

Solar Optimiser/ Maximiser instructions

for REG-110

From terminal block on top of Optimiser:

M- goes to Neg- Motor, pump, fan (or Neg- on whatever load.)

S- Solar negative goes to Neg- on solar panel

S+ Solar positive goes to Pos+ on solar panel

M+ goes to pos+ load, a suitable (5 amp) fuse should be installed between M+ and pos+ on motor.

Please note: This optimizer is limited to 5 amp input (solar) and 5 amp output (motor).



Cat.# REG-110



Cat. # REG-111 (instructions overleaf)



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Solar Pump Controller

Cat.# REG-111 (Model EPE- 200)

Installation Instructions

Designed to work with DC pump motors in solar powered applications, the Solar Pump Controller offers 2 significant benefits to its users:

- Longer pump life as motor is prevented from over speed. This is due to the fact that the EPE-200 limits the voltage going to the pump motor. "Peak" sun voltage is limited.
- Due to low light operation, the pump will continue to operate early morning, late afternoon and also under cloudy conditions. The pump would not operate in these conditions without the EPE 200.

Operating Modes:

- 24 volt pump requires a 24V solar array (eg 2 x 12 volt solar modules wired in series).
- 12 volt pump in a single array.
- 24 volt pump with single module array. "Warning " This mode is only used under instruction from a qualified and accredited solar designer/ installer.

Installation:

- After opening the lid, mount the box to the solar array frame via the screw holes (see diagram reverse side for location – note that the holes are also the same holes as the enclosure lid screws use). Ensuring that the two cable glands face downwards. Seal any screw mounting holes with silicon sealer:
- Locate the operating mode jumpers J3 & J4 on the circuit board.
For operating mode 1 * fit black jumper link to the pins labelled " 24V Jumper – A"
For operating mode 2 * fit black jumper link to the pins labelled " 12V Jumper – B"
For operating mode 3 * remove the black jumper link "See Warning above!"

You will find that it will be easier to use pointed nose pliers for this operation!

- Weatherproof cover must be replaced, ensuring that weatherproof seal is in place.
- Operation switch must be turned off.
- Pump must be connected to EPE 200, via the 6 way terminal strip.
- EPE -200 to the solar array's junction box. Red wire must be connected to positive (+), and black wire to negative (-).
- Operation switch must be switched ON, for the pump to start working.

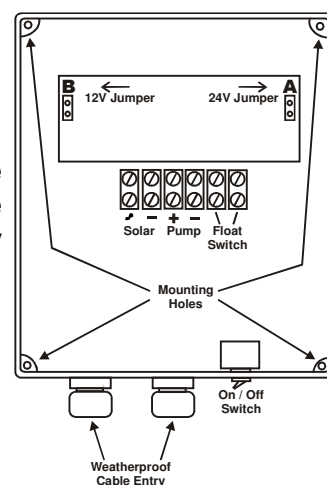
Optional float switch control:

Via a remote wired float switch it is possible to electrically switch a pump "on" and "off".

The float switch must operate as a "normal open contact" eg: (The pump will run as long as the float switch is open). When the tank reaches its full capacity, the float switch must close to allow the pump to stop.

To connect an optional float switch:

- The EPE-200 must be switched to off.
- Lid of EPE-200 must then be opened.
- The mounted six- way terminal block should then be located.
- Two wires should then be fed from the float switch via the left most cable gland (outer nut should be loosened on the gland to feed wires in, then be firmly re-tightened). As no significant current is " switched ", the wires only need to be small in diameter (for example: telephone style wire is suitable).
- Connect 2 wires to the terminal strip, using the right most screws.
- Close the lid on the EPE-240, ensuring the lids weatherproof seal is in place.
- The EPE-200 must then be switched to "On". The pump will then run.
- Test that the float switch stops the pump when the tank is full.



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