

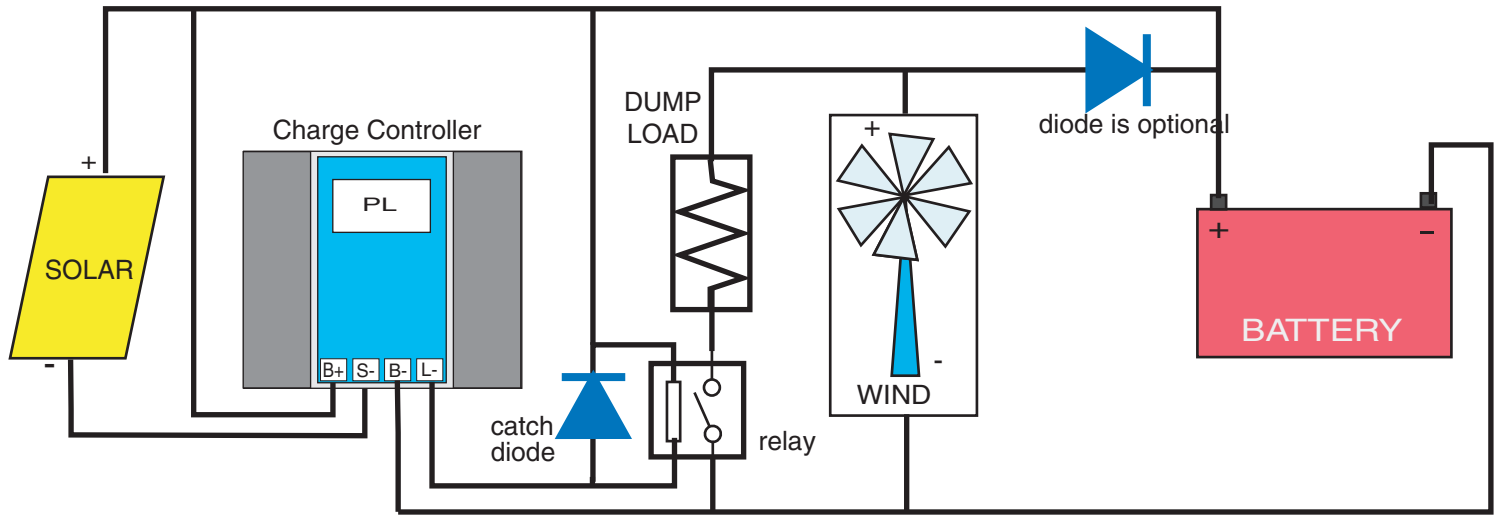


## PL AND WIND -SHEET 2

Use these wiring diagrams when the maximum current from the wind generator is higher than the maximum load current on the PL.

### WHEN WIND GENERATOR RATED HIGHER THAN PL LOAD

If the Wind Generator has a higher current output than the PL Load can handle, you must use Shunt regulation. LSET must be set at 10, and PWM MUST be set at 0 or 1. NOTE: PWM must NOT be set at 2 or 3. The load terminal on the PL regulator is used to drive the relay. The relay can not accept pwm input so the regulation regime will be by slow, on/off switching. Reducing the number of times the relay switches is useful to extend the life of the relay. A catch diode must be used across the relay to protect the PL regulator from damage when the relay is switched off. The catch diode is supplied with the PL regulator and must be used. If you choose to put a diode between the Dump Load and the battery, it must be rated at greater than the wind generator maximum output.



PL regulator used as a shunt regulator for wind and as a series regulator for solar, and using a PLS2 to monitor the wind input: Using a shunt and PLS2 in the position shown will allow the charge current from the wind generator to be monitored on the PL screen and included in the amp hour and state of charge recording. This is fine in this arrangement but the operation of the circuit is very sensitive to where the shunt is placed. If the shunt were placed in the dump load wire it would show the energy "wasted" (actually just not collected because the battery was full). If the shunt were placed in the wind generator wire it would show charge current plus "wasted" current (i.e. total wind generator output). This last option can be useful if the dump load is switched directly (no relay) by the PL terminal. In this case the PL is already counting the dump current as load current, and it makes sense to count the "waste" current as input so that the overall state of charge calculation makes some sense.

