

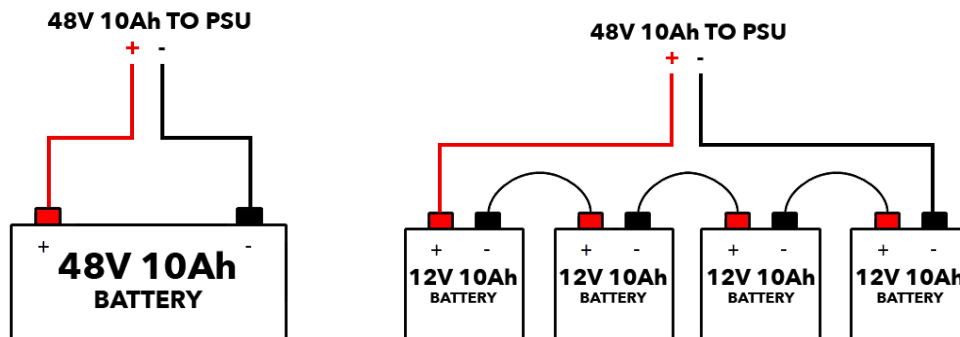
MOTOCRANE|ULTRA

48 Volt Power Guide

You will have to supply and connect your MotoCrane ULTRA to a power source. MotoCrane's Power Supply Unit [PSU] requires a 48 Volt DC input (45-60VDC MAX), and includes cabling for connecting to a Gray Anderson© SB50 Connector. Flying leads are also provided. 48V can be obtained in multiple ways:

- A single 48V Battery
- 4 individual 12V batteries connected "in series."
- [UPC + 12VA](#)

"In series" is a term used to describe the wiring configuration detailed in the diagram below.



Single 48V battery (left) and 4x 12V series wiring diagram (right). Both provide 48V10Ah. Series connections add voltage ratings together, while Ah capacity is not added together.

We have used single 48V batteries as well as 4x12V lead-acid car batteries connected "in series." Either can supply MotoCrane with enough power. We use a single [48V18Ah LiFePO4 Battery](#) most often because it is small, light, inexpensive and easy to move in and out of the vehicle for charging. LiFePO4 (Lithium Iron Phosphate) is also a more chemically and thermally stable chemistry than Lithium Ion, or Lithium Polymer, which represents advantages for long-term short

Additional notes: The energy capacity of a battery is described with the unit Amp-hours [Ah]. We have found that 10Ah is enough for a typical day of shooting. More frequent arm moves will require larger capacity (or additional backup) batteries. Batteries with 20, 30, or even 50Ah capacities are completely suitable for use, and simply provide additional capacity for longer shoots/ run times. If you use multiple batteries in series, each individual battery should have the same Ah capacity.

Any battery used must be able to discharge at least 40A for optimum performance. This is especially important when using MotoCrane at high speeds.

**Input voltages greater than 60VDC will cause permanent damage.
The MotoCrane Controller will notify you if voltage is near the upper or lower limit.*