



Blue Mountain Energy

Hybrid Solar Inverter user manual

BME-15/10

Please note: The BME-15/10 is NRS compliant but not NRS
certified therefore should be used off-grid
(Feed-in to grid is disabled and should remain disabled)

Installation

This document is a guide on installation of the BME-10/15 hybrid inverter.

Hardware required:

- BME-15 or BME-10.
- The following selection of Pylontech batteries are recommended:

UP5000 48V battery available on Segen Portal: PYLON-UP5000 OR
US3000C 48V battery available on Segen Portal: PYLON-US3000C OR
US2000B-PLUS 48V battery available on Segen Portal:PYLON-US2000B-PLUS

- Only one of the following can be used in the intelligent slot of the inverter (Cannot be used simultaneously):

BMS card for Li-ion battery BMS cable available on Segen portal: BME-BMS-C
(strictly for BMS)

BME Wi-fi card available on Segen Portal : BME-WIFI

- Modbus duo box for BMS AND meter available on Segen Portal: BME- DUO-BOX

(RECOMMENDED for both BMS AND Meter)

Please note: The duo box requires an external 5V DC power source to be purchased separately.

- External BMS for Li-Ion batteries available on Segen Portal: BME-BMS-B(BMS only)

Please note: The external BMS box requires an external 12V DC power source to be purchased separately.

(NB: BMS cable paired with Modbus cards/duo box/external BMS box is only compatible with US3000/US2000 batteries)

(Meter communication cable and BMS cable for UP5000 AND US3000C to be purchased separately.)

- BME energy meter available on portal: BME-METER
Solar Power CD

Setup:

Dip switch settings

NB: 1 indicates on (or up) 0 indicates off (down).

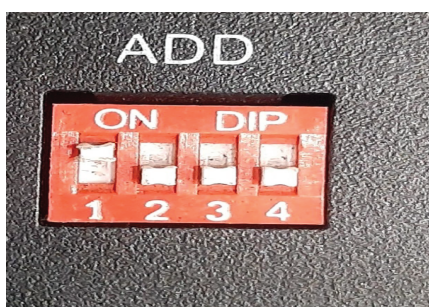
1. Please set the battery dip switches for the master as 1000 for required baudrate of 9600.(See figure 1)
2. BMS card/MODBUS Card/external BMS: (See figure 3)

switch 1 : default: 10000000/00000000.

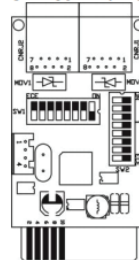
switch 2 : 0110 for dip switches 1 to 4. The rest can be left at default values.

Insert BMS card into inverter intelligent slot.

The BMS cable is connected on the RS485 slot of the battery and RS485 slot of the BMS card, external box, and on the BMS slot of the duo box



3-1. Communication Format Configuration



Function	Bit Setting		Meaning
Baud rate	# 2	# 1	
	OFF	OFF	2400bps
	OFF	ON	4800bps
	ON	OFF	9600bps*(Default)
	ON	ON	19200bps
Parity check	# 4	# 3	
	OFF	OFF	Even parity
	ON	OFF	Odd parity
	OFF	ON	No parity check 1 stop bit (Default)
	ON	ON	No parity check 2 stop bits

***It's request to use 9600bps baud rate and no parity check 1 stop bit if communicating with BMS. The Bit setting for # 1 is OFF, # 2 is ON, # 3 is ON, # 4 is OFF.**

Figure 1: Battery dip switch settings

Figure 2: BMS card dip switch settings

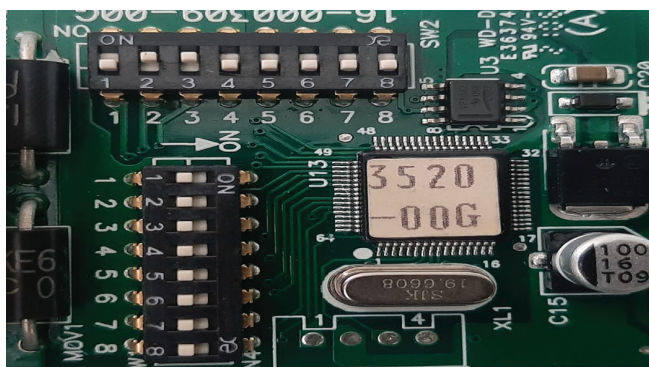


Figure 3: BMS card dip switches

1. MODBUS Duo box:
BMS: (see figure 4)
switch 3:01101111
switch4:10000000/00000000
Meter: (see figure 5)
Switch 1:10000000
Switch 2: 01101111

The BMS cable is connected on the RS485 slot of the battery and RS485 slot of the BMS card, external box, and on the BMS slot of the duo box

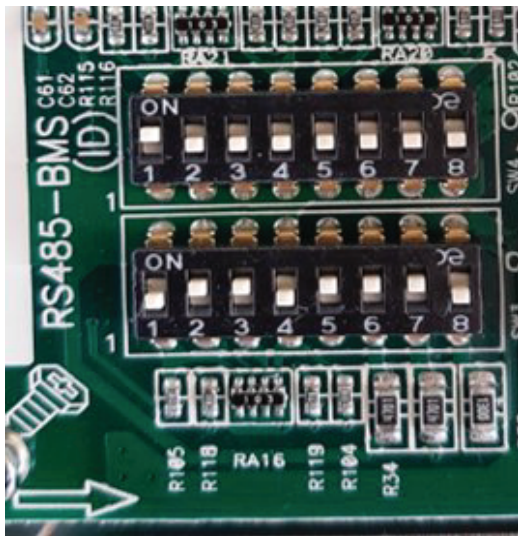


Figure 4: Duo-box BMS settings

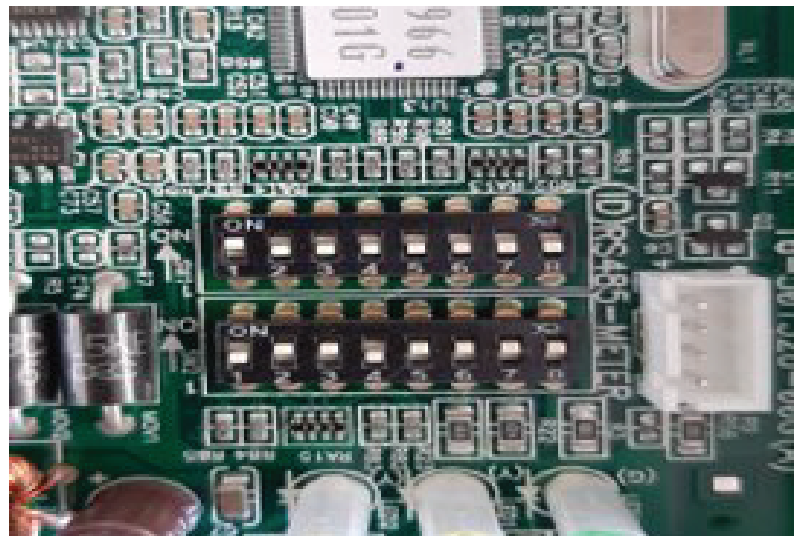


Figure 5: Duo-box meter settings

Commissioning

1. Battery
 - Please ensure that the batteries in parallel communicate before connecting and powering the inverter.
 - Upon switching batteries on, press the on button for 3 seconds to switch LCD on.
2. PV and Grid

It is highly recommended to start up the inverter with battery power however the Grid/PV can also start up the inverter. The LCD should be on by now (Inverter on standby).
3. To connect inverter to loads solar Power software can be used .

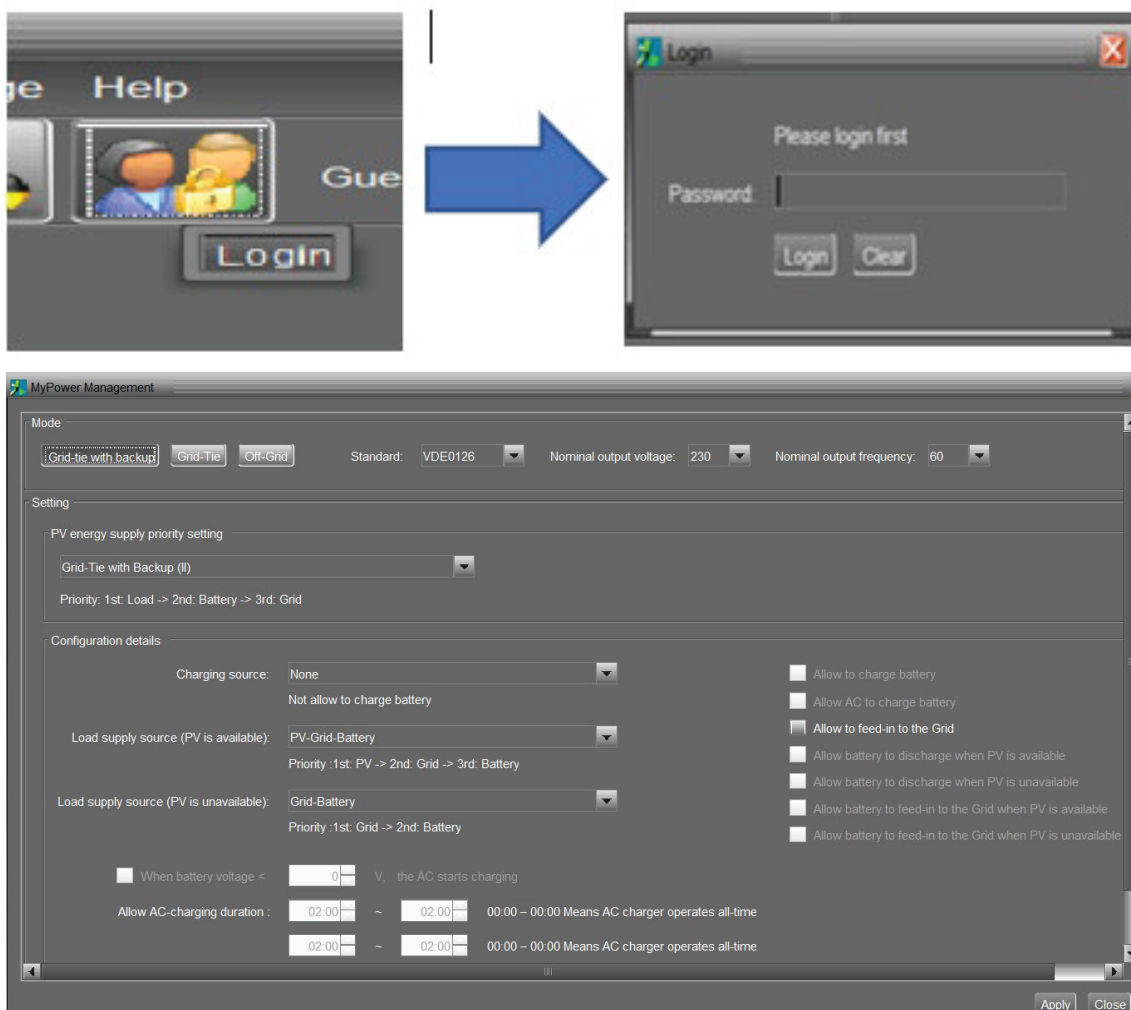
Setup

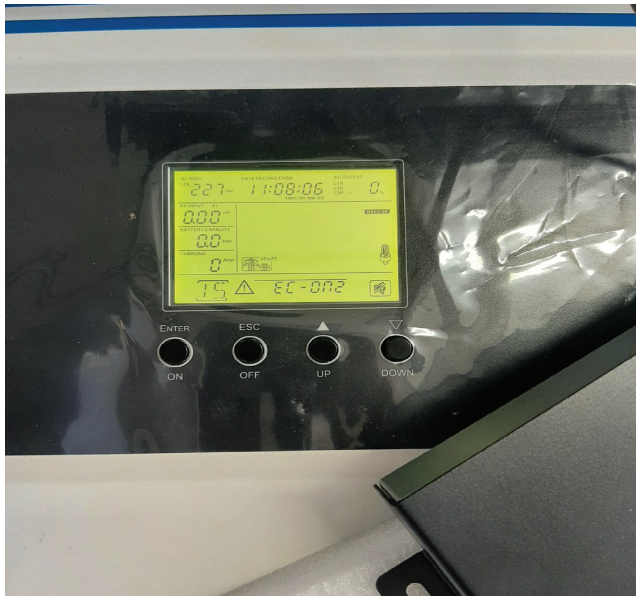
Solar Power

includes all modes hybrid, grid-tie and off-grid mode

1. Connect USB cable that comes with inverter to usb slot on inverter and computer that has solar power software.
2. Once inverter is powered on and still in standby mode click on login and enter the password: **administratoron** prompt.
3. Open device control mypowermanagement, here you can set modes in which you want the inverter work.
4. Click apply to activate selected mode and connect to loads.
 - Solar Power includes the following modes:
 - Offgrid I, II, III.
 - Grid-tie with backup I, II, III.
 - The different modes vary in charge source priority, load supply source priority.

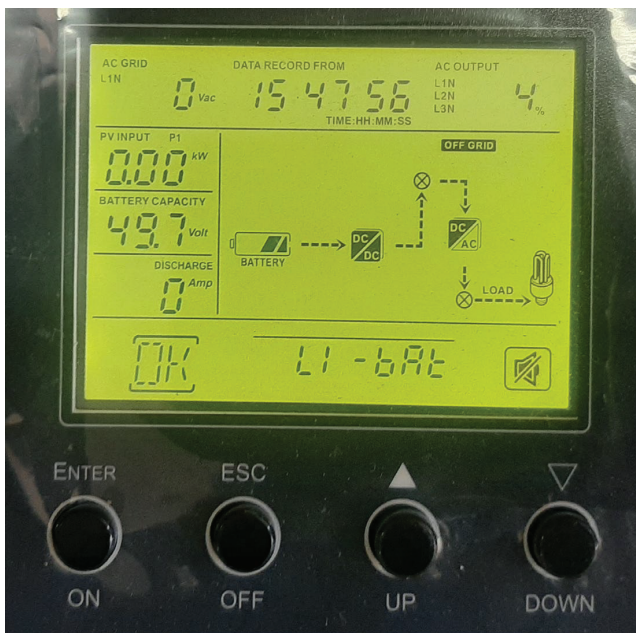
Please note: Only Grid-tie with backup II mode works with a meter connection.





- The inverter fault indicator:
The inverter flashes the warning number on the bottom right of the screen, fault number is solid, does not flash when a fault has occurred.
- For a successful Meter communication "EC-ON2" flashes on the inverter

Please note if message "EC-ON1" flashes, swap the communication pins on the meter side.



- For a successful BMS connection, the inverter should flash a message "Li-bAt"
- Press and hold off button for 3 seconds to disengage the load.