# **Power Control Recorder User Manual**

Model: PWX-103 Wiring Terminal Connects

# Power Monitor Control Recorder PWX-103 Wire Connect



**Primestar Energy** 

WiFi Remote Contol / Power Data Recording Charts

Updated: 2023.8.10

## 1. Introduction



- > Turn Off the AC Power Line Breaker : Please make sure the main power line already off-line for electrical operation safety issues.
- > AC Power Input : Connect the AC power to AC INPUT, AC110V as Line + N and AC220V for L1 + L2 to upper input terminal. And power outputs connect to down side AC Control Outlets #1, #2, #3.
- > AC Direct Output : Upper AC output is directly power output but all through C.T. Current Sensor includes all AC control outlets of power monitors.

- > FUSE 15A : The safety output load is AC110V 15A for 1.5KW and AC220V 10A for max. 2KW, or fuse will break-off.
- > Blue Common Connect : The Blue Lines in figuration shows the Common Connects of AC layouts.
- > WiFi Antenna : The additional WiFi antenna will increase 10% WiFi range, also user may cut-it off if necessary, there's internal antenna works for duel antennas.
- > AC Control Outlets : The down side 3-control outlets terminals for Con #1 / #2 / #3 are user controlled AC outputs.
- > AC Power On-Line : After make sure correct power connects and back AC power on, The red power LED will on, and green WiFi LED will flash when WiFi linking, that's system already working.
- > Use Pad / Cell phone to setup PWX-103 for home WiFi SSID / Passwords first : First time use need to input the home WiFi SSID / Password for PWX-103 then could allows for the WiFi data communications.
- > Scan QR Code on top PWX-103 for quickly link : After user inputs Home WiFi SSID setup completed, any time user may scan the on-top QR Code or use web shirt-cut path to visit the PWX-103 web pages all time.
  - (The WiFi IP address example like\_ 192.168.1.25 was provided from home WiFi router when proceed WiFi SSID setup, to accept the PWX-103 WiFi data links.)

## 2. Installation



Web Design for both Computer, Pad and Mobile phone can be used

#### > 1. Connect the AC power line and power-on :

The model PWX-103 power line works for AC100V - 250V. When AC power-on, the Red LED On and WiFi link LED flashed that system ready works. If it's not, please check the fuse and AC power inputs first.

#### > 2. Connect Control outputs to home automations :

The 3-Control outputs for user's home automation controls and power monitors, Through the web pages control PWX-103 after WiFi setup complete. User just link to PWX-103 web IP address or scan the Top QR Code of model ID then into the web control pages as shown.

#### > 3. Scan Top QR code for quick link web pages of PWX-103 :

After WiFi SSID & Password setup ready, User may scan top QR-Code for quick open browser and auto link to PWX-103 web control pages, The QR-Code contains PWX-103 chip ID that responds web link address. IP link address was get from the user's home WiFi routers.

# 3. First time WiFi Setting

- > Clear the old WiFi setup : User may clear the previous WiFi setting data by press the WiFi ID button for 10 seconds until the WiFi LED On then return to original status.
- > Log-in the PWX-103 WiFi hot spot : Turn on the WiFi hot spot search function, search the PWX-103 hot spot entrance like this ...



- > "ESP32\_XXXXX" The head ESP32 WiFi hot spot is the PWX-103 chip ID please select it for enter WiFi configuration.
- > System will show there is no internet service but it is ok, we just only use it to input your home WiFi SSID & Password only needed.

> Scan the top QR-Code machine ID or link 192.168.4.1 for WiFi configuration\_



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# WiFiManager





- Scan the top QR Code of machine ID, use browser to open web page for WiFi Manager proceed WiFi configuration.
- > Or directlly type IP address\_
   192.168.4.1 into WiFi Manager page.

#### > NOTICES:

Now procedures only available when user already find the ESP32 wifi services.

If it 's not showed, please back previously step to choice the ESP32\_xxx for WiFi service again to complete web setting.

> Enter the ESP32 WiFi Manager and select <Configure WiFi > for PWX-103 for home WiFi router connect setting. 19:59 🖪

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### SSID

TP-LINK\_60EE50

#### Password

•••••

### Show Password



Select your home WiFi SSID
 for PWX-103 to connect and
 enter the password then SAVED.

#### > NOTICES:

Now you selected WiFi hot spot that must be the same as later which user want to enter the PWX-103 web control functions.

If not in the same WiFi SSID router that may cause fire wall blocked and unable to link.

> The WiFi setup complete OK !

192,168,4,1

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Saving Credentials Trying to connect ESP to network. If it fails reconnect to AP to try again

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- > Shown as this means WiFi Configure completed, when next time scan QR code it will goto the control page directly.
- > When the WiFi configuration not success, or user and PWX-103 not in the same WiFi hot spot, it may cause blocked by fire wall and unable to reach PWX-103 web services.
- > When too many WiFi hot-spot at home, be sure that user operates with PWX-103 in the same WiFi SSID router to make sure the web link allowed all the time.
- > Please repeat the upper procedure to complete the WiFi SSID & Password setting.
- > Again scan top QR Code for into PWX-103's web function pages.
- > When WiFi setting complete, after scan QR code it will show the connected IP address which get from home WiFi router, and into web page automatically in user's web browser.
- > OK ! Next to web function pages !





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> WiFi Setup completed !

Congratulations, when you success enter the web control page of PWX-103, that means system had already work normally now.

 Any time user just scan the QR code then into the web page directly like this.

Or user may save the web IP address which shows on the page\_ 192.168.x.x as short-cut, then next time can into web page quickly.

- > The IP address like\_ 192.168.1.30 is the web address which get from users home WiFi router, so you may save the address as short-cut for directly open this address into the PWX-103.
- > WiFi Configuration completed OK !

# 4. Web Page Control Functions



 Hourly Power Chart Home Page, Displays today's hourly power consumption bar chart, Blue is Power Watts, Red is Power Sum in Watts / Hours.



Timer	Six User Timer Setup Page.
SETUP	User Information Setup Page.
DOWNLOAD	Charts Upload / Download File Center.
MOBILE	Cell phone Mobile pages.

Upper Real-time data:		oject na	ame: l	Jser Ho	me Automation Project name.
	IP Addres	s	192.168	.1.14	Home web connect address.
	Voltage		Home AC	power	line voltage.
	AMP		Current of	AC pov	ver line amperes.
	PWR		Maximum	powers	supply value, default is 2KWh.
	Power		Measured	power	consumption of AC Watts now.
	Rat %		The Cons	umption	/ Maximum ration %.
	Today		Today's p	ower co	nsumption summary in KWh.
	ON 1	OR	1 OFF	Manua	l On / Off Power Outlet #1
	ON 2	OR	2 OFF	Manua	l On / Off Power Outlet #2
	ON 3	OR	3 OFF	Manua	l On / Off Power Outlet #3



### > Daily / Weekly power recorded charts,



Hour Chart	Power Control Recorder								
DAY Chart	Project Los	CA U	CA UTC-8			IP	Addr 19	Addr 192.168.1.20	
Week Chart	Voltage 12	4 VAC	AMP		0.6	33	A	PWR Max.	2.00 KW
MonthChart	Power 6	8 Watt	Rat %	6	3.4	44	%	Today Sum	0.64 KWh
	2023 / 8 / 7		NOW	23 :	31	: 50	)	Info:	
				Time	r Set	tup	1		
Timer Set	Timer Group	Control		HOUR		MIN		Timer Ena	able
SETUP	Timer A	0	ON	0	:	0			
	et port de la		OFF	0	:	0			6
DOWNLOAD	Timer B	0	ON	0	:	0			
	Times C		OFF	0		0			6
	Timer C	U	OFF	0		0		- Enabl	0
	Timer D	0	ON	0		0			0
			OFF	0	1.	0		Enabl	e
	Timer E	0	ON	0	1:	0			
1.100011.0			OFF	0	:	0		Enabl	е
MOBILE	Timer F	0	ON	0	:	0			
			OFF	0	:	0		Enabl	е
								SET OK	
								(C) 2023 Prime	Star Energy Ver 1.3

> Timer Setup : Six-isolate Timers A – F for User Definition, Controls Power outlets

automatically by timer.





> User Setup : For Modify / Save user's information.

Project Name Enter the user's application name.

Capacity Enter the maximum output capacity. Default is "2000" watts.

Time Zone Setting the user's home time zone, for auto time correction.

> SET OK : Setup completed, Save user's data !

HOUR Chart	Power Monitor Data Re	corder
DAY Chart	Power Line Los Angel CA UTC-8	IP Addr 192.168.1.15
WEEK Chart MonthChart	Voltage         110         VAC         AMP         0.00         A           Power         0         Watt         Ratio %         0.00         %	PWR Max. <b>1.50</b> KW Today Sum <b>0.10</b> KWh
	2023 / 5 / 27 NOW 21 : 47 : 18	сри 0:12:18
	Upload Download Ce	nter
SET UP DOWNLOAD	중 Select File 選擇檔案 未選擇任何檔案 < Select Power*.dat record file to uplo	UPLOAD
	<ul> <li>Download Power Data Records</li> <li>Hour Chart &lt; PowerHour.dat &gt;</li> <li>Day Chart &lt; PowerDay.dat &gt;</li> <li>Week Chart &lt; PowerWeek.dat &gt;</li> <li>Month Chart &lt; PowerMonth.dat &gt;</li> </ul>	Update Download Download Download Download
MOBILE	Delete All Records, Reset Original !	(C) 2023 PrimeStar Energy Ver 1.2

> Upload / Download File Center : Hour / Day / Week / Month charts file services.

Select for Upload Upload files from user's computer to PWX-103.

SAVE Power Data Records Save & Update all files to now, before user download.

Hourly data	< PowerHour.dat >	Hour / Today	's hourly chart	File Download
Dialy data	< PowerDay.dat >	Day	Daily	File Download
Weekly data	< PowerWeek.dat >	Week	Weekly's	File Download
Monthly data	< PowerMonth.dat >	Month	Monthly's	File Download

Delete All Records, Reset !

Delete all data, reset to original status.



> Mobile pages : For Cell phone straight screen, Hourly / Daily / Week / Month data graphs, real-time information.

> When Web Page Lagged : Sometimes when the WiFi signal weak or blocked, the web page responds will delay or slowly, User may try F5 reload to refresh page again or adjust WiFi location / antenna for better connection.



## 5. Specifications

Model :	PWX-103 Power Control Monitor Recorder (Wiring Connect)			
Measurement :	Internal C.T. Current Detector			
Work Voltage :	AC 100 – 250V / 1 -15 Amp / 10W – 2,000 Watts			
Consumption :	USB 5V / 5 Watt			
Dimension :	L= 140 x W=95 x H=50 cm			
(	L= 55 x W=37 x H=20 inch )			
Weight :	300 - 450 gm / 1 pd			

# Power Control PWX-103 PWX-104 Monitor Recorder



# On-Line Shop\_ <u>https://3dok.biz/pe/shop/</u>



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