

T -Shine APP User Guide

——— for microinverter



T- Shine APP

Scan the QR code for quick installation

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The universal (EMS) controller simulates the voltage-current curve of solar panels, allowing for precise control over microinverter power output through both manual and automated modes. When paired with a smart meter via WiFi, it seamlessly controls the microinverter's export power with the public grid.

Users can monitor the entire system's performance and efficiently manage energy through the T-Shine APP. The following is a guide for operating and using the APP.

⚠ Attention: All displayed data is updated every 5 minutes and is for reference only.

Setting up the Tentek T-Shine App on Your Mobile:

Preparation

1. Follow the installation instructions provided in the controller's operating manual to ensure a proper setup.
2. Confirm that your home WiFi is operational. Note down the WiFi account and password for later use.
3. Prior to starting the setup process, ensure that both Bluetooth and WiFi are enabled on your mobile phone.
4. Locate the QR code on the side of the controller (as indicated in step 4) and make a note of it.

Step 1 Download Tentek T-Shine APP

• For Android: Type 'T-Shine' on Google Play Search Bar

• For IOS: Type 'T-Shine' on Apple Store Search Bar



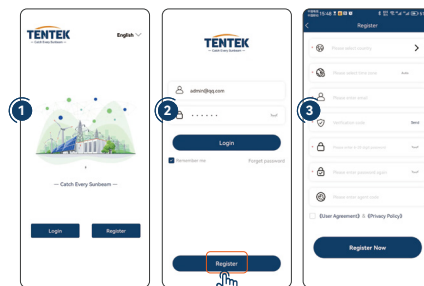
When you search, T-Shine APP will pop up as shown. Download the T-Shine APP.

Step 2 Register an Account and Login

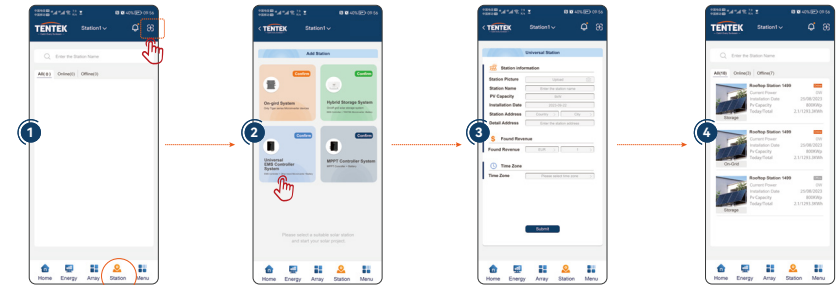
If you have previously registered, simply log in by entering your email and password. If you are a new user, click on "Register." This will lead you to the "Register" page, as illustrated in the accompanying picture. Provide the necessary registration information as prompted.



Congratulations, you have successfully become our user

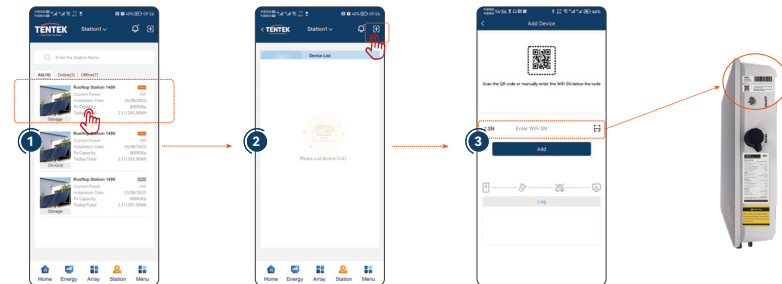


Step 3 Add a Station First



- 1 On the Station Page, Click the "+" sign in the upper right corner to access the "Station Type" interface.
- 2 For the purposes of this manual, Click the button "Universal EMS Controller System".
- 3 Fill out the information form according to the specifics of your solar setup and submit.
- 4 You will see a list of all Power Stations you have created.

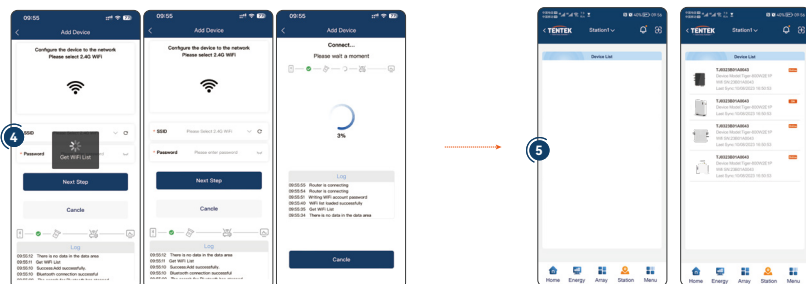
Step 4 Adding Controller to the Station



- 1 Click on you just created station.
- 2 Enter the power station page then click the "+" sign in the upper right corner.
- 3 Choose to either scan the QR code of the controller or manually enter the SN (Serial Number) to add.
- 4 At the top of the right side of the controller is the SN code, copy it into the APP

Step 4

Adding Controller to the Station



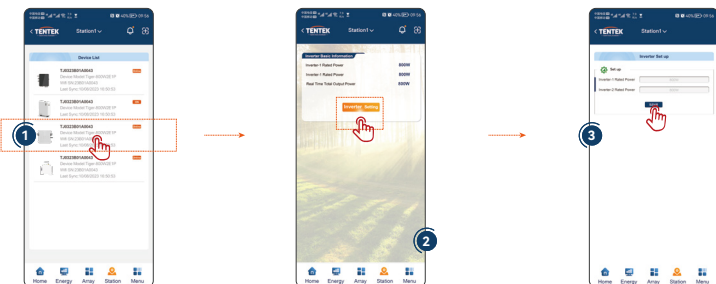
4 After click the "Add" will skip into above progress pages, then select your WiFi account and input the right password, then click "Next Step." Wait for the connection to be successfully established.

5 After finish the controller added, will skip into "Device List" page, please refresh this page. You will see the new added devices in the list, including the controller, battery, and inverter.

Step 5

Device Settings

5.1 Inverter setting



Click on the inverter icon, then select "Inverter Settings". Write down your inverter's rated power. Click "Save".

⚠ Inverter Setting

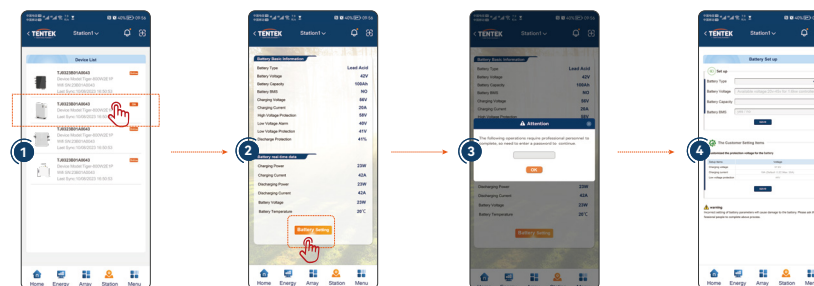
Please truthfully fill in the rated power of the installed inverter, as the value you set will affect the maximum output power of the controller.

If there is only one inverter, please enter "0" for the second inverter.

Step 5

Device Settings

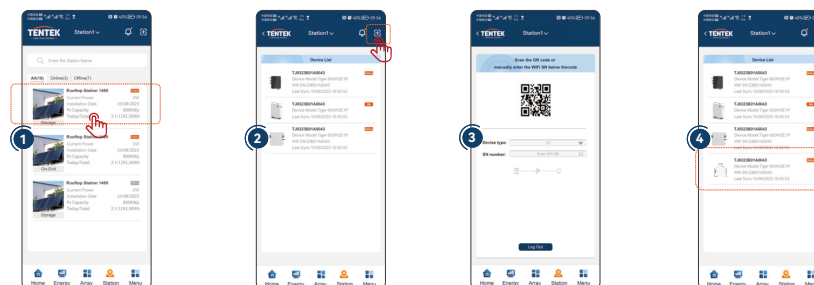
5.2 Battery setting



Click on the battery icon, will skip into battery data page, please select "Battery Settings" will display one popup "password" frame(Please request the login password in advance from your superior dealer).

⚠ **Attention:** Above operation should be performed by professional personnel.
Please be sure to fill it in accurately, otherwise it will affect the charge current.

5.3 Adding EM(optional)



1 Back to the "station" page and choose the target station.

2 then click "+" in the upper right corner to add a device.

3 Scan the EM QR code or manually enter the SN number. Click "Add." The EM will connect to your controller's WiFi automatically.

4 After successful connection, please refresh the page, then the EM icon will appear after 5 mins later.

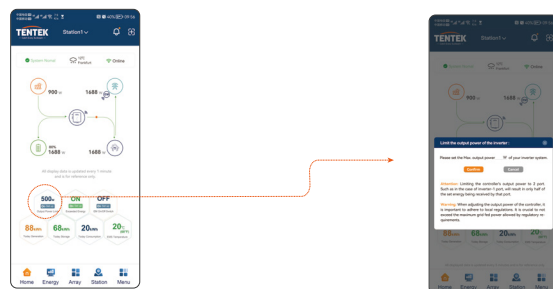
⚠ **Note:** Do not change the WiFi name or password.

⚠ **Note:** When the EM is online, any inverter limited power settings become invalid, all the output power will be automatically control based on the EM.

Step 6

System Operation

6.1 Limit the max.output power of the inverter(fixed output)

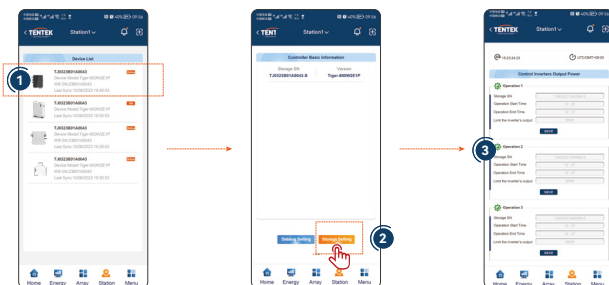


Click on the “**Output Power Limit**” honeycomb at homepage, will pop-up the “Power Setting Page”, then type in your wanted output power for the microinverter.

Attention: this universal controller with 2 indenpdent output ports, can connect 2pcs 800W microinverter, if you want to set one port's output power, you need to use this port power multiply by 2 then type in the setup page.

⚠ **Note:** The data refresh time for each adjustment is one minute.

6.2 Limit the max.output power of the inverter(different output at different time)



On the “Station Page” click on the “Controller” icon will skip to “Controller Content Page”, then click “Storage Settings” go to the “limited power setting page,” set the limited output power of the microinverter according to your needs at different period.

⚠ **Note:** This can only set the time period for the current day.

Step 6

System Operation

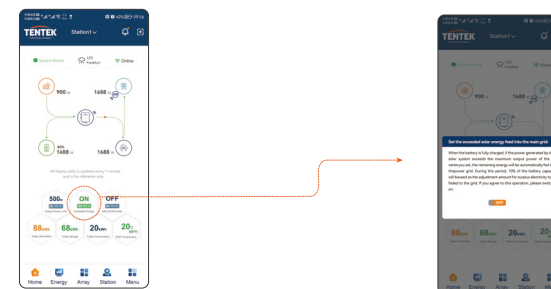
6.3 Limit the max.output power of the inverter(Automatically by EM)



If you have sucessfully install the EM(Energy Meter) base on the install manual, your system will automatically adjust the putput power to the microinverter based on the power detected by the EM.

⚠ **Note:** The automatically adjust function only effective when you sucessfully connected with the EM. After connected with the EM, the manually setup part will display in gray, and not available for set up.

6.4 Set Exceeded Energy Feed Into Grid



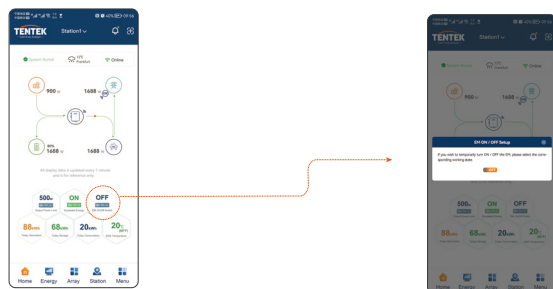
Click on the “**Exceeded Energy**” honeycomb at homepage, will pop-up the “Set the exceeded solar energy feed into the main grid”, then confirm turn On or Off.

Attention: this function is only available when EMS controller communicated with the battery BMS board by the 485 communication cable.

Step 7

System Data Views

6.5 EM On/Off



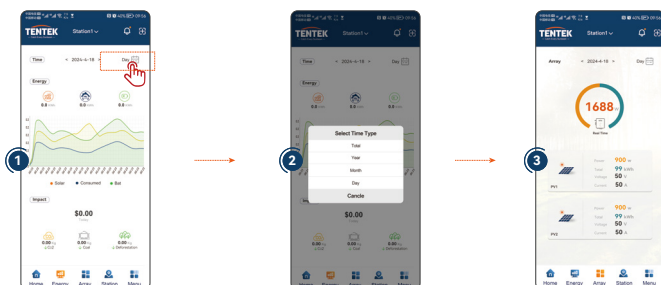
Click on the "EM On/Off" honeycomb at homepage, will pop-up the "EM ON / OFF Setup", then confirm turn On or Off.

Attention: If you turn off the EM, the output of the EMS controller will return to the previously manually set output power.

Step 7

System Data Views

7.1 View the data of system performance.



Click on the Energy page.
Choose the day, month, year, or total to view the every type data of your system.

Click on the Array page.
You can observe data for each group of PV inputs like date of real-time power, accumulated solar generation, voltage and current.

Step 7

System Data Views

7.2 View Controller Information



Click on the controller icon. On the first page, you can view Controller Basic Information. Slide left one page to access Controller Real-time Data Information. Continue to slide left one more page to view Data Acquisition Unit.

7.3 View Battery Information



Back to the station page. Click on the battery icon. On the first page, you can view Battery Basic Information. Slide left one page to access Battery Real-time Data Information. Continue to slide left one more page to view Data Acquisition Unit.

7.4 View Inverter Information



Back to the station page. Click on the inverter icon. You can view Inverter Basic Information.

Step 7 System Data Views

7.5 View EM information



Click on the EM icon. On the first page, you can view EM Basic Information. Slide left one page to access EM Real-time Data Information. Continue to slide left one more page to view Data Acquisition Unit.

Step 8 Menu page

