Thank you for selecting the parallel adapter. Please read this manual carefully before using the product.

PAL-ADP-50AN
Parallel Adapter

1. Overview

The PAL-ADP-50AN is a parallel adapter for adjusting the charging current of multiple controllers connected to the battery in parallel, which monitors the charging and operational status in real-time. The adapter automatically changes the controllers' charging and operational status according to the battery level to prolong the controller lifetime.

Features：

• Achieve the consistency of parameters for multiple controllers

• Equalize charging feature to smart control the charging current of each controller

• Monitor the working status and smart control the operation quantity of the controller

• Up to 6 controllers are supported

• Standard Modbus communication protocol and related PC Monitoring Software

• The 1-click setting for baud rate switch between 9600 and 115200

• LED indicator for operational status

2. Structure
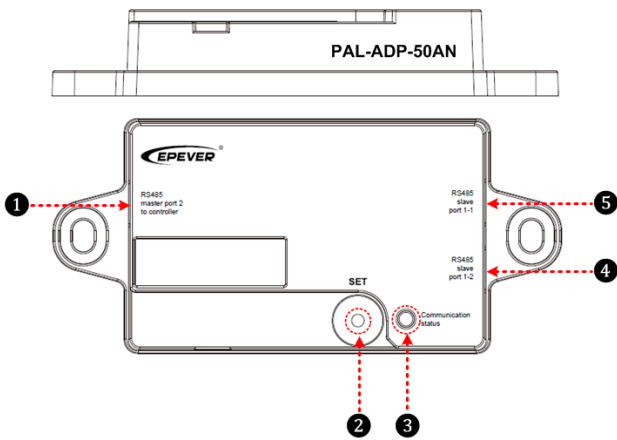
❶ **RS485 communication port 1(RJ45)**

Communicate with up to 6 paralleled controllers.

1/2—5VDC
3/4—B
5/6—A
7/8--GND

GND
A
B
5VDC
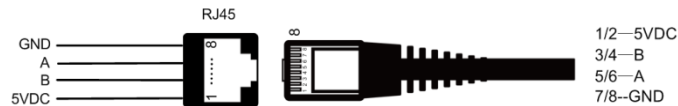
Accessories(included)：

Communication cable (Model: CC-RS485-RS485-200U)

❷**SET button**

Press and hold the button for 5 seconds to set the communication baud rate

• 9600—— Red LED indicator flash one time

• 115200——Red LED indicator flash two times

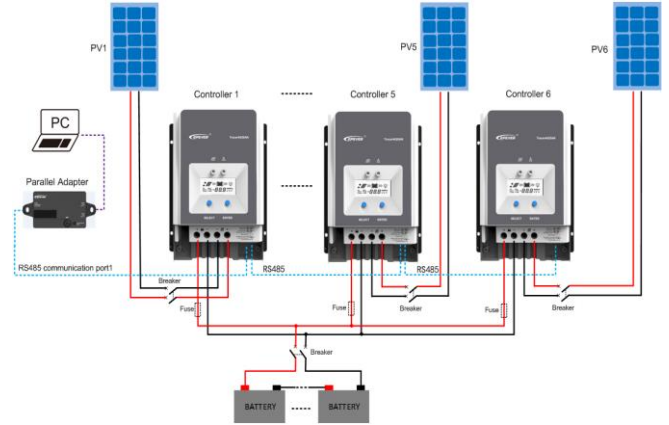❸**Communication status indicator**

• Solid Green——The adapter is working.

• Flash Green——Adapter is communicating.

• Flash Red——Adapter's baud rate indictor.

❹❺**RS485 communication port 2/3 (RJ45)**

These two ports are paralleled.

3. Product Application Connection Diagram

➢ **Connection for Tracer AN (50-100A) series solar controller**

NOTE: Set each controller ID to be different before wiring (ID Range: 1-10)

4. Power Switch Control

• The PAL-ADP-50AN will shut off one of the controllers. Simultaneously, the battery voltage reaches the target voltage (equalize, boost, float), and the average current is lower than 3Amps.

• The PAL-ADP-50AN will turn on one of the controllers until the average current is higher than 5Amps.

5. Charging Status Control

• The PAL-ADP-50AN will check the controller charging status. While one of the controllers turns into float charging mode, the rest controllers' boost charging time will change to 10 minutes.

• The controller is turning into float mode directly if the boost charging time reaches 10 minutes; otherwise, it will wait until the target time of 10 minutes.

IMPORTANT: In addition to the above rules, the boost charging recovery time will be 120 minutes in default.
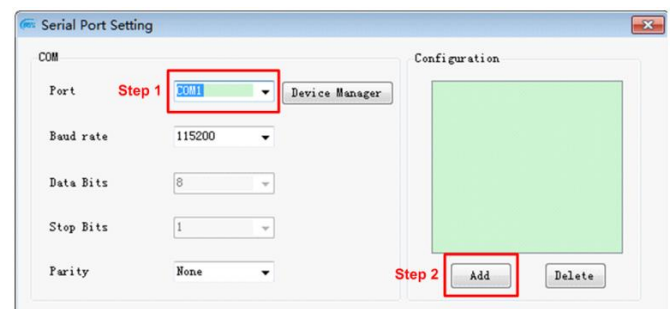
6. PC Software Operation Instruction
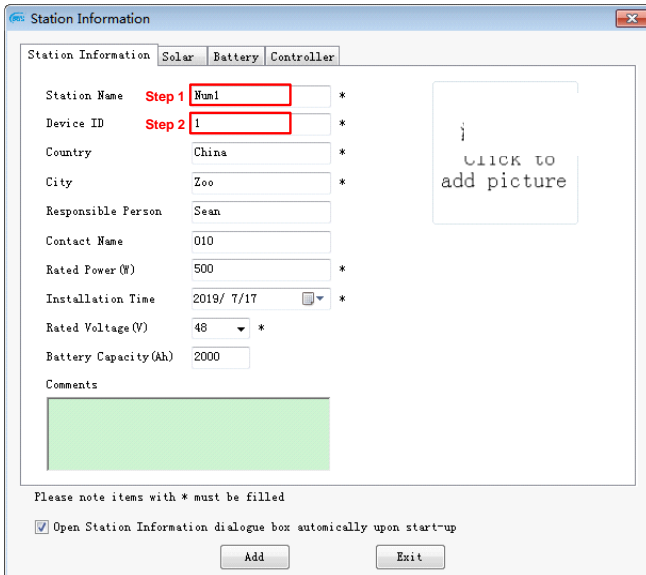
Step1：Download the PC software and install the software.

Download address: http://www.epever.com >> SUPPORT >> SOFTWARE >> Charge Controller-windows.zip

Step2：Set the "controller ID."
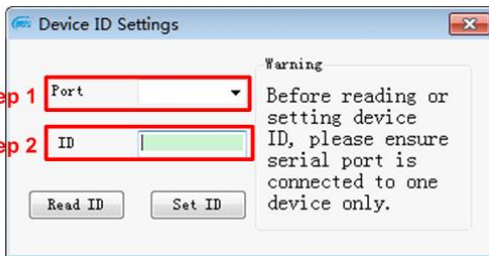
• Port configuration >> Serial port setting

- Add the station

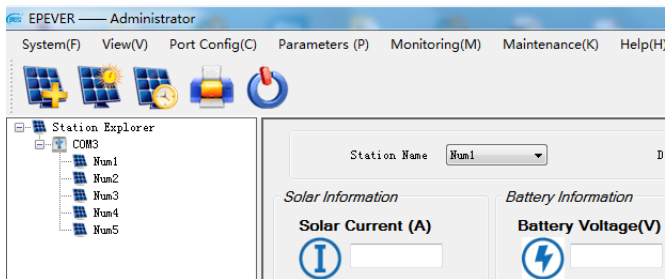**Caution: The controller ID and device ID should be the same.**

- Set the "Device ID"

Caution: Only one of the controllers' IDs can be set at each time. Follow the same procedure to set the rest of the controllers.
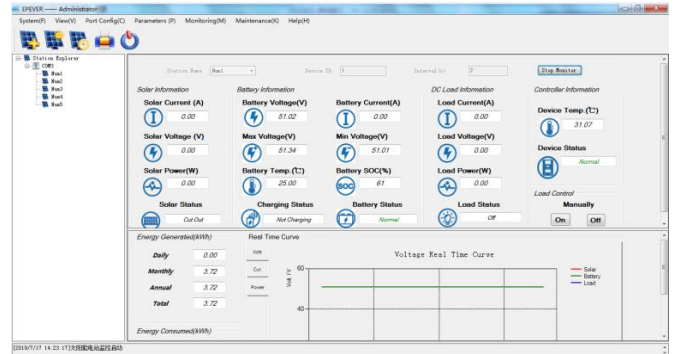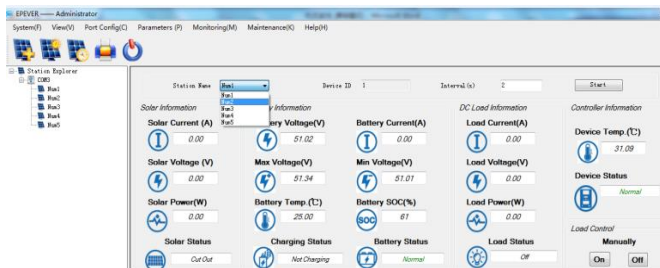
Step3：Connect all controllers with the communication cable.

Step4：Add the rest of the controllers' ID to the station (Refer to step 2).

Step5：Monitor the operational data and status of each controller in real-time.

- Select the related controller >> start monitoring

Caution：Only, one, of the controllers, can be monitored at each time.

7. Specifications

Model	PAL-ADP-50AN
Apply to model	Tracer AN (50-100A) series solar controller
Input voltage	5VDC (Directly provided by the controller)
Operation power consumption	0.25W
Serial port baud rate	9600 115200(Default)
Overall dimension	151.5*69.9*25.7mm
Mounting Dimension	133.4mm
Mounting hole size	Φ6.5
Working temperature	-35～55℃
Enclosure	IP30
Weight	91.4g

8. Mechanical Parameters
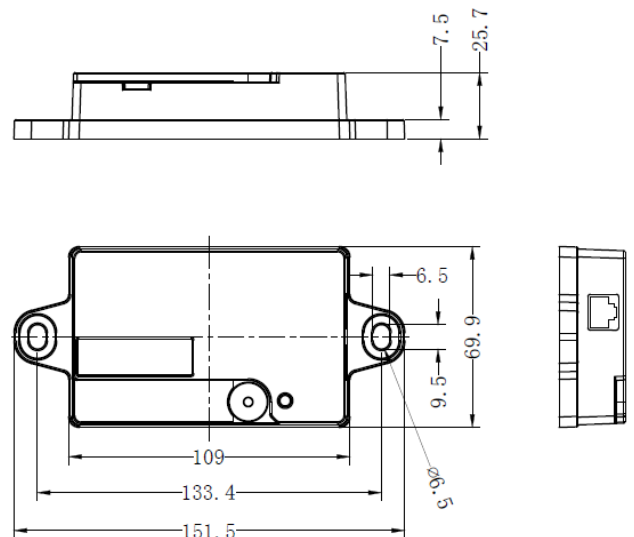
Any changes without prior notice! V3.0