# **Modbus Web Manager**

## User Manual

Including

- Modbus Web Manager
- Webpage of Modbus web box

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## **1. Introduction**

Modbus Web Manager is a management and monitoring software for Modbus web box. Users can search and operate all Modbus web box devices in the LAN or Internet. Then, user can double click device in Modbus Web Manager to access monitoring webpage of each Modbus web box. In the monitoring webpage, it can monitor and operate up to 247 modbus devices. The major function of Modbus Web Manager includes parameter setting for modbus devices, password change and Modbus setting.



## 2. Install, Quick Start and Uninstall

Supported OS:

- Windows 2000
- Windows XP/2003/Vista/2008/2012 (32-bit & x64-bit)
- Windows 7 (32-bit & x64-bit)
- Windows 8 (32-bit & x64-bit)

#### 2.1 Software Installation

Step 1: Click install file, it will display the installation in process. Refer to the diagram

2-1.



Diagram 2-1

Step 2: Choose wanted language and click "OK" as diagram 2-2.



Diagram 2-2

Step 3: Click "Next" to proceed to the next screen as Diagram 2-3.



Diagram 2-3

Step 4: Click "Choose" button to change the default folder. After choosing the installed folder, click "Next" button. Refer to the following diagram 2-4.

🐙 Bodbus Teb Banager	
	Choose Install Folder
<ul> <li>Introduction</li> <li>Choose Install Folder</li> <li>Choose Shortcut Folder</li> <li>Pre-Installation Summary</li> <li>Installing</li> </ul>	Please choose a destination folder for this installation.
Install Complete	Where Would You Like to Install?
	C:\Program Files\Modbus Web Manager
	<u>R</u> estore Default Folder Ch <u>o</u> ose
InstallAnywhere <u>Cancel</u>	Previous <u>N</u> ext

Diagram 2-4

Step 5: Choose the shortcut folder and click "Next" button. Refer to the following

#### diagram 2-5.



Diagram 2-5

Step 6: It will display the software summary before installation. Click "Install" button to start the installation and refer to Diagram 2-6.



#### Diagram 2-6

Step 7: Click "Done" button to confirm the installation completely.

#### Refer to Diagram 2-7.





**Note:** Please uninstall the previous version before install the new version software.

#### 2.2 Software Quick Start

The Installer will leave a shortcut icon on your desktop. Simply click the shortcut. Then it will start the software. Refer to below diagram. Or, click Start Menu >> All Programs >> Modbus Web Manager >> Modbus Web Manager.



#### 2.3 Software Uninstall

**Note:** Before uninstall software, you must stop all software programs first and then log out as "Administrator"! Otherwise it can't be uninstalled completely.

Please choose Start >> All Programs >> SNMP Web Manager >> Uninstall. Then follow the on-screen instruction to uninstall the software.

## 3. Modbus Web Manager GUI

The GUI has four sections as marked in the illustration below:

B) Modbus Web Manager	
System Settings Language Help 🛛 🗛	
IP address MAC address Company ID Short name 192.168.107.111 00-06-5D-01-0A NULL modbusWeb	Basic Info       IP settings       Online upgrade       Password management       Server IP Address         IP address
Card status: Card reset enable Reset	Short name Select device Select all Apply
Add	D

Diagram 3-1

**A. Function menu** offers complete tool-set for navigating and setting the GUI.

**B. Device list** can list down all Modbus web box devices.

**C. Configuration area** includes basic Info, IP settings, online upgrade, password management and server IP address.

D. Output window displays all messages for operations

#### 3.1 Device List

The default value in device list would be current PC IP address. For example, if IP address of current PC is "192.168.102.10", it will display "192.168.102" in list when first enabling Modbus Web Manager

#### 3.2 Scan

You may enter specific IP address or IP subnet. Then, click "Scan" button to search.

• Multiscan Scan: You may find physically connected device in another IP subnet. For

example, you may use multiscan method to find the device located in 192.168.102.105 from 192.168.107 IP subnet. If so, you only can configure IP settings for this device. Refer to diagram 3-2.

📳 Modbus Web Manager		
System Settings Language Help		
		7
IP address MAC address Company ID	Short name	Basic Info IP settings Online upgrade Password management Server IP Address
192.168.107.111 00-06-5D-01-0A NULL	modbusWeb	
192.168.102.105 00-06-5D-01-0A NULL	modbusWeb	IP address
		MAC address
		Company ID
		Short name
		Select all
		Apply
Card status: Card reset enable	Reset	
192.168.107 Scan		
Add		Output window
Del		

#### Diagram 3-2

• Normal scan: It can scan all devices in the same IP subnet.

**NOTE:** Modbus web box is able to be scanned via 41222, 41220 and 51220 ports in Modbus Web Manager. Please be sure that UPD protocol is allowed to through firewall via these ports.

#### 3.3 Add IP Address

Click "Add" button and it will pop up a window to ask for entering specific IP address. Then, click "Apply" button to add IP address (Subnet). Refer to Diagram 3-3.



Diagram 3-3

#### 3.4 Delete IP Address

Select unnecessary IP address from list and click "Del" button to delete from list.

#### 3.5 Open Web Server Page

Double click device from list to open web server page. Refer to Diagram 3-4. Please also refer to Chapter 5. Modbus Webs Server Page for the details.

😫 Modbus Web Manager	
System Settings Language Help	
IP address MAC address Company ID Short name	
192.168.107.111 00-06-5D-01-0A NULL modbusWeb	Basic miller Settings Chiline upgrade Password management Server IP Address
192.168.102.105 00-06-5D-01-0A NULL modbusWeb	IP address
	MAC address
	Company ID
	Short name
	<ul> <li>Select device</li> </ul>
	<ul> <li>Select all</li> </ul>
	Apply
Card statue:	
	-
192.168.107 Scan	
bb	Output window
Dei	

Diagram 3-4

#### 3.6 Card Status

If selected one IP from IP list, it will display 0 or 1 for card status. If Modbus web box is operated normally, it will display 1. If it is requested program upgrades, it will display 0. If none is selected, it will display "--- " as default. Refer to diagram 3-5.

Modbus Web Manager				
rstem Settings Language Help				
IP address MAC address Company ID Sho	rt name Basic Info IF	settings Online up	grade Password managemer	t Server IP Address
192.168.107.111 00-06-5D-01-0A NULL modbu	Web			
	IP address	s 192.168.107.111		
	MAC address	s 00-06-5D-01-0A-B	7	
	Company IE	D NULL		
	Short name	e modbusWeb		
		<ul> <li>Select device</li> </ul>		
		🔵 Select all		
		An	nlv	
Card status: 1 Card reset enable	tot	<u> </u>		
192.168.107 Scan				
Add	Output window			
Del	[16:45:54] 192.16	68.107.111 Online su	ccessfully.	
	[16:45:54] 192.16	68.107.111 Online su	ccessfully.	

Diagram 3-5

#### 3.7 Reset

If it's necessary to reset selected device, please select the "Card reset enable" and click on the "Reset" button. Then, after confirming the login, it can be reset the device. Steps are as follows:

Step1: Selected device which is needed to reset from IP list. Refer to Diagram 3-6.

<b>g) Modbus Web Manager</b> Bystem Settings Language Help	
IP address MAC address Company ID Short name 192.168.107.111 00-06-5D-01-0A NULL modbusWeb	Basic Info       IP settings       Online upgrade       Password management       Server IP Address         IP address       192168.107.111       MAC address       00-06-5D-01-0A-B7         Company ID       NULL       Short name       modbusWeb         Image: Select device       Select device       Select all
Card status: 1 Card reset enable Reset	Output window [16:45:54] 192.188.107.111 Online successfully. [16:45:54] 192.168.107.111 Online successfully.

#### Diagram 3-6

**Step2:** Click "Card reset enable". Then, "Reset" button will become available to click. Refer to Diagram 3-7.

🖳 Modbus Web Manager							
System Settings Language He	lp						
						~	
IP address MAC addr	ess Company ID	Short name	Basic Info	IP settings	Online upgrade	Password management	Server IP Address
192.108.107.111 00-00-5D-0	-OR NOLL	moubusiveb	ID oddr	00 400 40	0.4.07.444		
			IF addre	55 192.10	8.107.111		
			MAC addre	ss 00-06-8	5D-01-0A-B7		
			Company	ID NULL			
			Shortna	ne modbu	sWeb		
				🖲 Se	lect device		
				🔵 Se	lect all		
					Apply		
Card status: 1	<ul> <li>Card reset enable</li> </ul>	Reset					
192.168.107	Scan						
	Add		-Output window-				
	Del		[16:45:54] 192	168.107.111	Online successfu	lly.	
			[10.45.54] 192	108.107.111	Online successiu	iny.	

Diagram 3-7

**Step 3:** Click "Reset" button and it will prompt to confirm this operation. Refer to Diagram 3-8.

🖞 Modbus Web Manager					
System Settings Language Help					
IP address MAC address Company ID Short name	Basic Info IP settings Online upgrade Password management Server IP Address				
192.168.107.111 00-06-5D-01-0A NULL modbusWeb					
	IP address 192.168.107.111				
	MAC address 00-06-5D-01-0A-B7				
	Company ID NULL				
	Short name and huntitle				
	Relation				
Confirm					
	Apply				
Card status: 1 🔽 Card reset enable Reset					
	Yes No				
192.168.107 Scan					
Add	Output window				
Del	[16:45:54] 192.168.107.111 Online successfully.				
	[16:45:54] 192.168.107.111 Online successfully.				

Diagram 3-8

Step 4: Click "Yes". Then, it will prompt to ask log in first. If clicking "Cancel", it will stop this

#### operation. Refer to Diagram 3-9.

tem Settings La	nguage Help			
IP address 192.168.107.111	MAC address 00-06-5D-01-0A	Company ID NULL	Short name modbusWeb	Basic Info IP settings Online upgrade Password management Server IP Address IP address 192168.107.111 MAC address 00-06-5D-01-0A-B7 Company ID NULL Short name modbusWeb © Select device
Card s	tatus: 1 🔽	Card reset enable	Rese	Please login first       Apply         ord          Login       Cancel         Output window       [16:45:54]         [16:45:54]       192.168.107.111         Online successfully.       [16:50:16]         [16:50:16]       192.168.107.111: Wrong password entered. Please retry to logon.

Diagram 3-9

**Step 5:** Please enter password and click "Login" button. Then, selected device will be reset.

### 4. Modbus Web Manager Function Menu

#### 4.1 System

#### 4.1.1 Login

When remote access Modbus web box devices, it's requested to verify password first.

The default password is "12345678".

Step 1: Select system >> Login

**Step 2:** Enter default password and click "Login" button. Or click "Cancel" button to stop. Refer to Diagram 4-1.



Diagram 4-1

#### 4.1.2 Logout

Select System >> Logout to log out the software.

#### 4.1.3 Quit

Select "Quit" to exit Modbus Web Manager.

#### 4.2 Setting

#### 4.2.1 Basic Info

Basic information includes IP address, Mac address, company ID and short name. You may enter company ID and short name to set up basic information. Refer to Diagram 4-2.

🗒 Modbus Web Manager	
System Settings Language Help	
IP address MAC address Company ID Short name	Basic Info IP settings Online upgrade Password management Server IP Address
192.168.107.111 00-06-5D-01-0A NULL modbusWeb	
	IP address 192.168.107.111
	MAC address 00-06-5D-01-0A-B7
	Company ID NULL
	Short name modbusWeb
	<ul> <li>Select device</li> </ul>
	<ul> <li>Select all</li> </ul>
	Apply
Card status: 1 Card reset enable Reset	
103 460 407	
192.108.107	
Add	Output window
Del	[16:45:54] 192.168.107.111 Online successfully.
	[16:50:16] 192.168.107.111: Wrong password entered. Please retry to logon.
	[16:51:22] 192.168.107.111 Online successfully.
	[16:51:22] 192.168.107.111 Online successfully.
	[16:51:22] 192.168.107.111 Online successfully. [16:51:22] 192.168.107.111 Online successfully.

Diagram 4-2

#### 4.2.1 IP Setting

There are two methods to obtain IP address:

- Automatically obtain IP address (DHCP)
- Using a static IP address

System will use DHCP as default setting. If this of service is not provided in LAN, the initial IP address will be default displayed as "192.168.102.230", Net mask as "255.255.255.0" and default gateway as "0.0.0.0". Refer to Diagram 4-3.

<b>Modbus Web Manager</b> em Settings Language Help	
IP address MAC address Company ID Short name I92.168.107.111 00-06-5D-01-0A NULL modbusWeb Card status: 1 Card reset enable Reset 192.168.107 Scan Add Del	Basic Info       IP settings       Online upgrade       Password management       Server IP Address         MAC address       00-06-6D-01-0A-87 <ul> <li>Automatically obtain IP address</li> <li>Use a static IP address</li> <li>IP address</li> <li>IP address</li> <li>IP address</li> <li>192.168.107.111</li> </ul> Subnet mask         255.255.255           Default Gateway         192.168.107.254           Apply           Output window           [16.45.54]         192.168.107.111 Online successfully.           [16.45.54]         192.168.107.111 Online successfully.           [16.50:16]         192.168.107.111 Online successfully.           [16.51:22]         192.168.107.111 Online successfully.           [16.51:22]         192.168.107.111 Online successfully.         16.51:22]         192.168.107.111 Online successfully.           [16.51:22]         192.168.107.111 Online successfully.         16.51:22]         192.168.107.111 Online successfu

Diagram 4-3

#### 4.2.2 Online Upgrade

There are three methods for online upgrade:

- Upgrade the selected devices: It will upgrade selected devices listed on the window.
- Upgrade all un-upgraded devices: It will only upgrade devices which are not using the same version as current one.
- Force to upgrade all devices: No matter what kinds of version are used for devices listed in the window list, it will upgrade all devices. Refer to Diagram 4-4.

Diagram 4-4

**Step 1:** Enter IP address of FTP server

**NOTE:** If Modbus web box is located in the same LAN with current computer, simply enter IP address of current computer into the IP address column. If Modbus web box is located in the same domain with current computer, simply enter internet address of current computer.



📑 Modbus Web Manager	
System Settings Language Help	
IP address MAC address Company ID Short name Basic Info IP settings Online upgrade Passwor	d management Server IP Address
FTP server IP address 192.168.107.11	
Open 🔀	Browse
Look in: 🗁 Modbus web 💌 🝙 🏠 🚰 🧱 🏢	rice
0627-00.S19	devices
	:es
Card status: 1	
192.168.107	
File Name: 0627-00.S19	
File Of Type: All Files	
Open Cancel	ase retry to logon.
[16:51:22] 192.168.107.111 Online successfully. [16:51:22] 192.168.107.111 Online successfully.	ʻ

Diagram 4-5

**Step 3:** Click "Upgrade" button to execute upgrade action. Refer to Diagram 4-6.

Settings Language Help	
IP address MAC address Company ID Short name	Basic Info IP settings Online ungrade Password management Server IP Address
168.107.111 00-06-5D-01-0A NULL modbusWeb	
	FTP server IP address 192.168.107.11 👻
	Target file path D:\Modbus web\0627-00.S19 Browse
	Upgrade the selected device
	O Upgrade all un-upgraded devices
	<ul> <li>Force to upgrade all devices</li> </ul>
	31%
Card status: 1 Card reset enable Reset	Upgrade Cancel
192.168.107 Scan	r Output window
Add	[17:19:48] 192.168.107.111 Online successfully.
	[17:19:51] Communication fails. Please check your network. [17:19:51] 192168107111 Online successfully
	[17:19:51] 192.168.107.111 Online successfully.
	[17:19:51] 192.168.107.111 Online successfully. [17:19:51] 192.168.107.111 Online successfully.
	[17:19:55] 192.168.107.111: Ready to upgrade for the 1 time.
	[17:20:00] 192.168.107.111: Start formatting. [17:20:05] 192.168.107.111: Formatting is completed.
	[17:20:05] 192.168.107.111: Upgrading files. Please wait.

Diagram 4-6

Step 4: You can see the upgrade is progressed. When upgrade is complete, you may check

the message in output window. Refer to Diagram 4-7,

🕎 Modbus Web Manager	
System Settings Language Help	
IP address MAC address Company ID Short name	Basic Info IP settings Online upgrade Password management Server IP Address
192.168.107.111 00-06-5D-01-0A NULL modbusWeb	
	FTP server IP address 192.168.107.11 💌
	Target file path D:\Modbus web\0627-00.S19 Browse
	<ul> <li>Upgrade the selected device</li> </ul>
	O Upgrade all un-upgraded devices
	<ul> <li>Force to upgrade all devices</li> </ul>
	100%
Card status: 1 Card reset enable Reset	Upgrade Cancel
192.168.107 Scan	
Add	Output window
	[17:19:51] Communication fails. Please check your network.
	[17:19:51] 192.168.107.111 Online successfully. [17:19:51] 192.168.107.111 Online successfully.
	[17:19:51] 192.168.107.111 Online successfully.
	[17:19:51] 192.168.107.111 Online successfully.
	[17:19:55] 192.168.107.111: Ready to upgrade for the 1 time.
	[17.20.00] 192.168.107.111. Start formatting. [17:20:05] 192.168.107.111: Formatting is completed
	[17:20:05] 192.168.107.111: Upgrading files. Please wait.
	[17:20:15] 192.168.107.111: Upgrade is completed.

Diagram 4-7

**NOTE:** If abnormal situation occurs during upgrade process, the system will automatically re-start the upgrade operation. If this interruption occurs five times, then system

will automatically stop this operation. At this time, please check if LAN is working fine.

#### 4.2.3 Password Management

You may modify single password for one Modbus web box device or all passwords for all Modbus web box devices. Refer to Diagram 4-8.

🖳 Modbus Web Manager	
System Settings Language Help	
IP address MAC address Company ID Short name	Pasis Infe UD settings Online ungrade Decouverd management Couver ID (ddyses
192 168 107 111 00-06-5D-01-0A- NULL modbusWeb	Basic into TP settings Online upgrade Password management Server IP Address
	Password
	Old password
	New password
	Confirm password
	Select device
	Selectali
Card status: 1 Card reset enable Reset	Apply
192.168.107 Scan	
Add	Output window
	[17:19:55] 192.168.107.111: Ready to upgrade for the 1 time.
	[17:20:00] 192.168.107.111: Start formatting.
	[17:20:05] 192.168.107.111: Formatting is completed.
	[17/20:05] 192.168.107.111: Upgrading files. Please wait. [17:20:15] 192.168.107.111: Upgrade is completed
	[17:20:39] 192.168.107.111 Online successfully.
	[17:20:39] 192.168.107.111 Online successfully.
	[17:20:40] 192.168.107.111 Online successfully.
	[17:20:40] 192.168.107.111 Online successfully.
	[17:20:51] 192:168:107:111: Operation success

Diagram 4-8

Two methods to modify password.

- Select device: Choose to change password for selected Modbus web box device in the window list.
- Select all: Choose to change passwords for all Modbus web box devices in the window list.

Operation step: Enter original password, new password, and re-enter new password to confirm. Then, click "Apply" button to complete password change.

NOTE: The length of password is 8~15 digits. If the password change is applied to all Modbus web box devices, the original passwords for all Modbus web box devices must be consistent.

#### 4.2.4 IP Address of Server

It's to allow Modbus web box devices to send data to Data Center. And this data center should be installed with SolarPower Data Center software. For details, please refer to "Data Center user manual". Refer to Diagram 4-9.

	Modbus Web Mana	ager								🗙
S)	stem Settings La	nguage Help								
Г										
	IP address	MAC address	Company ID	Short name		Basic Info	IP settings	Online upgrade	Password management	Server IP Address
	192.168.107.111	00-06-5D-01-0A	NULL	modbusWeb		1				۲ ۲ ۲
						Server IP /	\ddress			
						IR add		0		
						ir auu	.0.0			
							· · · · ·	Accept sending dat	ta to server	
							•	Select device		
							0.8	Select all		
									Apply	
	Card s	tatus: 1	Card reset enable	Reset						
	192.168.1	107	Scan							
			Add		-0	utput window				
			Del		[1	7:20:05] 19:	2.168.107.111	I : Formatting is cor	npleted.	
			Der		[1	[7:20:05] 19: [7:20:16] 19:	2.168.107.111	I : Upgrading files. I L: Upgrade is somr	Please wait.	
					[1	[7:20:39] 19:	2.168.107.111	l Online successfu	illy.	
					[1	7:20:39] 19:	2.168.107.111	I Online successfu	illy.	
					[1	7:20:40] 19:  7:20:40] 19:	2.168.107.111 7.168.107.111	l Online successfu I Online successfu	illy. Illy	
					[1	[7:20:40] 13: [7:20:51] 19:	2.168.107.111	I: Operation succession	ss	
					[1	7:21:11] 19:	2.168.107.111	I Online successfu	lly.	≡
					[] [1	[7:21:11] 19:	2.168.107.111	I Online successfu	illy.	-

Diagram 4-9

#### Server IP Setting:

Enter server IP address and click "Accept sending data to server". Then, click "Apply" button. Refer to diagram 4-10.

- Select device: Choose selected device to send data to server.
- Select all: Choose all devices to send data to server.

📑 Modbus Web Manager	
System Settings Language Help	
IP address MAC address Company ID Short name 192.168.107.111 00-06-5D-01-0A NULL modbusWeb	Basic Info IP settings Online upgrade Password management Server IP Address Server IP Address IP address IP address IP address Select device Select device
Card status: 1 Card reset enable Reset	Output window
	[17:20:05]       192:168.107.111: Formatting is completed.         [17:20:05]       192:168.107.111: Upgrading files. Please wait.         [17:20:15]       192:168.107.111: Upgrading files. Please wait.         [17:20:39]       192:168.107.111: Online successfully.         [17:20:40]       192:168.107.111 Online successfully.         [17:20:40]       192:168.107.111 Online successfully.         [17:20:41]       192:168.107.111 Online successfully.         [17:20:41]       192:168.107.111 Online successfully.         [17:21:11]       192:168.107.111 Online successfully.

Diagram 4-10

**NOTE:** Modbus web box is able to communicate with Data Center Server via 52330 and 52331 ports. Please be sure that UPD protocol is allowed to through firewall via these ports.

#### 4.3 Language

12 languages are supported in Modbus Web Manager software:

- $\sqrt{\text{Chinese}(\text{Simplified})}$
- $\sqrt{}$  Chinese(Traditional)
- $\checkmark$  English
- √ German
- $\checkmark$  Italian
- $\checkmark$  Polish
- $\checkmark$  Portuguese
- $\checkmark$  Russian
- $\checkmark$  Spanish
- $\checkmark$  Turkish
- 🗸 Ukrainian
- $\checkmark$  French

#### 4.4 Help

- **About:** Click "Help" menu and select "About". It will present the version and copyright information about software
- **Help**: Click "Help" menu and select "System help". It will access user manual. Before operating software, please read manual carefully.

## 5. Webpage of Modbus web box

Please double click Modbus web box device. Refer to Diagram below. Then, it will enter webpage of each Modbus web box.

🗒 Modbus Web Manager	
System Settings Language Help	
IP address MAC address Company ID Short name	Basic Info IP settings Online upgrade Password management Server IP Address
192.168.107.111 00-06-5D-01-0A NULL modbusWeb	
	Server IP Address
	IP address 192.168.107.101
	Accent sending data to server
	Salart davire
	Apply
Card status: 1 Card reset enable Reset	
192.168.107 Scan	
	Output window
Add	[17:20:05] 192 168 107 111: Formatting is completed.
Del	[17:20:05] 192.168.107.111: Upgrading files. Please wait.
	[17:20:15] 192.168.107.111: Upgrade is completed.
	[17:20:39] 192.168.107.111 Online successfully.
	[17:20:40] 192.168.107.111 Online successfully.
	[17:20:40] 192.168.107.111 Online successfully.
	[17:20:51] 192.168.107.111: Operation success
	[17:21:11] 192.168.107.111 Online successfully.
	[17:21:11] 192:168:107:111 Online successfully.

#### 5.1 Status

Select "Status" from left tool bar. It will display basic information of this unit, including modbus ID, device status, PV voltage, today total grid power, today total energy, total accumulated energy and so on. Refer to Diagram 5-1.

🖉 Modbus Web Server - Windows	Intern	et Explorer							
🔆 🗢 🖉 http://192.168.107.1	11/					▼ 🗟 49	🗙 ಶ Live Search	P •	
File Edit View Favorites Tools	Help								
🔶 Favorites 🏾 🏉 Modbus Web Server							• 🗟 • 🖃 🖶 •	Page 🔹 Safety 🔹 Tools 👻 🔞 🔹 🖄	
Modbus Web Server					Statu	<b>S</b> Login Gu	uest <b>Syste</b> m	1 Time: Thu Jun 27 02:35:28 PDT 2013	
Status Password management Modbus setting Batch parameter setting	Tod CO.	lay total grid pov 2 emission reduc	ver: 22 ction: 11	W To .16 kg Re	day total energy: Iative forest area:	0.15 kWh 12.4 m²	Total accumulate Save money on e	d energy: 18 kWh lectricity: 149.866 NTD	
No. Modbus ID Status			PV1 Voltage	PV2 Voltage	Grid Power	Today Energy	Accumulated Energy		
	1	modbus[1]		220.1 Vdc	4.4 Vdc	22 W	0.15 kWh	18 kWh	
								=	
Done							👩 🍚 Internet	✓ € 100% •	

#### Diagram 5-1

If any event occurs to the device, the status indicator will become yellow or red. Simply click LED icon to enter event list screen. It will list detailed event in table format. Refer to Diagram 5-2.

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Modbus Web Server			Status Login Guest System Time: Thu Jun 27 02:41:54 PDT 2013
Status	Modbus ID	Time	Event name
Password management	modbus[1]	00/00/2000 00:00:03	Over temperature fault
Modbus setting	modbus[1]	00/00/2000 00:00:03	Input PV is found lost
Batch parameter setting	modbus[1]	00/00/2000 00:00:03	Power grid voltage falls below the lower threshold
	modbus[1]	00/00/2000 00:00:03	Power grid frequency falls below the lower threshold
	modbus[1]	00/00/2000 00:00:03	Input PV1 is found lost
Done			M P Internet

Diagram 5-2

#### 5.2 Password Management

Select "Password management" from left tool bar. It's to modify password. Refer to Diagram 5-3.

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Modbus Wob Sonior				
			Password Login Guest	System Time: Thu Jun 27 02:35:48 PDT 2013
<b>0</b>				
Status Password management		Passwor	d Setting	
Modbus setting				
Batch parameter setting	Old password: *		password should be made of numb	ers or letters
	New password: *		password should be made of numb	iers or letters
	Confirm password: *		password should be made of numb	ers or letters
		Apply Reset		
Done				🍠 Internet 🦷 🔹 🔩 100% 🔹 🛒

Diagram 5-3

#### 5.3 Modbus Setting

Select "Modbus setting" from left tool bar. It's to set up Baud rate, Data bit, Stopbit and Parity for selected modbus ID. There are shortcut groups from certain range ( $1 \sim 30$ ,  $31 \sim 60$  and so on) to all for quick selection. Refer to Diagram 5-4.

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Modbus Web Server Modbus setting Login Guest System Time: Thu Jun 27 02:36:03 PDT																
Status Password management	Baud rat	e: 1920	0 🕶 D	ata bit: [	8 ❤ s	top bit: 1	Ƴ Pa	rity: NOI	VE 🗸	Apply						^
Modbus setting Batch parameter setting	us setting         shortcut selected:         select All         1~30         31~60         61~90         91~120         121~150         151~180         181~210           ameter setting         211~247         modbusID:         1															
	<b>☑</b> 1	2	3	4	5	6	7	8	9	10	11	12	13	14	<b>1</b> 5	]
	<b>1</b> 6	17	18	🗖 19	20	21	22	23	24	25	26	27	28	29	30	=
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	<b>60</b>	
	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	
	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	
	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	
	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	
	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	
	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	
	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	
	166	167	168	169	170	171	172	173	174	175	🛄 176 🖥 🎱 Inte	177 Innet	178	179	180	• .:

Diagram 5-4

#### 5.4 Batch Parameter Setting

Select "Batch parameter setting" from left tool bar. For detailed setting, please check local dealer. Refer to Diagram 5-5.

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Modbus Web Server	<ul> <li>All machine must be the same model.</li> <li>Buzzer alarm          <ul> <li>Enable</li> <li>Disable</li> <li>Apply</li> </ul> </li> <li>Min.grid-connected voltage: 182         <ul> <li>Max.grid-connected voltage: 265</li> <li>Min.grid-connected frequency: 60.5</li> <li>Max.output power: 3000</li> <li>Start LCD screen-saver after: 60         </li> </ul> </li> </ul>	Parameter Logn Cuest       System Time: Thu Jun 27 02:40:03 PDT 2013         Mute the buzzer in the Standby mode <ul> <li>Enable</li> <li>Disable</li> <li>Apply</li> <li>Kapply</li> <li>The waiting time before grid-connection: 300 Sec. (Apply)</li> <li>Hz (Apply)</li> <li>Min.PV input voltage: 90 V (Apply)</li> <li>Hz (Apply)</li> <li>Min.PV input voltage: 510 V (Apply)</li> <li>Min.MPP voltage: 120 V (Apply)</li> <li>Max.MPP voltage: 450 V (Apply)</li> <li>default</li> </ul> Apply         Max.MPP voltage: 450 V (Apply)           Max.MPP voltage: 450 V (Apply)         Max.MPP voltage: 450 V (Apply)								
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Diagram 5-5

## 6. Mobile Monitoring

Users can remote access this webpage of web server via mobile phone. Simply open browser and enter <u>http://XXX.XXX.XXX.XX</u>. For example, you may enter "<u>http://192.168.107.97</u>". Refer to Diagram 6-1.

192.168.107.97/ C Google									
Modbus Web Server					Status Login Guest	System Time	: Thu Jan 17 2013 15:2	8:35 GMT+0800	
Status Password management Modbus setting	Today CO2 e	total grid power: mission reduction:	21155 W 758643.6	/ Today tota 54 kg Relative fo	l energy: 3273.22 rest area: 1954048	kWn Totala .485 Savem	ccumulated energenergenergenergenergenergenergener	97: i6522 kWh (ty: i2869.8 NTD	
Batch parameter setting	No.	Modbus ID	Status	PV1 Voltage	PV2 Voltage	Grid Power	Today Energy	Accumulated Energy	
	1	modbus[1]		234.2 Vdc	123 Vdc	615 W	13.42 kWh	11652 kWh	
	2	modbus[2]		234.1 Vdc	122.8 Vdc	614 W	13.419 kWh	11651 kWh	
	3	modbus[3]		234 Vdc	122.6 Vdc	613 W	13.418 kWh	11650 kWh	
	4	modbus[4]		233.9 Vdc	122.4 Vdc	612 W	13.417 kWh	11649 kWh	
	5	modbus[5]		233.8 Vdc	122.2 Vdc	611 W	13.416 kWh	11648 kWh	
	6	modbus[6]		233.7 Vdc	122 Vdc	610 W	13.415 kWh	11647 kWh	
	7	modbus[7]		233.6 Vdc	121.8 Vdc	609 W	13.414 kWh	11646 kWh	
	8	modbus[8]		233.5 Vdc	121.6 Vdc	608 W	13.413 kWh	11645 kWh	
	9	modbus[9]		233.4 Vdc	121.4 Vdc	607 W	13.412 kWh	11644 kWh	
	10	modbus[10]		233.3 Vdc	121.2 Vdc	606 W	13.411 kWh	11643 kWh	
	11	modbus[11]		233.2 Vdc	121 Vdc	605 W	13.41 kWh	11642 kWh	
	12	modbus[12]		233.1 Vdc	120.8 Vdc	604 W	13.409 kWh	11641 kWh	
	13	modbus[13]		233 Vdc	120.6 Vdc	603 W	13.408 kWh	11640 kWh	
	14	modbus[14]		232.9 Vdc	120.4 Vdc	602 W	13.407 kWh	11639 kWh	
	15	modbus[15]		232.8 Vdc	120.2 Vdc	601 W	13.406 kWh	11638 kWh	
	16	modbus[16]		232.7 Vdc	120 Vdc	600 W	13.405 kWh	11637 kWh	
	17	modbus[17]		232.6 Vdc	119.8 Vdc	599 W	13.404 kWh	11636 kWh	
	18	modbus[18]		232.5 Vdc	119.6 Vdc	598 W	13.403 kWh	11635 kWh	
	19	modbus[19]		232.4 Vdc	119.4 Vdc	597 W	13.402 kWh	11634 kWh	
	20	modbus[20]		232.3 Vdc	119.2 Vdc	596 W	13.401 kWh	11633 kWh	
	21	modbus[21]		232.2 Vdc	119 Vdc	595 W	13.4 kWh	11632 kWh	
	22	modbus[22]		232.1 Vdc	118.8 Vdc	594 W	13.399 kWh	11631 kWh	
	23	modbus[23]		232 Vdc	118.6 Vdc	593 W	13.398 kWh	11630 kWh	
	24	modbus[24]		231.9 Vdc	118.4 Vdc	592 W	13.397 kWh	11629 kWh	
	25	modbus[25]		231.8 Vdc	118.2 Vdc	591 W	13.396 kWh	11628 kWh	
	26	modbus[26]		231.7 Vdc	118 Vdc	590 W	13.395 kWh	11627 kWh	
	27	modbus[27]		231.6 Vdc	117.8 Vdc	589 W	13.394 kWh	11626 kWh	
	28	modbus[28]		231.5 Vdc	117.6 Vdc	588 W	13.393 kWh	11625 kWh	
	29	modbus[29]		231.4 Vdc	117.4 Vdc	587 W	13.392 kWh	11624 kWh	
	30	modbus[30]		231.3 Vdc	117.2 Vdc	586 W	13.391 kWh	11623 kWh	
	31	modbus[31]		231.2 Vdc	117 Vdc	585 W	13.39 kWh	11622 kWh	

Diagram 6-1