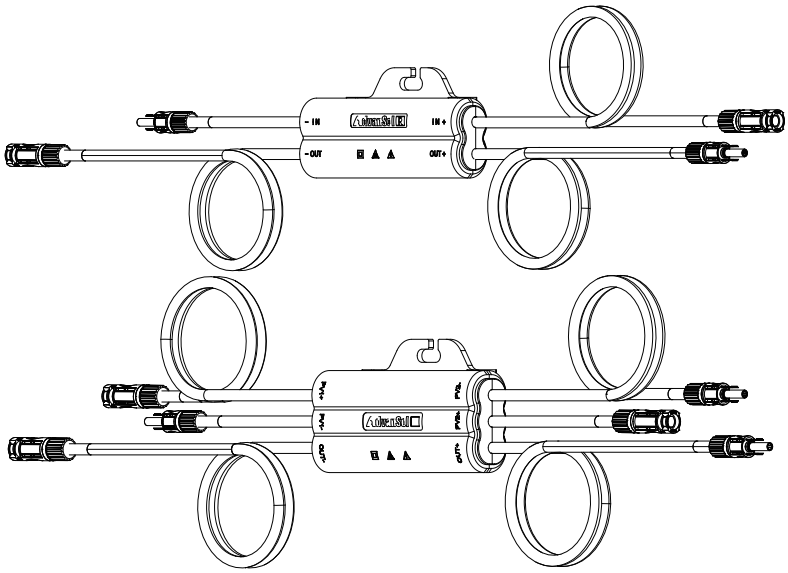
Version: AD-JF-01 Date: 2024/11/8

AdvanSol

R series Module-level Micro controller
(Module-level Rapid Shutdown Device)

INSTALLATION GUIDE



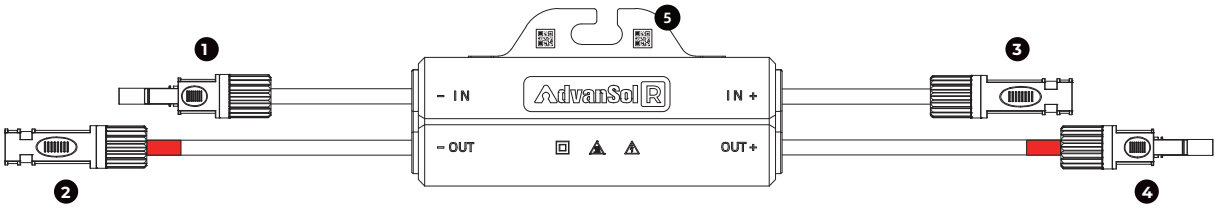
The Installation and Verification of V2.5 System Control (Solution R)

Installation and Verification of R Series Micro Controller	Installation and Verification of V2.5 Control Box DCON-S	Solution R System Setting

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

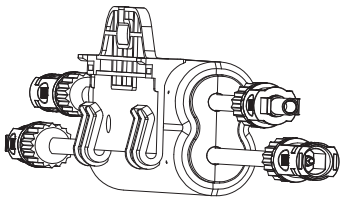
1.Product Introduction

❶ APT-MC-R-T1（hereinafter referred to as R-T1）has 4 wires, namely IN+ IN-（Input）and OUT+ OUT-（Output）

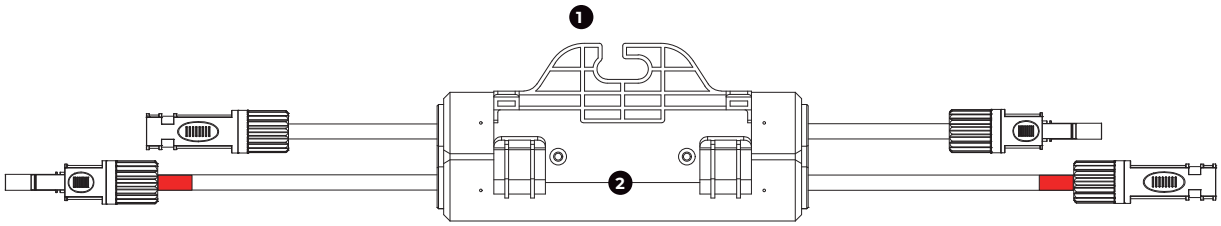


❶ IN- Negative Input (to panel)
❷ OUT- Negative Output (to adjacent R-T1)
ⓘ Red casing on the OUT terminals

❸ IN+ Positive Input (to panel)
❹ OUT+ Positive Output (to adjacent R-T1)

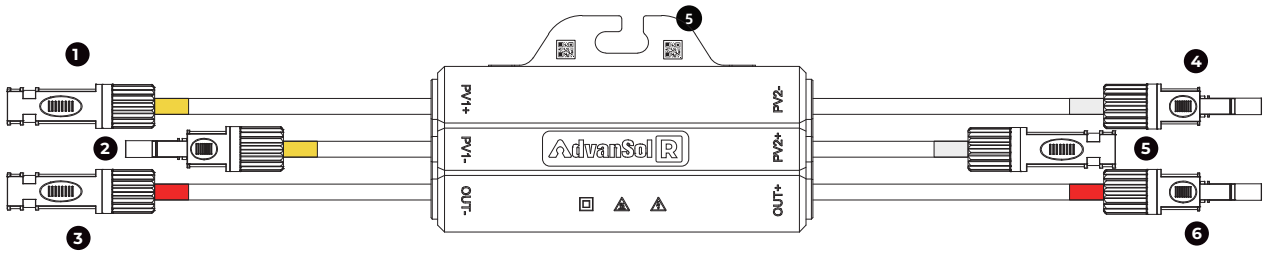


❺
APT-MC-R-T1 — Product Series
QR Code — Scan the QR code for SN
A24BJ27572993 — SN



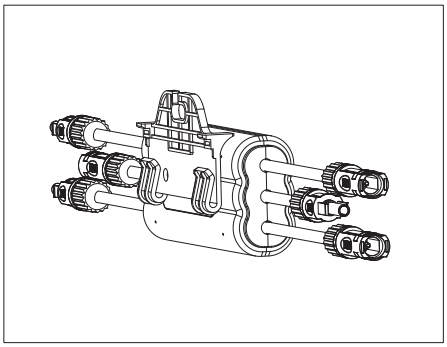
❶ Back hook
❷ Back clamp

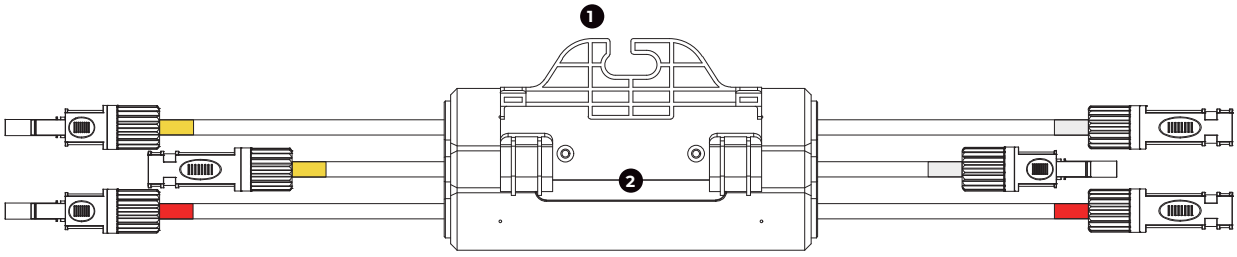
❷ APT-MC-R-T2（hereinafter referred to as R-T2）has 6 wires,namely PV1+ PV1-（Input）, PV2+ PV2-（Input）,and OUT+ OUT-（Output）



❶ PV1+ Positive Input (to panel 1)
❷ PV1- Negative Input (to panel 1)
❸ OUT- Negative Output (to adjacent R-T2)
❹ PV2- Negative Input (to panel 2)
❺ PV2+ Positive Input (to panel 2)
❻ OUT+ Positive Output (to adjacent R-T2)

ⓘ Yellow casing on the PV1 terminals; White casing on the PV2 terminals; Red casing on the OUT terminals

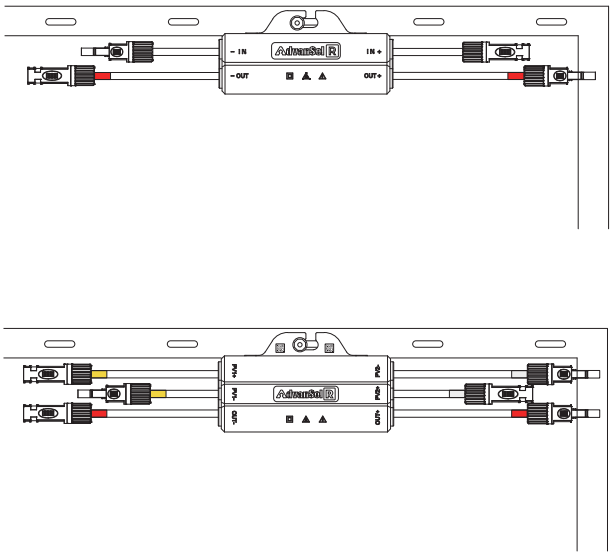




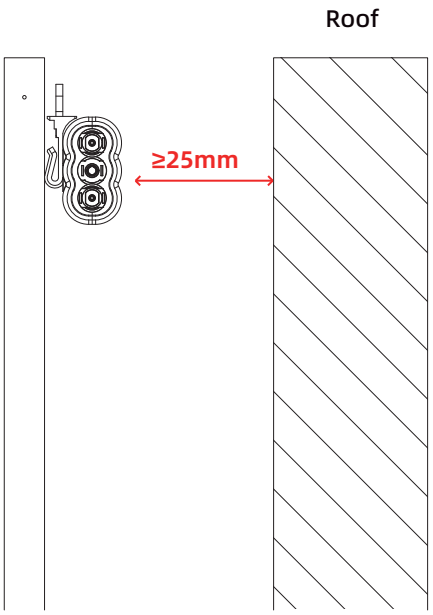
❶ Back hook ❷ Back clamp

2. Installation Requirements

❶ Ensure that the installation position is well ventilated



ⓘ The distance is ≥25mm from the roof



❷ It is prohibited to cut the cable.

❸ The cable length between the farthest R-T1/R-T2 and the control box shall not exceed 400M.

❹ When there are more than one strings parallel inputs under the same MPPT, there are the following limitations when configuring the R-T/R-T2: photovoltaic strings connected to the same MPPT must use the same model and quantity of panels and R-T1/R-T2, and must be fully installed with R-T1/R-T2.The orientation and angle of allpanels of strings

❺ Must comply with the specified parameters of R-T1/R-T2.

❻ If a string is severely shaded, please connect this string to a separate MPPT of the inverter.

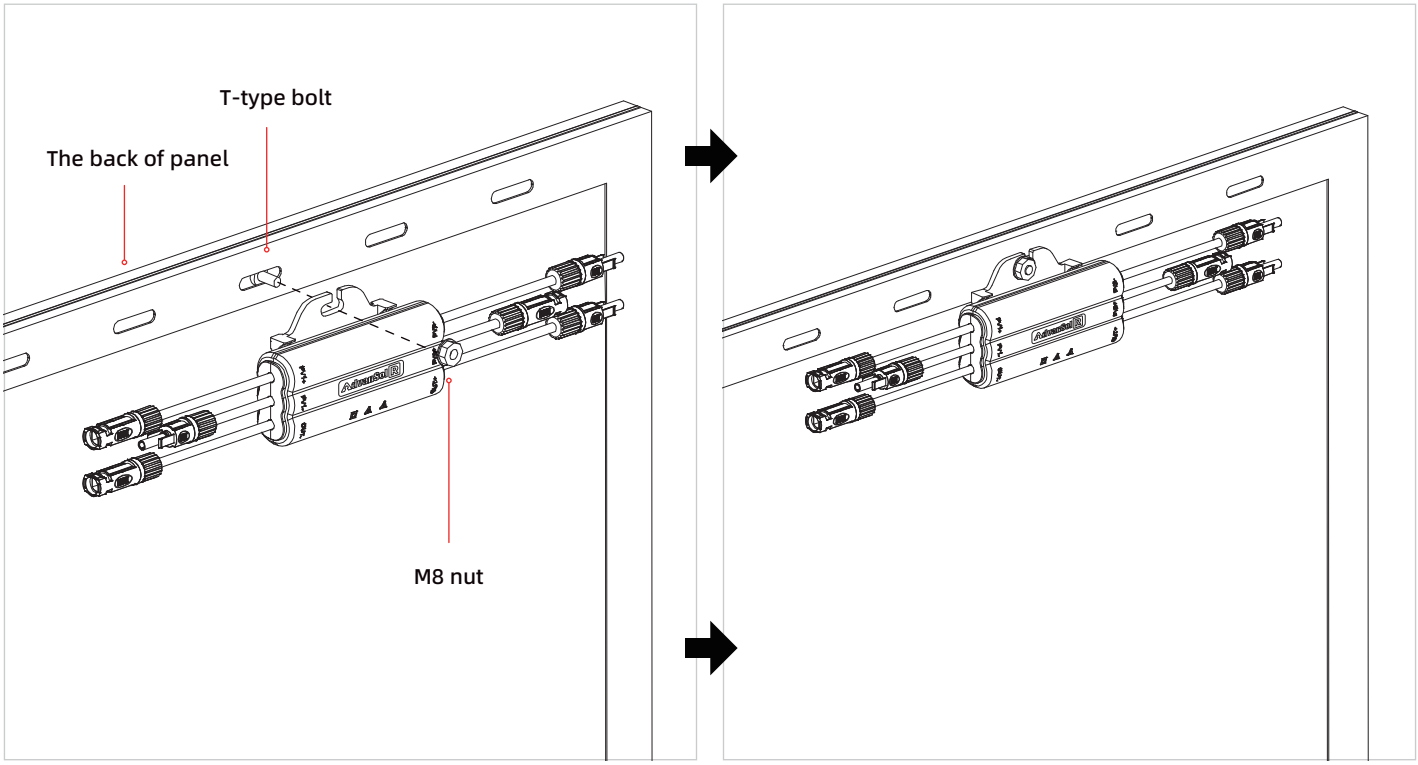
❼ Please take protective measures and ensure that the DC side of the inverter and the power supply of the control box are turned off before installation.

❽ It is recommended to install the microcontrollers in a low-light environment .

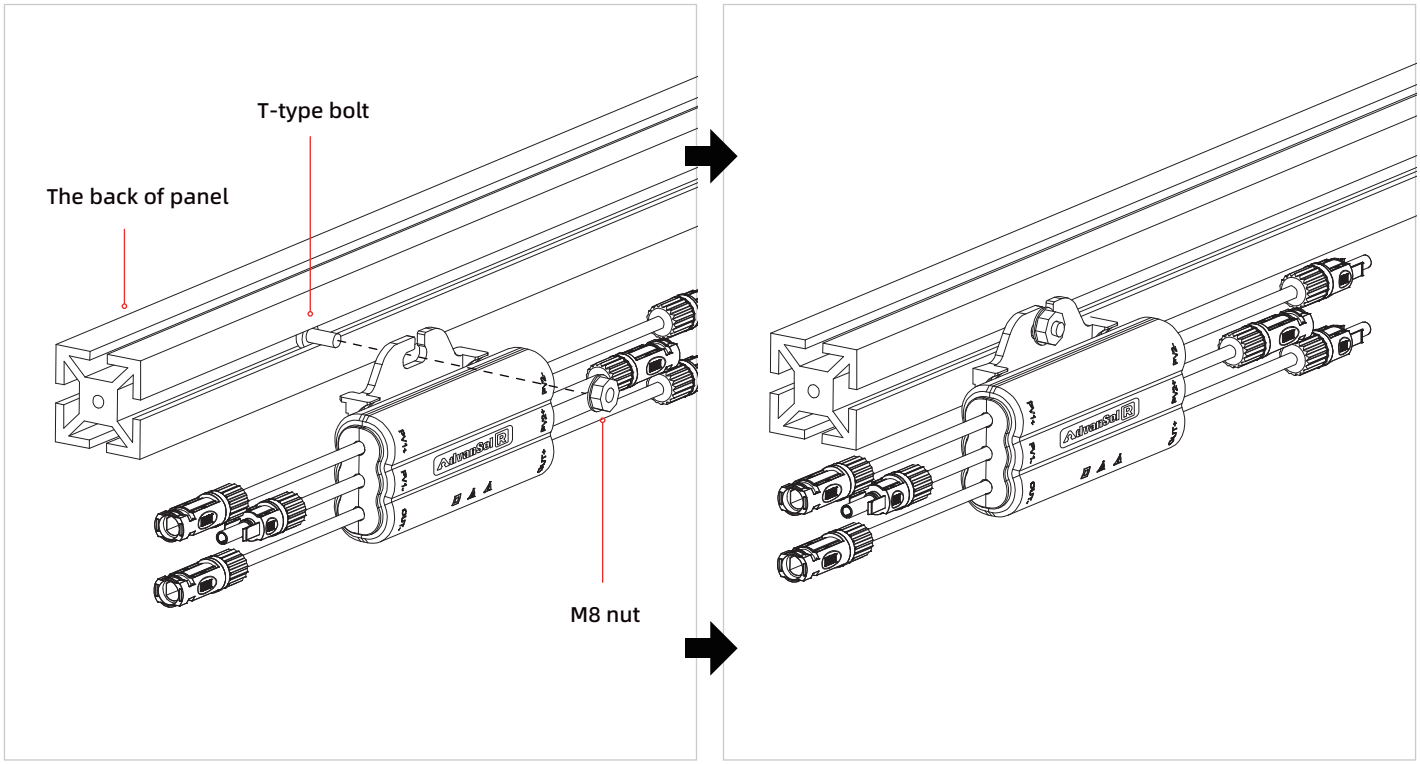
3. Installation Procedures

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

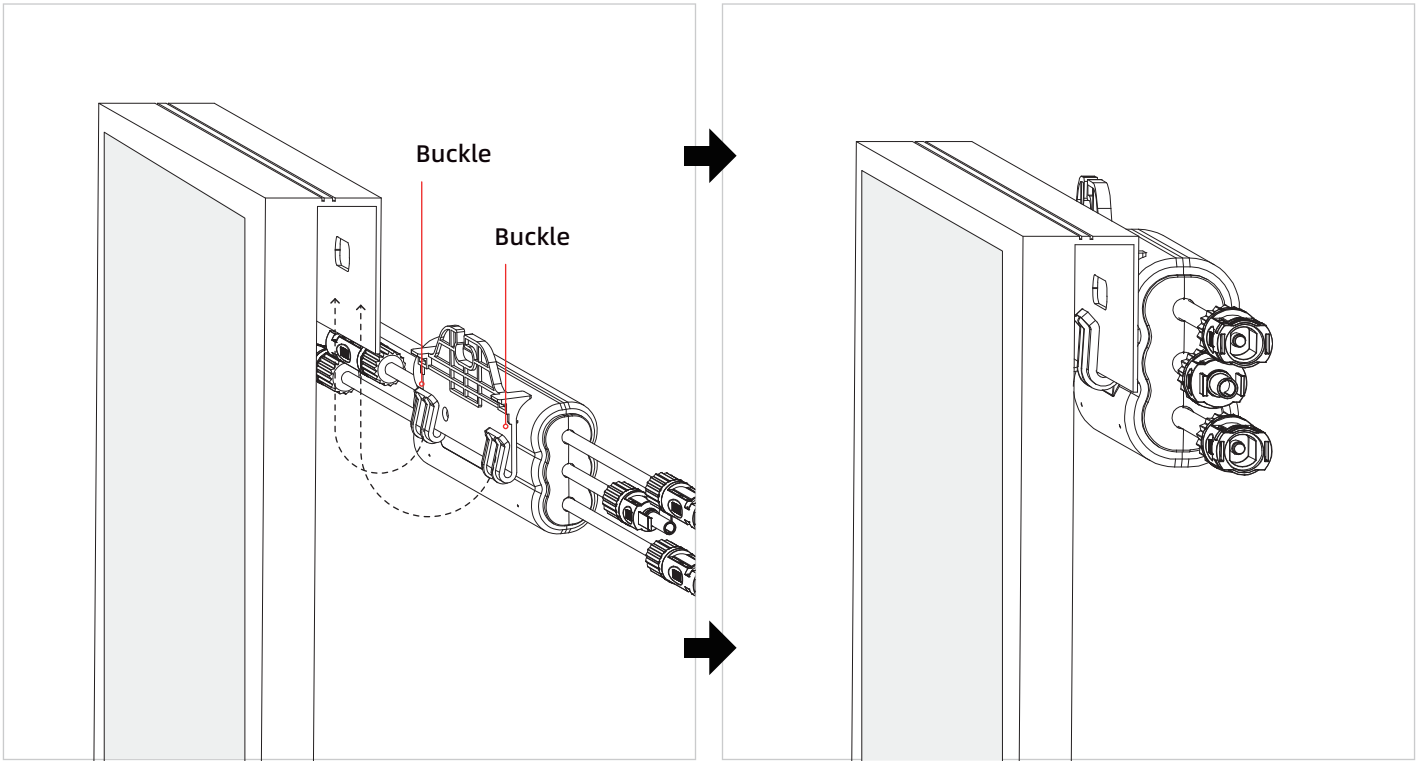
Method A: Secure R-T1/R-T2 on the frame of panels



Method B: Secure R-T1/R-T2 on the mounting bracket



Method C: Buckle R-T1/R-T2 on the frame of panels

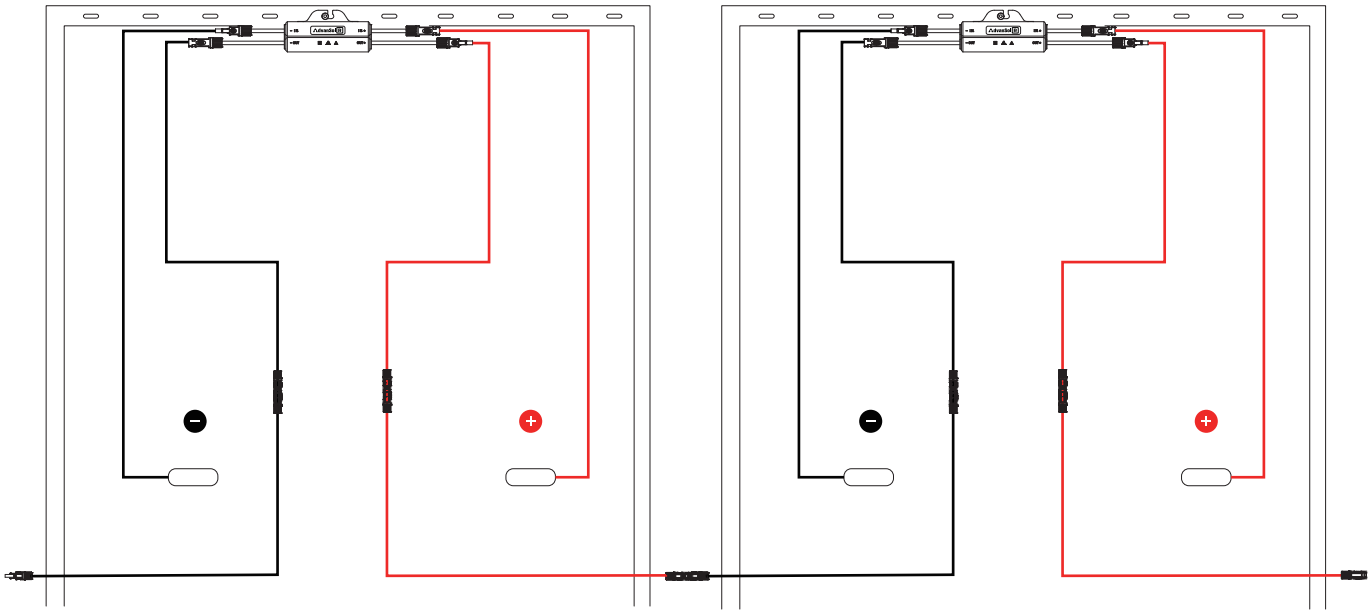


❷ Connect micro controller and panels according to the wiring diagram

2.1 R-T1 wiring

⚠ **Ensure that R-T1 wiring is correct, otherwise the devices may be damaged**

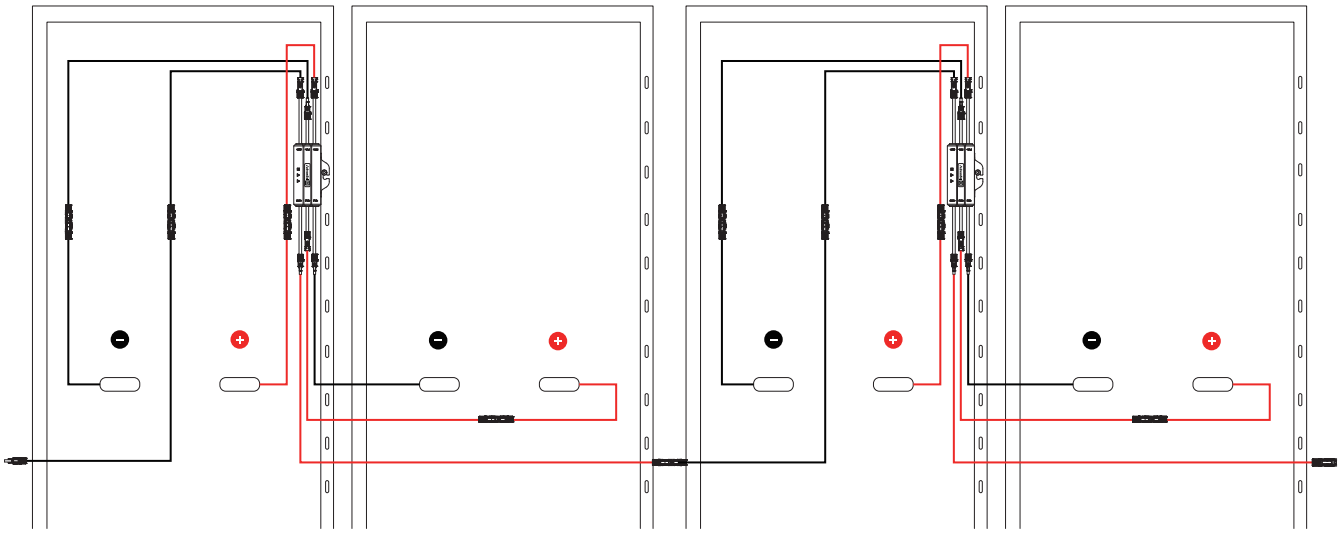
Connect input wires to the panel,and output wires to that of the adjacent R-T1



2.2 R-T2 wiring

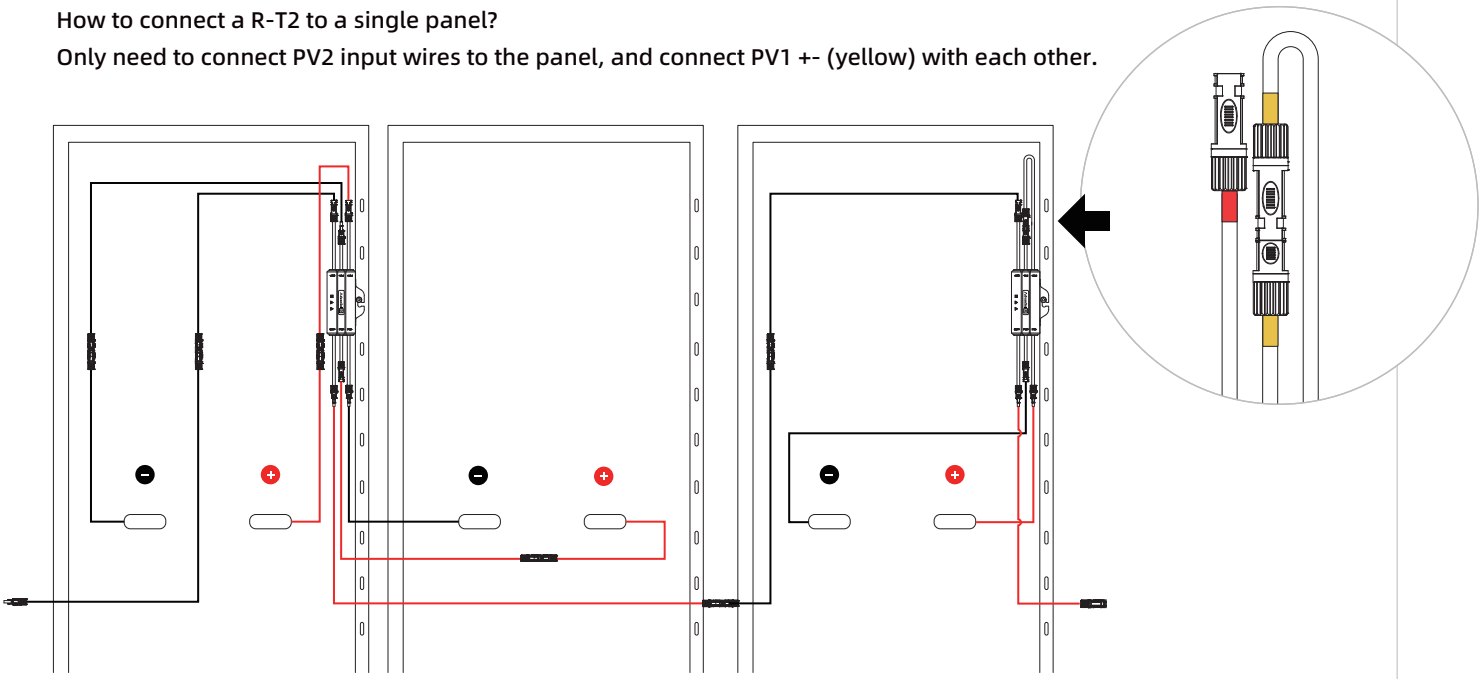
Ensure that R-T2 wiring is correct, otherwise the devices may be damaged

Connect R-T2 input wires (PV1) to the panel 1, input wires (PV2) to the panel 2,and output wires to that of adjacent R-T2.



How to connect a R-T2 to a single panel?

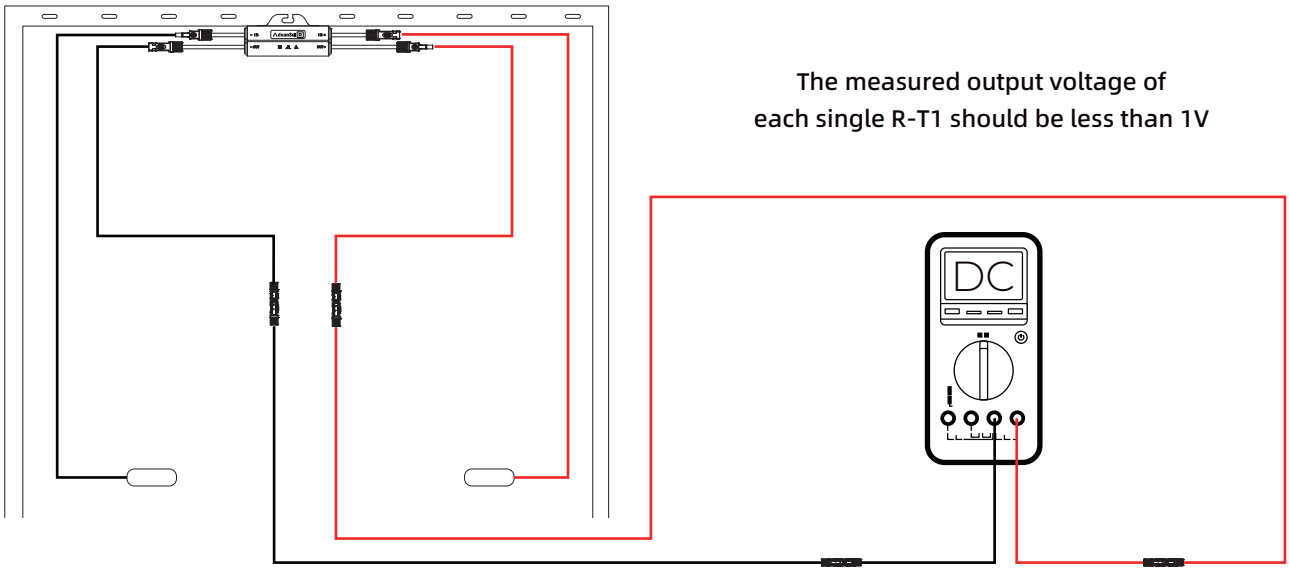
Only need to connect PV2 input wires to the panel, and connect PV1 +- (yellow) with each other.



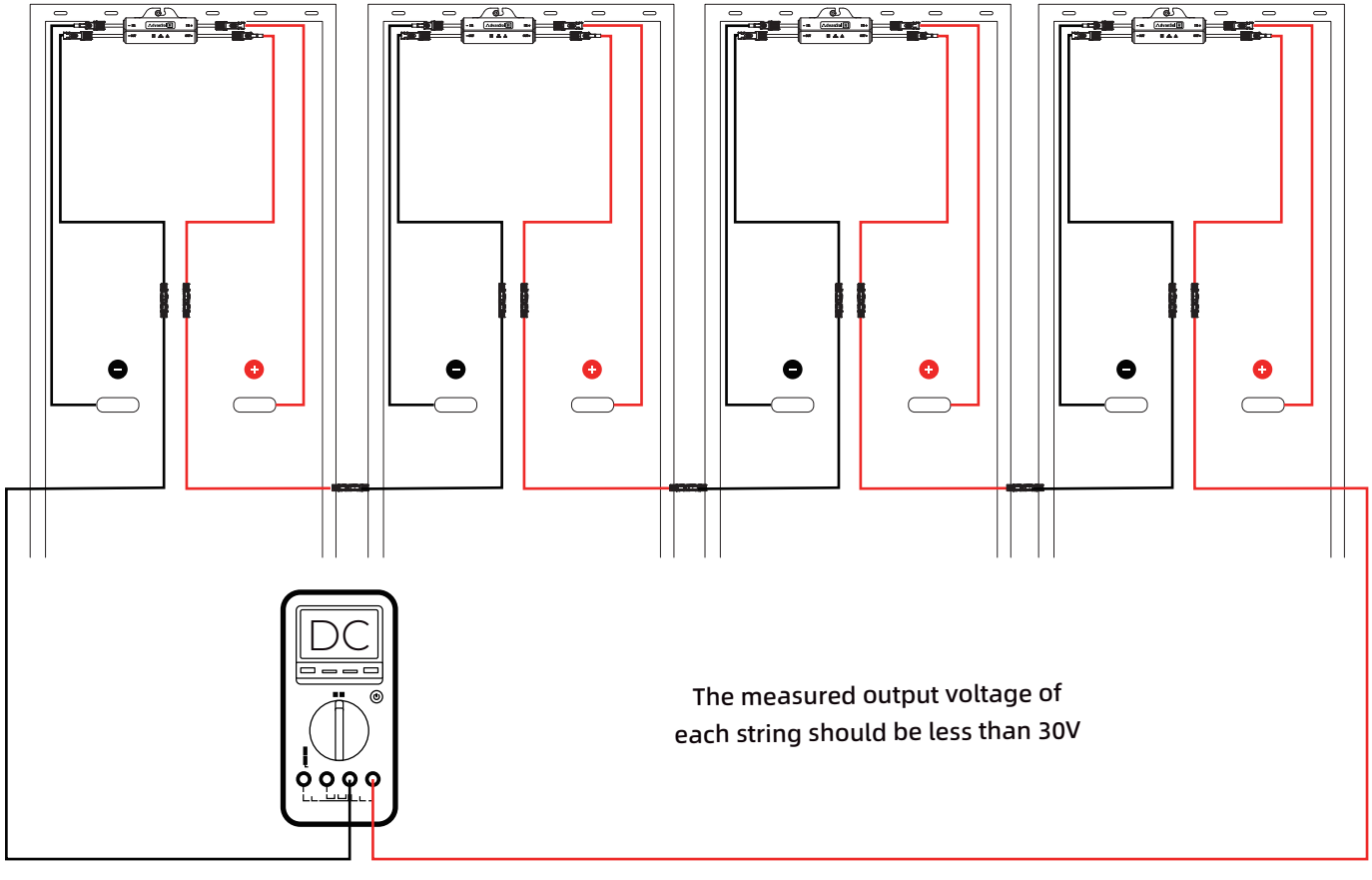
4. Installation Verification

❷ Verify the R-T1 wiring

ⓘ **Ensure that R-T1 wiring is correct, otherwise the devices may be damaged**



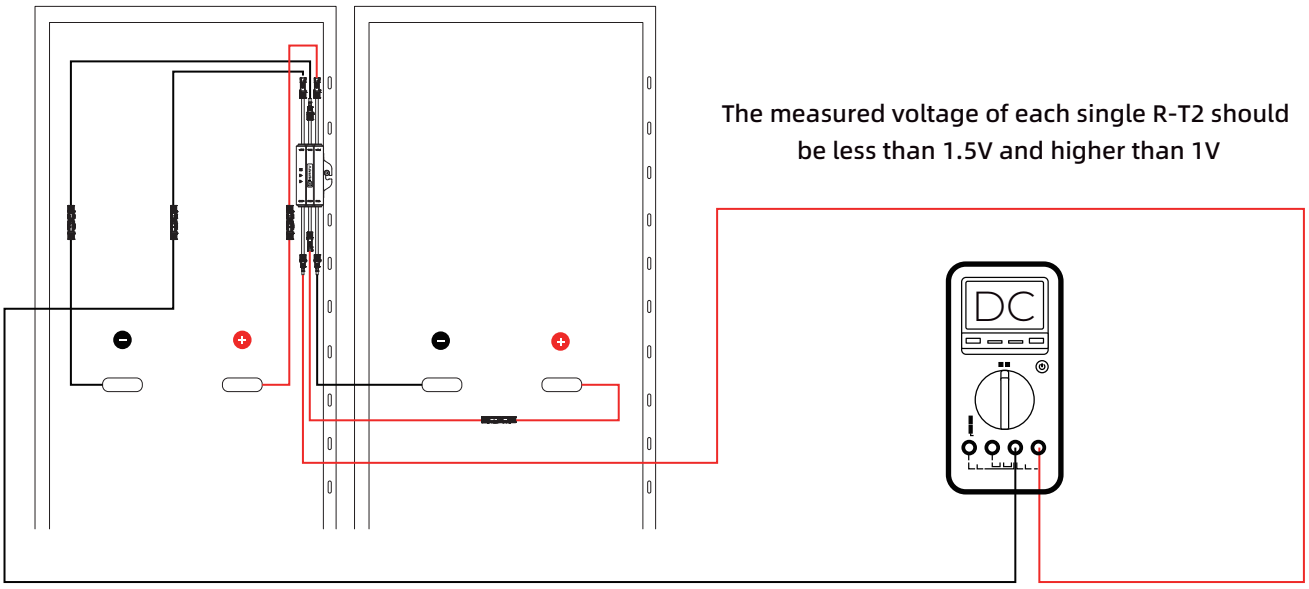
The measured output voltage of each single R-T1 should be less than 1V



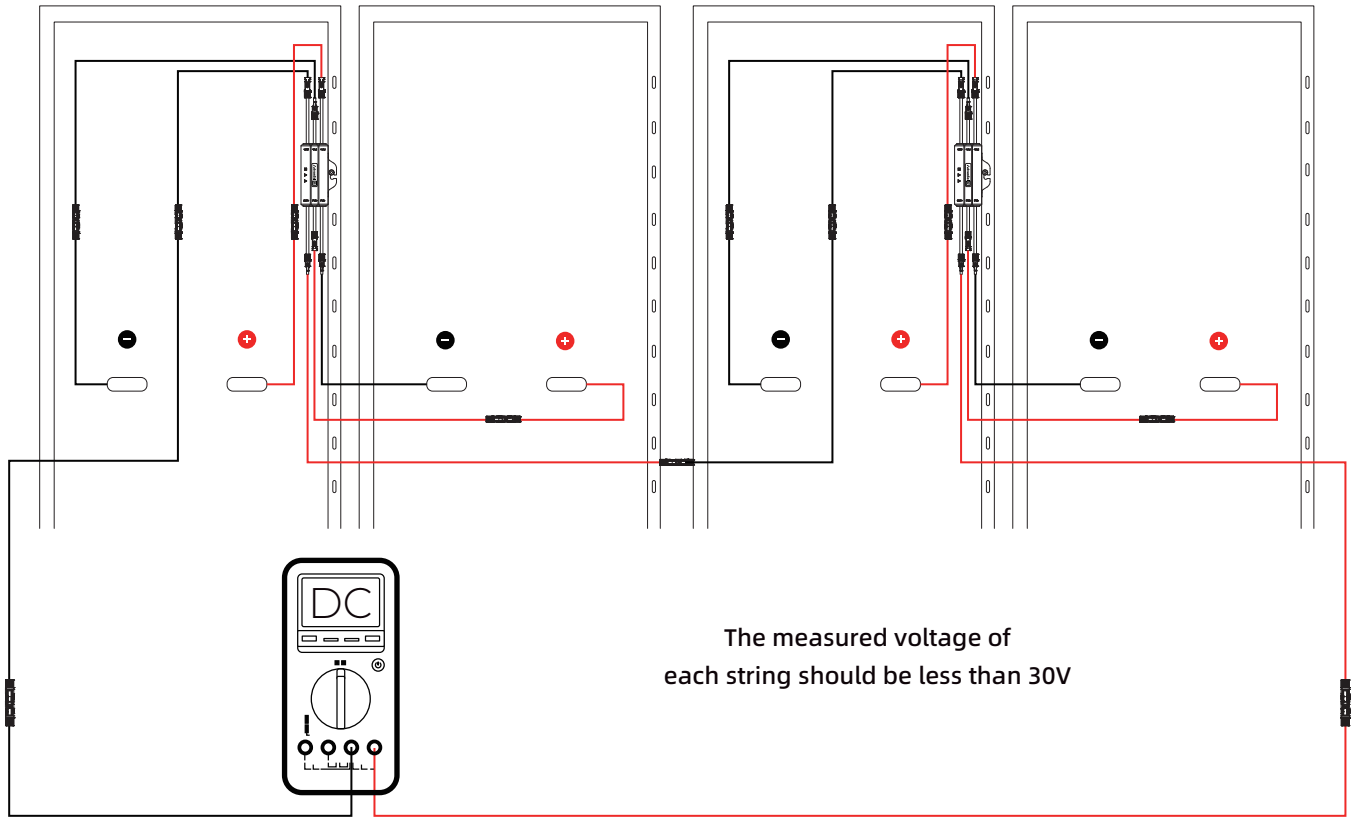
The measured output voltage of each string should be less than 30V

❷ Verify the R-T2 wiring

ⓘ **Ensure that R-T2 wiring is correct, otherwise the devices may be damaged**



The measured voltage of each single R-T2 should be less than 1.5V and higher than 1V



The measured voltage of each string should be less than 30V

The R-T1/R-T2 are well installed

Contact us

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

AdvanSol Power Technology Co.,Ltd

8 Floor, Building 2, 36 Zijing Street, Wuzhong District,
Suzhou City, China

+86-512-662352

www.advansol-power.com

service@advansol-power.com

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