

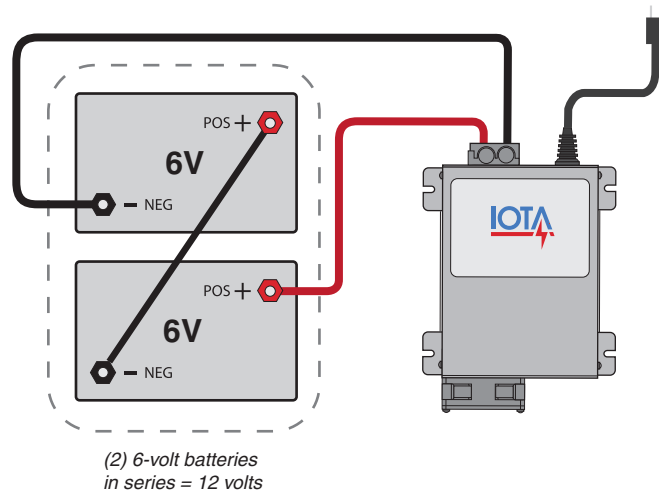
## Charging for 6-Volt Battery Systems

Balanced charging for 6-volt batteries in 12-volt configurations

IOTA DLS 12-volt models can be used to charge 6-volt batteries when they are configured in a 12-volt “series” arrangement. If several “series” groups are combined for larger capacity, the DLS can provide balanced charging (ie. delivering the same charging voltage) to all the batteries by referring to Diagram #2.

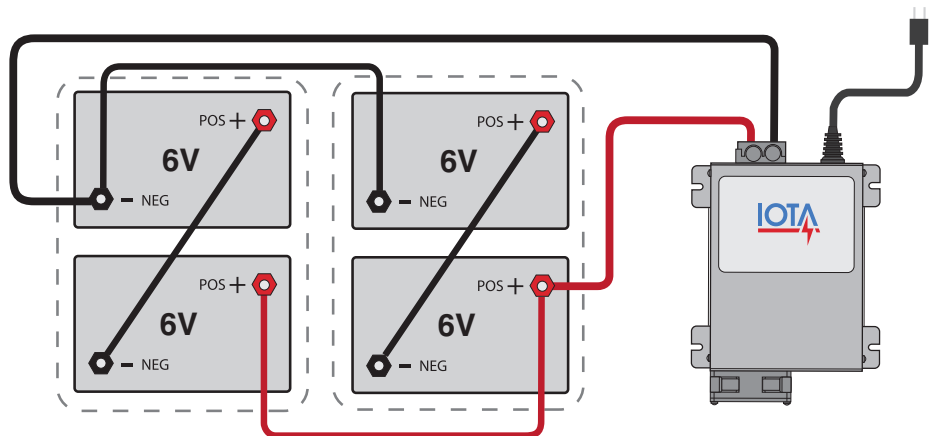
### Diagram #1 6-Volt Batteries in Series

Two 6-volt batteries can be connected *in series* to increase the combined output voltage to 12Vdc. The battery capacity (AH) will remain unchanged. In this scenario, the DLS charger is connected to the POS (+) terminal on one battery and the NEG (-) terminal on the other. Each connection is equally balanced with one another in this arrangement.



### Diagram #2: 6-Volt Series/Parallel Combination

A 6-Volt Battery Series/Parallel configuration connects two 6-Volt Series arrangements in parallel. This maintains the 12-volt output but doubles the overall battery capacity. In this scenario, balanced charging is achieved by connecting to the POS (+) terminal on one series group and the NEG (-) on the other series group as shown.



Note that for optimal battery bank and charging performance, the batteries in the bank should be of the same manufacturer and model, as well as the same AH rating, age, condition, and state of charge [SOC]. For additional assistance with using IOTA DLS chargers for your 6-volt battery applications, contact our Technical Services team at 1-855-363-9527 or visit [www.iotaengineering.com/services](http://www.iotaengineering.com/services).