Guidelines for Using Commonly Used Tools

Standard Operating Procedures- EV Charger Datalogger

ATESS ENERCOLLEGE

Technical Support Document

① Introduction

EV Charger Datalogger records RS232 and RS485 data (including TTL) and provides long-term recording capabilities.During the use of EV Chargers, certain problems may occur randomly, perhaps after hours or days. Therefore, we use a datalogger to record data over a long period of time and obtain motherboard logs. TX and RX represent TTL communication, 232RX and 232TX represent RS232 communication, and B and A represent RS485 communication.


| Upper shell | Bottom shell | Mainboard |

As shown in the figure above, a datalogger can be divided into three parts: the upper shell, the bottom shell, and the mainboard. Due to the different internal spaces of different EV Chargers, you can remove the protective shells and use only the mainboard for placement. In this case, please avoid metal contact with the mainboard.

② Attention

Due to the special nature of this data logger, please make sure to use the dedicated SD card (Blue SD card from ATESS). It's highly recommended to read the SD card on Windows 10 system, as errors may occur when using Windows 11. This data logger can only record data from one serial port at a time, and switching to another port requires short-circuiting the circuit. So ATESS strongly recommends only use RS232 port and ATESS only provides data loggers with RS232 function.

❸ How to use Datalogger

We typically use this data logger with both AC and DC chargers. It supports a wide input voltage range of 7V to 33V. For DC chargers, it's easy to find a suitable DC power supply inside the charger. However, some AC chargers may not have a DC power supply. Therefore, it's best to carry an external AC-DC power supply to ensure proper operation. For example, we can use the LRS-35-12 power supply. It has an AC input of 230V and a DC output of 12V. This is sufficient for powering the device, and it's also compact and portable enough to fit easily into a charger.
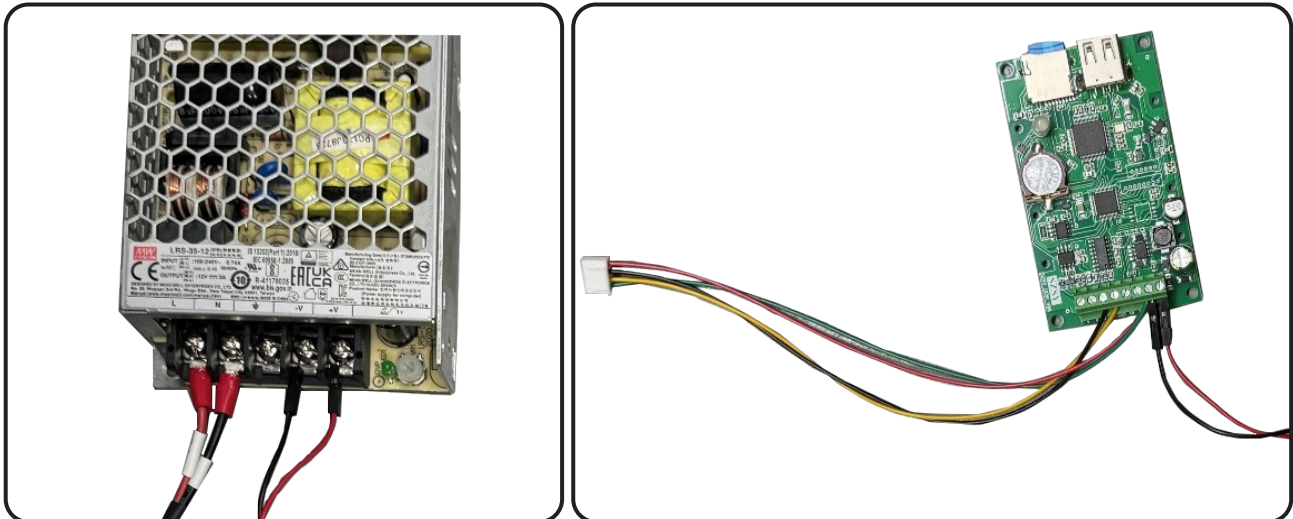
ATESS team always connect everything then send out, so only need to connect AC power and debug port.
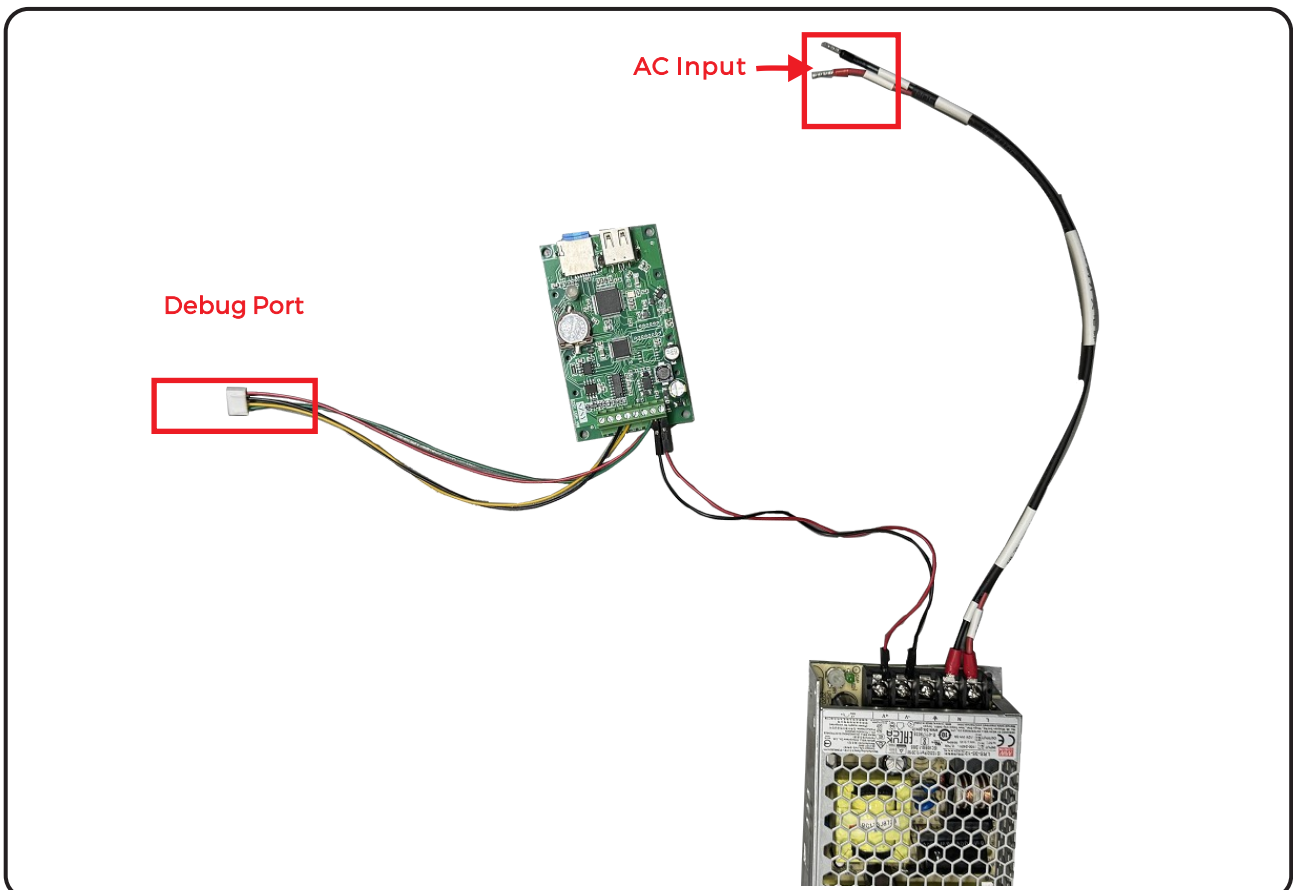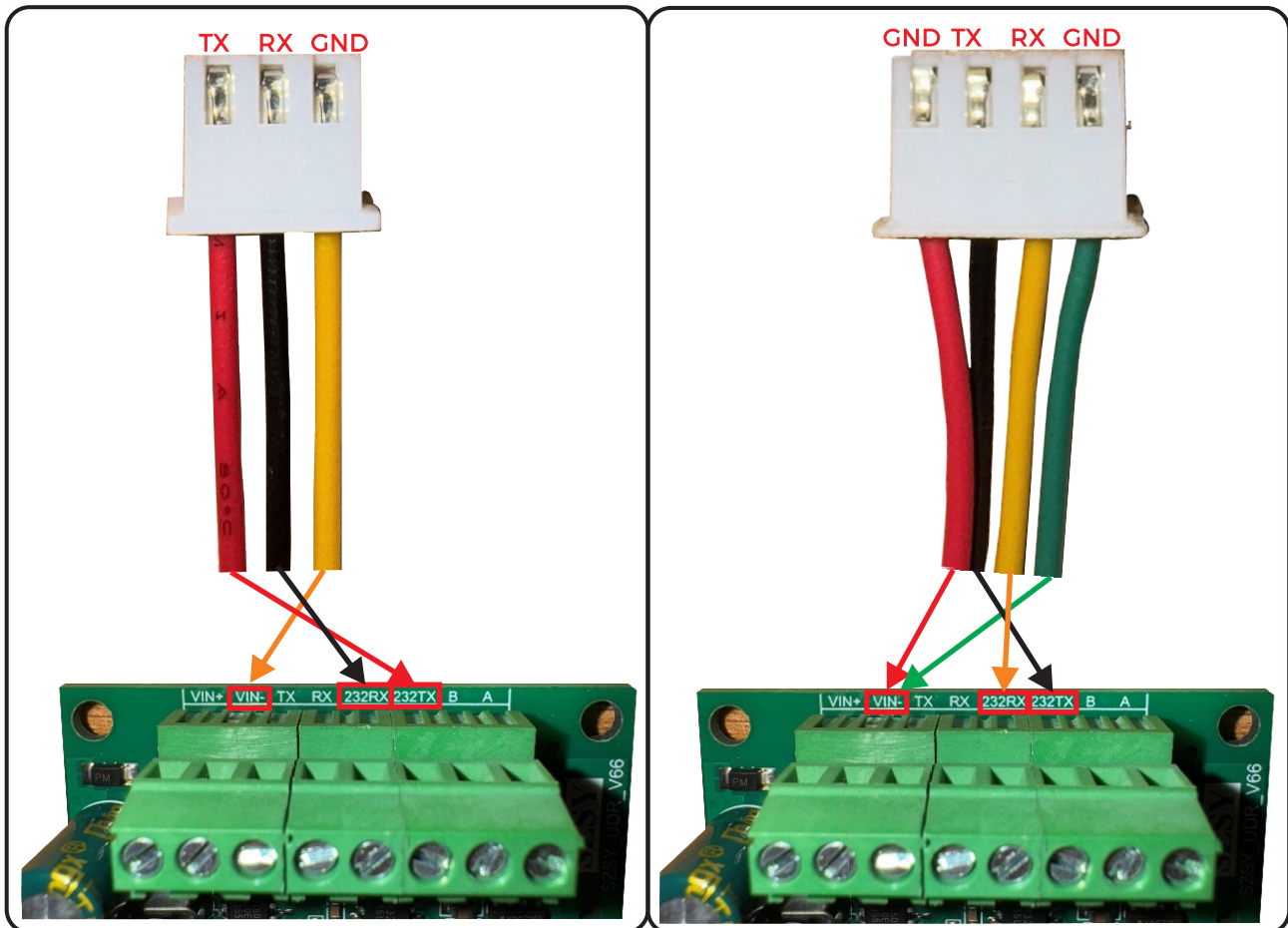
4 How to connect RS232 cable

'Cable "TX" connect to Board "232TX "

'Cable "RX" connect to Board "232RX"

'Cable "GND" connect to Board "VIN- "

❺ How to connect LRS-35-12 PSU

Board "VIN+" connect to "PSU +V"

Board "VIN-" connect to "PSU -V"

"PSU L" connect to "Charger L"

"PSU N" connect to "Charger N"