INSTRUCTION MANUAL

---------- *Duo-battery charging solar controller,*
For RVs, Caravans, and boats

RATINGS (12/24VDC Auto)

EPIPDB-COM, 10A, 12/24VDC Auto

EPIPDB-COM, 20A, 12/24VDC Auto

NOTES: For use with solar panels only

TECHNICAL INFORMATION

Setpoint	Sealed battery	Gel battery	Flooded battery
Equalize charging voltage	14.6V	—	14.8V
Boost charging voltage	14.4V	14.2V	14.6V
Float charging voltage	13.8V	13.8V	13.8V
Maximum solar voltage	30V（12V System） 55V（24V System）		
Battery voltage range	8～15V		
Boost time	120 minutes		
Self-consumption	4mA at night, 10mA at charging		
Meterbus connection	8- PIN RJ-45		
Temp. compensation	-5mV/℃/2V		
Terminals	4mm^2		
Temperature	-35℃ +55℃		
Net weight	250g		

Note: all the data is for 12V, for 24V, please x 2.

Features of the duo-battery controller

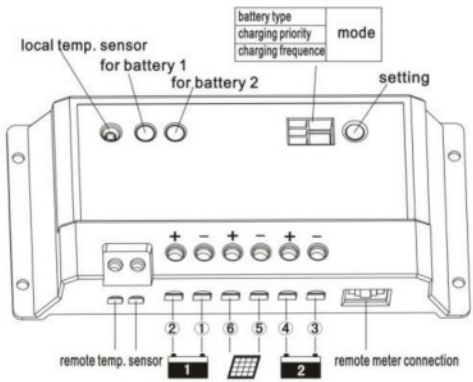


Fig 1

(Note: See Fig 1, connect the controller in sequence 1-6)

Connect to battery 1

Connect to battery 2

Connect to Solar Panel.

Remote temp. sensor

Connection point for RTS(optional) to remotely monitor battery temperature

Local temp. sensor

Measures ambient temperature. Battery regulation is adjusted accordingly

Battery 1

Provides charging, battery status and errors

Battery 2

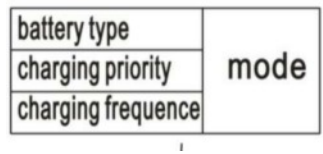
Provides charging, battery status and errors

Remote meter connection

Communication port for the remote meter

Note: where there is no RTS, the controller will calculate the data it has received from the local temp. sensor. The controller will read the RTS automatically when the RTS is connected.

SETTING MODE



There are 3 setting mode LED's, each LED allows the setting of its respective selected mode.

Press the button until the desired setting has been selected. Then press and hold the switch for 5 seconds until the number flashes. Press the button again until the desired setting is displayed, wait until that number you have selected stops flashing. This has then been saved.

1. The first led is for setting the battery type.

Number Displays	Battery type
1	Sealed battery
2	Gel battery
3	Flooded battery

2. The second led is for setting the charging priority between battery 1 and battery 2

Number Displays	Battery #1 charging	Battery # 2 charging
0	0%	100%
1	10%	90%
2	20%	80%
3	30%	70%
4	40%	60%
5	50%	50%
6	60%	40%
7	70%	30%
8	80%	20%
9	90%(pre-set)	10%

Note: In normal charging status, the controller will divide the charge as the setting. When battery 1 is fully charged more charge current will be diverted to battery 2. This will return to the set charging priority automatically when battery 1's voltage is low.

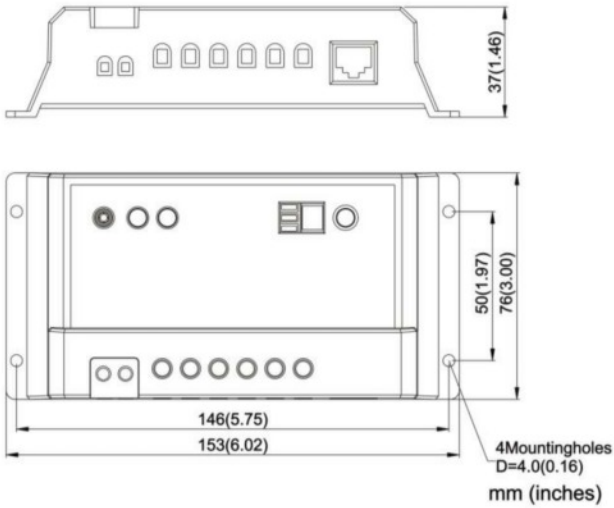
When the controller detects there is only battery 1, all the charge will go to battery 1 automatically.

3. The third led is for setting the charging frequency.

Number shows	PWM Charging frequency
0	25Hz(pre-set)
1	50Hz
2	100Hz

TROUBLESHOOTING

1. LED blinking, short circuit, check the PV and battery, make sure that the wires are wired to the correct terminals.
2. LED slowly flashing, fully charged
3. LED ON, on charging
4. LED frequent flashing, with battery, no charging



Version Number: V2.1

Optional Wired Remote Display

Product Code: EMT001

Features

- Battery Voltage (min/max & actual)
- Battery charging current
- Solar Panel voltage
- Solar Panel current
- Temperature
- Time
- RJ45 Lead connection
- Fascia or Flush mounted

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