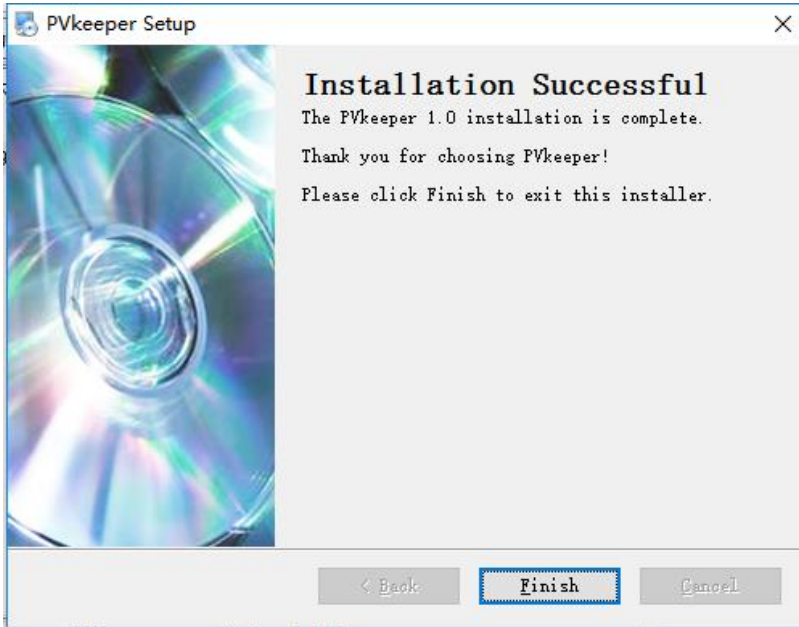


# 1 PVkeeper V2.0 Installation

Open the PVkeeper32.exe or PVkeeper64.exe according to your Windows system. Install the program step by step.



## 2 Driver Installation

The user's computer should install the following driver to enable serial communication which is contained in the CD ROM.

**CP210x\_Windows\_Drivers**

## 3 GUI Introduction

### 3.1 Function Introduction

After installation of the program, there will be a shortcut icon called "PVkeeper v2.0" on your desktop. Refer to Diagram 3-1. Double click "PVkeeper v2.0" to start the software and the main screen will be displayed as Diagram 3-2.



Diagram 1-1



Diagram 1-2

- A: Function Menu.** To offer complete tool-set for navigating and setting the GUI.
- B: Shortcut Menu.** To provide short cuts to more commonly used functions.
- C: Basic Configuration.** To offer basic setting of PVkeeper.
- D: Status Diagram.** To display inverter status including PV status and grid status.
- E: Essential Information.** To show current data of the inverter.
- F: Product Information.** To show software version and some other related information.
- G: Electricity statistics** To show the energy consumption destination.

### 3.2 Working Mode

**Standby.** In this mode, there is no charging or output.



**Discharge.** In this mode, the battery supplies power to the load.

**Discharge Mode Data:**

Parameter	Value	Unit
Grid Voltage	0	V
Grid Frequency	0	Hz
AC Charge Current	0	A
Battery Voltage	49.93	V
Battery Capacity	100	%
Charge Current	0	A
Discharge Current	0	A
Output Voltage	208.2	V
Output Frequency	50.01	Hz
Output Active Power	0	W
Output Apparent Power	22	VA
Load Percent	0.1	%
State	Discharge	
Charge Priority	PV First	
Today Energy	0	KWH
Today Storing Production	0	KWH
Today charged	0.1	KWH
Today Grid Consume	0.2	KWH
Today Load Consumption	0.1	KWH
Total Energy	0	KWH
Total Storing Production	2.1	KWH
Total charged	6.1	KWH
Total Grid Consume	6.7	KWH
Total Load Consumption	2.7	KWH

**PV Charge.** In this mode, the PV power charges the battery.

**PV Charge Mode Data:**

Parameter	Value	Unit
Grid Voltage	0	V
Grid Frequency	0	Hz
AC Charge Current	0	A
Battery Voltage	58.03	V
Battery Capacity	75	%
Charge Current	28.2	A
Discharge Current	0	A
Output Voltage	0	V
Output Frequency	0	Hz
Output Active Power	0	W
Output Apparent Power	0	VA
Load Percent	0.0	%
State	PV charge	
Charge Priority	PV First	
Today Energy	0	KWH
Today Storing Production	0	KWH
Today charged	0	KWH
Today Grid Consume	0	KWH
Today Load Consumption	0	KWH
Total Energy	63.2	KWH
Total Storing Production	2.1	KWH
Total charged	69.3	KWH
Total Grid Consume	6.7	KWH
Total Load Consumption	2.7	KWH

**AC Charge.** In this mode, the utility grid charges the battery.



**Combined Charge.** In this mode, the PV power and the utility grid both charge the battery.



**Combined Charge and Bypass.** In this mode, the PV power and the utility grid both charge the battery, and the utility grid supplies power to the load.

**PV Charge and Bypass.** In this mode, the PV power charges the battery and the utility grid supplies power to the load.



**AC Charge and Bypass.** In this mode, the utility grid supplies power to the load and charge the battery at the same time.




**Bypass.** In this mode, the utility grid supplies power to the load, but it doesn't charge the battery.

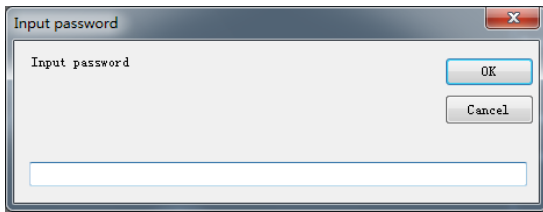


**PV Charge and Discharge.** In this mode, the PV supplies power to the load and charges the battery at the same time. If the PV power is not enough for the load, the battery and PV will both supply power to the load.

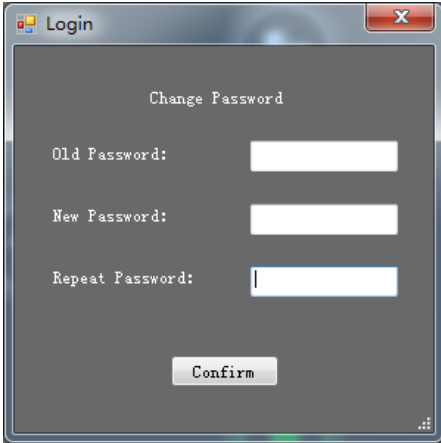


### 3.3 Setting Mode

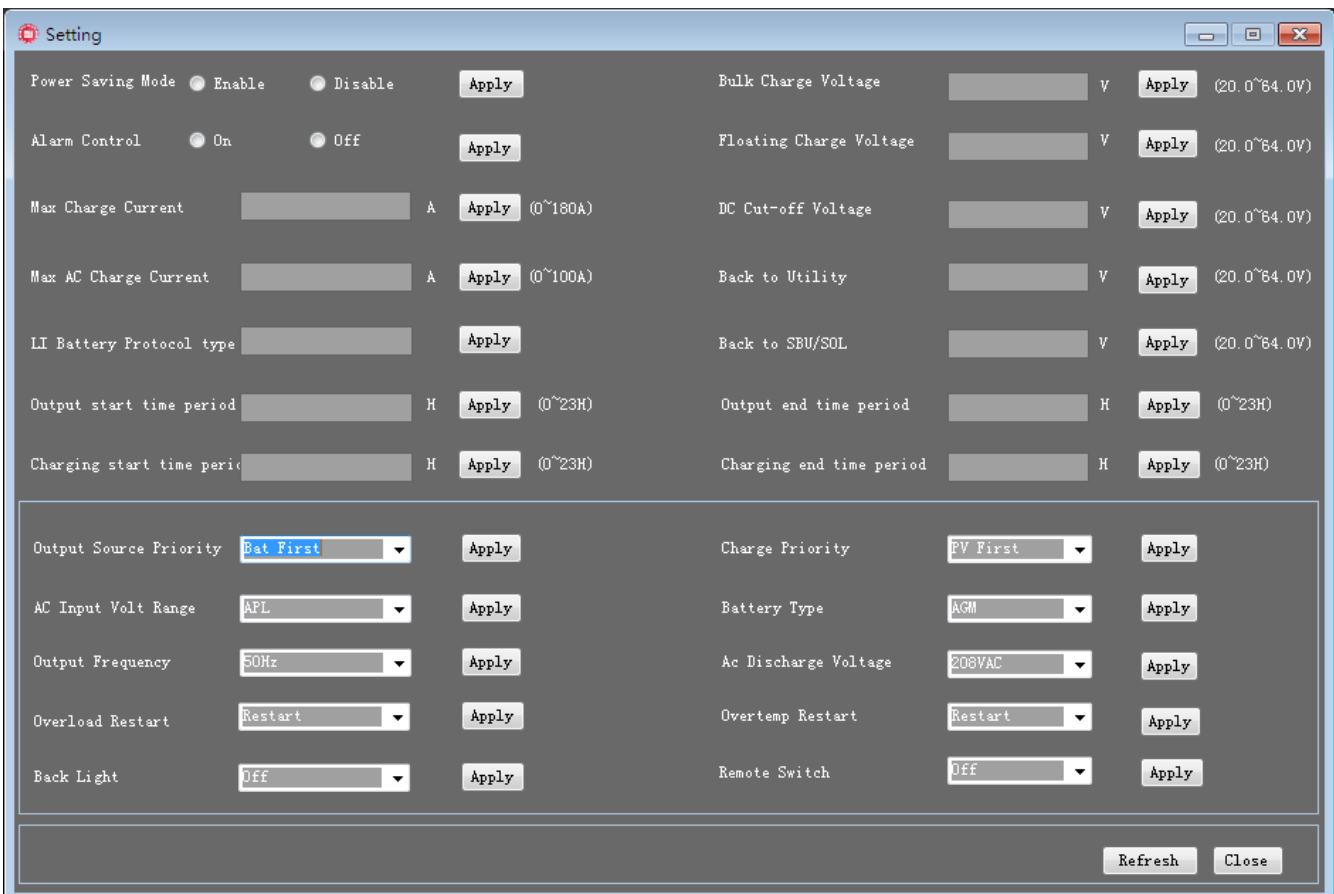
Press Setting or , you will enter the setting window. You should login first before enter into that window. The original password is '123456'.



You can change the password by 'Help>>Change password', then you will get the diagram as below:



After you logged in, you can enter the setting window as below:



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.



- **Overtemp 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.

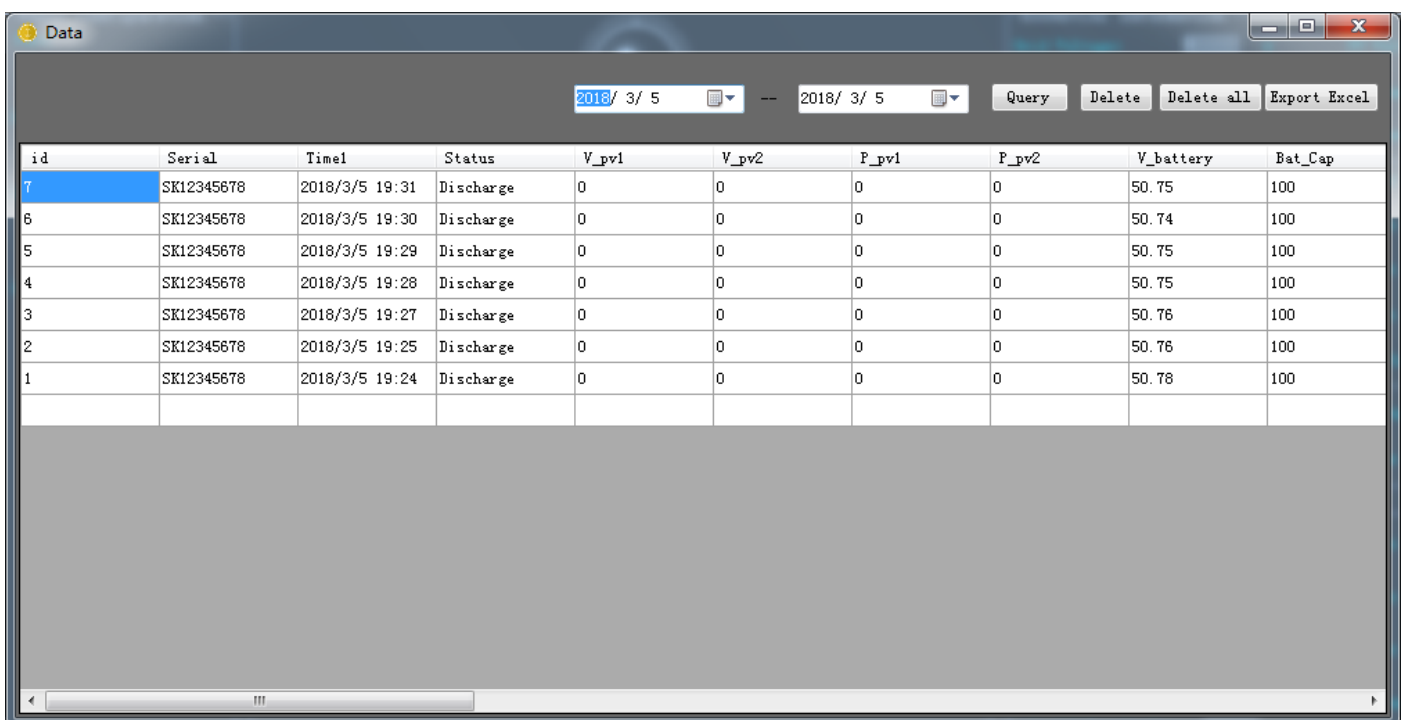
- **Remote Switch**

You can switch the machine on and off

**tips: After setting, if you want to confirm whether the setting is successful, you can click the refresh button.**

### 3.4 Data Log


Press Observation or  , to get the working data of inverter saved in table.

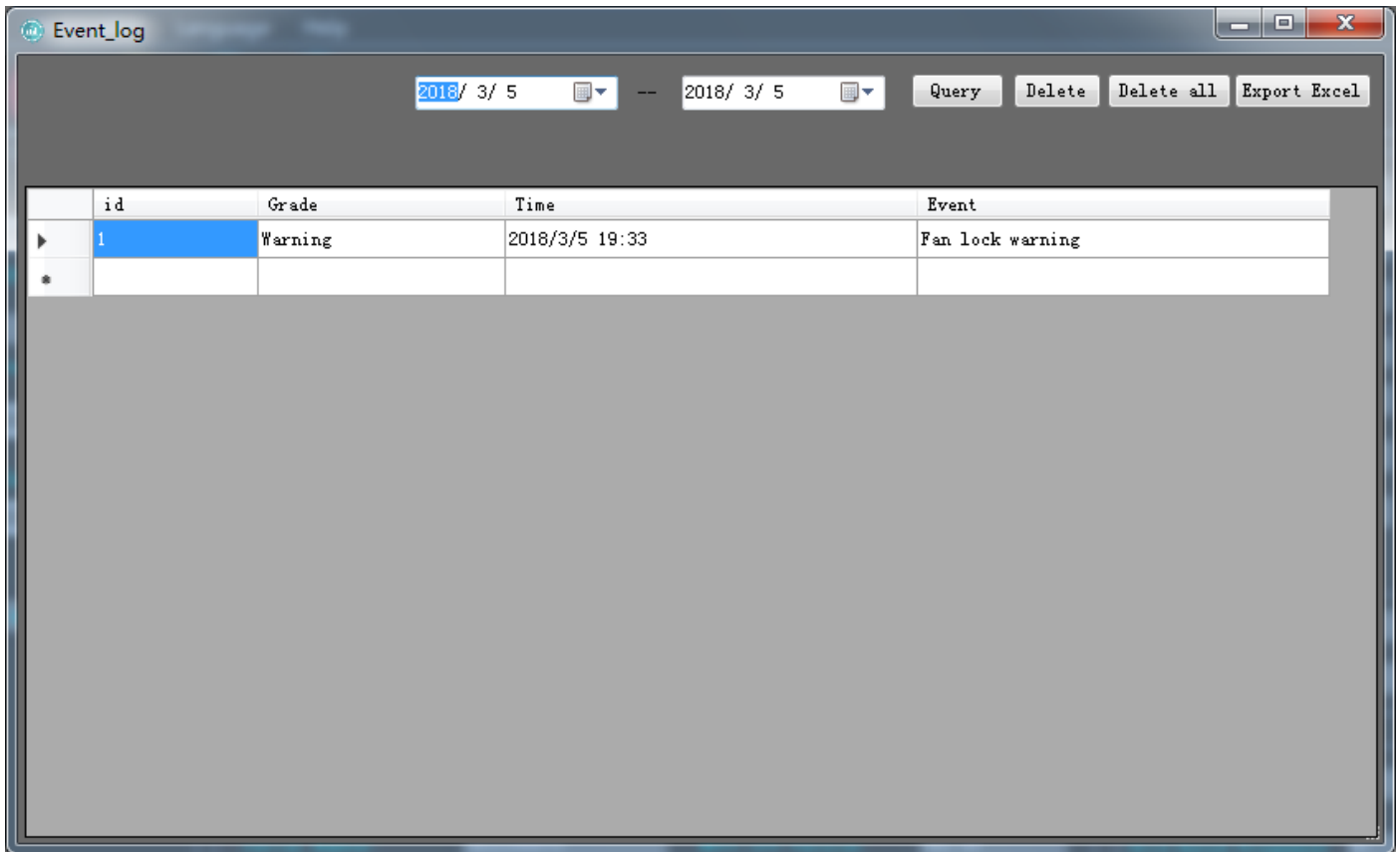


id	Serial	Time	Status	V_pv1	V_pv2	F_pv1	F_pv2	V_battery	Bat_Cap
7	SK12345678	2018/3/5 19:31	Discharge	0	0	0	0	50.75	100
6	SK12345678	2018/3/5 19:30	Discharge	0	0	0	0	50.74	100
5	SK12345678	2018/3/5 19:29	Discharge	0	0	0	0	50.75	100
4	SK12345678	2018/3/5 19:28	Discharge	0	0	0	0	50.75	100
3	SK12345678	2018/3/5 19:27	Discharge	0	0	0	0	50.76	100
2	SK12345678	2018/3/5 19:25	Discharge	0	0	0	0	50.76	100
1	SK12345678	2018/3/5 19:24	Discharge	0	0	0	0	50.78	100

- **“Delete”**: Select specific data and click “Delete” button to delete the record.
- **“Delete All”**: Click “Delete all” button to delete all records.
- **“Query”**: Click “Query” button to query records which the user wants to get.
- **“Export Excel”**: Click “Export”, it will save listed table to local PC in .xls file.

### 3.5 Event Log

Press  , to get the Event data of inverter saved in table.



- **“Delete”**: Select specific data and click “Delete” button to delete the record.
- **“Delete All”**: Click “Delete” button to delete all records.
- **“Query”**: Click “Query” button to query records which the user want to get.
- **“Export Excel”**: Click “Export”, it will save listed table to local PC in .xls file.