 3300 mV/s

Li-ion Charge TVC: Range from 3750-4200 mV/s, default is 4100 mV/s
Li-ion Discharge TVC: Range from 3000-3750 mV/s, default is 3100 mV/s

LiFe Charge TVC: Range from 3300-3800 mV/s, default is 3600 mV/s
LiFe Discharge TVC: Range from 2500-3300 mV/s, default is 2500 mV/s

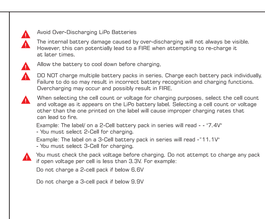
NiMH Sensitivity D.Peak: Range from 4-20mV
NiMH Discharge TVC: Range from 500-1000mV/s, default is 800mV/s

NiCd Sensitivity D.Peak: Range from 4-20mV
NiCd Discharge TVC: Range from 500-1000mV/s, default is 1000mV/s

Pb Charge TVC: Range from 1500-2500 mV/s, default is 2400 mV/s
Pb Discharge TVC: Range from 1000-1500 mV/s, default is 1500 mV/s

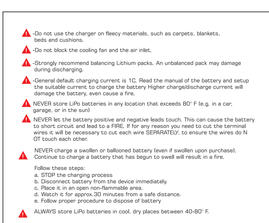
Reset Factory Default Setting
In this submenu, you can restore factory setting.

The operating steps of Key Beep and Buzzer VOL、Completion Ring Beep, Cycle Waste Time, Low Input VOLT Cut-Off, Ext. Temp Cut-Off, Capacity Cut-Off, Safety Timer, Charge Power Limit, LiXX Balance Control, Reset Factory Default Setting.



Extra Function Program

1>Meter Lixx Battery Status
This function lets you know your battery status



2>Meter Lixx Battery IR

This function let you know your battery IR.

3>Balancer Lithium Battery

With this function the charger can Balance Individual Cells of your battery.

4>Digital Power

With this function the charger can be used as a voltage adjustable power supply, voltage range from 5-27V, power is 80W.

The operating steps is same with 3> Balancer Lithium Battery.

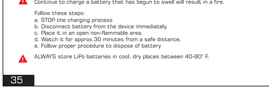
5>Smart Battery Charge

With this function the charger can charge smart batteries.

The operating steps is same with 3> Balancer Lithium Battery.

Load Memory Program

There are 20 memories record the work of the charger,LS>latest record.



Error Messages

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 VOLTAG