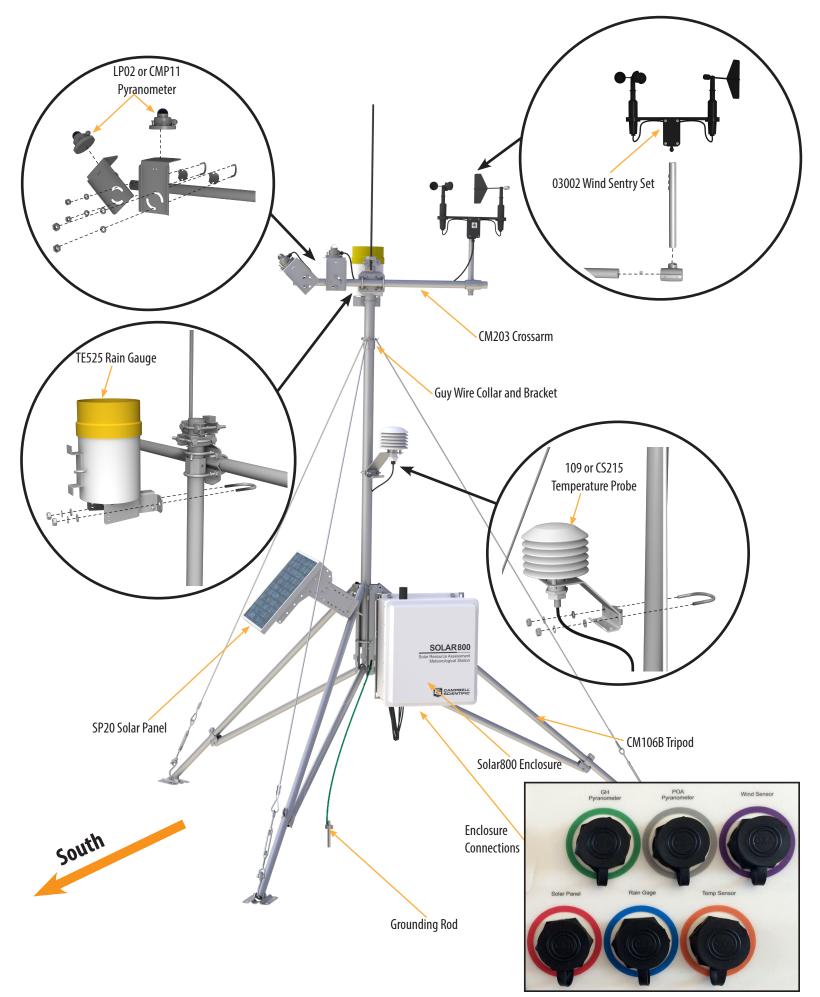


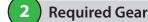
IMPORTANT NOTE: This Quick Deploy Guide is meant to be a general reference to give the installer an overview of the steps required to make this system operational. The Owner's Manual is the definitive source for detailed installation instructions and information.



- Proper installation of the Solar800 is critical for measurement quality.
- Please read the entire Solar800 manual for complete instructions as to proper installation.
- This is not a commissioning document. The document is not a replacement for complete system commissioning performed by a trained professional.
- Do not over-tighten bolts as this will damage or deform the mounting hardware.
- Grounding the Solar800 system is critical. Proper grounding to earth will
 ensure maximum electrostatic discharge (ESD) protection and improve
 measurement accuracy.
- Tripod installation near power lines is dangerous. The minimum safe recommended distance from overhead power lines is two times the height of the tripod and mast combined. Contact local utility providers to locate buried utilities prior to installation.
- System maintenance is critical. See the Solar800 manual for a maintenance guide and schedule.

Solar800 Quick-Deploy Solar Resource Assessment Station





- step ladder
- horizontal and vertical bubble level (with magnet to hang on mast preferable)
- angle finder
- 1/2 in. wrench
- 5/16 in. wrench
- 3/16 in. Allen wrench
- flat blade screwdriver
- Phillips screwdriver
- 48 oz or larger sledge hammer
- compass
- tape measure
- Solar800 Configuration Utility Software



Physical Deployment

The following steps are a quick summary of the Solar800 assembly procedure. See the Solar800 manual for complete instructions.

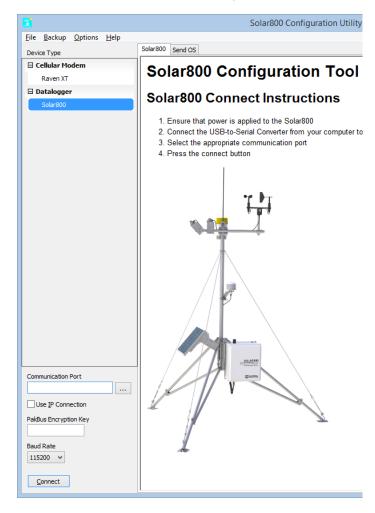
- 1. Set up the tripod. For Northern Hemisphere installations, ensure one face of the tripod is pointing south (one leg will be pointing due north).
- 2. Install the guy wire collar on the mast and insert the mast into the tripod.
- 3. Hang the guy wires on the guy wire bracket, and them slide the bracket over the top of the mast, allowing the bracket rest on the collar.
- Plumb the tripod mast to ensure it is vertical and tighten the guy wires. Verify the tripod is still plumb.
- 5. Stake or secure the tripod to the ground.
- 6. Slide the rain gage, crossarm, and lightning rod bracket over the top of the mast, in that order.
- 7. Tighten the lightning rod bracket, the crossarm, and the rain gage at the top of the mast as shown at right. Note that the crossarm is off center, with the shorter side pointing due south.
- Secure the pyranometer mounts to the south end of the crossarm. Position the pyranometer mount on the end of the crossarm at the desired angle and the second mount horizontal. Use a bubble level and angle gauge to ensure the tilt and the azimuth angles are correct.



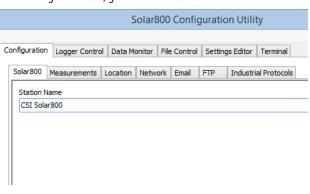
- Mount the Wind Sentry to the north end of the crossarm. The wind sentry
 must be mounted with the wind vane end pointing due north for correct
 wind direction readings.
- 10. Install the multi-plate radiation shield approximately 2 ft above the tripod legs.
- 11. Install the enclosure to the north leg of the tripod by placing the upper left corner of the enclosure bracket over the hook on the tripod and anchoring the right side of the enclosure to the tripod leg using a U-bolt and hardware.
- 12. Attach the solar panel bracket between the two southern tripod legs.
- 13. Attach the solar panel to the solar panel bracket.
- 14. Connect each sensor cable and solar panel cable to the wire colored connectors on the bottom of the enclosure.
- 15. Drive the grounding rod into the ground at the base of the tripod and connect the enclosure ground to the grounding rod.
- 16. Secure all cables to the tripod with zip ties.

4 Software Configuration

- Install and Run the Solar800 Configuration Utility from the USB drive shipped with the Solar800.
- Follow the Solar800 Connect Instructions found in the Solar800 Utility to connect to the Solar800. Select Solar800 under device type. Next, select the correct Communications Port and Baud Rate, and then click Connect.



3. In the Configuration tab, give the Solar800 station a name.



4. In the Measurements tab, configure the Solar800 measurement settings.

	Solar 800 Configuration Utility								
Configuration	1								
Solar800	Measurements	Location	Network	Email	FTP	Industrial Protocols			
Storage	Interval *								
Advance True	Advanced Meteorological Measurements True								
GH Sens	itivity µv/W/m²								
	nsitivity µv/W/m²								
12.29									

 In the Location tab, enter the correct coordinates and elevation for the Solar800. Also enter the correct Coordinated Universal Time (UTC) offset and if Daylight Savings Time is currently in use.

	S	Solar800	Confi	guratio	on Utility
Configuration					
Solar800 Measurements	Location	Network	Email	FTP	Industrial Protocols
Longitude -111.85592 Latitude 41.767561 Elevation 1358 UTC Offset -7 Daylight Savings Clock Ar	djustment				

6. Configure the Solar800 network settings. Enter the correct IP Address for the station, along with any additional network settings. Entering an IP address of 0.0.0.0 will cause the Solar800 to use DHCP to configure the interface.

		Solar800	Confi	guratio	on Utility
		20101000		garati	on ouncy
0 "					
nfiguration					
Solar800 Measure	ments Location	Network	Email	FTP	Industrial Protocols
Ethernet Kit					
True 🗸					
Ethernet IP Addre	ee *				
	SS				
0.0.0.0					
Ethernet IP Gatev	vay *				
0.0.0.0					
Ethernet IP SubNe	et Mask *				
0.0.0.0					
Domain Name Ser	ver 1 *				
0.0.0.0					
Domain Name Serv	ver 2 *				
0.0.0.0					

7. Configure the Solar800 email settings. Enter the destination (To) and source (From) email addresses. The email server and server password are also entered here.

	Solar800 Configuration Utility								
Configuration									
Solar800	Measurements	Location	Network	Email	FTP	Industrial Protocols			
Email Enab									
Email Time									
Email Send	To Address	=							
name@Yo	urOrganization	.com							
Email From	Address *								
Solar800T	utorial@gmail.o	om							
Email Serv	er Address *								
smtp.gma	il.com								
SMTP User	Name *								
CSISolar8	00@gmail.com								
SMTP Pass	word *								

8. Configure the Solar800 FTP settings. FTP is enabled in this tab. The FTP server, user name, and password are entered here.

		S	Solar800	Config	guratio	n Utility
onfiguration	1					
Solar800	Measurements	Location	Network	Email	FTP	Industrial Protocols
FTP Enal	hle					
,						
True	~					
FTP Serv	er Address *					
YourFTF	YourOrganization	on.com				
	Name *					
FTP User	Ivallic					
Tutorial	Ivallic					
Tutorial	sword *					
Tutorial	sword *					
Tutorial FTP Pass Solar80	sword *	:				

 Configure the Solar800 Industrial Protocol settings. Enter the MODBUS and DNP3 addresses here.

	Solar800 Configuration Utility							
onfiguration	1							
Solar800	Measurements	Location	Network	Email	FTP	Industrial Protocols		
) MODBUS Addre	ss						
1	•							
Solar800	DNP3 Address							
	▼							
Master I	ONP3 Address							
10	•							

- 10. Click on the **Apply** button when all the desired settings are entered. Wait a few minutes for the Solar800 to apply the settings and restart.
- **11. Reconnect** to the Solar800, select **Logger Control** and set the clock of the Solar800 to the desired time.

		Solar	300 Config	uration Utilit	ty
Configuration Logger (Control	Data Monitor	File Control	Settings Editor	Terminal
Datalogger Clock					
Reference Tin	ne: 10/	27/14 10:46:03	3.015		
Station Tin	ne: 10/	27/14 10:46:17	7.38		
Differen	ce: -14	1.37 seconds			
Reference Clock Settir	ng: Loc	al Daylight Time	2 \	,	
Set Clock					
Logger Program					
Current Program:	PU:Sola	r800_Program.o	dld		
Last Compiled: 0	7/11/14	13:57:28			
Last Compile Results:					
CPU:Solar800_Progr	am.dld	Compiled in Si	equentialMode		

- **12. Disconnect** from the Solar800.
- 13. Test communications via email, FTP, and industrial protocols prior to site installation to ensure that all settings are correct and functioning.

NOTE: A video tutorial on configuring the Solar800 software is available on the Campbell Scientific YouTube channel.

https://www.youtube.com/user/CampbellScientific

Here is the direct link to the video tutorial: http://youtu.be/xuW3QyfEEEM