

Reading Sunpower Equipment

INVERTER PRODUCTION INFORMATION ON THE LCD SCREEN

PAC (POWER AC) - CURRENT AC POWER BEING PRODUCED BY THE SYSTEM/CURRENT STATUS AMOUNT OF POWER BEING CONSTANTLY PUT OUT BY THE SYSTEM, THIS DEPENDS ON WEATHER CONDITIONS AND LOCATION OF THE SUN.

VPV (VOLTAGE PV) – AMOUNT OF DC VOLTAGE BEING FED INTO THE INVERTER BY THE SOLAR ARRAY CONNECTED TO THE INVERTER.

E-TOTAL – ACCUMULATED ENERGY YEILD OF THE DEVICE SINCE INSTALLATION

H-TOTAL –TOTAL OPERATING HOURS SINCE THE INSTALLATION.

E-TODAY – TOTAL ENEGRY PRODUCED PER DAY (CURRENT DAY)

INVERTER LED INDICATORS:

GREEN "OPERATION" STEADY - INVERTER OPEARING NORMALY

GREEN "OPERATION" BLINKING - INVERTER PREPARING TO START OR REST.

RED "EARTH FAULT" STEADY - BLOWN FUSE INSIDE INVERTER (INVERTER WILL STOP OPERATING)

YELLOW "FAILURE" STEADY – THERE IS FAULT OF SOME KIND INSIDE THE INVERTER OR SOMEWHERE IN THE PV SYSTEM (INVERTER WILL STOP OPERATING)

RED "EARTH FAULT" AND YELLOW "FAILURE" COMBINED STEADY – INVERTER HAS DETECTED A GROUND-ING FAULT IN THE PV SYSTEM. (INVERTER WILL STOP OPERATING



SunPower Online Registration

(completed during the monitoring appointment with monitoring tech)

- Go to sunpowermonitor.com
- Select "Residential"
- Under "New User", select "Register"
- Enter the serial number of one of your inverters usually starts with 200...1 or 2001... and select "Go"
- Check your home address and select "Next"
- Fill out the registration form and select "Next"
- Check your information and accept the terms by checking the 3 boxes below the registration form and select "Register".
- Sunpower will send you a confirmation e-mail. Open your e-mail account. Click the link to confirm your e-mail account.
- The links will take you back to the sign in page. When you sign in your user name is your e-mail address.

*After you complete the online registration, you can are able to access the online Sunpower Monitoring. Go to sunpowermonitor.com, select residential, and enter your log in credentials. The username is your email address.

*If you need to retrieve your log in credentials go to sunpowermonitor.com, select residential, select "I've forgotten my password," enter your email address, and Sunpower will send your password to your email address.

SUNPOWER MONITORING

The tutorial video for Sunpower Monitoring: http://us.sunpowercorp.com/homes/products-services/monitoring/



SunPower Monitoring

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Solar Power Monitoring Systems for Your Home

When it comes to tracking the performance of your home solar power system and staying on top of your family's electricity usage, our SunPower® Monitoring System puts you in complete control. SunPower provides you with the tools you need to monitor the power your solar panels generate. And with our optional Consumption Monitoring Kit, you can also track your electricity usage, enabling you to save on energy expenses and make smart decisions for your home and family. You can watch your solar power system in action and track how the clean solar energy you've produced benefits the environment. View your energy information anytime, anywhere, with convenient access options:

Intuitive Solar Power Monitoring Website

An easy-to-use web-based interface lets you examine the solar energy your home produces and compares your SunPower solar energy output over hours, days, months, and years. Already have an account? Login now>>>

On-The-Go Monitoring

Keep track of your home's energy information wherever you are, with SunPower Monitoring for mobile devices. Share the performance of your system with friends to celebrate your low bills and clean energy production!

Solar Energy Monitoring Services

Your SunPower installer will remotely monitor your residential solar power system to ensure your system is performing optimally. If your system is not producing energy, your installer will receive an automatic notification and can diagnose problems quickly before making a service call, saving you time and money. Learn more from your SunPower dealer.









SunPower Monitoring Troubleshooting Guide

Troubleshooting Step	How to Resolve	Sample Image	Did it Work?	
Confirm that your home's internet connection is currently operational by visiting Sunpower's website at sunpowercorp.com	If not, please contact your internet service provider for help re=establishing your home's internet connection		At any point during this troubleshooting process, you	
Confirm that the Ethernet data cable is still connected to both the monitoring unit and your internet router	If the data cable is not connected, please plug it in.	2	can verify if your system has reestablished connection to the SunPower monitoring service by logging onto the SunPower Monitoring website at https:// sunpowermonitor.com and entering your account credentials in the	
Restart your internet router.	Unplug the power cable to your internet router, wait 10 seconds, and then plug it back in.		If the date displayed is the curren date, then you are reconnected.	
Restart your SunPower monitoring unit.	Unplug the power cable to your SunPower monitoring unit, wait 10 seconds, then plug it back in.		As a reminder, the email address that this guide was sent to is you username.	
Check that your inverter is operating (there will be a green LED on the front of your inverter illuminated during daylight hours).	If the inverter is not operating, or is displaying an error code, please call your installer as soon as possible to schedule a free maintenance visit. Do not attempt to open the inverter!		the website information may tak up to 30 minutes to update with your current status.	

*If the monitoring errors are not resolved, please contact Revolusun.

YOUR SUNPOWER® MONITORING SYSTEM GUIDE



MORE ENERGY. FOR LIFE."

YOUR SUNPOWER® MONITORING SYSTEM

Congratulations on your new SunPower Monitoring System! SunPower's advanced monitoring solution allows you to easily and flexibly track your solar system's performance.

You can see how much solar energy you are currently producing, review historical energy production, track the overall performance of the system, and see how much you've benefitted the environment over the lifetime of your system.

Use this guide to register and sign into your online account, learn about your monitoring system, and begin viewing your energy data and resources.

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Messages and Alerts Documents Contact Information

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HOW YOUR SUNPOWER® SOLAR SYSTEM WORKS

1. SUNPOWER® SOLAR PANELS

From sunrise to sunset, the SunPower solar system converts sunlight into electricity. The system turns on automatically in the morning and turns off automatically at night. The solar cells in the panels produce direct current (dc) electricity which then flows to a solar inverter.

2. SOLAR INVERTER

The inverter (or microinverter) converts the electricity being produced by your panels into the electricity required for household use. The converted solar electricity is delivered directly to your home's main electrical service panel.

3. ELECTRIC METER

The electric meter measures the net electricity usage, showing the difference between your home's consumption and your solar system's production. The meter will display how little energy you are using from the grid now that you generate your own with SunPower.

4. SUNPOWER MONITORING SYSTEM

The SunPower Monitoring System (SMS) provides you with detailed visibility into the performance of your solar system. You can see how much energy it's currently producing, review historical power production, track overall system performance, and see equivalent ways in which you've benefitted the environment over the lifetime of your system.

Your monitoring equipment must be plugged into a wall outlet and be connected to a high-speed Internet connection in order to display data*. View your home's system performance, 24 hours a day, 7 days a week, at <u>https://monitor.us.sunpower.com</u> or monitor your solar energy information with our free monitoring app for iPhone[®], iPad[®], and AndroidTM mobile devices.

If you chose to include the optional SunPower Consumption Monitoring Kit, you can also see how much money your solar system is saving you on your utility bill and learn how your home uses energy to make smarter decisions for your home and family.

TECHNICAL QUESTIONS OR PROBLEMS

If you are experiencing an issue with the SunPower Monitoring System refer to the troubleshooting guide at <u>www.sunpowermonitor.com/troubleshoot</u>, contact your dealer, or call 1-800-SUNPOWER.

*SMS must be connected in order to correct issues, maintain the Production Guarantee that's part of your Lease Agreement, and help you save on electricity bills.

REGISTER AND SIGN INTO YOUR ACCOUNT

- 1. Visit the monitoring website: <u>https://monitor.us.sunpower.com</u>.
- 2. If you have already registered your SunPower Monitoring System, proceed to Step 9 to log into the monitoring website. If you have not registered, proceed to Step 3.
- 3. Click Create an Account now.

SUNPOW	ER MORE ENERGY, FOR LIFE."
SIGN IN	
Sign in using your regist email address password	ared account:
Sign in a	
Don't have an accou Current SunPower cust Have any questions? Contact SunPower.	nt? Create an Account nov

4. Locate the serial number for your inverter model and type it in the *device serial number* field.

Click the 2 (help icon) for assistance locating your device serial number.

	SUNP <mark>q</mark> wer	MORE ENERGY, FOR LIFE."	
CREATE YOUR	ACCOUNT g information. All fields are required:		
	2		
	GARAGE, MOUSEOVER YOUR	DEVICE IMAGE BELOW TO	
		SUNNOWER	Ŧ
		SOLA INVERTIG	
•		Map Satelli Heina	te
		Bozema	
Google	device serial number	continue	Üse
I have read and agree to the			
register >			

5. Type your email address, a password, and your name and phone number. **Note.** If your address is incorrect, contact 1-800-SUNPOWER to correct.



- 6. Read the Terms of Use and select the checkbox after reading.
- 7. Click Register.
- 8. Open the registration email you receive and click the confirmation link in the email.
- 9. Type your email address and password.

Important! If you forgot your password, click **Retrieve your password now**, type your email address, and click **submit**.

SUNPOWER" MORE ENERGY. FOR LIFE	
SIGN IN	
Sign in using your registered account: email address	L
password	L
Forgot password?	L
Keep me signed in	L
Don't have an account? Current SunPower customers can Create an Account now	1
Have any questions? Contact SunPower.	

- (Optional) Select the Keep me signed in checkbox if you would like your browser to remember your email and password so you can remain logged in for subsequent visits.
- 11. Click sign in.

DASHBOARD

Click the **Dashboard** tab to view your energy data.



1. MY SYSTEM

Displays the type of panels installed on your home and the energy capacity of your solar system in kilowatts (kW).

2. SYSTEM ALERTS AND MESSAGES

Current alerts and messages are displayed at the top of your dashboard. Click an alert learn about notifications regarding your system, and then follow the provided troubleshooting steps. Click any message to receive important updates from SunPower.

3. NOW GENERATING

Displays the amount of energy your solar system is currently producing in kilowatt-hours (kWh). If your system is not currently producing energy (at nighttime, early morning or late evening hours, or when it's shaded), Now Generating does not display.

4. ENERGY OVER TIME

Graph

Lots of yellow bars means you're using solar power to save money on your electricity bill and your meter may be spinning backwards! Click the (summary icon) to view a summary bar graph of solar generated. Click the (detail icon) to view a detailed line graph of solar generated. Hover over the graph to view solar generated in kWh for specific dates and times.

If your system did not produce energy for the selected time setting, yellow (solar generated) bars do not appear.

If you have a SunPower Consumption Monitoring Kit (installed by your dealer), refer to *Consumption Monitoring Kit Features* (p. 10) for additional Energy Over Time features.

YOUR SUNPOWER® MONITORING SYSTEM GUIDE

Time Settings

Select a time setting (day, week, month, year, or lifetime interval) to view solar generated for a specific time period. Adjust the scroll bar below the graph to zoom in or out. Click the < or > around the date range to scroll dates by the selected time setting.

Download Data

Select the time setting for which you would like to view energy data and click the ⁽²⁾ (download icon) to download the energy data in a spreadsheet. The energy data is provided in intervals based on the time setting you select (for example, the **1 day** time setting provides data in 5-minute intervals and the **12 mos** time setting provides data in 1-day intervals.)

5. SOLAR GENERATED

Based on the time setting you select, the amount of solar generated for that time period is displayed in kWh.



If you have a SunPower Consumption Monitoring Kit (installed by your dealer), refer to *Consumption Monitoring Kit Features* (p. 10) for additional Energy Mix features.

If you have a SunPower solar system that uses microinverters, click **module** to view module-level monitoring. Click a module to view the solar generated in kWh for that module during the select time interval.

6. ENVIRONMENTAL SAVINGS

The Environmental Savings feature correlates the energy produced by your solar system and shows the equivalents of the emissions prevented by generating renewable energy with your system.

Your Environmental Savings are calculated using methodology published by the US Environmental Protection Agency (EPA) and may not precisely reflect the impact you've had on the environment but give you an estimate of all the good you're doing.

MY ACCOUNT

PROFILE

Click the **MY ACCOUNT** tab and **Profile** to view the street address of the registered system and update your profile details including: email, password, first name, last name, and phone number.

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		SUPPORT	MONDAY, MARCH 10
MY ACCOUI Reports	<u></u>		
PROFILE			
current email address		system street address	
Istauss@sunpowercorp.com	edit	108 toyon In.	
password		zip code	
•••••	edit	94587	
first name		city	
Lauren	edit	union city	
last name		state	
Stauss	edit	са	
phone number			
	edit		

To change your information or password: click **edit**, make any changes needed and click **update**.

Note. You cannot change the system address. If the system address is incorrect, please contact 1-800-SUNPOWER to update.

REPORTS

Click the **MY ACCOUNT** tab and **Reports** to set up delivery of a recurring or one-time energy report to an email address of your choice:

- Select a day of the month to generate the detailed monthly report from the dropdown list.
- 2. Type the email addresses to which you'd like the report sent.
- 3. Type a report name.
- 4. Select a button for when to stop delivering reports (either Never or Select Date).
- 5. Click update.



SUPPORT

MESSAGES AND ALERTS

From time to time, SunPower may send you messages to keep you updated with information regarding your monitoring system. Click the **SUPPORT** tab to view important messages from SunPower. Alerts regarding issues that affect your system's production are also displayed. Click **Read More** for additional details regarding a message or alert.



In addition, current alerts are displayed at the top of your dashboard and can be viewed by clicking the \square (message icon) in the upper right corner.

DOCUMENTS

To learn more about your SunPower solar system or SunPower Monitoring System, click a link to download supporting documents.

CONTACT INFORMATION

If you need further support, please contact SunPower at 1-800-SUNPOWER.

MOBILE DEVICE APP

Keep track of your home's energy information wherever you are with an app for your iPhone[®], iPad[®], or AndroidTM mobile device:

- Download the free SunPower Monitoring app from iTunes[®], Google PlayTM, or Apple App StoreSM by searching for the "SunPower Monitoring" app and downloading it to your device.
- 2. Open the app.
- 3. Tap each field and type your **username** (email address) and **password**.
- 4. Tap login.

ENERGY OVER TIME

Use the app to view the amount of energy your system is currently generating and the system lifetime production (in kWh).

Tap a tab to view how much energy your system produced for any day, month, or year interval. Tap the calendar icon to change the dates.

If you have a SunPower Consumption Monitoring Kit (installed by your dealer), refer to *Consumption Monitoring Kit Features* (p. 10) for additional Energy Over Time features.

Environmental savings

Tap the environment savings icons that scroll in the upper right corner to view additional environmental savings details.

SUPPORT

Top the support icon to view messages, alerts, and helpful documents.

Tap an alert to learn about issues affecting your system and follow the provided troubleshooting steps. Tap a message to receive important updates from SunPower.







Successfully logged out.

SUNPOWER MORE

🔢 NOW GENERATING 1.68 kW 🐥

ENERGY OVER TIME Feb 20 2014 - Mar 18 2014

Year Lifetime Production



SEND FEEDBACK

suggestion or report an issue regarding the monitoring website:

- 1. Click Help Us Improve the Site in the upper right corner.
- 2. Type your suggestion or issue in the Additional Comments.
- 3. Click submit.



TROUBLESHOOT YOUR SYSTEM

Current alerts are displayed at the top of your **Dashboard** tab, on the **Support** tab, and are available by clicking the Q (message icon) in the upper right corner. Click an alert to learn about any issues that may be affecting your system and follow the provided troubleshooting steps.

For any service-related issues or questions about your monitoring system, please contact your SunPower dealer. If your dealer is unable to assist, please call SunPower Technical Support at 1-800-SUNPOWER.

CONSUMPTION MONITORING KIT FEATURES

The consumption monitoring kit (installed by your dealer) allows you to monitor your home energy usage and provides additional monitoring features, including Energy Mix and Bill Savings.

Not all homes are compatible with the existing consumption monitoring kit and your dealer may have assessed your home's compatibility during your system design and installation process. Please contact your dealer for additional details regarding the consumption monitoring kit.



All monitoring features described in the DASHBOARD section are available if you have a consumption monitoring kit installed. In addition, click Dashboard to view the following additional feature available with a consumption monitoring kit:

1. ENERGY OVER TIME

Yellow bars (solar generated) on the graph display how much energy your system is producing and blue bars (household use) display how much energy your home is using for the selected time setting.

2. ENERGY MIX

Summary (click back to summary)

- Solar (%): vellow

- Credit (kWh): green

Details (click view details)

- Solar Generated (kWh): yellow
- Energy Used (kWh): blue
- Solar to Grid (kWh): green
- Energy from Grid (kWh): red



YOUR SUNPOWER® MONITORING SYSTEM GUIDE

3. BILL SAVINGS ESTIMATE

SunPower estimates the electricity bill savings from using your solar system. This is based on the solar energy produced by your system and the energy used by your home.

To estimate your bill savings:

- 1. Have a utility bill handy.
- 2. Click get started.

BILL SAVINGS ESTIMATE	
We need to gather some information to estimate your savings. Please have a utility bill handy to confirm your rate.	
get started >	

3. Select your **utility provider** from the dropdown menu.

ILL SAVINGS ESTIMATE	8
select utility	•
select rate	•
update >	

- 4. Select your **rate plan** from the dropdown menu. Note. Check your utility bill to see your rate plan.
- 5. Select update.
- 6. View your bill savings estimate for the selected time setting.



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YOUR SUNPOWER® MONITORING SYSTEM GUIDE