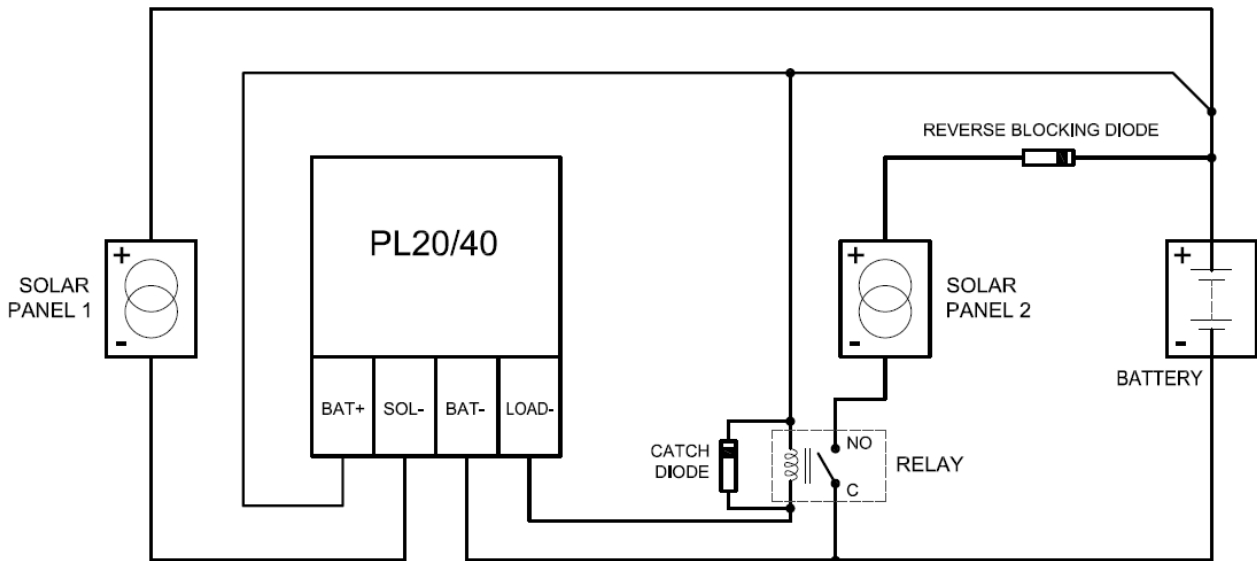# PL Extending solar capacity via mechanical relay

Remember to use a reverse blocking diode on the 2nd solar array switched via mechanical relay.

If you are changing to PROG=4 from one of the generic programs (PROG=0-3), you should check that all the settings under the SET/REG menu are correct for your battery/application as these may be different from the generic settings.
(See 'Settings used in programs 0-3' table, page 18, in PL Reference Manual)

SET/PROG = 4

SET/MODE/LSET = 11	(off for regulation)
SET/MODE/PWM = 1	(PWM on SOL- only)
SET/REG/HYST = 0.7 – 1V	(To minimise mechanical relay switching for 12V system, scale for other system voltages)

To test relay is able to be switched by the LOAD terminal:

SET/PROG = 1
Cycle power to the regulator (power OFF, then power ON)
LOAD/LINT/LSET
Check that long push toggles LOAD terminal on and off.

Note: Remember to change back to SET/PROG=4 (then cycle power) after test !