Lithium Polymer Balance Charger NR-BLIC-02 (12-15V DC)

NR-BLIC-02 is a smart Balance Charger from the NEX Robotics which works on 12 to 15V DC. It can charge 2 cell and 3 cell lithium polymer battery packs. It can charge NR-BLiPo-3-500, NR-BLiPo-2-500, NR-BLiPo-2-1300, NR-BLiPo-3-1300, NR-BLiPo-3-1800 and NR-BLiPo-3-2650 and any other Lithium Polymer Batteries from NEX Robotics unless specified.

In multi-celled Lithium Polymer battery pack, it is possible for the individual cells to develop differences in there charge levels. Since Lithium Polymer batteries are very sensitive to overcharging, it is important that cells inside the battery pack should be kept at the equal levels when charging. NR-BLIC-02 balance charger form the NEX Robotics does this by monitoring individual cell voltages of the battery pack and it adjusts the rate of charge to the individual battery to do balance charging.

Please note that Lithium Polymer batteries can catch fire of explode if not charged or handled correctly. So take necessary precautions while charging the battery.

Specifications

- Power: Well regulated 12V to 15V DC
- Charge method: Balance Charging
- Batteries Supported: Lithium Polymer, 2 cell and 3 cell battery packs
  -NR-BLiPo-2-500 (2 Cell, 11.1V, 500mAh, Charging time: 1Hour. 20 Mins.)
  -NR-BLiPo-3-500 (3 Cell, 11.1V, 500mAh, Charging time: 1Hour. 20 Mins.)
  -NR-BLiPo-2-1300 (2 Cell, 7.4V, 1300mAh, Charging time: 2Hours)
  -NR-BLiPo-3-1300 (3 Cell, 11.1V, 1300mAh, Charging time: 2Hours)
  -NR-BLiPo-3-1800 (3 Cell, 11.1V, 1800mAh, Charging time: 2Hours. 50 Mins.)
  -NR-BLiPo-3-2650 (3 Cell, 11.1V, 2650mAh, Charging time: 3Hour. 40 Mins.)
  -Any other battery on the NEX Robotics website with mentioned support.
- Maximum Charge current: 800mA
- Connectors for battery charging: 4 pin for 3cell and 3 pin for 2 cell battery packs
- Power input: 12V to 15V DC
- Indicators: Power and Charge status
- Dimensions: 75mm x 50mm x 25mm
- Accessories: Power connector wire with crocodile pins at the other end

Battery Charging Status Indication
NR-BLIC-02 battery charger has 3 LEDs. Each LED indicates status of single battery.

Condition	LED Status
Power On	Power LED (Red) On
Battery Charging	Charge LED (Green) On
Battery Full	Charge LED (Green) off
Fault	Charge LED (Green) Flashing

Table 1: Battery charge status indication LEDs

Instructions for Use:
For power input Lithium Polymer Balance Charger has AC adaptor jack. Balance Charger needs well regulated 12V DC for proper functioning. Under any circumstances don't use more than 15V DC supply. On the field, 12V 15Ah Lead acid battery can also be used to power battery charger.

Balance charger has Power and Charge indicator LEDs. Power indicator LED glows when power is supplied. Charge LED glows when charger is powered up, battery is inserted and it is being charged.

Two cell and three cell battery packs from the NEX Robotics has different types of connectors. These batteries will go only in the correct type of connector of the Battery Charger.

Battery will get charged as per the time mentioned in the 'specifications' section above for the particular battery. Green LED will remain on for some more time after which it will turn off indicating charging is completed.

Important:
Never ever allow battery to discharge below 3.1V per cell i.e. 6.2V for 2 cell battery packs or 9.3V for 3cell battery packs. After this critical value battery voltage falls very rapidly. Battery charger will not charge any deep discharged battery pack and it will indicate fault condition. This is done for the safety reasons.

Caution:
Battery charger can only charge Lithium polymer battery
Never leave charger unattended when it is connected to the power socket.

Warning:
- Do not charge 2 cell and 3 cell batteries at the same time.
- Charge batteries which can handle 800mA charging current.
- If battery is hot or slightly warm allow it to cool down completely before charging.
- Do not open battery packs and modify them. Modified packs will not have matched impendence, which can lead to dangerous situations.
- Always charge batteries in open space of at least 10feet x 10feet on the concrete floor.
- Do not charge battery near flammable liquids.
- While charging put batteries away from children.