



CH5000

Desktop Smart Quick Charger/Calibrator

CH5000 SPECIFICATION SUMMARY

PHYSICAL DIMENSIONS: HEIGHT: 58mm / 2.25"
 LENGTH: 180mm / 7"
 WIDTH: 92mm / 3.5"
 WEIGHT: 235g / 8oz

MATING CONNECTOR: 5-Pin Standard Connector.

LED STATUS DISPLAY: Green flashing: Charging
 Green solid: Charge complete
 Red solid: Error
 Red flashing: battery fuel gauge recalibration rec.

GLOBALLY-COMPLIANT POWER SUPPLY: 90-260VAC, 24V, 2.5A DC, 119x38x60mm, 500g/18oz UL listed, CE Compliant

MAINS CORD: CH5000A: 110V N. USA 3-pin cord
 CH5000E: 220V Euro. 2-pin cord with GND recess
 CH5000U: 240V UK 3-pin cord
 CH5000X: No AC cable included

DOWNLOADS: [CH5000 Instructions](#)
[Recalibration Notes](#)

CH5000 DESCRIPTION

The CH5000 desktop smart charger/calibrator is a standalone unit which provides the capability to carry out charging and fuel gauge calibration independently of the device which uses the battery pack.

The CH5000 works with every smart, standard "N" Series Li Ion and NiMH battery in the Inspired Energy portfolio irrespective of size, shape, voltage, or capacity.

With its multi-voltage power supply, the CH5000 works throughout the world. Variants are available for use in North America (CH5000A) Europe (CH5000E) & the UK (CH5000U).

CH5000 REACH, RoHS2, CE & Customs Declarations are available to download from our Shipping Page

Standard product approvals are listed above. Additional agency testing of these products can be arranged to meet specific testing needs. However as the manufacture & design authority rests with Inspired Energy, all testing must be undertaken directly between us and the agency. Please contact us for details and pricing

What's In The Box?

- CH5000 Desktop Quick Charger
- Inserts for battery packs
- 60 Watt power supply
- Mains Lead (See below for international options)
- Instruction sheet



Calibration:

Smart battery packs have a highly accurate on board fuel gauge. Under certain operational conditions this fuel gauge may drift and begin to lose accuracy. The onboard battery electronics keep a log of this drift and the CH5000 reads this value from the smart battery when the battery is inserted.

If the battery fuel gauge requires recalibration (Charger LED flashes red), the user can press the button on the front of the CH5000A to initiate a recalibration cycle.

Battery fuel gauge recalibration can take a very long time & if interrupted, the process will need to start again. We recommend only pressing the recalibrate button if the charger indicates that it is required (Flashing red LED) and if you have sufficient time for the process to complete.

Recharge / Calibration Times:

Different 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 battery model. (For example the NJ1020HP has the same recharge time as the NJ1020.

Inspired Energy manufacturers all products to order. We sell direct to clients globally in quantities from 1 to >50,000. We accept Credit cards for small orders & samples.

CH5000 Recharge Time (hrs) Max. Calibration Time (hrs)

- NB2037 - CHG = 3½, CAL = 25
- NC2040 - CHG = 3½, CAL = 23
- ND2017 - CHG = 6, CAL = 35
- ND2053 - CHG = 4, CAL = 65 (Yes, 3 days & nights!)
- ND2054 / ND2034 - CHG = 3½, CAL = 22
- ND2057 / ND2037 - CHG = 3½, CAL = 33
- NF2040 / NF2030 - CHG = 3½, CAL = 30
- NH2054 - CHG = 3½, CAL = 30
- NH2057 - CHG = 7, CAL = 40
- Ni2020 / Ni2040 - CHG = 3½, CAL = 35
- NL2020 - CHG = 3½, CAL = 35
- NL2024 / NL2044 / NL2054 - CHG = 3, CAL = 29
- NJ1020 / Ni1030 - CHG = 1½, CAL = 12

Due to the long time required for fuel gauge recalibration we recommend performing recalibration over a weekend or a similar extended period of non-use.

[Click here](#) for more information about smart battery fuel gauge recalibration. What is it & why is it needed.

Why are the recalibration times so long?

Two factors contribute to the long recalibration times:

- The battery must be discharged through a fixed resistor. Higher voltage batteries will discharge at a faster rate than lower voltage batteries (Ohm's law) this is why the 14.4V batteries recalibrate fastest & the 3.6V batteries are the slowest.

- The charge & discharge process includes periods of rest which enable the impedance tracking firmware within the battery to do its work.

If you are interested in purchasing a standard battery pack, or receiving a quotation please contact us at:

US Toll Free: 1-888-5-INSPIRE (1-888-546-7747) or USA 352 472 4855
or use the current email address shown on our contacts page.