

**REEDY**  
POWERED

**1216C2**

## DUAL AC/DC COMPETITION BATTERY CHARGER



**Part # 27200**

## INSTRUCTION MANUAL

**WWW.REEDYPOWER.COM**

[illegible]

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# Introduction

Congratulations on your purchase of Reedy's 1216-C2 Dual AC/DC Competition Battery Charger. The latest electronics technology along with the design and engineering experience that is responsible for 30 World Championship titles has been incorporated into its design.

Thanks to a high-performance microprocessor and specialized operating software, your new charger is versatile, easy to use, and incorporates many advanced features to make it the perfect charging solution for new hobbyists, casual enthusiasts, or hardcore racers.

Simultaneous charging of two LiPo/LiFe/LiLo/NiMH/NiCd/Pb batteries at up to 12A is possible thank to a powerful integrated power supply. Storage of up to 10 (per channel) different charge profiles allow for easy access to your most commonly used settings. Terminal Voltage Control (TVC) gives racers and added option to regulate power output and calibrate voltage while 1S Balance Mode results in accurate voltage readings when charging 1S batteries.

In addition to its long list of powerful features, the 1216-C2 features an attractive exterior with a compact footprint and front facing outputs to maximize pit space.

Please read the following instructions before operating your charger for the first time.

## SPECIFICATIONS

Input Voltage	AC100-120V/220-240V, DC 11-18V
Charge/Discharge Power	Max 120W/10W (x2)
Charge/Discharge Current	0.1-12.0A/0.1-5.0A
Balance Current	300mA/cell
LiPo/LiFe/LiLo Cell Count	1-6 series
NiMH/NiCd Cell Count	1-15 cells
Pb Battery Voltage	2-20V (1-10 cells)
Dimensions	180 x 139 x 60mm
Weight	1148g/40.5oz

Your charger's maximum charge output is 120W per channel (not to exceed 12A) and 10W per channel for discharge. This means that the maximum charge and discharge rates differ depending on the number of cells being processed. You can estimate the maximum charge and discharge rate for your battery by dividing 120 (charge) or 10 (discharge) by the Max Charge Voltage of the battery. See the chart on page 12 to view estimates for lithium batteries.

***CAUTION! This calculation and the chart on page 12 depict the maximum capabilities of your charger. ALWAYS consult with instruction manual included with your battery for charging and discharging instructions.***

# Special Features

- **120W x2 Digital AC/DC Balance Charger**
- **100-120V/220-240V AC Input**
- **1-6S LiPo/LiFe/LiIo, 1-15 NiMH/NiCd, Pb 2-20V Compatible**
- **Maximum 12A Charge/5A Discharge**
- **10 Profile Charger Memory**
- **Terminal Voltage Control (TVC)**
- **1S Balance Mode**
- **Dual Backlit LCD Screens**
- **Heavy-duty heatsink/cooling fans**
- **5V/2.1A USB Charge/Accessory Port**

## Charging Versatility

The 1216-C2 is your one-stop battery charging solution. It is capable of charging LiPo, LiFe, LiIo, NiMH, NiCd, and lead-acid (Pb) batteries.

## 10-Profile Memory

Save and recall up to 10 different charge/discharge profiles for your convenience.

## Terminal Voltage Control (TVC)

Adjust the LiPo charge voltage between 4.00V and 4.22V per cell. Modified races can take advantage of a lower voltage battery while stock racers have the opportunity to fine tune their charge voltage to the maximum value allowed by race organizers.

## Lithium Battery Meter

View total voltage, individual cell voltages, and highest/lowest cell voltages to determine the battery's condition and state of charge.

## Fast and Storage Modes

Alternate lithium charge modes add versatility to the charging process. Fast Charge mode reduces charge times by shortening the secondary charge process while Storage mode ensures that the battery's state of charge is at a level suitable for long-term storage.

## Charge Time and Capacity Limits

To prevent overcharging due to a malfunctioning battery, the charging process will automatically stop if the charge time and/or the capacity limit exceeds the value determined by the user.

## STANDARD BATTERY PARAMETERS

	LiPo	LiIo	LiFe	NiCd	NiMH	Pb
Nominal Voltage	3.7V/cell	3.6V/cell	3.3V/cell	1.2V/cell	1.2V/cell	2.0V/cell
Max. Charge Voltage	4.2V/cell	4.1V/cell	3.6V/cell	1.5V/cell	1.5V/cell	2.46V/cell
Storage Voltage	3.8V/cell	3.7V/cell	3.3V/cell	N/A	N/A	N/A
Allowable Fast Charge	≤ 1C	≤ 1C	≤ 4C	1C-2C	1C-2C	≤ 0.4C
Min. Discharge Voltage	3.2V/cell	3.2V/cell	2.9V/cell	.9V/cell	.9V/cell	1.8V/cell

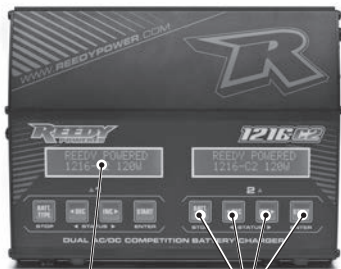
# Warning and Safety Notes

- **ALWAYS** verify the appropriate input voltage setting before plugging your charger into AC power.
- **NEVER** leave the charger unsupervised during use. If any malfunction is observed, immediately terminate the charging process.
- **ALWAYS** observe warnings and cautions included with your battery.
- **ALWAYS** refer to the instructions included with your battery when determining the proper charge, discharge, and storage parameters.
- **NEVER** charge a battery that is swollen, appears damaged in any way, consists of different types of cells (including different manufacturers), non-rechargeable batteries, batteries with an integral charger circuit or protection circuit, batteries installed in a vehicle/device or electrically linked to other components, or batteries that are not expressly stated by the manufacturer to be compatible with the charge current that this charger delivers during the charging process.
- **NEVER** charge any battery other than LiPo, LiFe, Lilo, NiMH, NiCd, or lead-acid (Pb).
- **ALWAYS** place the battery and charger on a heat-resistant, non-flammable, and non-conductive surface away from flammable and volatile materials.
- **ALWAYS** place the battery in a fireproof container during the charging process.
- **ALWAYS** double-check all connections prior to starting the charging process.
- **ALWAYS** connect the charge lead to the charger first, then connect the battery to the charge lead.
- **NEVER** remove the charge lead from the charger while a battery is plugged into the charge lead.
- **ALWAYS** remove the battery from the charger and unplug the charger from the wall when not in use.
- **NEVER** leave the battery plugged into the charger when the charger is unplugged from the wall.
- **ALWAYS** keep the charger away from moisture, dust, heat, direct sunlight and vibration. Do not drop it.

**CAUTION!** *This product is a sophisticated hobby product and not a toy. It must be operated with caution and common sense. Failure to operate this product in a safe and responsible manner could result in injury or damage to the product or property. This product is not intended to be used by children without direct adult supervision. It is essential to read and follow all instructions and warnings found in this manual prior to installation, set up, and use, in order for the product to operate properly and to avoid damage or injury.*

**CAUTION!** *Failure to select the appropriate settings for the battery you are charging may result in damage to the battery, fire, or explosion.*

# Powering Your Charger



LCD Screen

Menu Control Buttons

## Includes:

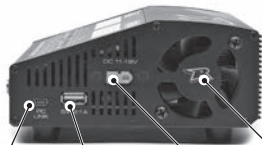
- (1) AC power cord
- (2) XH 2-6S balance board (x2)
- (3) T-Plug charge lead (x2)
- (4) DC power cord



Battery Sockets

Balance Sockets

Battery Sockets



PC Link

USB Output  
5V, 2.1A

DC Input  
11-18V DC

Cooling fan



AC Voltage  
Input Switch

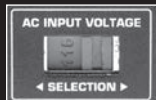
AC Input  
100-240V AC

Cooling fan

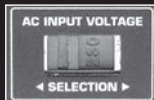
PC Link

If you are plugging your charger into AC power, you **MUST** first select the correct input voltage for your region. Select 115V for 100-120V input or 230V for 220-240V input. After selecting the correct AC input voltage, place the charger on a non-flammable surface and then plug the AC power cord provided into a suitable wall socket

If you plan to use DC power, connect the charger to a 12V power supply using the DC power cord supplied with the charger.



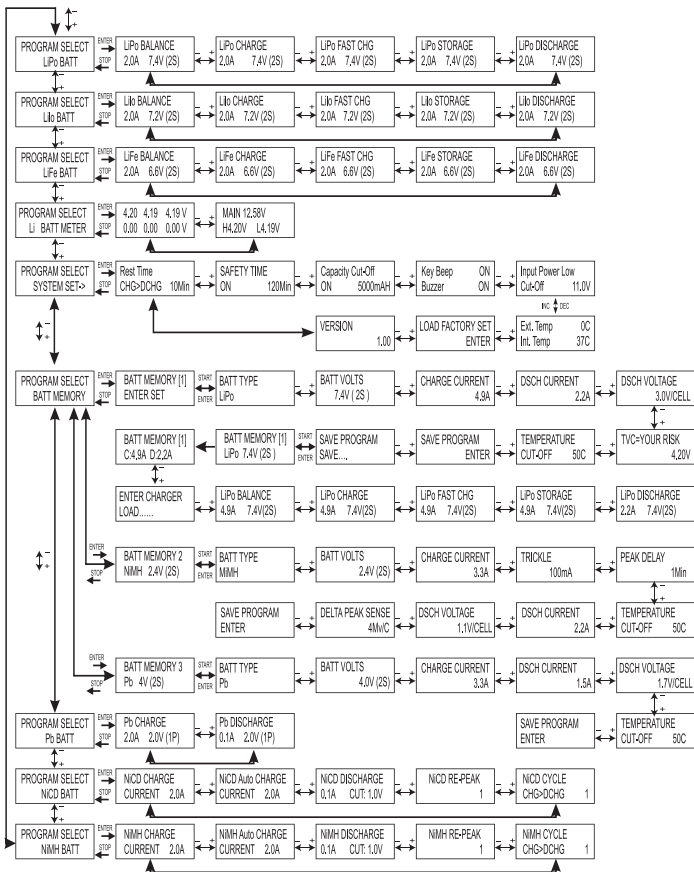
Select 115V for  
100-120V input



Select 230V for  
220-240V input

**CAUTION!** Failure to select the correct AC input voltage will result in permanent damage to the charger and the possibility of fire!

## Program Flow Chart

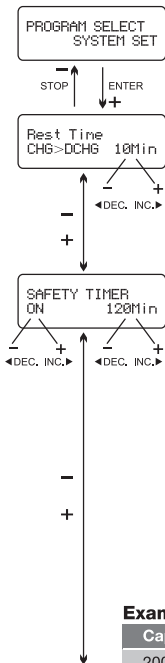




# System Setup

## System Settings

Your charger comes with pre-programmed system settings that can be modified to suit your particular requirements. Select System Set to display the following information in sequence using the INC and DEC buttons. To change a value select it by pressing START/ENTER. The blinking value can be changed by using the INC and DEC buttons. Once you have chosen the desired value, press START/ENTER to save it. When you have finished making the desired changes, press BATT TYPE/STOP to return to the Program Select menu.



System Settings start screen.

When using the NiMH/NiCd cycling function, you can set the time delay in between the charge and discharge functions of the cycle.

When the charging process begins, the Safety Timer automatically starts. In the case of a faulty battery, charger malfunction, or inability of the charger to detect peak voltage (NiMH/NiCd), the Safety Timer will automatically stop the charging process. This value should be set so that the battery reaches full capacity before the Safety Timer activates.

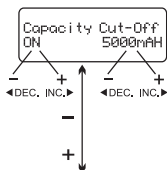
### Calculating the Safety Timer value

When charging NiMH or NiCd batteries, divide the capacity by the charge current. This number, divided by 11.9, will give you your Safety Timer setting. If the charger stops at this threshold, approximately 140% of the capacity will have been fed into the battery. Even though the Safety Timer can be disabled, it is not recommended.

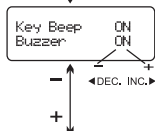
### Examples:

Capacity	Current	Setting
2000mAh	2.0A	$(2000/2.0 = 1000)/11.9 = 84$ minutes
3300mAh	3.0A	$(3300/3.0 = 1100)/11.9 = 92$ minutes
1000mAh	1.0A	$(1000/1.2 = 833)/11.9 = 70$ minutes

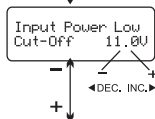
# System Setup *(continued)*



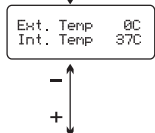
Capacity Cut-Off also operates as a safety timer. If the programmed charge capacity is reached before the normal charging process has completed, the charger will terminate the charging process. A value of 500mAh over the capacity of the typical battery being charged is sufficient. Even though the Capacity Cut-Off can be disabled, it is not recommended.



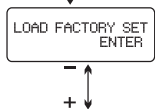
If you prefer to turn the charger's key beep and notification/alert sounds on or off, you are able to do so by selecting the appropriate setting.



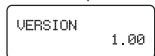
The charger continuously monitors the charger's input voltage. If the voltage drops below the programmed value, the charger will terminate the current process to protect the input source.



View internal and external (using optional probe) temperatures.



By pressing Enter for more than 5 seconds, you are able to re-load the charger's factory settings.



The installed software version is displayed on this screen.

# Connecting Your Battery

After powering your charger, you are ready to connect your battery to the charger so that the charging process can begin. The following applies to each charger bank, labeled 1 and 2.

1. Verify that the charger has been plugged into a suitable wall socket or 12V power supply.
2. Connect the charge lead to the charger, making sure that the polarity is correct; red/+ is positive and black/- is negative.
3. Connect the balance board to the charger by plugging it into the balance socket (required for balance charging lithium batteries).
4. Plug the battery main lead into the charge lead.
5. Plug the battery balance lead into the appropriate balance board socket (required for balance charging lithium batteries).
6. Start the charging process (see specific instructions for your battery type in the next section of this manual).
7. When the charging process is completed, disconnect the battery balance lead from the balance board and the battery main lead from the charge lead.

These steps refer specifically to balance charging lithium batteries. When charging NiCd, NiMH, Pb, or lithium batteries in non-balance mode, please disregard steps 3 and 5.

Note: Should the batteries you wish to charge require a different charge lead or balance board, please consult your local hobby dealer or [www.reedypower.com](http://www.reedypower.com) for a list of optional accessories.

***CAUTION! In order for your charger to detect incorrect connections and display a warning, it must be powered before connecting a battery. Failure to do so may result in permanent damage to the charger. Never remove power from the charger when a battery is connected. If you encounter a "REVERSE POLARITY" warning, disconnect the battery immediately!***

***CAUTION! To avoid short circuiting a battery, first connect the charge leads to the charger. Once connected, plug the battery into the charge leads. Always unplug the battery from the charge leads. Never remove the charge leads from the charger when a battery is connected to them.***

# Lithium Battery (LiPo/LiFe/LiIo) Program

The 1216-C2 is capable of charging and discharging lithium batteries with a nominal voltage of 3.7V (LiPo), 3.3V (LiFe), and 3.6V (LiIo) per cell. In addition to the option of selecting the correct battery type, you are able to select the charge rate, number of cells, and terminal voltage.

To determine the correct charge rate and cell count, refer to the instruction manual included with your battery. If you are unable to determine the charge rate or cell count, contact the battery manufacturer for guidance before continuing.

The Terminal Voltage Control (TVC) allows you to set the charge voltage to between 4.00V and 4.22V per cell. This feature can be used to fine tune the end voltage so that it complies with local racing regulations or to reduce vehicle power as a tuning option. TVC is only available in LiPo Standard, Balance, and Fast charge modes.

Your charger operates using a CC/CV (Constant Current/Constant Voltage) charging scheme. When the battery reaches its predetermined voltage, the charge current will drop until the battery has reached maximum capacity.

## MAX CHARGE RATES

1S		2S		3S		4S		5S		6S	
Charge	Disch.	Charge	Disch.	Charge	Disch.	Charge	Disch.	Charge	Disch.	Charge	Disch.
12.0A	2.4A	12.0A	1.2A	9.5A	0.8A	7.1A	0.6A	5.7A	0.5A	4.7A	0.4A

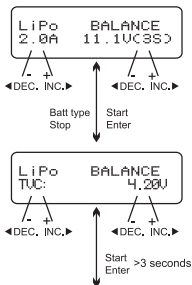
Rates may vary slightly based on connection quality and manufacturing tolerances. If the charge rate is set above the maximum allowed, the charger will automatically reduce the current to the maximum level.

## Lithium Balance Charging

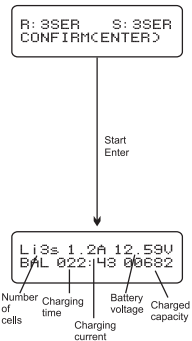
With Balance Charging, the charger monitors the voltage of each individual cell and adjusts the charge current automatically so that each cell within the battery is charged equally. The balance board must be connected to the charger and the battery's balance lead plugged into the balance board for the charger to operate in this mode.

Your 1216-C2 also includes the ability to charge 1S batteries in balance mode. With an appropriate 1S balance charge lead, you can connect your 1S battery to your charger using the balance board. This method will allow the charger to read the battery's voltage more accurately resulting in a better quality charge and reduced charge times.

# Lithium Battery (LiPo/LiFe/LiIo) Program



From the LiPo BALANCE screen, select the charge rate, voltage/cells, and TVC value for the battery that you wish to charge. Press START/ENTER to select the value that you want to change and DEC/INC to change the value. Once you are satisfied with the selections, press and hold START/ENTER for more than three seconds to begin the Balance Charging process.



Verify that the number of cells selected matches the number of cells detected by the charger. R=number of cells detected by the charger, S=number of cells selected by the user. If the numbers match, confirm by pressing START/ENTER. If not, or you would like to make changes, press BATT TYPE/STOP to return to the previous screen.

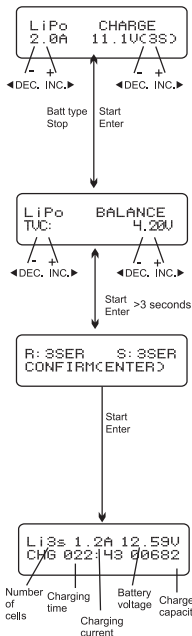
Once the Balance Charging process has started, you will be able to view the real-time status of the battery being charged. Additional information can be viewed using the STATUS buttons (see Page #22). If at any time you wish to terminate the Balance Charging process, press BATT TYPE/STOP.

**CAUTION! For maximum safety, performance, and cycle-life, we recommend that lithium batteries ALWAYS be balance charged!**

# Lithium Battery (LiPo/LiFe/LiIo) Program

## Lithium Standard Charging

For batteries that do not have a balance lead, Standard Charging can be used. However if your battery has a balance lead that does not function due to a broken wire or connection, please remove it from service and dispose of it according to local regulations.



From the LiPo CHARGE screen, select the charge rate, voltage/cells, and TVC value for the battery that you wish to charge. Press START/ENTER to select the value that you want to change and DEC/INC to change the value. Once you are satisfied with the selections, press and hold START/ENTER for more than three seconds to begin the Standard Charging process.

Verify that the number of cells selected matches the number of cells detected by the charger. R=number of cells detected by the charger, S=number of cells selected by the user. If the numbers match, confirm by pressing START/ENTER. If not, or you would like to make changes, press BATT TYPE/STOP to return to the previous screen.

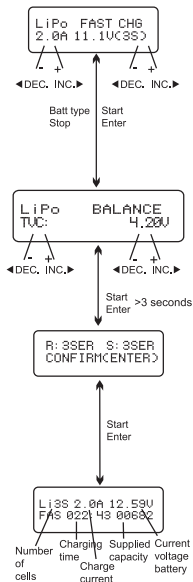
Once the Standard Charging process has started, you will be able to view the real-time status of the battery being charged. Additional information can be viewed using the STATUS buttons (see Page #22). If at any time you wish to terminate the Standard Charging process, press BATT TYPE/STOP.

**CAUTION! For maximum safety, performance, and cycle-life, we recommend that lithium batteries ALWAYS be balance charged!**

# Lithium Battery (LiPo/LiFe/LiIo) Program

## Lithium Fast Charging

Fast Charging will shorten the CV (Constant Voltage) portion of the charging process. However, the capacity of the battery will be reduced slightly resulting in shortened run times. Unless you are participating in organized competition or in a class that is run time sensitive, fast charging is an excellent alternative that gets you back on track faster.



From the LiPo FAST CHG screen, select the charge rate and voltage/cells for the battery that you wish to charge. Press START/ENTER to select the value that you want to change and DEC/INC to change the value. Once you are satisfied with the selections, press and hold START/ENTER for more than three seconds to begin the Fast Charging process.

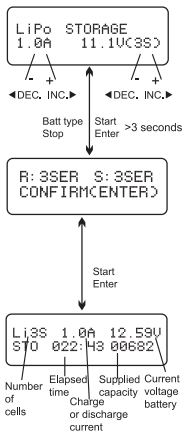
Verify that the number of cells selected matches the number of cells detected by the charger. R=number of cells detected by the charger, S=number of cells selected by the user. If the numbers match, confirm by pressing START/ENTER. If not, or you would like to make changes, press BATT TYPE/STOP to return to the previous screen.

Once the FAST Charging process has started, you will be able to view the real-time status of the battery being charged. Additional information can be viewed using the STATUS buttons (see Page #22). If at any time you wish to terminate the Fast Charging process, press BATT TYPE/STOP.

# Lithium Battery (LiPo/LiFe/LiIo) Program

## Storage Control

Lithium batteries work their best when they are stored at their optimum state of charge. Storage Control determines whether to charge or discharge your battery so that it can be stored at the optimum level when not in use. The storage voltage is 3.85V/cell for LiPo, 3.3V/cell for LiFe, and 3.75V/cell for LiIo.



From the LiPo STORAGE screen, select the charge rate and voltage/cells for the battery that you wish to store. Press START/ENTER to select the value that you want to change and DEC/INC to change the value. Once you are satisfied with the selections, press and hold START/ENTER for more than three seconds to begin the Storage Control process.

Verify that the number of cells selected matches the number of cells detected by the charger. R=number of cells detected by the charger, S=number of cells selected by the user. If the numbers match, confirm by pressing START/ENTER. If not, or you would like to make changes, press BATT TYPE/STOP to return to the previous screen.

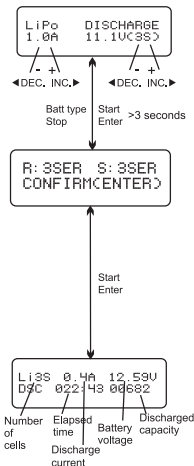
Once the Storage Control process has started, you will be able to view the real-time status of the battery being charged. Additional information can be viewed using the STATUS buttons (see Page #22). If at any time you wish to terminate the Storage Control process, press BATT TYPE/STOP.

**Note: The discharge rate (if necessary) utilized by Storage Control can be set by following the instructions in the Lithium Discharging section of this manual.**



# Lithium Battery (LiPo/LiFe/LiIo) Program

## Lithium Discharging



From the LiPo DISCHARGE screen, select the discharge rate and voltage/cells for the battery that you wish to discharge. Press START/ENTER to select the value that you want to change and DEC/INC to change the value. Once you are satisfied with the selections, press and hold START/ENTER for more than three seconds to begin the Storage Control process.

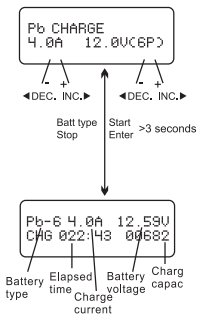
Verify that the number of cells selected matches the number of cells detected by the charger. R=number of cells detected by the charger, S=number of cells selected by the user. If the numbers match, confirm by pressing START/ENTER. If not, or you would like to make changes, press BATT TYPE/STOP to return to the previous screen.

Once the Discharging process has started, you will be able to view the real-time status of the battery being charged. Additional information can be viewed using the STATUS buttons (see Page #22). If at any time you wish to terminate the Discharging process, press BATT TYPE/STOP.

**CAUTION! Never discharge a lithium battery below the minimum manufacturer's recommended voltage and never store the battery at the minimum voltage. In both cases, the battery may eventually malfunction resulting in permanent battery damage or fire.**

# Lead-Acid (Pb) Program

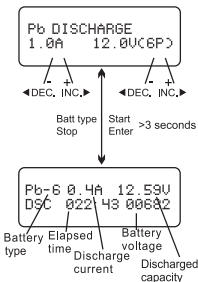
Your 1216-C2 is capable of charging Lead-acid (Pb) batteries with a nominal voltage of between 2V and 20V. Lead-acid batteries are only capable of delivering low current in comparison to their capacity. Therefore, the optimum charge current can only be 10% of the capacity. Fast charging is not allowed. Please consult the instruction included with your battery for charging/discharging requirements.



## Lead-acid (Pb) Charging

From the Pb CHARGE screen, select the charge rate and voltage/cells for the battery that you wish to charge. Press START/ENTER to select the value that you want to change and DEC/INC to change the value. Once you are satisfied with the selections, press and hold START/ENTER for more than three seconds to begin the Pb CHARGE process.

Once the Pb CHARGE process has started, you will be able to view the real-time status of the battery being charged. If at any time you wish to terminate the Pb CHARGE process, press BATT TYPE/STOP.



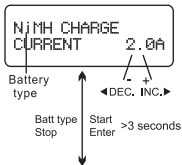
## Lead-acid (Pb) Discharging

From the Pb DISCHARGE screen, select the discharge rate and voltage/cells for the battery that you wish to discharge. Press START/ENTER to select the value that you want to change and DEC/INC to change the value. Once you are satisfied with the selections, press and hold START/ENTER for more than three seconds to begin the Pb DISCHARGE process.

Once the Pb DISCHARGE process has started, you will be able to view the real-time status of the battery being discharged. If at any time you wish to terminate the Pb DISCHARGE process, press BATT TYPE/STOP.

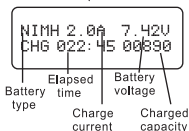
# NiMH/NiCd Program

Before charging/discharging your NiMH/NiCd battery, consult the instruction manual included with your battery to determine the proper charge and discharge rates. Your 1216-C2 uses delta peak detection charge circuitry to terminate the charging process when the battery has reached maximum capacity



## NiMH/NiCd Charging

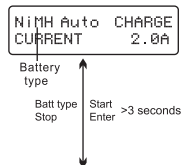
From the NiMH/NiCd CHARGE screen, select the charge rate suitable for the battery you are charging. Press START/ENTER to select the current and DEC/INC to change the value. Once you are satisfied with the selections, press and hold START/ENTER for more than three seconds to begin the NiMH/NiCd CHARGE process.



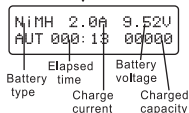
Once the NiMH/NiCd CHARGE process has started, you will be able to view the real-time status of the battery being charged. If at any time you wish to terminate the NiMH/NiCd CHARGE process, press BATT TYPE/STOP.

## NiMH/NiCd Auto-Mode Charging

Auto-Mode Charging detects the condition of the battery to be charged and determines the optimum charge rate automatically. Because the condition of the batteries and differences between brands and models result in different charge rates, set the charge rate to no more than the maximum recommended by the battery manufacturer.



From the NiMH/NiCd Auto CHARGE screen, select the charge rate suitable for the battery you are charging. Press START/ENTER to select the current and DEC/INC to change the value. Once you are satisfied with the selections, press and hold START/ENTER for more than three seconds to begin the NiMH/NiCd Auto CHARGE process.

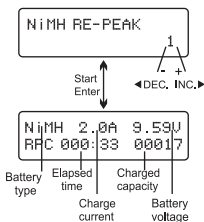


Once the NiMH/NiCd Auto CHARGE process has started, you will be able to view the real-time status of the battery being charged. If at any time you wish to terminate the NiMH/NiCd Auto CHARGE process, press BATT TYPE/STOP.

# NiMH/NiCd Battery Program *(continued)*

## NiMH/NiCd Re-Peak Charge Mode

Re-Peak Charge Mode gives you the option to re-peak the battery one, two, or three times automatically. This process helps confirm that the battery is fully charged. A five minute cool-off delay occurs between each peak.

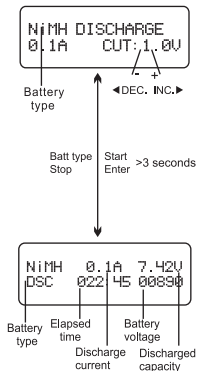


From the NiMH/NiCd RE-PEAK screen, press START/ENTER to select the number of re-peaks and DEC/INC to change the value. Once you are satisfied with the selections, press and hold START/ENTER for more than three seconds to begin the NiMH/NiCd RE-PEAK charge process. Note: the charger will use the charge rate selected on the NiMH/NiCd CHARGE menu.

Once the NiMH/NiCd RE-PEAK process has started, you will be able to view the real-time status of the battery being charged. If at any time you wish to terminate the NiMH/NiCd RE-PEAK process, press BATT TYPE/STOP.

## NiMH/NiCd Discharging Mode

Discharging help reduce NiCd memory problems which can enhance performance and increase the life of the battery



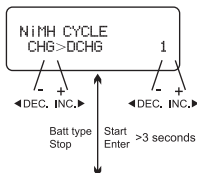
From the NiMH/NiCd DISCHARGE screen, press START/ENTER to select the value that you want to change and DEC/INC to change the value. Once you are satisfied with the selections, press and hold START/ENTER for more than three seconds to begin the NiMH/NiCd DISCHARGE charge process. Note: Please consult the instruction manual included with your battery to determine the recommended discharge current. The cutoff (CUT) voltage should be set no lower than 0.9V/cell. (Example: 6-cell x 0.9V = 5.4V cutoff)

Once the NiMH/NiCd DISCHARGE process has started, you will be able to view the real-time status of the battery being discharged. If at any time you wish to terminate the NiMH/NiCd DISCHARGE process, press BATT TYPE/STOP.

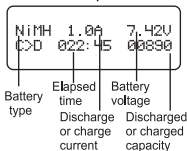
# NiMH/NiCd Battery Program *(continued)*

## NiMH/NiCd Cycling Mode

Automatically cycle your battery up to five times. The cycling process can improve the performance of a battery that has not been used recently.



From the NiMH/NiCd CYCLE screen, press START/ENTER to select the value that you want to change and DEC/INC to change the value. You have the option to start the cycle with charge or discharge and the option to choose up to five cycles. Once you are satisfied with the selections, press and hold START/ENTER for more than three seconds to begin the NiMH/NiCd CYCLE process.



Once the NiMH/NiCd CYCLE process has started, you will be able to view the real-time status of the battery being cycled. If at any time you wish to terminate the NiMH/NiCd CYCLE process, press BATT TYPE/STOP



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# Additional Displayed Information

When charging lithium batteries, you can view additional on-screen information during the charging or discharging process. Pressing the DEC button will allow you to scroll through your user settings and information relating directly to the battery being charged/discharged. When balance charging or when the battery is connected via the balance board, individual cell voltages can be viewed by pressing the INC button. To return to the charge information menu, press START/ENTER.

End Voltage  
12.60V(3S)

Charge end voltage

IN Power Voltage  
12.56V

Current input voltage

Ext. Temp 0C  
Int. Temp 26C

Internal and external temperature

Safety Time  
ON 200min

Safety timer status and duration

Capacity Cut-Off  
ON 5000mAh

Capacity cut-off status and value

4.19 4.15 4.18V  
0.00 0.00 0.00V

Individual cell voltages

Additional information is also displayed when charging NiMH/NiCd batteries. Press START/ENTER and then DEC/INC to view delta peak sensitivity, capacity cut-off, safety timer, temperature cutoff, internal and external temperatures, and current input voltage.

# Memory Settings

The 1216-C2 can store up to 10 (per channel) different charge profiles so that you have easy access to your most commonly used settings.

BATT MEMORY [1]  
ENTER SET



Select the profile number using the DEC/INC buttons. To enter your settings, press START/ENTER. Then use START/ENTER to select the value and DEC/INC to change the value, then START/ENTER to save the value.

BATT TYPE  
LiPo

Select the battery type (a 2S LiPo is the example).



BATT VOLTS  
7.4V(2S)

Select the battery voltage and number of cells (1S-6S)



CHARGE CURRENT  
4.9A

Select the charge current (0.1-12.0A)



DSCH CURRENT  
2.2A

Select the discharge current (0.1-5.0A)

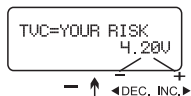


DSCH VOLTAGE  
3.0V/CELL

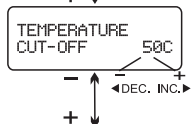
Set the discharge end voltage (3.0-3.3V/cell)



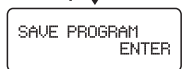
# Memory Settings *(continued)*



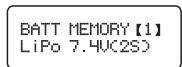
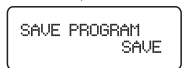
Set the terminal voltage (4.00-4.22V/cell)



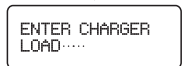
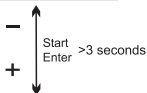
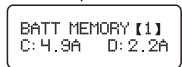
Set the cut-off temperature (20°C-80°C, optional temperature probe required)



Press START/ENTER to save the values



Your saved settings will be displayed for each saved profile, 1-10.



To load any profile, press START/ENTER for more than three seconds.



# Lithium Battery Meter

View a battery's total voltage, the voltage of each cell, and the voltage of the highest and lowest cells by connecting the battery's main lead and balance connector to the charger.

PROGRAM SELECT  
Li BATT METER

From the Li BATT METER screen, press START/ENTER to enter the program.

Batt type  
Stop



Start  
Enter

4.19	4.15	4.18V
0.00	0.00	0.00V

The voltage of each cell will be displayed.

-  
+



MAIN	12.52V
H4.190V	L4.160V

The total voltage of the battery and the voltage of the highest and lowest cells will be displayed.

# Warning and Error Messages

REVERSE POLARITY

REVERSE POLARITY - Incorrect polarity connected.

CONNECTION BREAK

CONNECTION BREAK - The NiMH/NiCd battery has been disconnected from the charger during the charging/discharging process or reverse polarity has been detected.

CONNECT ERROR  
CHECK MAIN PORT

CONNECT ERROR CHECK MAIN PORT - The battery is not connected or has become disconnected from the charger during the charging/discharging process

BALANCE CONNECT  
ERROR

BALANCE CONNECT ERROR - The battery has been plugged into the balance board incorrectly or one the battery's cells is not being recognized by the charger.

DC IN TOO LOW

DC IN TOO LOW - The DC input voltage is less than 11V.

DC IN TOO HIGH

DC IN TOO HIGH - The DC input voltage is greater than 18V.

CELL ERROR  
LOW VOLTAGE

CELL ERROR LOW VOLTAGE - The voltage of one or more cells in the battery pack is too low.

CELL ERROR  
HIGH VOLTAGE

CELL ERROR HIGH VOLTAGE - The voltage of one or more cells in the battery pack is too high.

CELL ERROR  
VOLTAGE-INVALID

CELL ERROR VOLTAGE INVALID - The voltage of one or more cells is undetectable.

CELL NUMBER  
INCORRECT

CELL NUMBER INCORRECT - The number of cells entered for charging/discharging does not match the number of cells being charged/discharged.

# Warning and Error Messages *(continued)*

INT. TEMP. TOO HI

INT. TEMP. TOO HIGH - The internal temperature of the charger is too high.

EXT. TEMP. TOO HI

EXT. TEMP. TOO HIGH - The temperature of the battery be measured by the external temperature probe is too high.

OVER CHARGE  
CAPACITY LIMIT

OVER CHARGE CAPACITY LIMIT - The battery's capacity has reached the maximum capacity set by the user.

OVER TIME LIMIT

OVER TIME LIMIT - The charging time has surpassed the maximum charging time set by the user.

BATTERY WAS FULL

BATTERY FULL – The charger detects that the battery is already charged to maximum capacity.

## **Warranty**

***Your Reedy 1216-C2 Dual AC/DC Competition Battery Charger is warranted to the original purchaser for 90 days from the date of purchase, verified by the sales receipt, against defects in material and workmanship. Product that has been mishandled, abused, used incorrectly, used for an application other than intended, or damaged by the user are not covered under warranty. Associated Electrics Inc. is not liable for any loss or damage, whether direct or indirect, incidental or consequential, or from any special situation, arising from the use, misuse, or abuse of this product.***

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## 1216C2



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