



Solar Lantern Kit (with Mobile Charging) McHM1R2

Solar Lantern kits are made keeping in view of a large number of OEMs who need such controllers to be fitted in their own designed systems. All the kits are available in the plug and play arrangement. Connections, relimates are provided on the kits so that simply wiring is done to respective terminals and no soldering is needed.

The kits are invariably provided with on-board presets to set HVD and LVD as per individual requirement although we recommend to keep the factory setting undisturbed.

Full protections are provided against reverse connections, overload, short circuit etc in most of the kits.

Solar Lantern Kit, McHM1R2 is designed with specific view of being used in 6V system. The kit comes with built-in LED driver and Mobile output. The charge controller part is of high efficiency shunt version with negligible IVD and OVD.

Output of the kit is in dual mode. When mobile phone charging plug (not supplied with the kit) is inserted in the provided socket, the lantern turns off. In the normal mode, the output is from smps led driver to drive the power led or cluster of leds. The output current of driver is set at 440mA as a default setting. You do not need separate driver.

Recommended battery for the same is 6V/4.5Ah. The mobile output is interlocked with LED load. When mobile is being charged, the lantern automatically turns off.

Salient Specifications:

SYSTEM:	6V
CAPACITY:	Panel 5Wp Max
LOAD:	1W Power LED/Cluster LED
REGULATION:	LOW LOSS, SHUNT TYPE
NLC:	No Load Current/Quiescent current < 1 mA
OVD:	Output Voltage Drop < 200mV
IVD:	Input Voltage Drop < 300mV at 1 A charge
LVD:	Low Voltage Disconnect, 5.5 V
HVD:	High Voltage Disconnect, 7.2 V
LVR:	Low Voltage Reconnect, 6.4 V
HVR:	High Voltage Reconnect, 7.15 V
EFFICIECY:	> 85%

PROTECTIONS: Short circuit and overload at load
Reverse polarity of Battery and Panel
Reverse current flow from battery to panel

APPLICATION: IN DOOR USE ONLY.
AMBIENCE: Operating Temp 0 to 50 Deg C, 90% RH
DIMENSIONS: 90 mm x 50 mm

Indicators and Controls:

CHRG : Green LED.: When panel is connected properly and voltage is more than 6V, this LED turns on. When battery is fully charged, it starts flickering indicating PWM state of absorption mode of charging.

BTLO : Red LED. When battery voltage is less than LVD level, it turns on and disconnects the supply to the load. It will be on only when battery is charged above LVR level.

When battery is connected for the first time, its voltage must be more than LVR to have supply at output. If BTLO is on, battery must be charged first through panel. Once in loop, battery will work between LVD and HVD as specified.

MOBILE OUT SOCKET: Presoldered DC socket is provided with relimate cable. When mobile plug is not put in, lantern will work in normal mode. This 3 way relimate must be used for proper working. If it is removed, nothing will work.

FUSE: Relimate cable is provided to connect to the fuse, if provided in the unit. Short the cable if fuse is not needed.(Not recommended)

BATTERY CABLE: A relimate cable with battery tags supplied with every kit for connecting to the battery terminals.