

Spot Fake Solar Gear in 60 Seconds

The listing tricks that drain wallets—and the tell that gives each fake away.

How to use it: keep this open on your phone while you shop. Before you tap **Buy**, find the block that matches the part and run it past the two lines. A fake usually gives itself away in the spec sheet—or in what the spec sheet leaves out.

1. Charge controllers — “MPPT” that is really PWM

THE TELL — a rock-bottom price, a huge amp number like “100A” on a small, light unit, and no maximum PV input voltage anywhere in the spec. A real MPPT controller names its maximum PV voltage and costs noticeably more.

DO THIS — look for a stated maximum PV input voltage and current, and a rated power at your bank voltage. No numbers, no sale.

2. Wire & cable — aluminum sold as copper

THE TELL — “100% copper” shows up only in the title, never in the spec; the price per foot is far below everyone else; the roll feels surprisingly light. That is CCA—copper-clad aluminum—hiding inside.

DO THIS — require the words “bare copper” or “pure copper” in the spec, and treat CCA as a no for any power wiring. Cheap wire is the most expensive part you can buy.

3. Batteries — inflated amp-hours

THE TELL — the battery weighs far too little for the amp-hours claimed, the BMS current is not stated, and the cells are “Grade A” with no datasheet. Stored energy has weight; a big number with no datasheet is a wish.

DO THIS — weigh the claim against the stated watt-hours, and require a real continuous BMS amp rating plus the maker’s datasheet.

4. Inverters — “peak” watts wearing the continuous label

THE TELL — the big number on the picture is the peak or surge watts; the continuous rating is smaller, buried, or missing. “Pure sine” is in the title but not confirmed in the written spec.

DO THIS — buy on the continuous watts only, and confirm “pure sine wave” in the specs, not just the headline.

5. Panels — a watt number with nothing behind it

THE TELL — one large wattage and no Voc, Vmp, Imp, or Isc. Those four numbers are the ones your controller sizing needs (Chapter 9). A panel listing that hides them is hiding something.

DO THIS — require all four numbers on the spec before you buy. If they are missing, move on.

6. The seller & the “warranty”

THE TELL — a warranty with no company name or contact behind it, a brand-new seller account, and stock photos instead of the real unit. The gear that fails early tends to have a warranty that vanishes with it.

DO THIS — confirm a real company stands behind the part and can be reached. A warranty you cannot call is not a warranty.

The one habit: if the spec sheet will not give you the numbers, the number you will pay is the lesson. When two listings look the same, trust the one you can verify—not the one that is cheaper.