

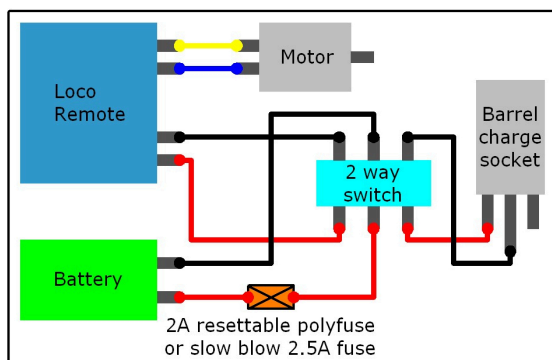


## Loco Remote batteries - [www.locoremote.co.uk](http://www.locoremote.co.uk)

	Mini B	Maxi	Mega 2
Battery voltage specified range	3V – 6V	6V – 12V	6V – 12V
Battery voltage minimum	3V	4.8V	4.8V
Battery voltage maximum	6V	15V	15V
Battery voltage display on phone	Yes	Yes	Yes
Battery % left display on phone	Yes – Lipo only	No	No
Battery low voltage cut off	Yes – Lipo only	No	No
On board Lipo charging capability	No	No	No
Motor output current maximum	1.6A	2A	2 x 2A
Motor output current short term peak	2A	3A	2 x 3A
Motor output power maximum	10W	25W	2 x 25W
Lipo battery options	3.7V (1s)	7.4V (2s), 11.1V (3s)	7.4V (2s), 11.1V (3s)
Li-Ion battery options	3.7V	7.4V (2), 11.1V (3)	7.4V (2), 11.1V (3)
AA / AAA 1.2V NiMH battery options	3.6V (3), 4.8V (4)	7.2V (6) to 12V (10)	7.2V (6) to 12V (10)
AA / AAA 1.5V Alkaline battery options	3V (2), 4.5V (3)	6V (4) to 12V (8)	6V (4) to 12V (8)
PP3 8.4V to 9V battery options	Do not use	9V (1)	Do not use
Lead acid battery options	Do not use	6V, 12V	6V, 12V

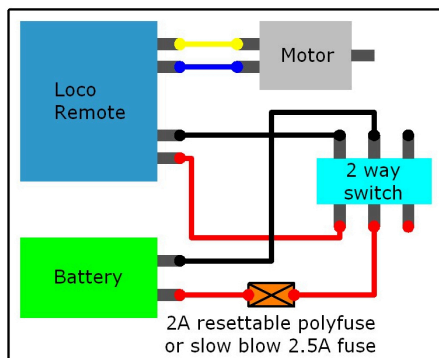
Loco Remote modules can be powered by any type of battery with a suitable voltage including NiMH, NiCd, Alkaline, Li-ion and Lipo. **The absolute maximum battery voltage for the Mini B is 6V and for the Maxi and Mega is 15V.** Be aware that the fully charged battery voltage can be up to 15% higher than the nominal battery voltage (e.g. 12.6V for an 11.1V Lipo).

### Connecting NiMH batteries with an in-loco charge socket



The Loco Remote Mini B can be powered by 3 (3.6V) or 4 (4.8V) NiMH AA or AAA batteries, and the Maxi and Mega can be powered by between 6 (7.2V) and 10 (12V) NiMH AA or AAA batteries. If you wish to charge the batteries as a pack in the loco then wire them up with a switched barrel charge socket as shown. The 2-way switch will connect the batteries either to the charge socket or to the Loco Remote. If the charger is not connected then the batteries will be switched off.

### Connecting Lipo and Li-ion batteries



The Loco Remote Mini B can be powered by 1s (3.7V) Lipo or Li-ion batteries, and the Maxi and Mega can be powered by 2s (7.4V) or 3s (11.1V) Lipo and Li-ion batteries. The batteries will need to be removed from the loco for charging. The 2-way switch now just acts as an on/off switch for the batteries.

**Lithium batteries and Lipos in particular must be treated with care.** If the battery terminals are shorted or connectors damaged then the battery will be destroyed and could catch fire! If the battery shows any sign of getting hot or physically swelling in size then it must be immediately disconnected, put in an open safe place, preferably in a Lipo safe bag and then disposed of appropriately. When trying a brand new Lithium battery for the first time connect it to the Loco Remote

outside your loco and allow it to discharge for a while to ensure the battery has no manufacturing defects. It is strongly advised that you remove a Lipo battery from your loco when not in use and store it in a Lipo safe bag. Search eBay for these.

There is a very helpful guide on the use and care of Lipo batteries at <http://learningrc.com/lipo-battery/>

### Protecting the batteries and Loco Remote with a fuse



Rechargeable batteries have a very low internal resistance and can easily pass tens of amps when shorted. Use a 2A resettable polyfuse or a 2.5A slow blow 20mm fuse in a suitable fuse holder in series with the battery to protect the Loco Remote module and battery. These can be found on eBay.



We are here to help and ensure you really enjoy your Loco Remote. If you have any questions, problems or suggestions for improvements do please contact us either via the web site or by email at [locoremote@gmail.com](mailto:locoremote@gmail.com) and we will be sure to get back to you promptly.