PV Keeper3.0 User Guide

Catalog

1. Installation

Open the PVkeeper32.exe or PVkeeper64.exe according to your Windows system. Please follow the following process to install:
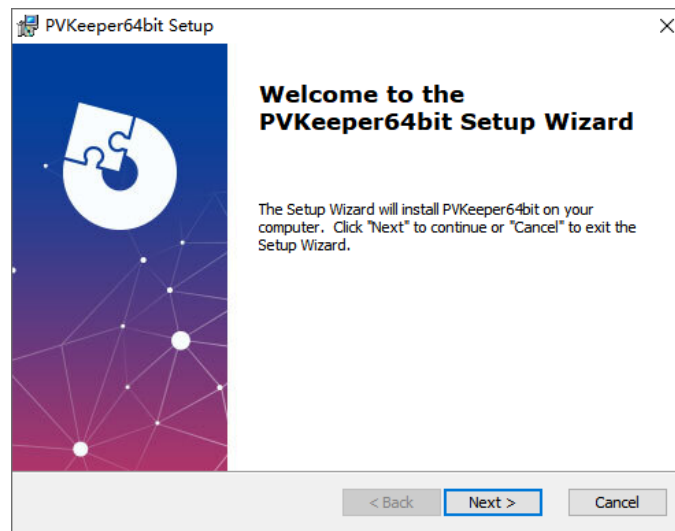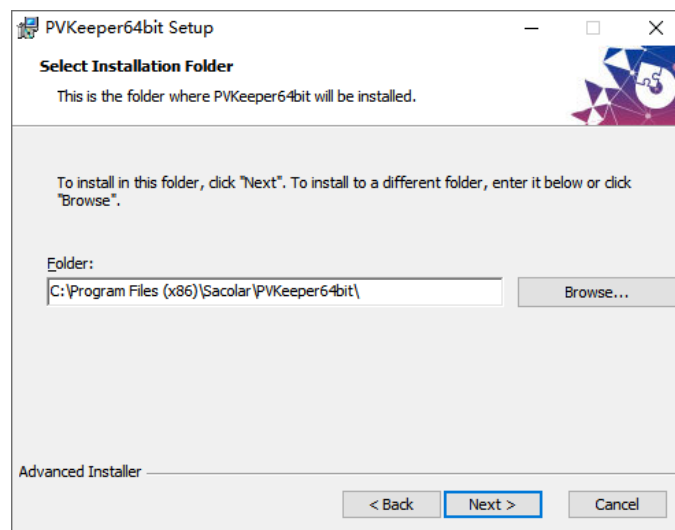

Diagram1- 1

Click Next.

Diagram1- 2

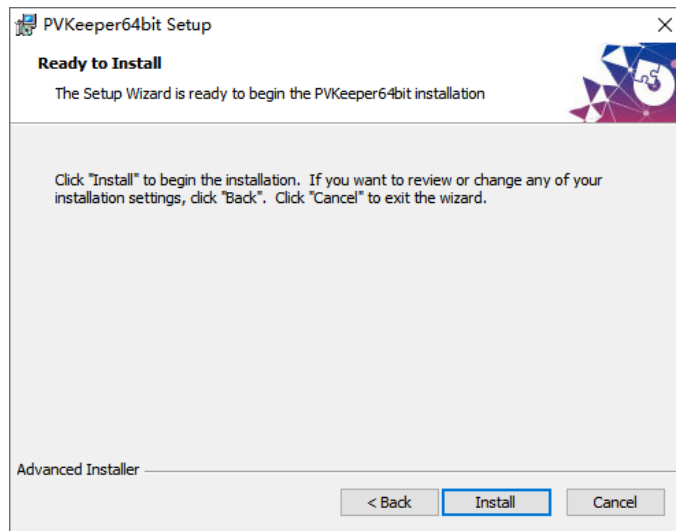Use the default installation path or select a path and click Next.

Diagram1- 3

Click Install.

Diagram1- 4

If you have not installed the serial port driver, you will be redirected to the serial port installation program. Please install it step by step.
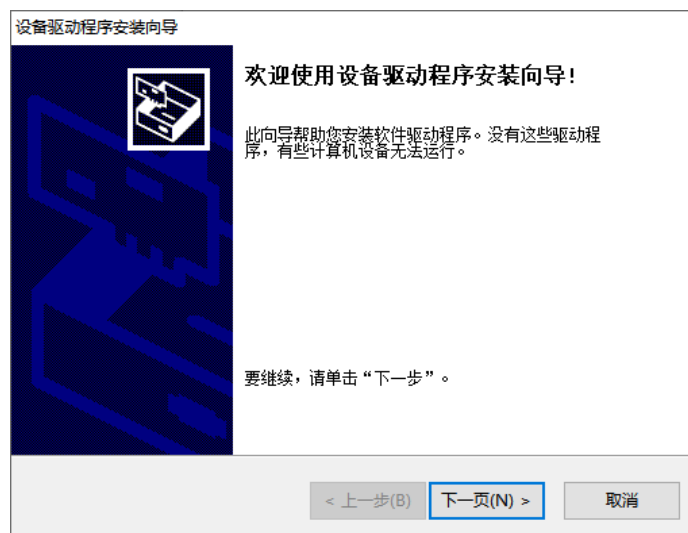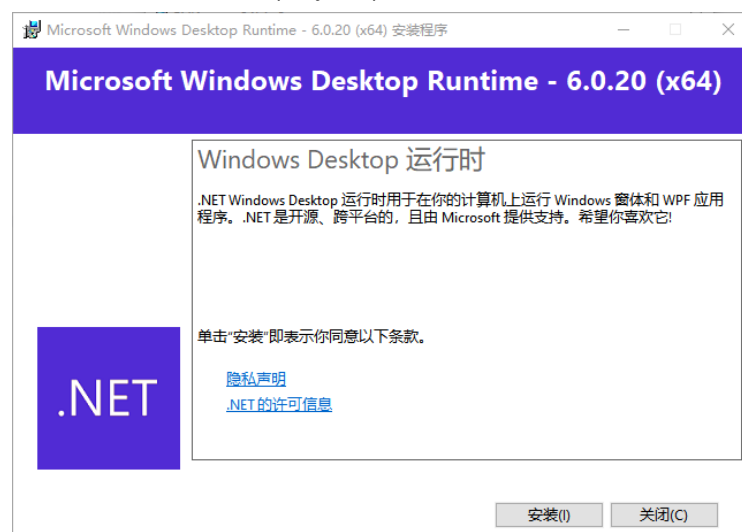

Diagram1- 5

If you have not installed .NET Desktop Runtime -6.0.20, you will be redirected to the serial port installation program. Please install it step by step.
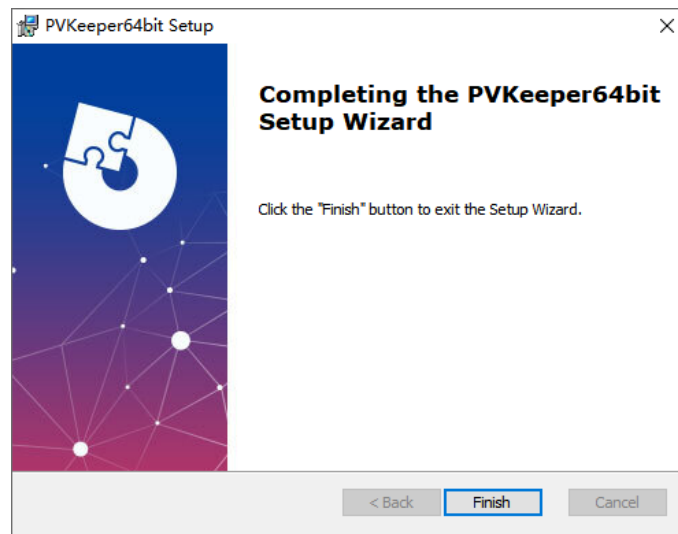
Diagram1- 6

Finally, please wait patiently for the installation to complete until this interface is displayed.

2. GUI Introduction

2.1 Home Page Function Introduction

2.1.1 Monitoring interface

Diagram2- 1

Diagram2- 2

A: Function Menu. Provide navigation to other pages.

B: Previous page. Navigate to the last page viewed.

C: Next page. Navigate to the next page viewed.

D: Log in. Open the login interface.

E: Popup button. Open the page for configuring the serial port and reading/logging data.

F: Product Information. To show software version and some other related information.

G: Status Diagram. To display inverter status including PV status and grid status.
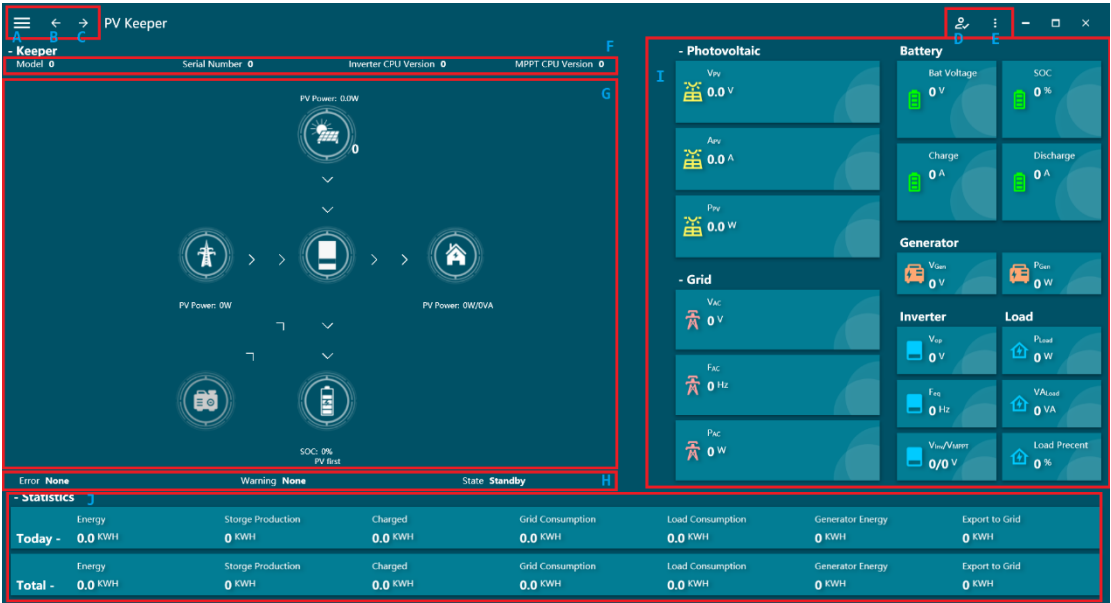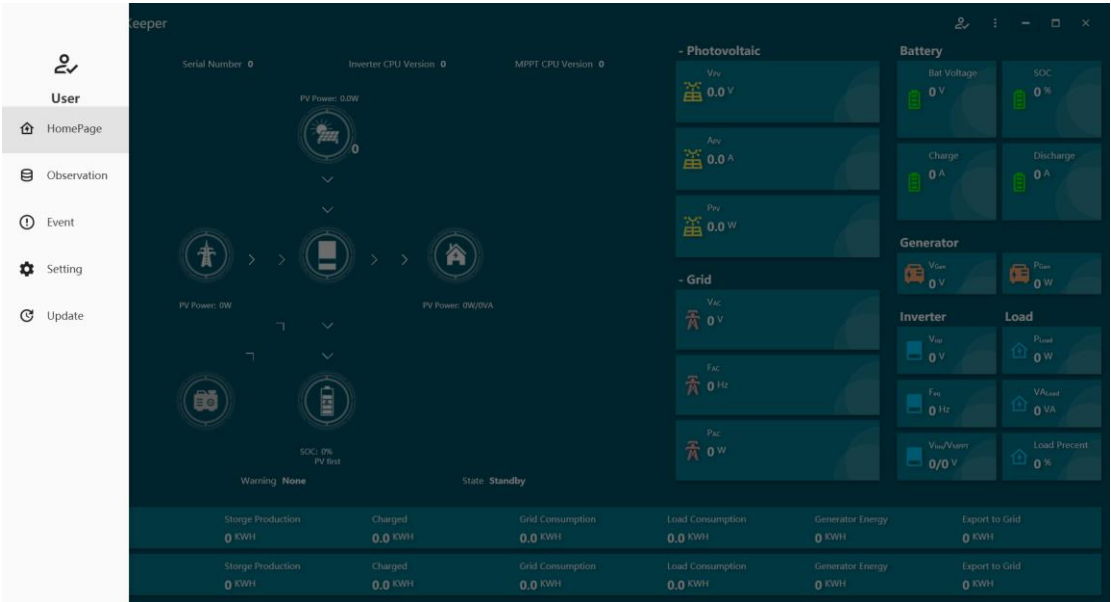
H: Operating status. Displays the running status(See Chapter 4 for details) of the inverter and current errors and warnings.

I: Essential Information. To show current data of the inverter.

J: Electricity statistics. To show the energy consumption destination.

2.1.2 Configure serial port and read/log interval
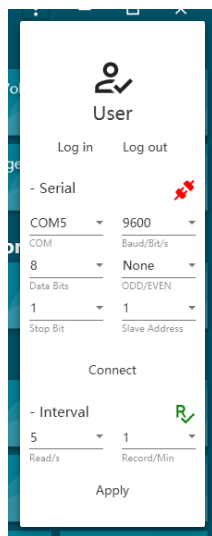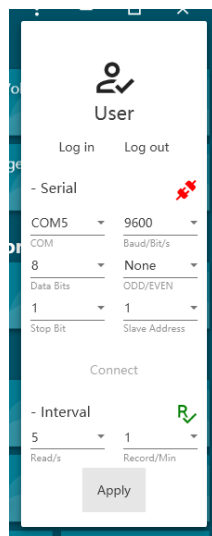
Diagram2- 3   Diagram2- 4   Diagram2- 5
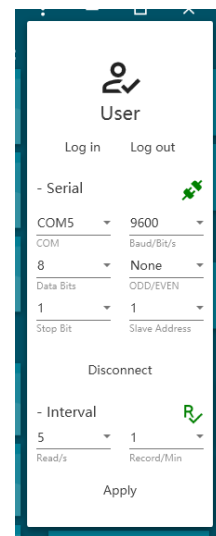
Regarding the serial port bar, Diagram 1 shows the "Not Connected" state. Select the correct port name and click the "Connect" button to try to connect to the device; Diagram 2 shows the "Connecting" state, and Diagram 3 shows the "Connection Successful State". Click "Disconnect" button to disconnect from the device.

Regarding the Interval bar, you can modify the time interval for reading data and recording data here, click the Apply button after modification to apply the modification.

2.2 Observation Function Introduction

Diagram2- 6

The first two controls above are used to select the start and end dates.

Diagram2- 7

Click the "Query" button to query all data from the start date to the end date.

Click the "DEL ALL" button to delete all data from the start date to the end date.

Click the "Export" button to export all data from the start date to the end date to an Excel sheet.

2.3 Event Function Introduction

Diagram2- 8

The first two controls above are used to select the start and end dates.

Diagram2- 9

Click the "Query" button to query all events from the start date to the end date.

Click the "DEL ALL" button to delete all events from the start date to the end date.

Click the "Export" button to export all events from the start date to the end date to an Excel sheet.

2.4 Setting Function Introduction
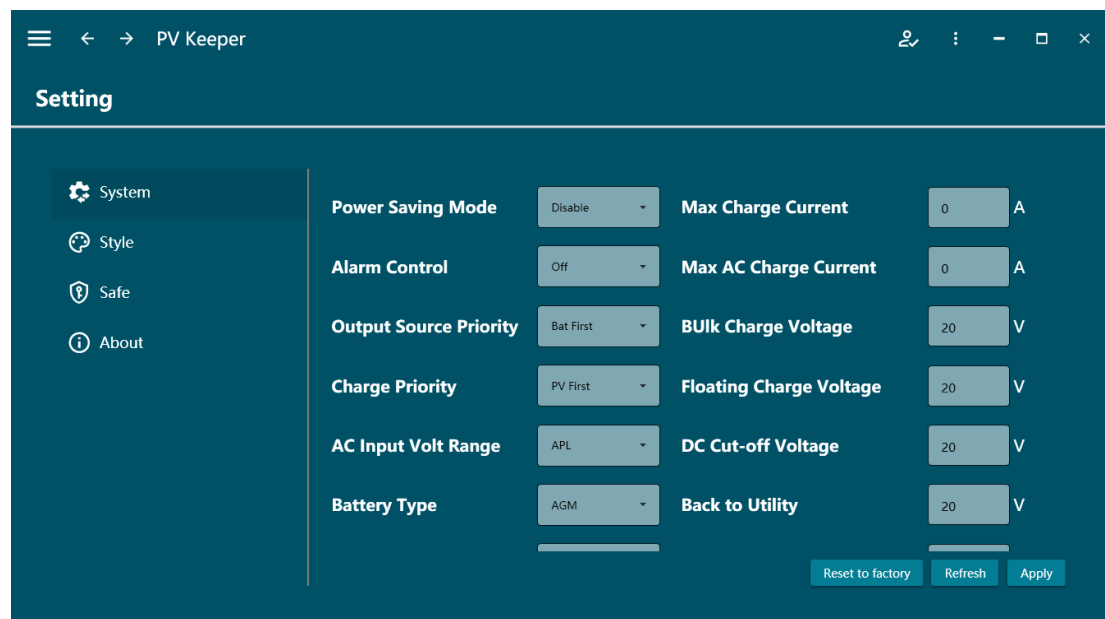
Diagram2- 10

2.4.1 Introduction to setting items

In this window, there are a lot of functions can be set by the user.

Power Saving Mode

If disabled, output will be on continuously when the device is operated in battery mode. If enabled, inverter output will be on or off depending on the connected load is detected or not. If the load is not detected, the output of the inverter will be off until load reaches a certain level. Check product manual for more details.

Alarm Control

If disabled, buzzer won't be on when warn/fault occurred.

Maximum Charging Current

The maximum charging current can be set from 0A to 180A. The maximum charge current to battery in charging mode including solar charging current and AC charging current.

Maximum AC Charging Current

The maximum AC charging current can be set from 0A to 100A.

LT Battery Protocol type

The maximum AC charging current can be set from 0 to 99.

Output start time period

You can set the output start time

Charging start time period

You can set the charging start time

Bulk Charge Voltage

The bulk charge voltage can be set from 20.0V to 64.0V. It is charging voltage in constant charging mode.

Floating Charge Voltage

The floating charge voltage can be set from 20.0V to 64.0V. It is charging voltage in floating charging mode.

DC Cut-Off Voltage

The DC cut-off voltage can be set from 20.0V to 64.0V. When battery voltage is lower than this setting voltage, the output will be cut off.

Back to Utility

Input the value between the maximum and minimum. If "SBU" is selected in output source priority, the inverter will transfer output source to utility grid when battery voltage drops to low battery voltage point.

Back to SBU/SOL

When battery voltage is higher than this setting voltage, battery will be allowed to discharge.

Output end time period

You can set the output end time

Charging end time period

You can set the charging end time

Output Source Priority

Click up-down arrows to set up output source priority. There are 4 options: utility first, solar first, SBU and SUB. See product manual for the details of these options.

Charge Priority

Click up-down arrows to set up charger source priority. There are 3 options: solar first, solar and utility and solar only. See product manual for the details of these options.

AC Input Voltage Range

Click up-down arrows to set up suitable input range for connected devices. When selecting "Appliance", it's allowed to connect home load. When selecting "UPS", it's allowed to connect personal computer.

Battery Type

Select connected battery type. There are three options: AGM, Flooded,Li,US2 and User.

Output Frequency

Nominal output frequency, 50Hz or 60Hz selectable.

Ac Discharge Voltage

Click up-down arrows to set up AC output voltage range. There are 7 options: 208VAC,230VAC,220VAC,240VAC,100VAC,110VAC and 120VAC. See product manual for the details of these options.

Overload Restart

Click up-down arrows to set up overload. There are 3 options: restart, not restart and switch to AC. See product manual for the details of these options.

Over temp Restart

Click up-down arrows to set up overload. There are 2 options: restart and not restart and. See product manual for the details of these options.

Back Light

Can control the brightness of the display screen.

Remote Switch

You can switch the machine on and off

2.4.2 System bar

All combo boxes and text boxes default to an "unmodified" state until you modify it.

After modifying any combo box or text box, click the "Apply" button to send modification instructions to modify the options in the "modified" state. At this time, the number of successes, the number of failures and the list of failures will be prompted. Successful options will revert to the "unmodified" state, while failed options will not.
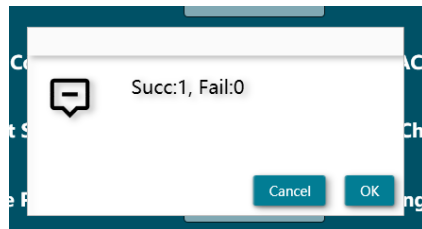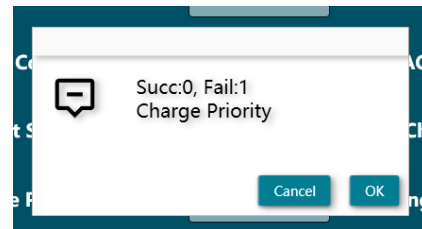

| Diagram2- 11 | Diagram2- 12 |

Click the "Refresh" button to make all combo boxes and text boxes display the current options or values of the inverter, and return all combo boxes and text boxes to their unmodified state.

Click the "Restore to Factory" button to send instructions to the inverter to restore factory settings.
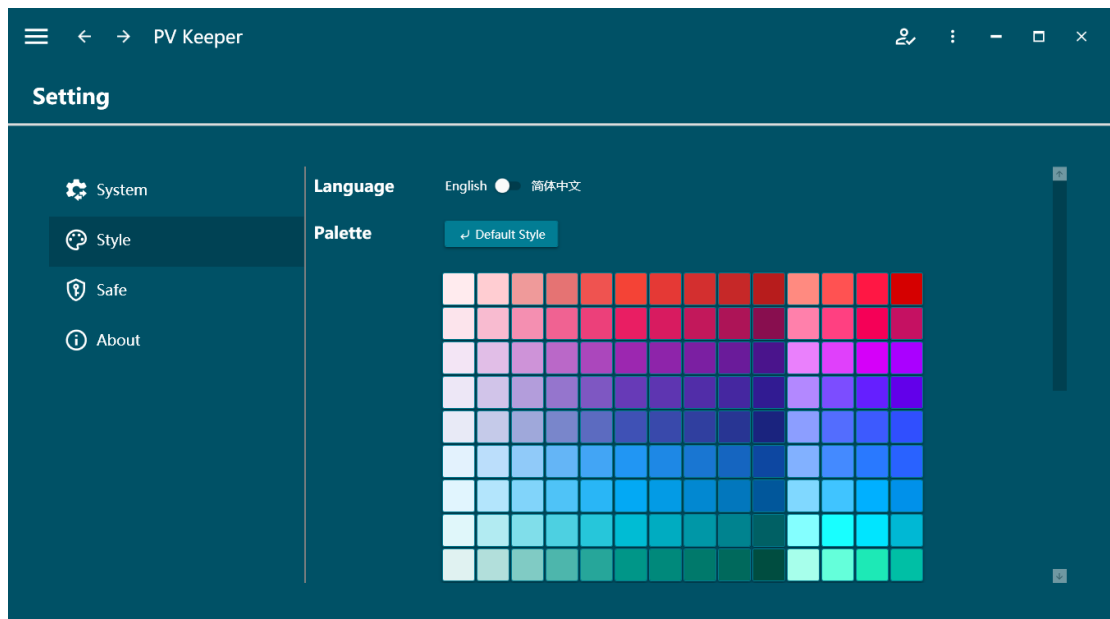
2.4.2 Style bar

Diagram2- 13

　　Here you can set the system language as English or Chinese, and you can also set the theme color for your PV Keeper.
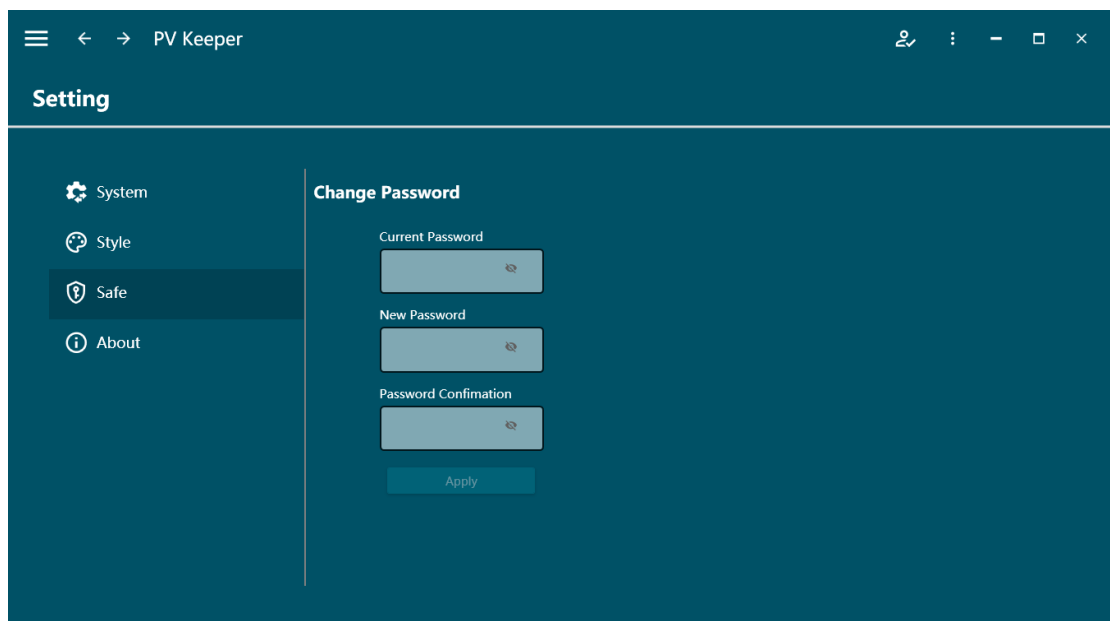
2.4.3 Safe bar

Diagram2- 14

　　Here you can change your user password.

2.4.4 About bar

Diagram2- 15

This page contains some information related to the company, including company address, contact number, email and website. Finally, a user guide for PV Keeper is also attached.
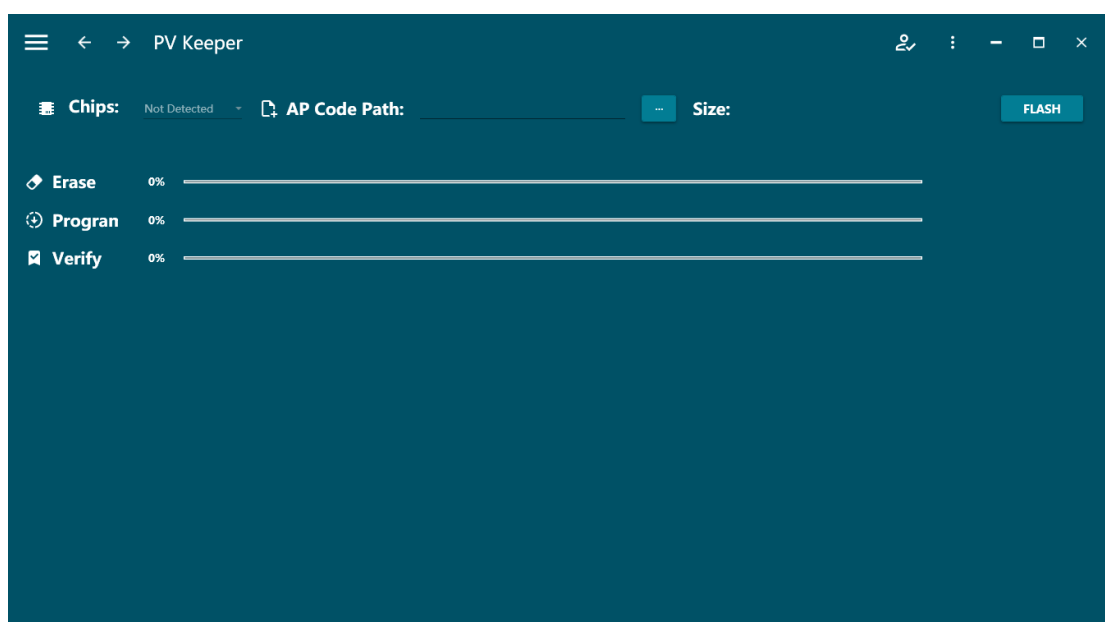
2.5 Update Function Introduction

Diagram2- 16

Click the button [...] to select the upgrade file. After ensuring that the device is connected, click the "Flash" button to start the upgrade. Be careful not to disconnect the PV Keeper from the device during the upgrade process.

2.6 Login

By default, the login status is "Visitor", which can only access the Home page, Data page and Event page. Enter the correct username and password(Username: user, default password: 123456) and click Login to switch to "User" permissions. Click the "Logout" button to exit "User" status
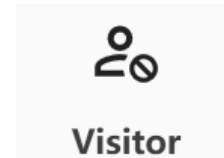
Diagram2- 18

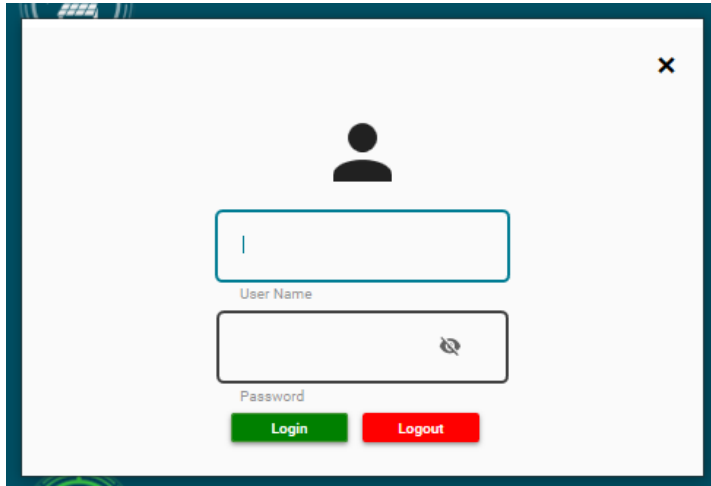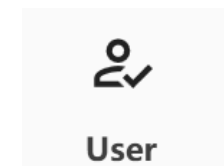Diagram2- 17

Diagram2- 19

3. Hot Key

Hot Key	Behavior
F1	Navigate to Home page
F2	Navigate to Data page
F3	Navigate to Event page
F4	Navigate to Setting page
F5	Navigate to Upgrade page

4. System Run State

NO.	State	Description
1	Standby	there is no charging or output.
2	PV&Grid Supporting Loads	PV power and utility grid supply power to the load.
3	Battery Discharging	the battery supplies power to the load.
4	Fault	Something went wrong with the inverter.
5	Flash	Upgrading the inverter.
6	PV Charging	the PV power charges the battery.
7	Grid Charging	the utility grid charges the battery.
8	PV&Grid Charging	the PV power and the utility grid both charge the battery.
9	PV&Grid Charging+Grid Bypass	the PV power and the utility grid both charge the battery, and the utility grid supplies power to the load.
10	PV Charging+Grid Bypass	PV charges the battery and the utility grid supplies power to the load
11	Grid Charging+Grid Bypass	The utility grid supplies the load and charges the battery
12	Grid Bypass	the utility grid supplies power to the load, but it doesn't charge the battery.
13	PV Charging+Loads Supporting	the PV supplies power to the load and charges the battery at the same time.
14	PV Discharging	PV export to grid energy
15	PV&Battery Discharging	PV and battery power the load
16	Gen Charging	Generator charges battery
17	Gen Charging+Gen Bypass	The generator charges the battery and supplies power to the load
18	PV&Gen Charging	PV and generator charge batteries

19	PV&Gen Charging+Gen Bypass	PV and generator charge the battery and the generator supplies power to the load
20	PV Charging+Gen Bypas	The PV charges the battery and the generator supplies power to the load
21	Gen Bypass	The generator supplies power to the load
22	PV Export to Grid	PV export to grid energy
23	PV Export to Grid+Loads Supporting	PV export to grid energy and supplies power to the load
24	PV Charging+Export to Grid	PV export to grid energy and charges the battery.
25	PV Charging+Export to Grid+ Loads Supporting	PV export to grid energy, charges the battery and supplies power to the load.
26	Battery Export to Grid	Battery export to grid energy.
27	Battery Export to Grid+ Loads Supporting	Battery export to grid energy and supplies power to the load.
28	Battery&PV Export to Grid	Battery and PV export to grid energy.
29	Battery&PV Export to Grid+ Loads Supporting	Battery and PV export to grid energy and supply power to the load.