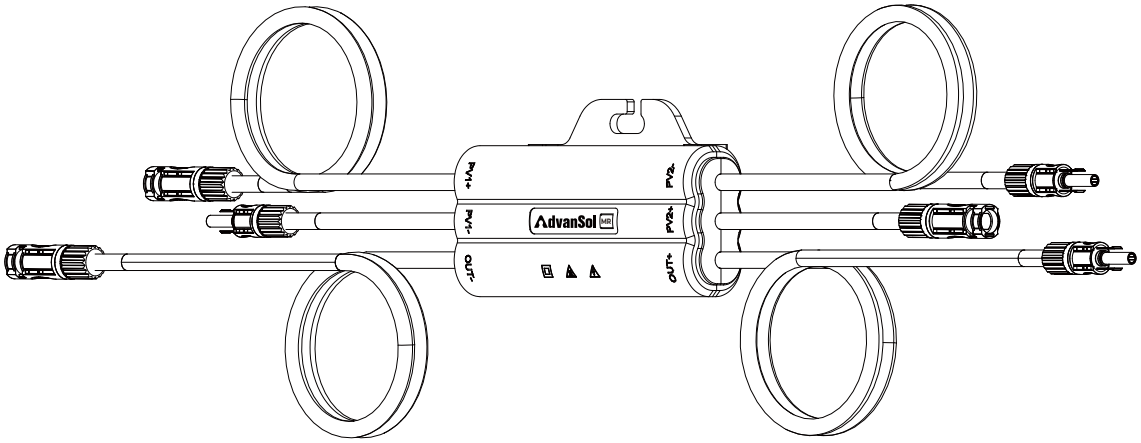
Version: AD-JF-01 Date:2024/11/8

AdvanSol

MR Series Module-Level Micro controller
(Module-Level Monitoring Shutdown Device)

Installation Guide



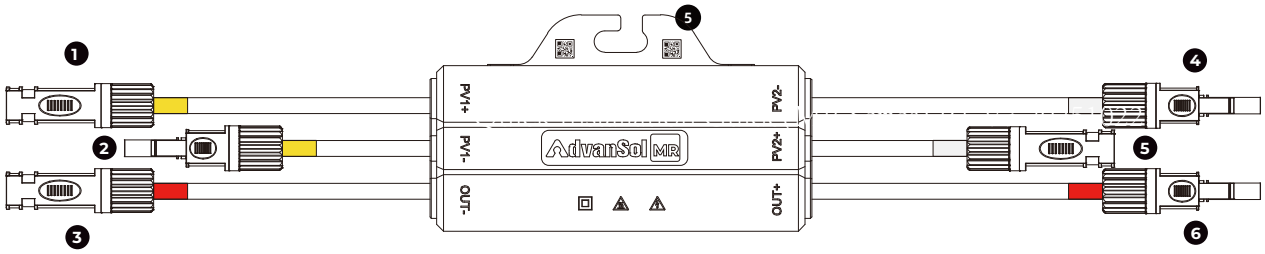
The Installation and Verification of V2.5 System Control (Solution MR)

installation and Verification of MR Series Micro controller	Installation and Verification of V2.5 Control Box DCON-WIFI	Solution MR System Setting

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

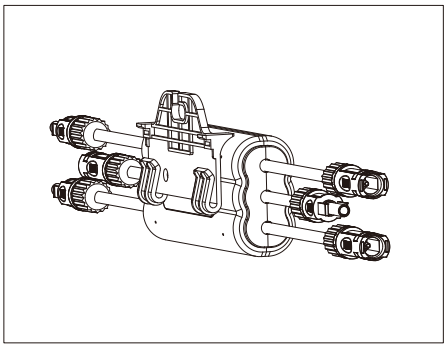
1. Product Introduction

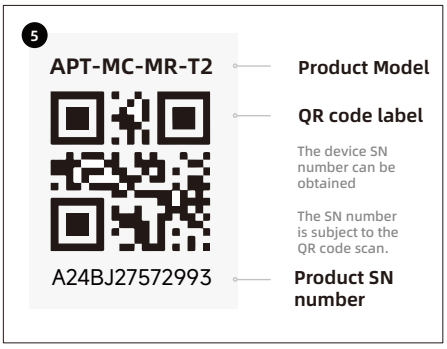
APT-MC-MR-T2 (hereinafter referred to as MR-T2) has a total of 6 wires, namely PV1+, PV1- (input), PV2+, PV2- (input), and OUT+, OUT- (output).

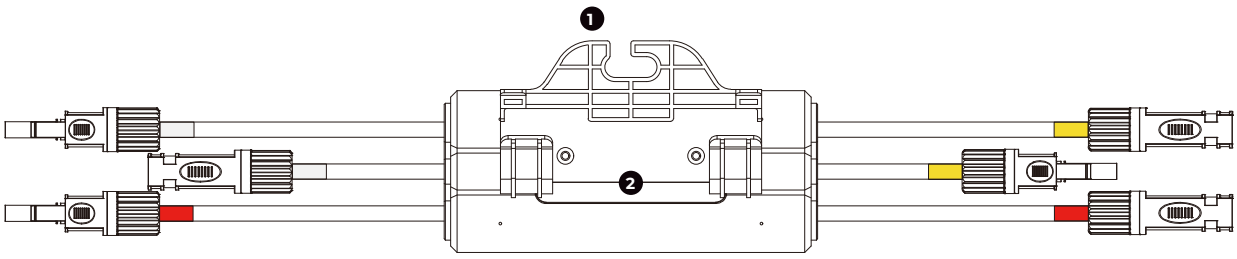


1. Positive pole of PV1+ input terminal (connect to component 1)
2. Negative pole of PV1 input terminal (connected to component 1)
3. OUT - Negative pole of the output terminal (connected to the adjacent MR - T2)
4. PV2 - Negative pole of the input terminal (connected to component 2))
5. Positive pole of PV2+ input terminal (connected to component 2)
6. OUT+ Positive pole of output terminal (connected to adjacent MR-T2)

ⓘ The ends of PV1 terminals are sleeved with yellow casings; the ends of PV2 terminals are sleeved with white casings. The end of the OUT terminal is sleeved with a red bushing.



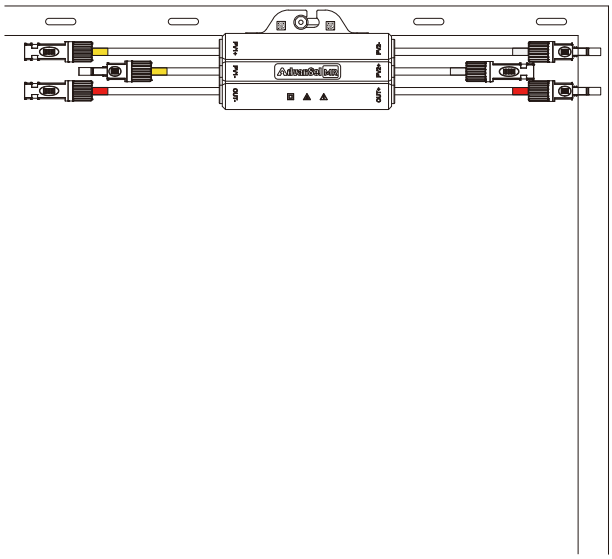




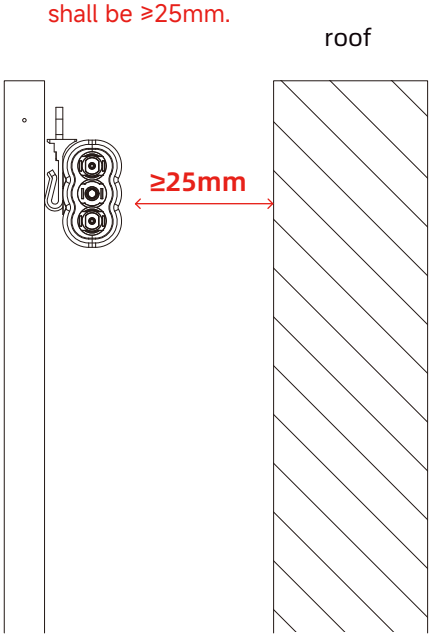
1. Back hook
2. Back splint

2. Installation Requirements

❶ Ensure good ventilation at the installation location of MR-T2.



ⓘ The distance from the roof shall be ≥25mm.



❷ **It is prohibited to cut the MR-T2 cable privately.**

❸ **The length of the cable connecting the farthest MR-T2 to the data control box shall not exceed 300M.**

❹ **It should be used within the specified parameters of MR-T2.**

❺ **When constructing, ensure that the DC end of the inverter is turned off and the power of the data control box is turned off. Construction should be carried out only after protective measures are taken.**

❻ **It is recommended to install the microcontroller in a low-light environment.**

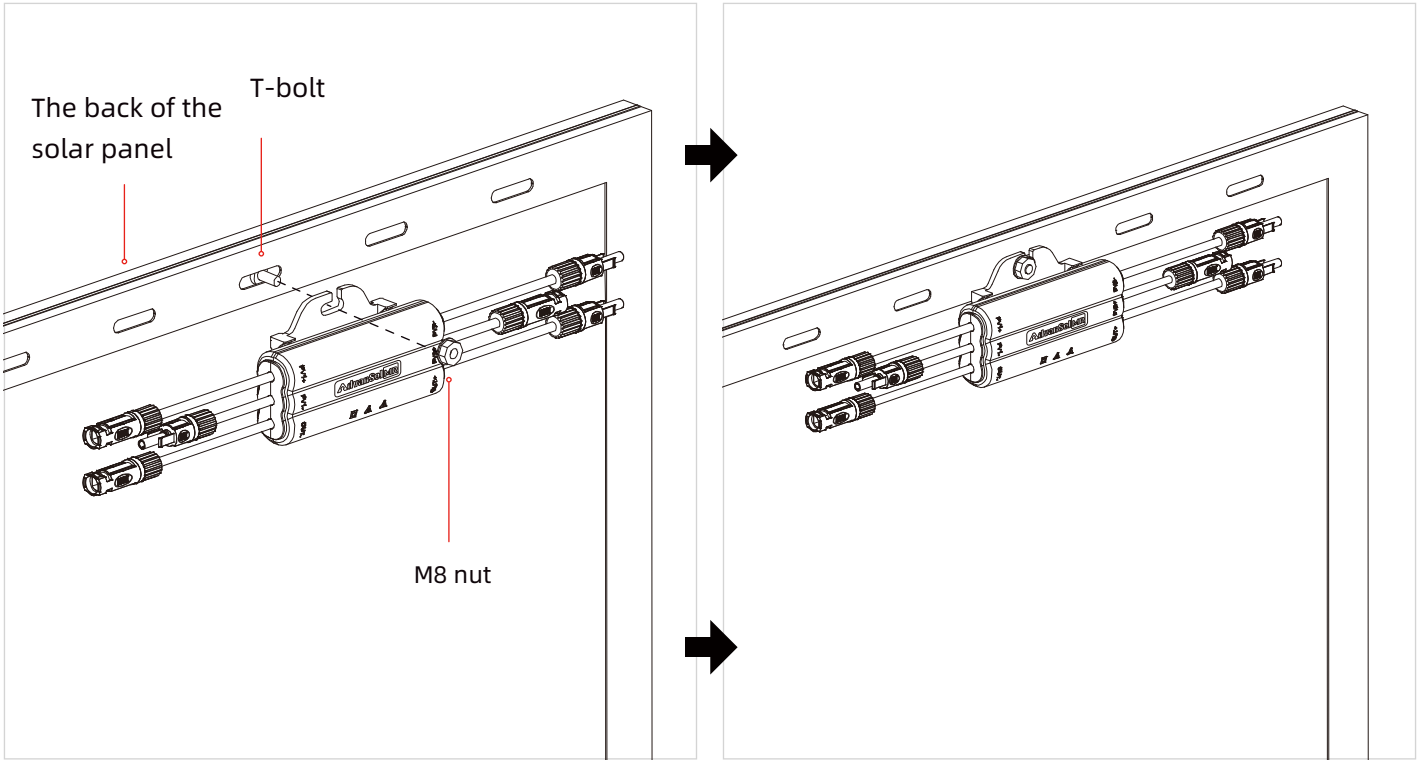
❼ **If the photovoltaic string is severely blocked, please connect this string to one MPPT of the inverter separately.**

❽ **When multiple strings are connected in parallel and input into the same MPPT of the inverter, the following restrictions apply when configuring the MR-T2: The PV strings connected to the same MPPT of the inverter must use the same type and quantity of PV modules and MR-T2s; and all MR-T2s need to be fully installed. The orientation and inclination of all PV modules in the strings of the same MPPT of the inverter must be the same. (If the PV system is equipped with an ASP, it is only necessary to ensure that the types and quantities of PV modules in the strings are consistent.)**

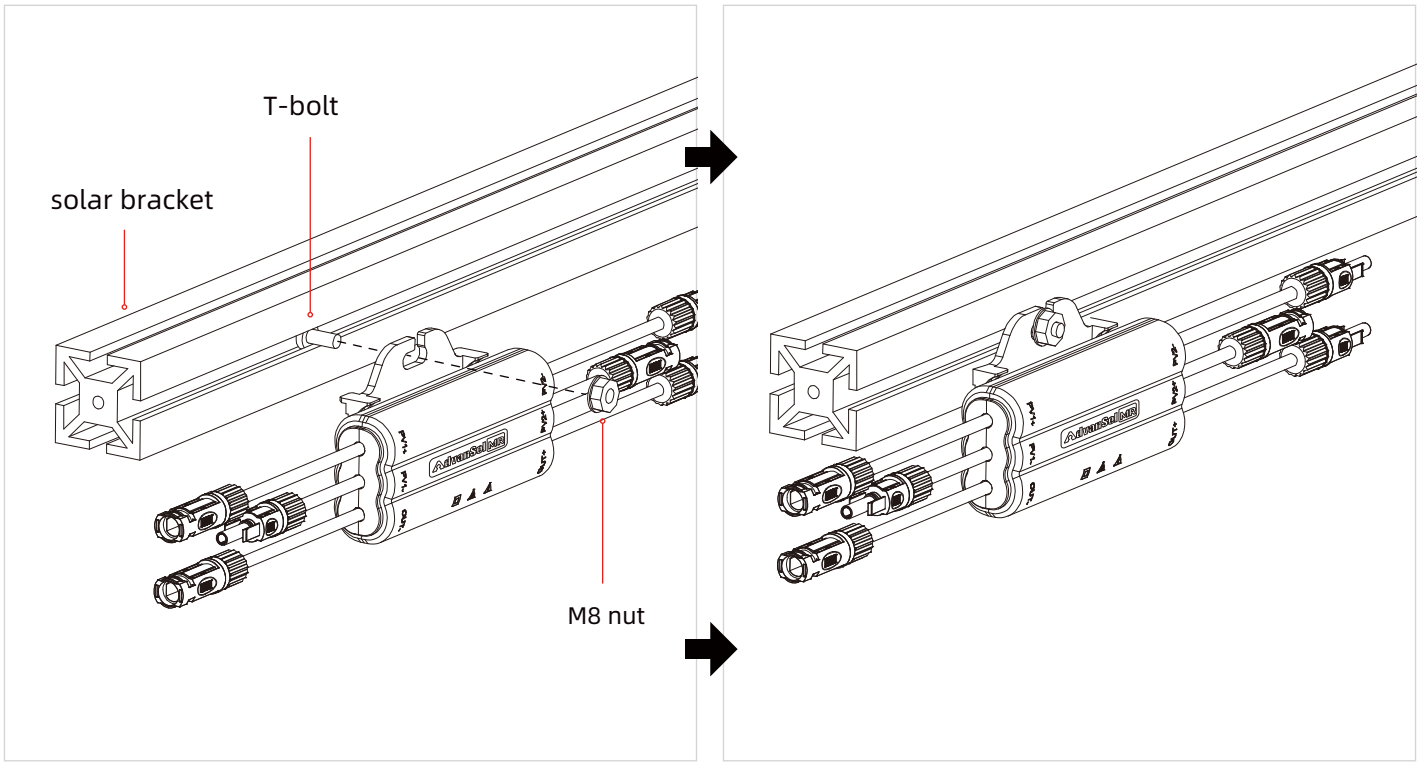
3. Installation Method

❶ **According to the actual situation of the installation site, select an appropriate installation method for installation.**

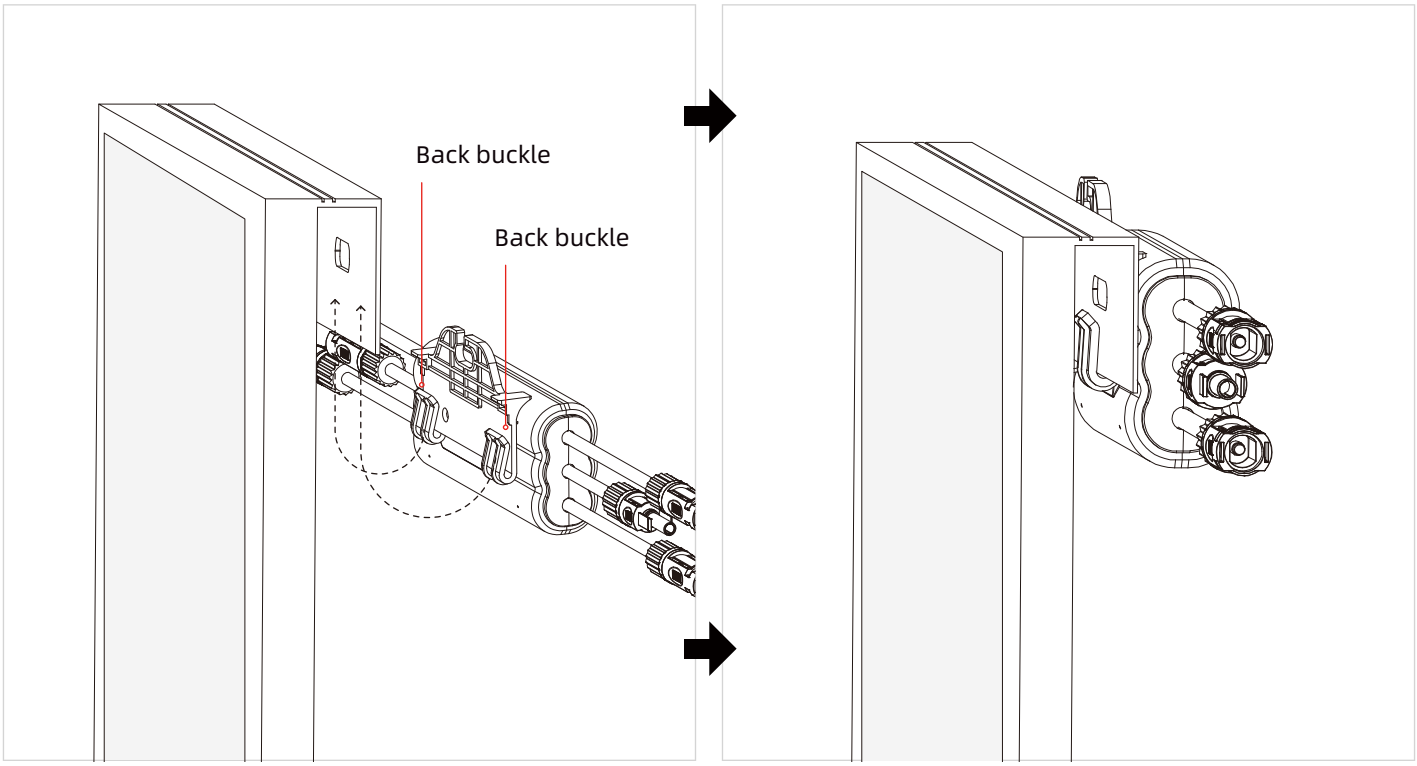
Installation method A: Install MR-T2 on the PV module frame:



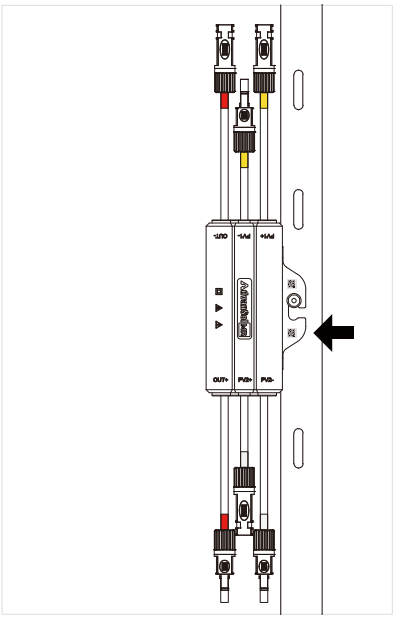
Installation Method B: Install MR-T2 on the PV bracket:



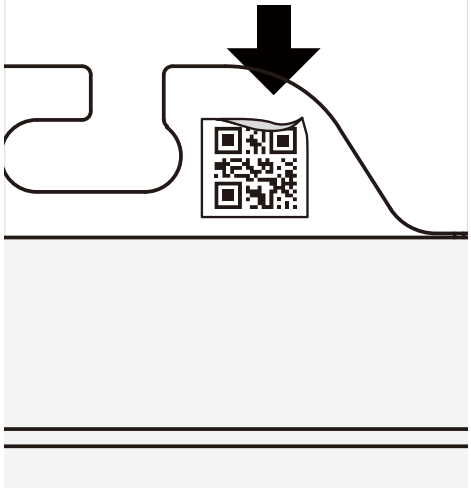
Installation method C: Use the buckle on the back of the MR-T2 housing to hang on the frame of the photovoltaic module.



❷ **Confirm the position of MR-T2. After the installation is completed, tear off the SN label from MR-T2 and paste it onto the physical layout diagram of the microcontroller.**

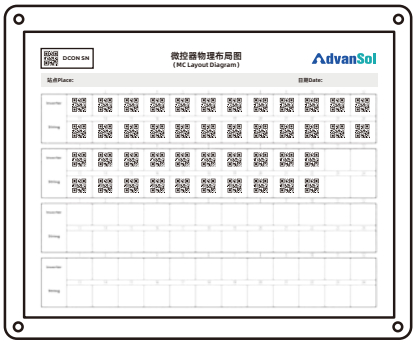


Tear off the SN label on the right side of the device



Stick the SN label onto the physical layout diagram of the microcontroller

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

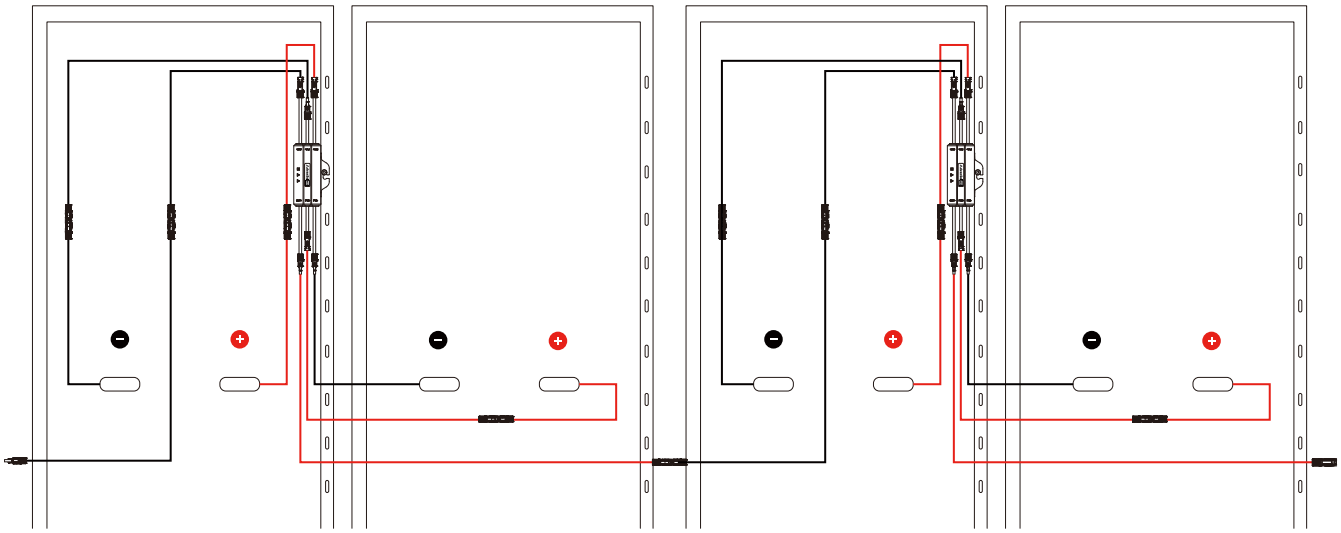


Note: The package of the DCON-WIFI version of the V2.5 data control box contains the physical layout diagram of the microcontroller. If it is accidentally lost, please go to the official website to download and print it.
AdvanSol Official Website - Download Center - Service Download Center - Microcontroller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

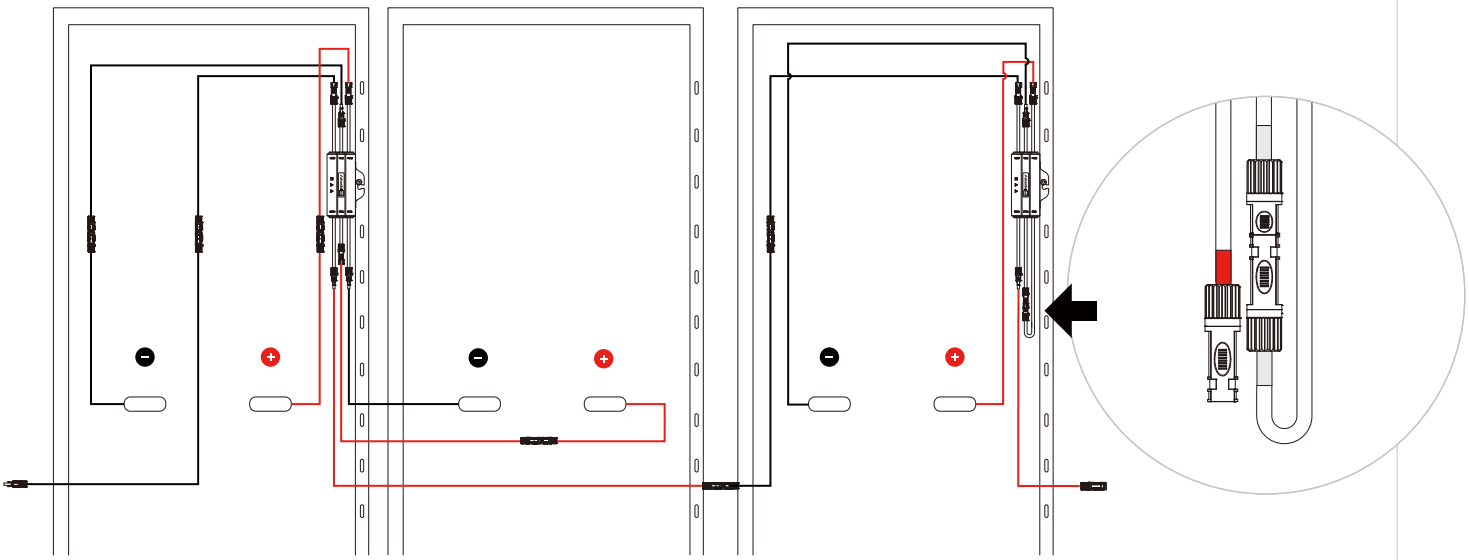
❸ According to the connection diagram, correctly connect the microcontroller and components.

ⓘ Ensure that the MR-T2 cable is correctly connected.
Incorrect connection may cause damage to the equipment.

Connect the input (PV1) of MR-T2 to Component 1, connect the input (PV2) to Component 2, and then connect the adjacent MR-T2 output (OUT).

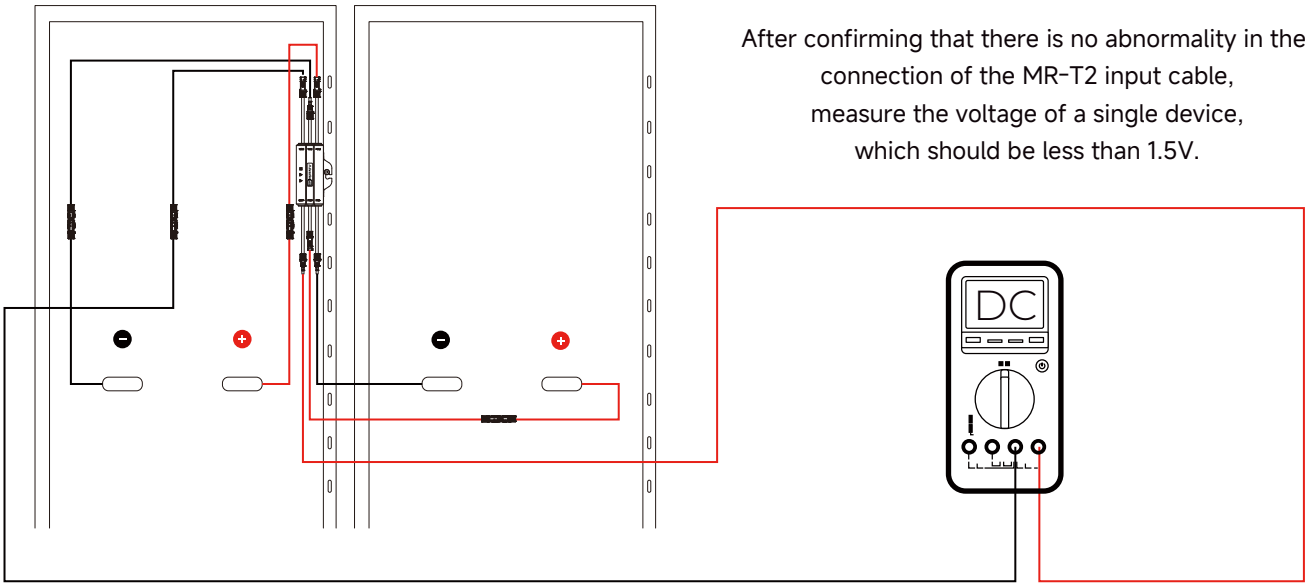


When connecting the MR-T2 to a single photovoltaic module, connect the PV1 end to the photovoltaic module and connect the PV2 end (white) with + and - terminals.

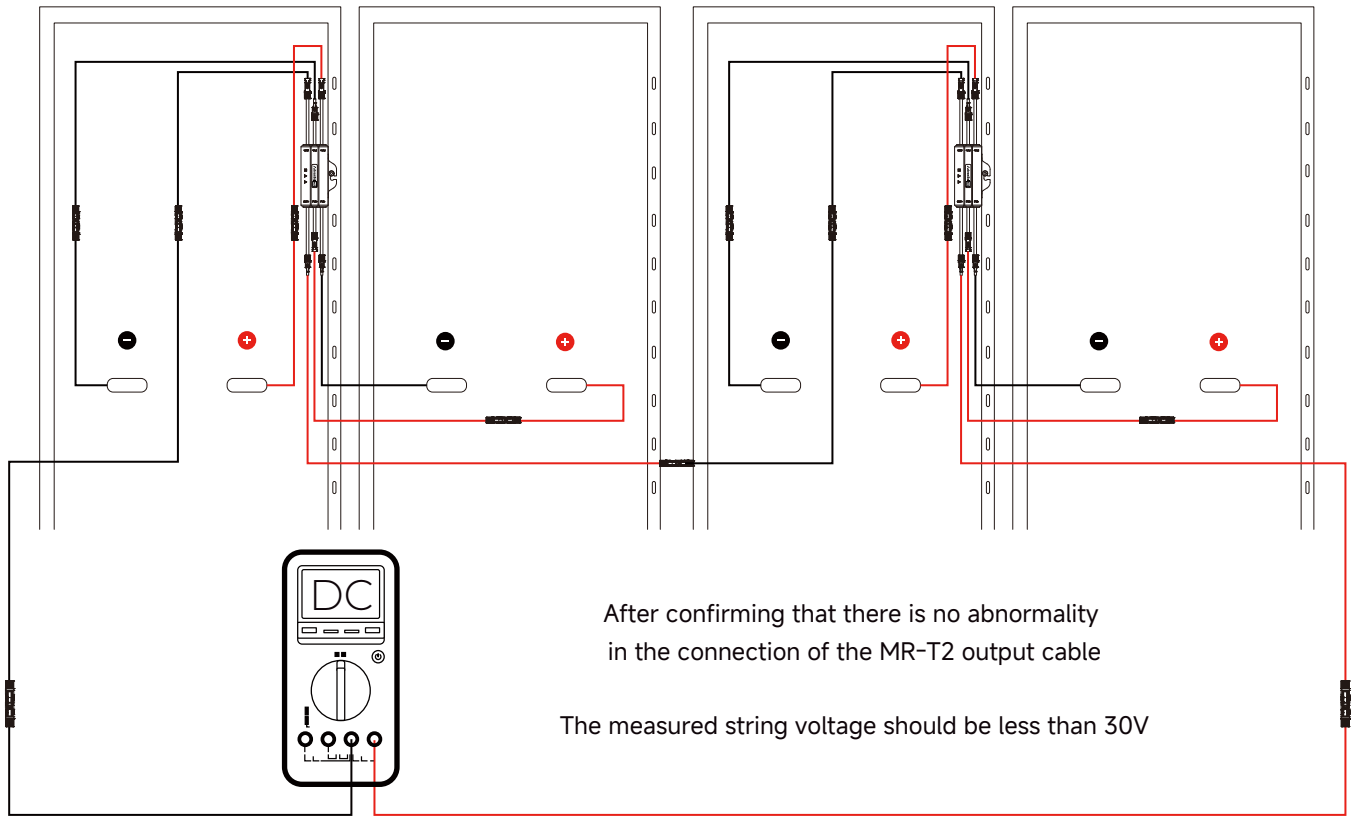


4. Installation Verification

Ensure that the MR-T2 cable is correctly connected.
Incorrect connection may cause damage to the equipment.



After confirming that there is no abnormality in the connection of the MR-T2 input cable, measure the voltage of a single device, which should be less than 1.5V.



After confirming that there is no abnormality in the connection of the MR-T2 output cable

The measured string voltage should be less than 30V

The hardware installation of MR-T2 is completed.

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

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