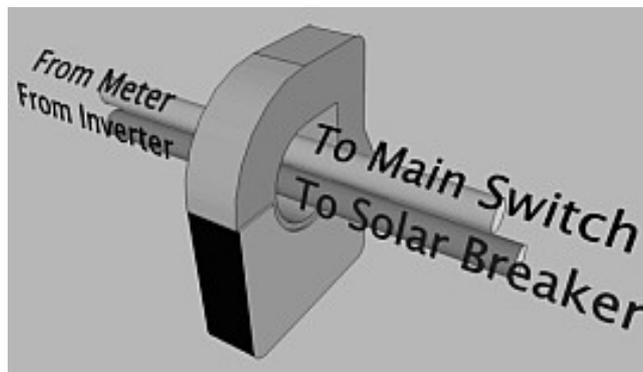


## Solar Power : Alternative Consumption Clamp Procedure

This workaround consumption clamping solution is for when you have:

- *Very complex wiring ie spaghetti junction*
- *A large number of power circuits*
- *Difficulty working out what wire is connected to what circuit*
- *Difficulty knowing what phase is feeding what single phase circuit/s*
- *A lack of space in certain parts of the meter box / distribution panel*

The current clamps provided are NOT able to know which way current is flowing. Though if you have current flowing in different cables in opposite directions, [such as imported power coming in from the grid and solar power going to the grid] then one value will directly affect [summed or negated] from the other as highlighted below.



**Scenario 1:** Your solar is producing 4000W, your house is consuming 1500W, therefore 2500W is being fed back to grid. The 2500W of exported power is flowing in the opposite direction to the 4000W of generated solar power. Therefore exported power of 2500W is deducted from the solar generated power of 4000W.

$$\text{Power detected in consumption clamp} = 4000W - 2500W = 1500W$$

**Scenario 2:** Your solar is producing 1000W, your house is consuming 2500W, therefore 1500W is being drawn from grid. The 1000W is flowing in the same direction as the 1500W. Therefore both solar power of 1000W and imported power of 1500W from the grid are summed.

$$\text{Power detected in consumption clamp} = 1000W + 1500W = 2500W$$

**Scenario 3:** Your solar is producing 0W, your house is consuming 1000W, the 1000W being drawn from grid. The 1000W is flowing from the grid. 0W is flowing from the solar.

$$\text{Power detected in consumption clamp} = 1000W + 0W = 1000W$$

Hopefully the above adds information adds clarity, for those of you with meter boxes and distribution panels that are proving a challenge for the correct position of your consumption clamping.

**Solar Power Generation Transmitter :** This is the easy one where the solar generation current clamp/s is installed somewhere between the inverter's AC output and the distribution panel solar feed in switch.