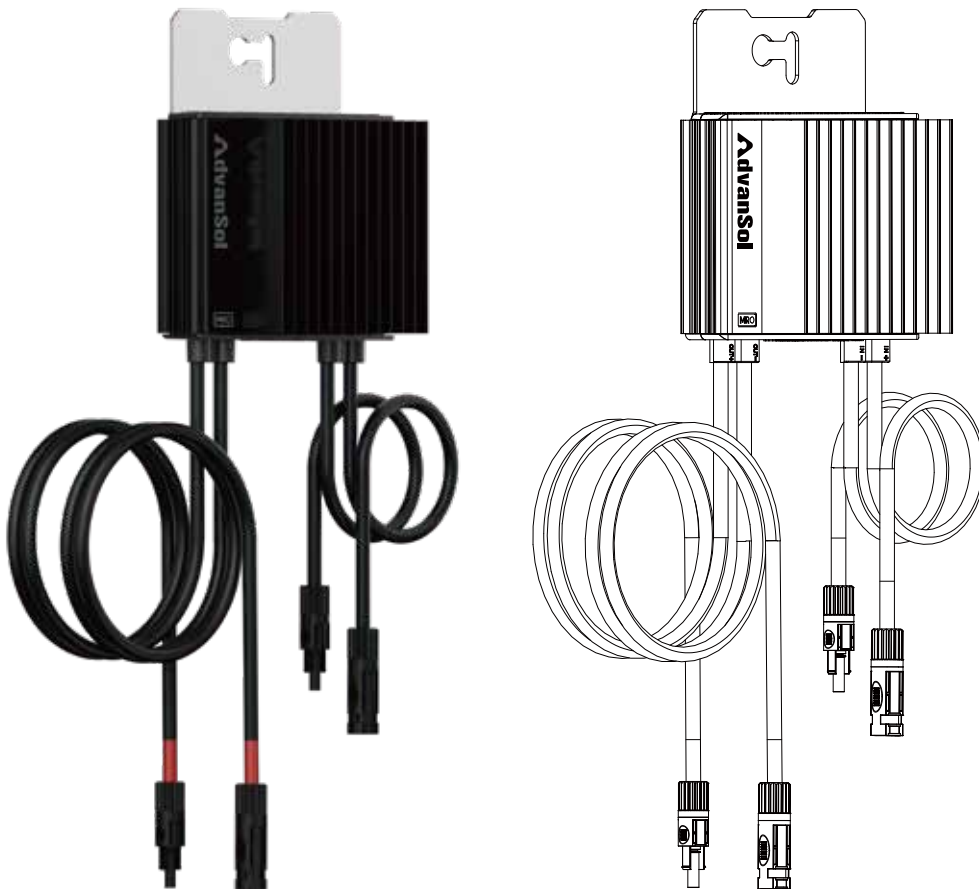


MRO Series Module-level Micro Controller (Module-level Full-function Optimizer)

INSTALLATION GUIDE



The Installation and Verification of V2.5 System Control (Solution MRO)

Installation and Verification
MRO Series Micro controller



Installation and Verification of
V2.5 Control Box DCON-WIFI



Solution MRO
System Setting

Note: Please strictly follow this guide for installation and operation, otherwise the performance and warranty may be affected by some wrong operations.

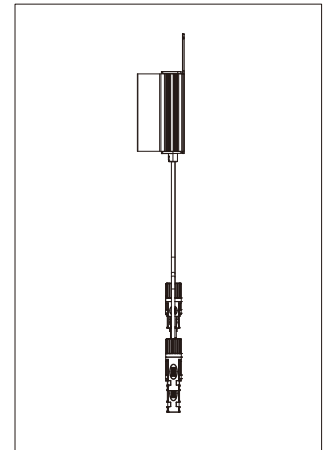
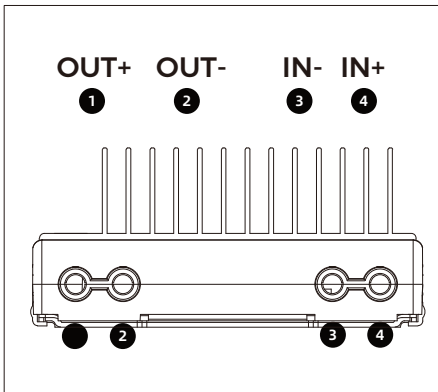
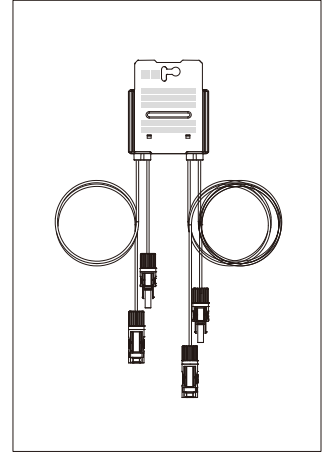
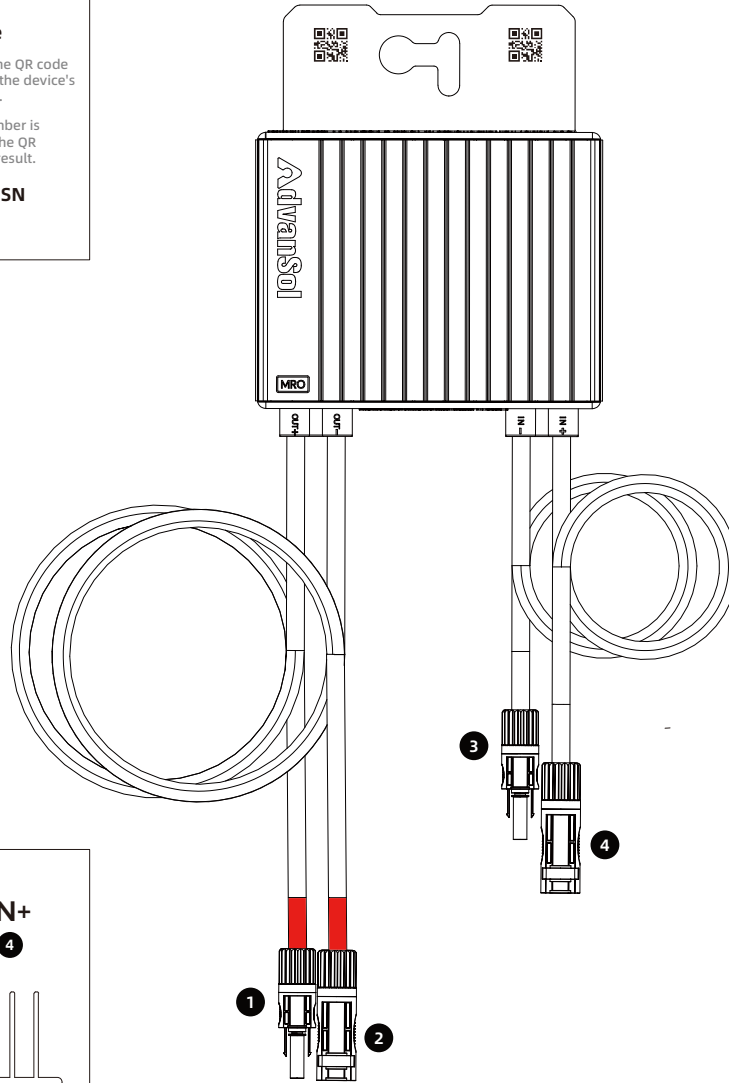
1. Product Introduction

APT-MC-MRO (hereinafter referred as to MRO) has 4 wires, namely, IN+IN- (Input) and OUT+OUT-(Output)

APT-MC-MRO — Product Series

QR Code
Scanning the QR code can obtain the device's SN number.
The SN number is subject to the QR code scan result.

A24BJ27572993 — Product SN number

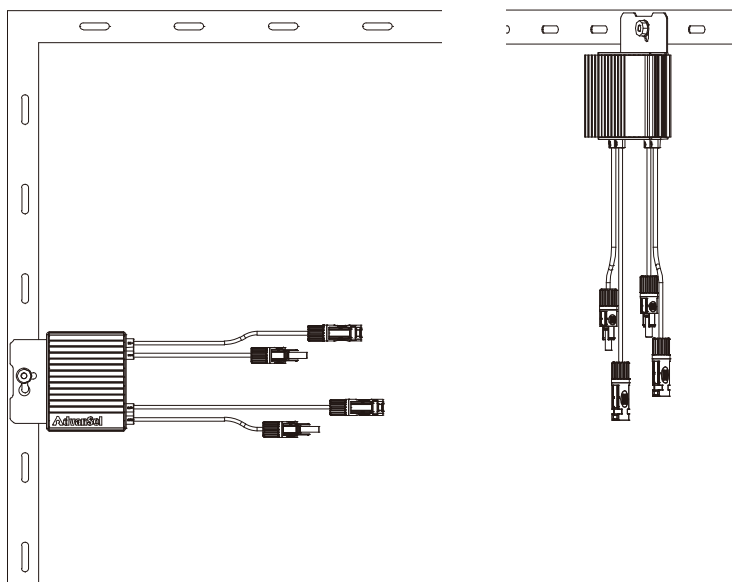



- ① OUT+Positive Output (to adjacent MRO)
- ② OUT- Negative Output (to adjacent MRO)
- ③ IN- Negative Input (to panel)
- ④ IN+ Positive Input (to panel)

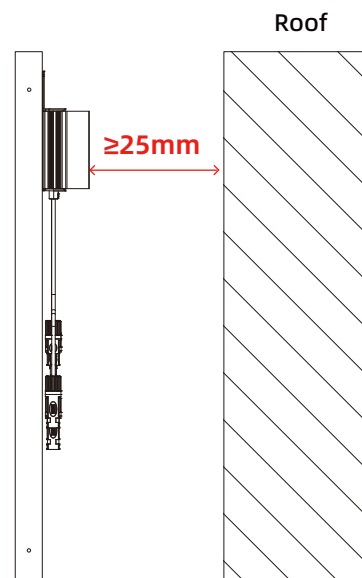
⚠ **Red casing on the OUT terminals**

2. Installation Requirements

- ① Ensure that the installation position is well ventilated



- ⚠ The distance is $\geq 25\text{mm}$ from the roof

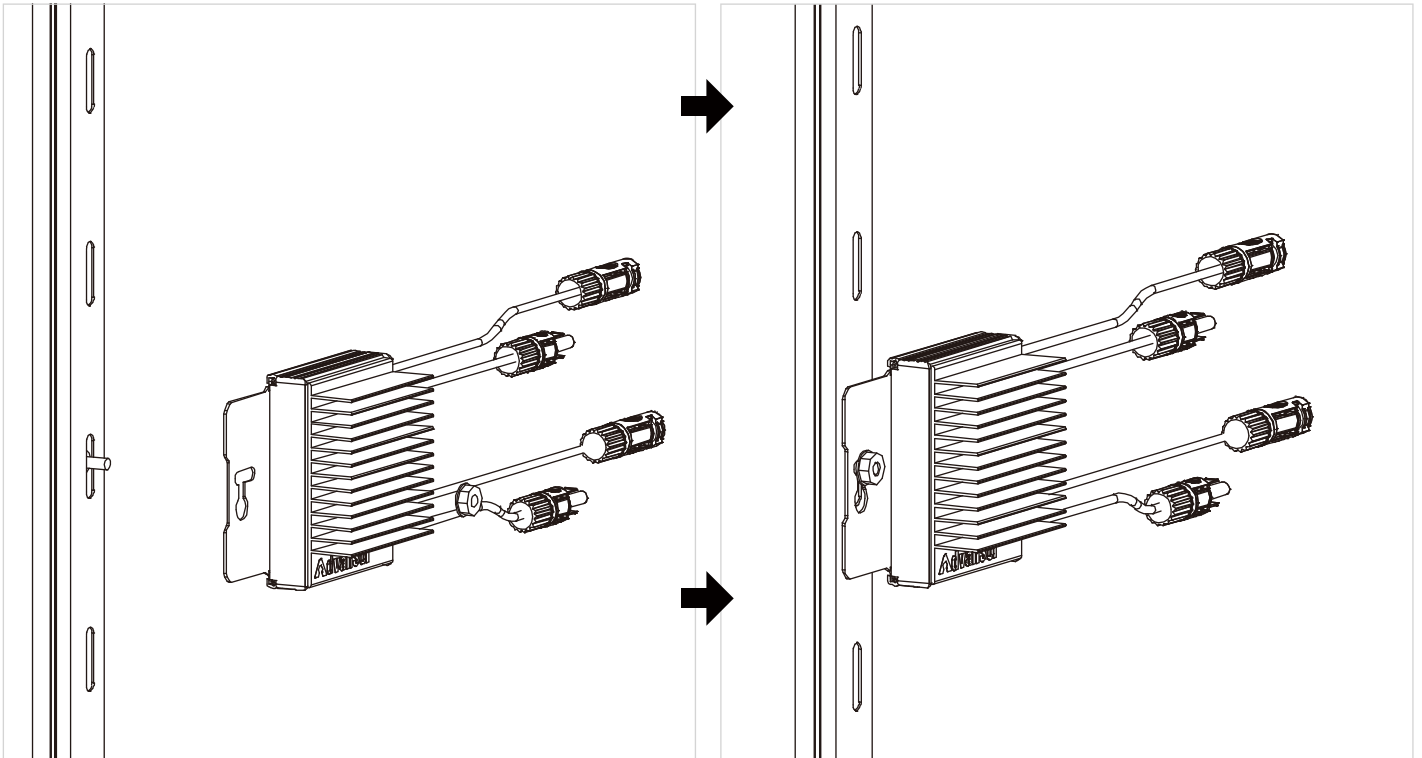


- ② It is prohibited to cut the cable.
- ③ The cable length between the farthest MRO and the control box shall not exceed 300M.
- ④ Within the permissible range of MRO input parameters, one MRO can support multiple panels that are connected in series instead of in parallel.
- ⑤ Must comply with the specified parameters of MRO.
- ⑥ Please take protective measures and ensure that the DC side of the inverter and the power supply of the control box are turned off during installation.
- ⑦ It is recommended to install the microcontroller in a low-light environment.
- ⑧ If a string is severely shaded, please connect this string to a separate MPPT of the inverter.
- ⑨ When there are more than one strings parallel inputs under the same MPPT, there are the following limitations
 When configuring the MRO: photovoltaic strings connected to the same MPPT must use the same model and quantity of panels and MRO, and must be fully installed with MRO. The orientation and angle of all panels of strings under the same MPPT must be the same. (If ASP is installed in the photovoltaic system, this item can be ignored)

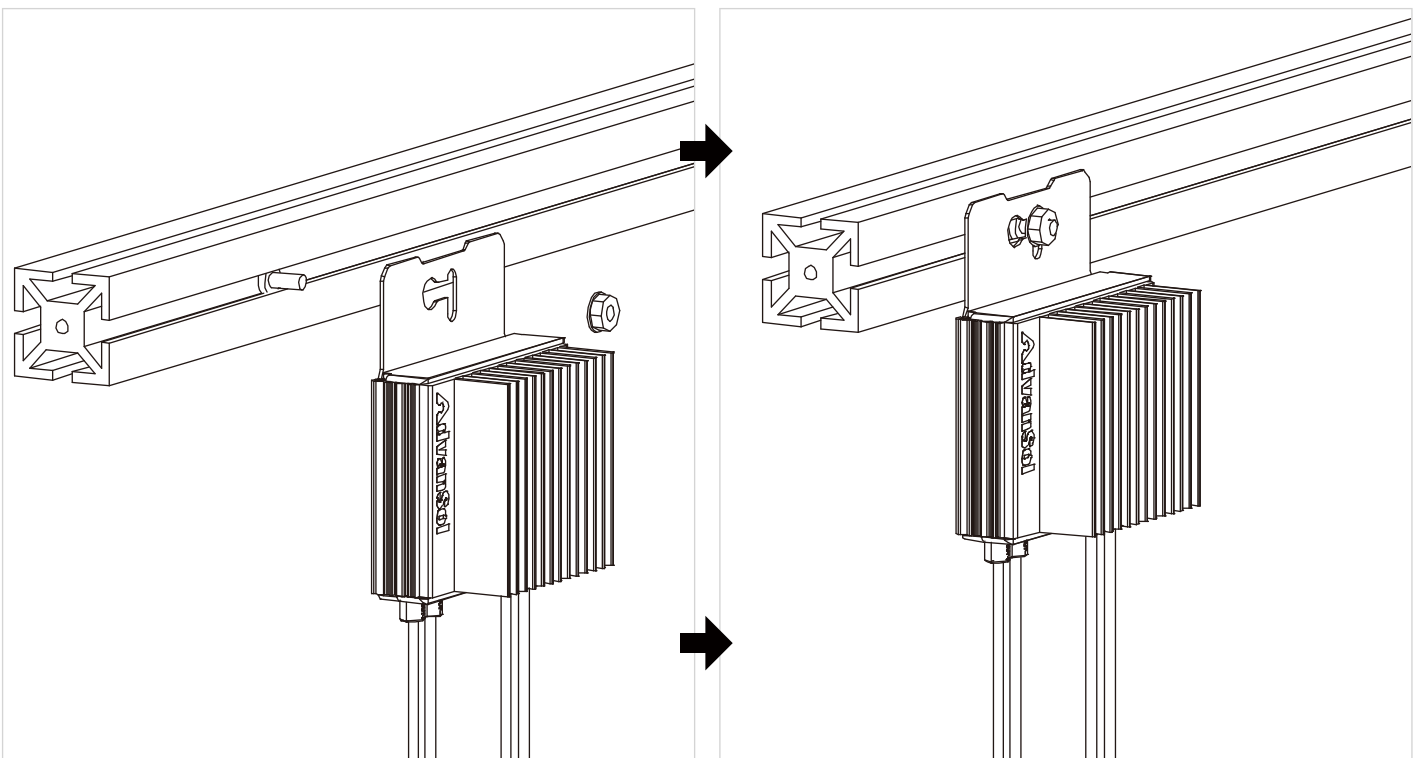
3. Installation Procedures

① Select the appropriate method to install based on the actual situation

Installation Method A: Install MRO on the frame of the photovoltaic module:

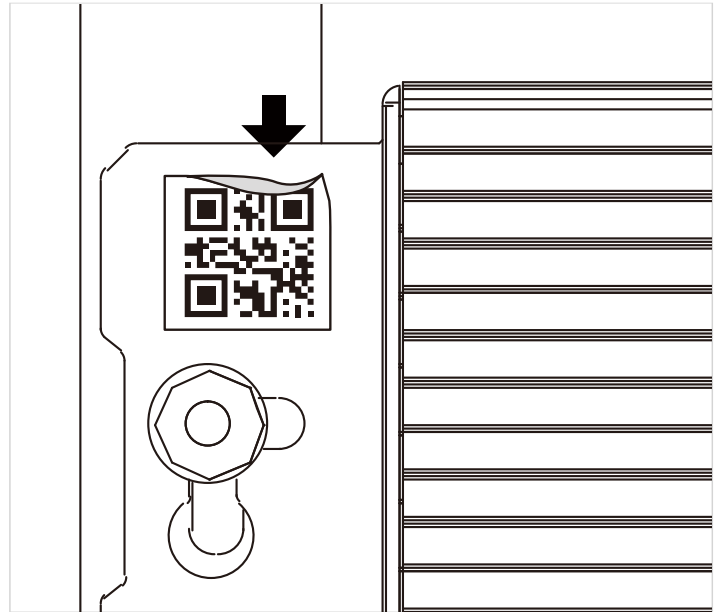
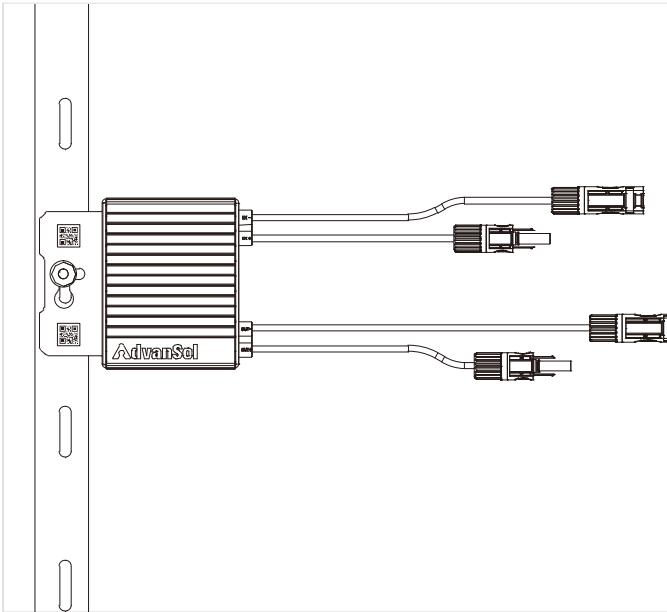


Installation Method B: Install MRO on the photovoltaic bracket:



② Tear the SN label of MRO off and stick it on the MC Layout Diagram

Note: The package of the V2.5 data control box DCON-WIFI version contains a physical layout diagram of the microcontroller. If it is accidentally lost, please go to the official website to download and print it. **AdvanSol Official Website - Download Center - Service Download Center - Microcontroller Physical Layout Diagram**
(<https://cn.advansol-power.com/fuwuxiazaizhongxing.html>)



The diagram shows a 'Physical Layout' for the microcontroller. It features a header with 'DCON SN' and 'AdvanSol' logos. Below the header are fields for 'Place:' and 'Date:'. The main part of the diagram is a grid of QR codes arranged in four rows. The first two rows are labeled 'Inverter' and 'String' on the left. The third and fourth rows are also labeled 'Inverter' and 'String' on the left. The grid is intended for pasting the SN labels from the physical units.

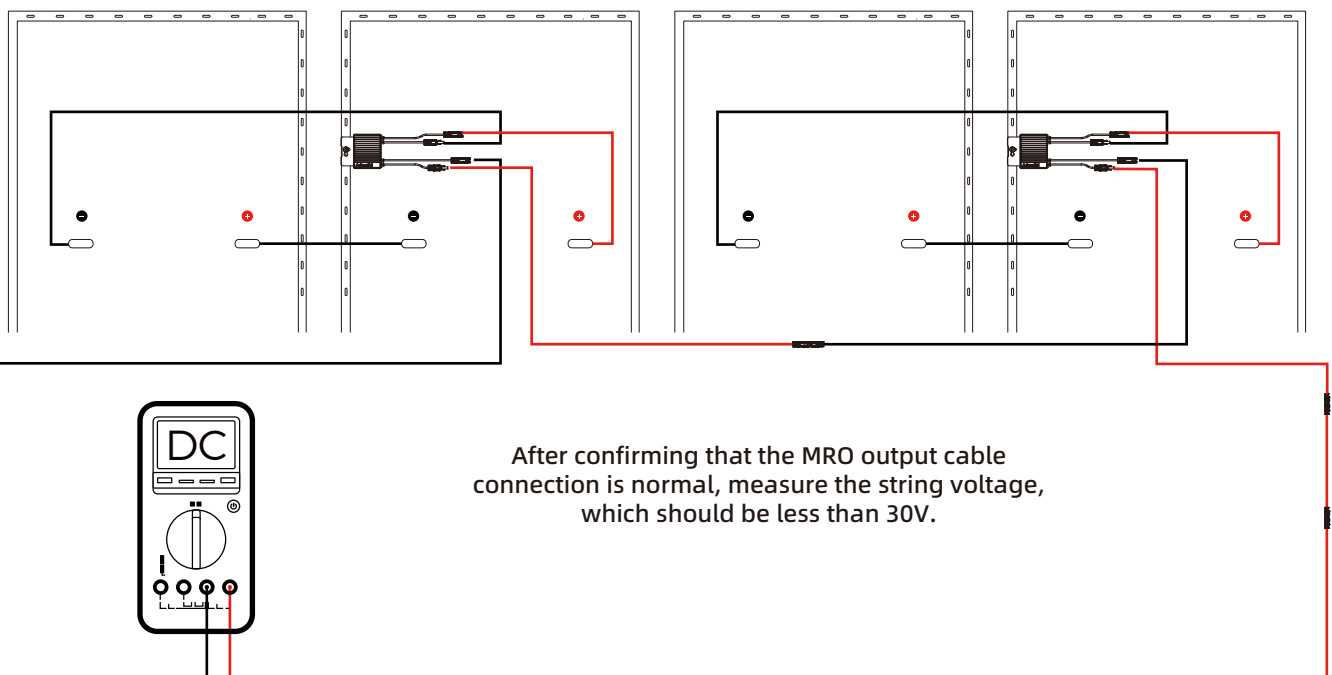
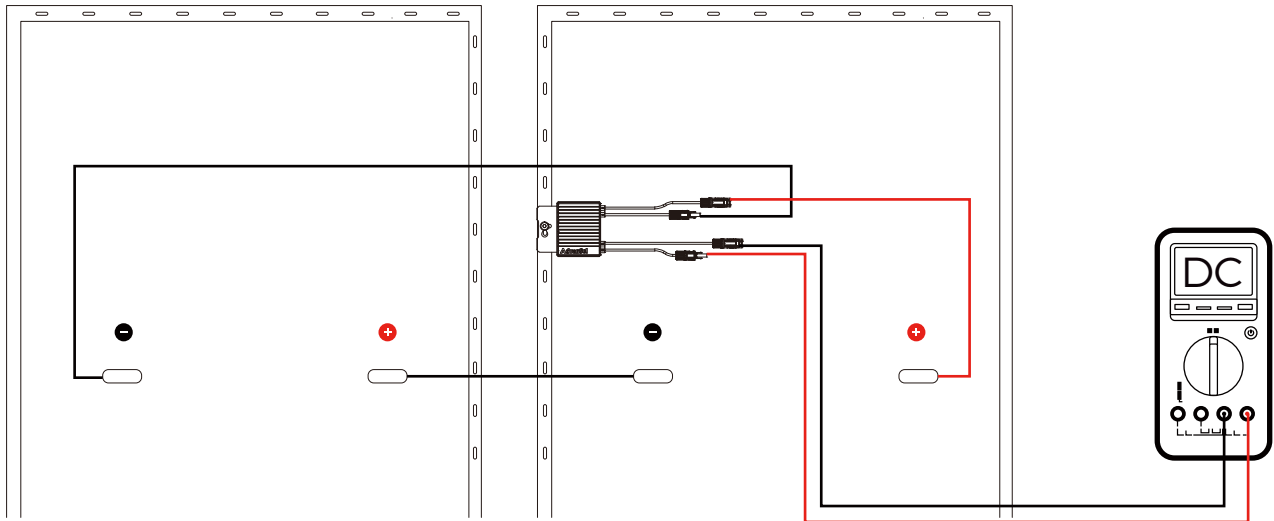
Paste the SN label onto the physical layout diagram of the microcontroller and fill in the inverter and photovoltaic string numbers on the left side.

Note: Please paste according to the actual installation order of the microcontrollers in the photovoltaic string, usually starting from the positive pole of the photovoltaic string and ending at the negative pole.

4. Installation Inspection

ⓘ **Ensure that the MRO cables are connected correctly. Incorrect connection may cause damage to the equipment.**

After confirming that the MRO input cable connections are normal, measure the voltage of a single device, which should be less than 1V.



After confirming that the MRO output cable connection is normal, measure the string voltage, which should be less than 30V.

MRO hardware installation is complete

Contact us

If you have any technical questions on AdvanSol products, or need other language files, please contact us for help.

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Friendly reminder: Please scan the QR code to access versions in other languages.