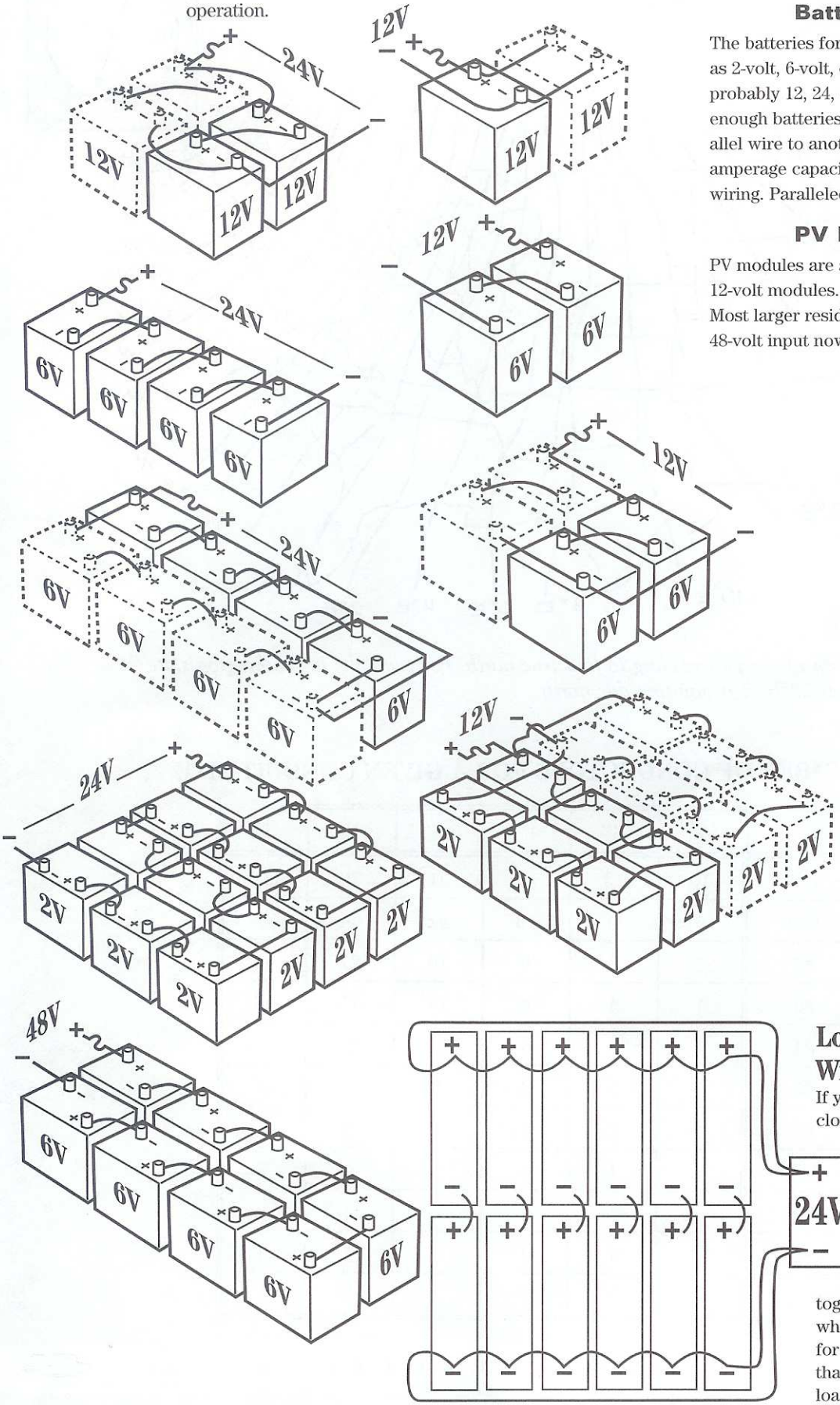
Battery Wiring Diagrams

The following diagrams show how 2-, 6- and 12-volt batteries are connected for 12-, 24- and 48-volt operation.



Wiring Basics

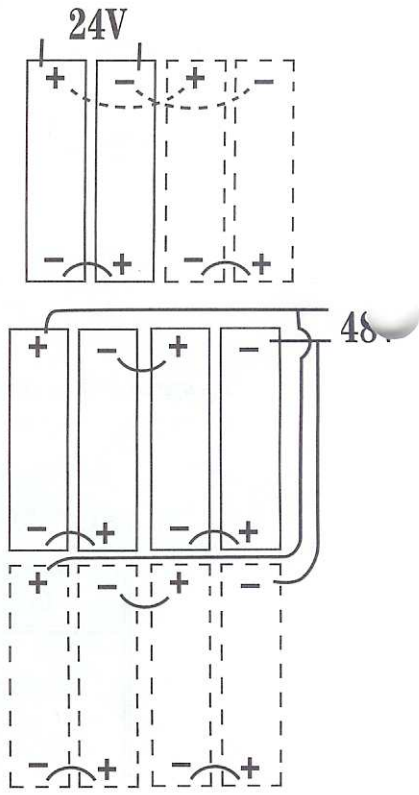
We answer a lot of basic wiring questions over the phone, which we're always happy to do, but there's nothing like a picture or two to make things apparent.

Battery Wiring

The batteries for your energy system may be supplied as 2-volt, 6-volt, or 12-volt cells. Your system voltage is probably 12, 24, or 48 volts. You'll need to series wire enough batteries to reach your system voltage, then parallel wire to another series group as needed to boost amperage capacity. See our drawings for correct series wiring. Paralleled groups are shown in dotted outline.

PV Module Wiring

PV modules are almost universally produced as nominal 12-volt modules. For smaller 12-volt systems this is fine. Most larger residential systems are configured for 24- or 48-volt input now.



Longevity/Safety Tip for Wiring Larger PV Arrays

If you have a large PV array that produces close to, or over, 20 amps, multiple power take-off leads are a good idea. They may prevent toasted terminal boxes. Instead of only taking a single pair of positive and negative leads off some point on the array, take off one pair at one end, and another pair off the opposite end. Then join them back together at the array-mounted junction box where you're going to the larger wire needed for transmission. This divides up the routes that outgoing power can take, and eases the load on any single PV junction box.