

# CR03H205A/E/U/X



## 3-Bay Charger Rack Instructions for use

The CR03H205 is a 3-bay charger rack, and is comprised of 3-single slot chargers for re-charging smart battery packs. It works with the Inspired Energy® brand “NH205” Series smart standard packs and hybrids irrespective of voltage, cell chemistry or capacity.

### What's in the box?

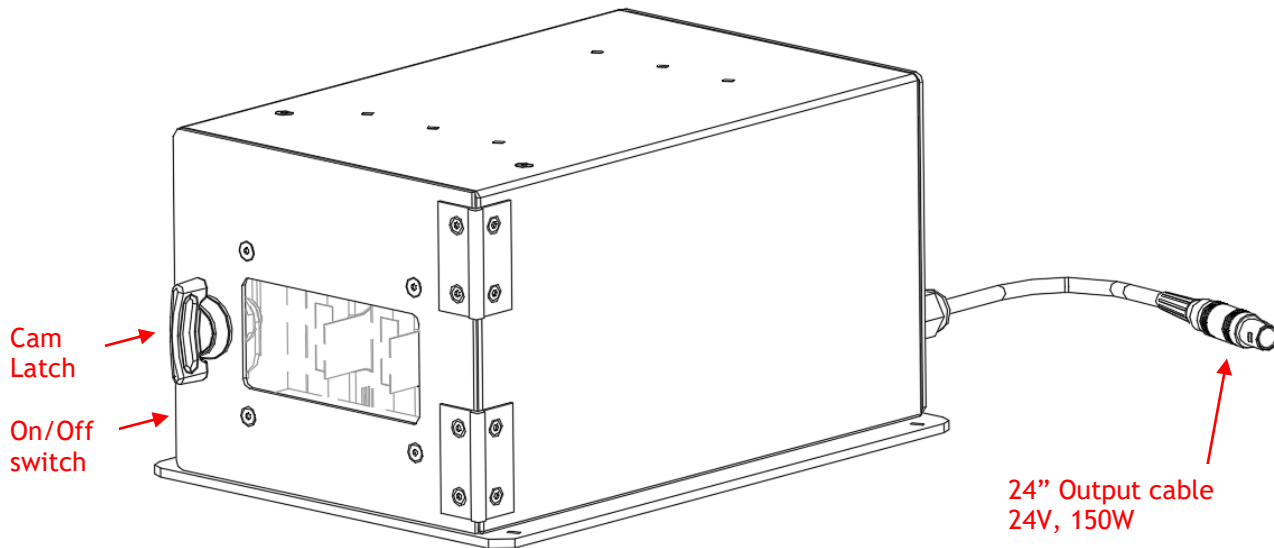
1. One CR03H205 3-bay Rack charger
2. One 160W 24VDC 6.67A power supply with universal mains input.
  - N. American chargers (CR03H205A) are packed with a US 3-pin mains cord
  - European chargers (CR03H205E) are packed with a European 2-pin mains cord
  - UK chargers (CR03H205U) are packed with a UK 3-pin mains cord
  - CR03H205X chargers are not packed with a mains cord

### Safety:

1. Do not expose the charger or power supply to water or liquids.
2. Do not open the charger or power supply case, no user serviceable parts are inside.
3. Do not plug output cable into input jack.
4. Place the charger in a cool spot, away from external heat sources.

## Using your Charger:

Place the charger on a flat, level surface away from sources of heat and moisture. Plug the supplied mains AC cord into the back of the charger.



## Charging:

Place the battery into the battery bay ensuring that the 5-way connector is fully seated. The LEDs in the status window will provide status information and the charger will automatically begin charging.

## LED Indication:

The status of the battery/charger is indicated by the LEDs visible in the status window:

- |                   |  |
|-------------------|--|
| * Green flashing: | Battery charging                       |
| ● Green solid:    | Battery fully charged                  |
| ● Blue solid:     | 24V Output ON                          |
| * Red flashing:   | Battery fuel gauge needs recalibration |
| ● Red solid:      | Error                                  |

## Recharge Time:

Battery packs will require differing recharge times. The times given below are for a full charge from 0% to 100% state of charge. They are valid for all variants and custom hybrids of each NH205 series battery model.

Battery Chemistry	Battery Model	Recharge Time (hours)	Recalibration Time (hours)
Li-ion	NH2057	7	33 - 40
	NH2054, NH2034	3	18 - 21

## **What are the SMBus and the SBS?**

The Smart Battery System defines the parameters that are stored by an SBS-compliant battery. These parameters include full battery status and fuel gauging information. The System Management Bus is the language by which these parameters are communicated between the battery, the charger and the host device. For full details of the SBS information available from your battery please refer to the battery specification sheet available at [www.inspired-energy.com](http://www.inspired-energy.com).

## **How does the charger know what charge to deliver?**

Each charger unit is capable of sensing and delivering an appropriate charge to all Inspired Energy NiMH and Li-ion “N” Series standard battery packs. Upon inserting the battery into the charger, the battery communicates to the charger over the SMBus telling the charger what type of cell chemistry it is and what type of charge regime it needs. The charger then configures its output to provide the charge regime requested by the battery. If no SMBus communications are issued from the battery, the charger interrogates the thermistor/resistor I.D. pin on the battery terminal and delivers an appropriate charge.

## **Compatibility:**

The CR03H205 is fully compatible with all Inspired Energy® brand “NH205” Series standard battery packs and their custom hybrids. For optimum results we recommend using only Inspired Energy® brand batteries. For a full list of all compatible Inspired Energy batteries, please visit:

**[www.inspired-energy.com](http://www.inspired-energy.com)**

## CR03H205A/E/U/X Specification Summary

Weight:	1.86kg / 65.61oz
Height:	123.5mm / 4.85"
Length:	226.75mm / 8.92"
Width:	143.52mm / 5.65"
Mating Connector:	4-Position Circular Connector
Communications Compliances:	System Management Bus Rev 1.1, Smart Battery Data Specification Rev 1.1 and Smart Battery Charger Specification Rev 1.1 compliant
Power Supply:	100-240VAC, 24V, 6.67A DC, 175x74x42mm, 700g / 25oz UL listed, CE Compliant
Mains Cord:	CR03H205A - 110V N. American 3-pin connector CR03H205E - 220V European 2-pin connector with ground recess CR03H205U - 240V UK 3-pin connector CR03H205X - No AC cable supplied

