

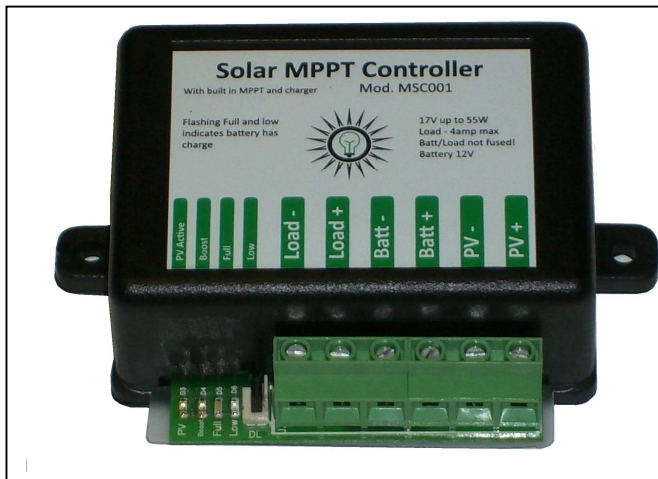
MPPT Model MSC001®

Maximum Power Point Tracking Unit

The latest techniques and technology have been applied in bring this product to you. It not only controls the solar panel to always supply the most efficient power, but it also controls and monitors the state of a Lead Acid battery. It identifies the state that battery is in, and using proprietary algorithms, ensures that it controls and maintains the battery at it most fully charged state.

The monitor also controls a maximum 4 Amp load switch, with a built in Day/Night switch to control security lights in off grid installations. If required, by using a jumper on the board, the user can override the day/night switch and allow the load to be continuously on. Part of the battery monitoring in the MPPT also ensures that the lead acid battery is never discharged beyond its minimum discharge point, by disconnecting the load, until the next charge cycle has sufficiently charged the battery.

The user connects the solar panel, load and battery wires to a user friendly large connector block.



- *Easy to install!*
- *MPPT standard!*
- *Lead Acid Battery Charger!*
- *Built in Day/Night switch or always on!*
- *Maximum operating range!*
- *Battery Cut Out!*
- *Different PV panel friendly!*
- *LED feedback Indicator!*
- *Load Control*
- *Peace of mind!*

MC001® manages your Off Grid system by:

- Ensuring maximum efficiency from solar panel
- Battery always charged with maximum power available from panel (MPPT), increasing efficiency of the system
- Works over the widest possible voltage fluctuation from the Panel
- Low Voltage cut out to protect battery
- Built in Day Night Switch for security light operation, or selecting via jumper, load always connected, but under battery low voltage protection control.

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MSC001 @ Technical specifications

PV Input

PV Input Supply Voltage	0 – 27V D.C.
PV Current at full charge mode	10mA- 3.5A
PV Panel Rating	10W to 55W
PV maximum load voltage value	17 – 18V DC
MPPT Current with no load	10 - 15mA

Battery Input (Not Fused – we recommend use an external 5Amp fuse for protection)

Voltage	9 – 16V DC
Maximum current absorbed at full charge	3.5A (PV Panel size and time of day dependant)
Current draw with no load and no PV voltage	10 - 15mA

Load

Voltage	greater than 11.5V to Battery terminal voltage
Low voltage cut out	Less than 11.5V DC
Current	Maximum is 4Amps – not fused
Day/Night switch control or jumper over ride	

Charger (Intelligent charger working in the parameters below)

If battery voltage below 11.5V then Boost mode till voltage reaches 14.5V

If voltage between 11.5V and 14.5V then trickle charge mode

MPPT Mode (Maximum Power Point Tracking)

The micro controller uses switch mode technology to ensure that the Solar Panel always operates at it most highest efficiency point at all times. Using this method it increases panel output by 30% over other conventional methods. Introducing this switching technology ensures that smaller PV panels can be used to achieve the same amount of power using a larger panel.

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