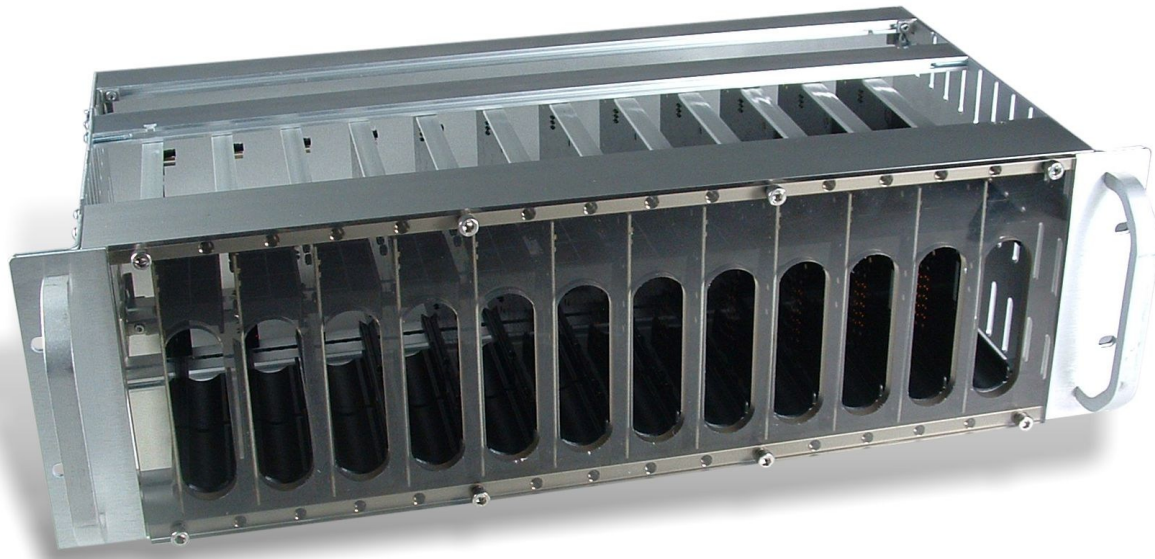


CR12 Rack Mountable Smart Charging Unit



Instructions for use

The Inspired Energy 12-Bay rack mountable smart charging unit works with select Inspired Energy® brand N-Series smart standard packs and hybrids.

What's in the box?

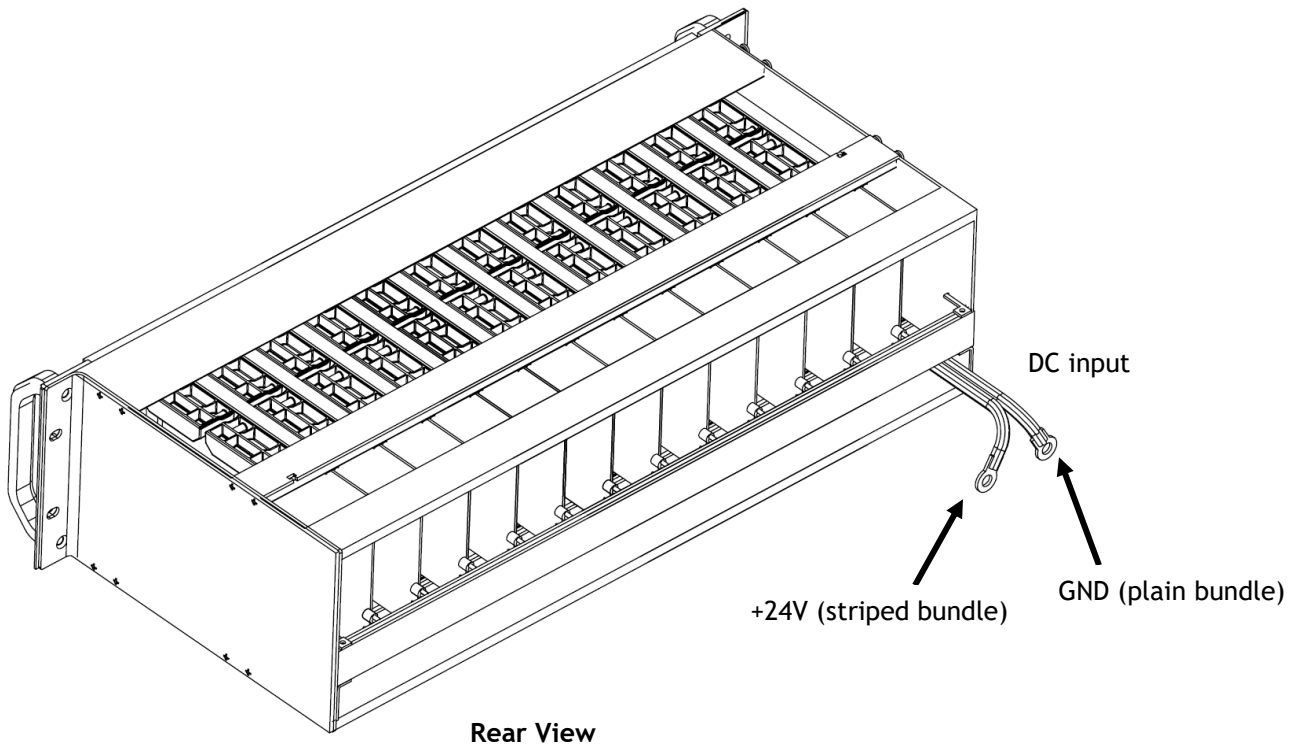
1. One 12-bay rack mountable smart charging unit:
 - CR12BXXX for NB203x batteries
 - CR12CXXX for NC204x batteries
 - CR12DXXX for ND205x batteries
 - CR12FXXX for ND203x, and NF203x batteries
 - CR12HXXX for ND205x, NL205x, and NH205x batteries
 - CR12i202 for Ni2020 battery
 - CR12i204 for Ni204x, NF204x, and NL2044 batteries
2. Twelve 6-foot 5.5mm 18AWG DC cables

Safety:

1. Do not expose the charger or power supply to water or liquids; the case is not sealed.
2. Do not open the charger or power supply case, no user serviceable parts are inside.
3. Do not obstruct the airflow, this will cause overheating.
4. Place the charger in a cool spot, away from external heat sources.

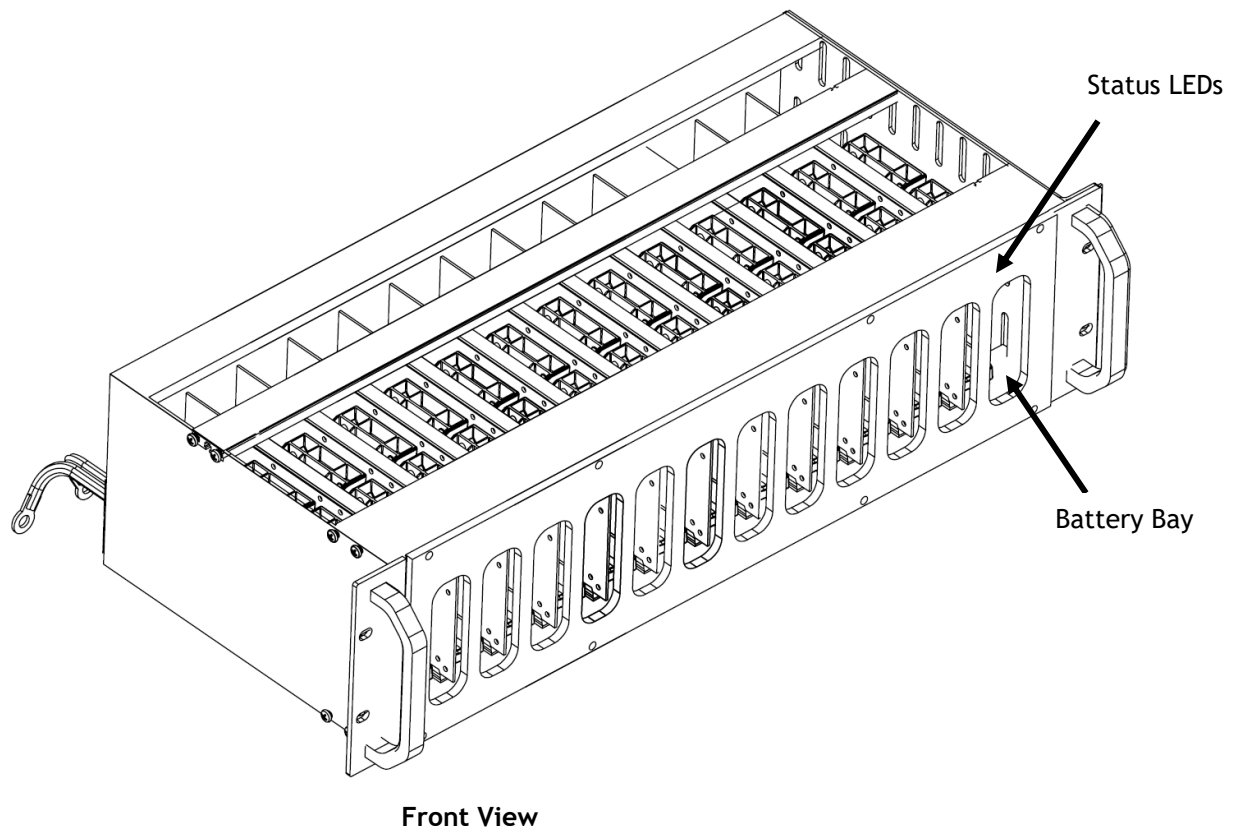
Using your Charger:

Place the charger away from sources of heat and moisture. Bundle the DC inputs (striped = +24VDC, plain = GND) of each charger as shown in the rear view below. Connect a power supply to the bundled DC inputs. (All LEDs will flash on powering up the unit.) Each charge bay operates independently providing simultaneous charge for up to twelve (12) battery packs.



Charging:

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



LED Indication:

The status of each battery is indicated by the LEDs visible in its respective status window:

✱ Green flashing:	Battery charging
● Green solid:	Battery fully charged
● Red solid:	Error

Recharge Time:

Different battery packs will require differing recharge times. The times given below are approximations for a full charge from 0% to 100% state of charge.

Battery Chemistry	Battery Model	Recharge Time (hours)
Li-Ion	NB2037, NC2040, ND2054, ND2034	3
	NF2030, NF2040, NH2054	3
	NF2047, NH2057	4 - 5
	ND2037, NI2020, NI2040	3 - 3.5
	RH2044, NL2044, RH2054, NL2054	3 - 3.5

What are the SMBus and the SBS?

The Smart Battery System defines the parameters that are stored by a 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.

How does the charger know what charge to deliver?

Each charger unit is capable of sensing and delivering an appropriate charge to select Inspired Energy Li-ion standard battery packs. Upon inserting the battery into the charger, the battery communicates to the charger over the SMBus data link, telling the charger what type of cell chemistry it is and what 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 will timeout and indicate an error condition via a solid red LED. This error condition will only be cleared upon battery removal.

Compatibility:

The system is fully compatible with select Inspired Energy® brand standard battery packs and their custom hybrids (see Recharge Time table). For optimum results we recommend using only Inspired Energy® brand smart batteries. For a full list of all compatible Inspired Energy batteries, please visit:

www.inspired-energy.com

12-Bay Charge System Specification Summary

Weight:	3.85kg / 8.47lb
Height:	134mm / 5.28"
Length:	484mm / 19.06"
Width:	265mm / 10.43"
Mating Connector:	5-blade standard battery 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
Charger Units:	FCC & CE Compliant, RoHS Compliant
Environmental/Safety Specifications:	UKCA, CE EN55032, CE EN55035
Power Supply:	24VDC, 50-60Hz, ≥750W UL listed, FCC & CE Compliant, RoHS Compliant

