

## Advantages and Duty Cycle of NOVA Batteries

### 1. Flexible PCB

All NOVA batteries use a flexible Printed Circuit Board (PCB). It is more expensive as opposed to the cheaper and unreliable method of jumper wires but it is more reliable. Flexible PCB construction allows for all components to be SOLIDLY mounted avoiding short circuits which are prevalent when using jumper cables. You will notice that most of the generic batteries available in the market use jumper cables, these tend to fail if the battery is accidentally dropped.

### 2. Polyswitch or Thermo Breaker

NOVA batteries use a polyswitch or Thermo Breaker inside the battery pack for short circuit and over heat protection. Most other batteries available will not use these two components in order to reduce the costs. In this scenario, if a consumer happens to carelessly join the + or – contacts, it could end up hurting the client or even explode, causing serious injury.

### 3. NTC (Thermistor)

NOVA batteries are fitted with a NTC which send a signal to the OEM charger or NOVA charger when cells have been fully charged it will stop charging because of the NTC signals. Some cheaper Chinese manufactures only use resistors instead of a NTC. This only slows the charging rate. A battery not fitted with a NTC when charging in a rapid rate charger will over heat.

### 4. Diode

NOVA batteries are fitted with reverse current protection diode on the charging contacts.

### 5. Cell

NOVA batteries only get manufactured using Japanese cells (Sanyo, Panasonic or Yuasa) and a Chinese cell (GP). Cells are cycle tested, this is to test cycle life of the cells before installing them. NOVA batteries do not get manufactured by using cheap Chinese cell manufactures, as their cells cannot pass our cycle life test.

However, you do get other supplier's whose only concern is price and will not take into consideration the quality or capacity of the cells. As a result you get a very low priced, but poor quality battery. In some instances these batteries only last 3 – 6 month and then the cells are dead.

### 6. Glue and Sonic Sealing

NOVA batteries are manufactured by using silicon glue to hold the pack between the case & the cells (others only use double sided tape). We then use a "Branson" ultrasonic machine to seal the battery pack. NOVA batteries can withstand a 2 meter drop test. Some other batteries available cannot even withstand a 1 meter drop test.

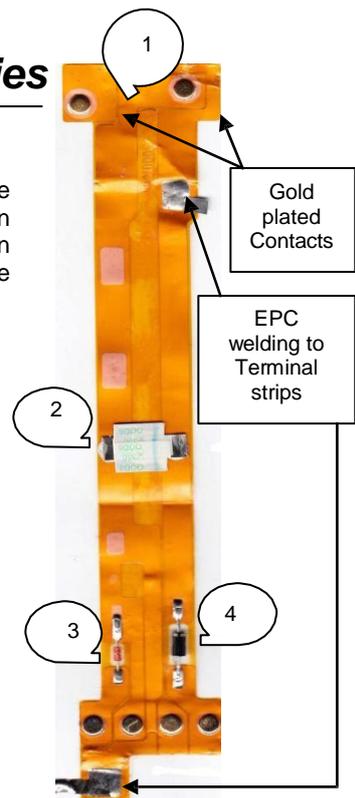
### 7. Plastic Case Material

NOVA batteries are manufactured with a high grade ABS from Taiwan, which use only virgin material for injection moulding (no re-cycled material). This result in NOVA batteries being stronger and less likely to be fragile and crack when dropped.

Our factory also supplies OEM business for Multiple USA and Alexander UK. They warrant that NOVA Batteries meet or exceed their standards. We also have the FM (IS) approval Certificate for the MT300 and M/A COM Battery.

### 8. Drop Test

Typical cheaper Imports that have no PCB's or internal bonding. Also glued joints in place of sonic welding.



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Specification subject to change without notice. Issue 1