

Specifications:

	PS-15/PS-15M	PS-30/PS-30M
Nominal Battery Voltage	12/24 V	12/24 V
Max. PV Open-Circuit Voltage	30/60 V	30/60 V
Maximum Input Current	15 A	30 A
Rated Load Current	15 A	30 A



Warning: Shock Hazard

Test between all terminals and ground before touching.

Power or accessory terminals are **NOT** electrically isolated from DC input and **may be energized with hazardous solar voltage.**



ProStar™

Solar Charging System Controller

Quick Start Guide

Operational Configuration:

Switch 1: Load/Lighting

Mode	Switch 1
Normal	OFF
Lighting	ON



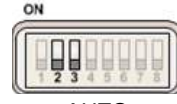
Normal



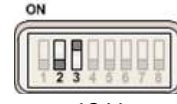
Lighting

Switches 2 & 3: System Voltage

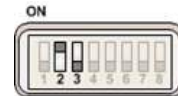
System Voltage	Switch 2	Switch 3
Auto	OFF	OFF
12	OFF	ON
24	ON	OFF



AUTO



12 V



24 V

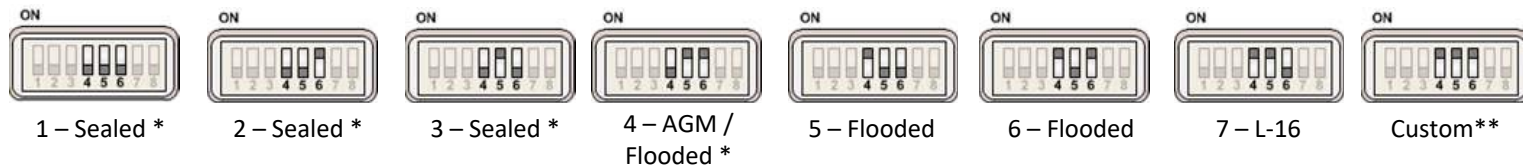
Switches 4, 5, & 6: Battery Type Selection

NOTE: The ProStar Gen3 can be programmed to accommodate a wide range of charging parameters. Consult the battery manufacturer for optimal battery charging settings.

To Change Settings:

- On metered models, use the interface on the meter or use the software available at <https://www.morningstarcorp.com/msview/>.
- On non-metered models, use the software available at <https://www.morningstarcorp.com/msview/>.

See the ProStar Installation, Operations, and Maintenance Manual for additional information/guidance.



DIP Switch Setting			Battery Type	Absorption Stage (Volts)	Float Stage (Volts)	Equalize Stage (Volts)	Absorption Time (Minutes)	Equalize Time (Minutes)	Equalize Timeout (Minutes)	Equalize Interval (days)	LVD (Volts)	LVR (Volts)
4	5	6										
OFF	OFF	OFF	1 – Sealed*	14.00	13.50	---	150	---	---	---	11.5	12.6
OFF	OFF	ON	2 – Sealed*	14.15	13.50	14.40	150	60	120	28	11.5	12.6
OFF	ON	OFF	3 – Sealed*	14.30	13.50	14.60	150	60	120	28	11.5	12.6
OFF	ON	ON	4 – AGM/Flooded*	14.40	13.50	15.10	180	120	180	28	11.5	12.6
ON	OFF	OFF	5 – Flooded	14.60	13.50	15.30	180	120	180	28	11.5	12.6
ON	OFF	ON	6 – Flooded	14.70	13.50	15.40	180	180	240	28	11.5	12.6
ON	ON	OFF	7 – L-16	15.40	13.40	16.00	180	180	240	14	11.5	12.6
ON	ON	ON	8 – Custom**	Custom	Custom	Custom	Custom	Custom	Custom	Custom	Custom	Custom

*"Sealed" battery types include Gel and AGM Batteries

**Lithium-ion and some other battery types require custom programming. Morningstar provides downloadable settings for selected battery manufacturers here: <https://www.morningstarcorp.com/energy-storage-partner-program/>

Shared Settings		Set Point	Shared Settings		Set Point
Absorption Extension Voltage		12.50 Volts	Float Cancel Voltage		12.10 Volts
Absorption Extension Time		Absorption Time +30 minutes	Equalize Time-Out		Equalize Time +60 minutes
Float Exit Time-Out		30 minutes	Temperature Compensation Co-Efficient		-30 millivolts / °C / 12 Volts

Switch 7: Battery Equalization

Mode	Switch 7
Manual Equalization	OFF
Auto-Equalization	ON



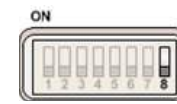
Manual EQ



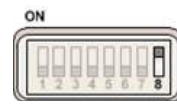
Auto EQ

Switch 8: Current Switching

Mode	Switch 8
PWM Switching	OFF
Slow Switching	ON



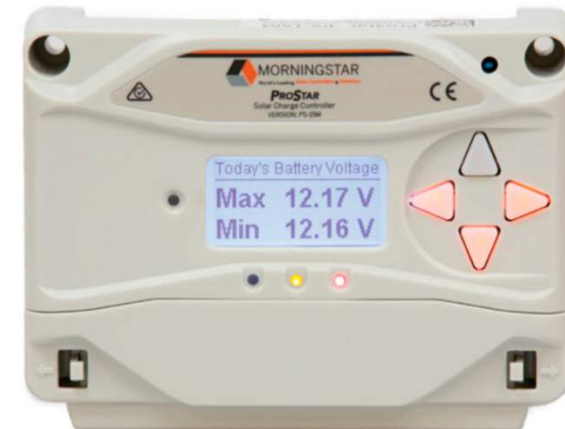
PWM Switching



Slow Switching

Contact Information:

Technical Support: Support.morningstarcorp.com
Phone: 1-215-321-4457



Metered version shown.

Scan QR Code to go directly to the ProStar Gen3 Installation Manual and warranty information online.



Safety Information:



Warning: Shock Hazard

The ProStar Gen3 controller must be installed by a qualified technician in accordance with the electrical regulations of the country of installation.



Warning: Shock Hazard

This unit is not provided with a GFDI device. This charge controller must be used with an external GFDI device as required by the Article 690 of the National Electrical Code for the installation location.



IMPORTANT: READ the ProStar Gen 3 Installation Manual for safety and regulatory information, instructions on configuration and operation, and warranty information.

Warranty Registration: <https://www.morningstarcorp.com/product-registration/>

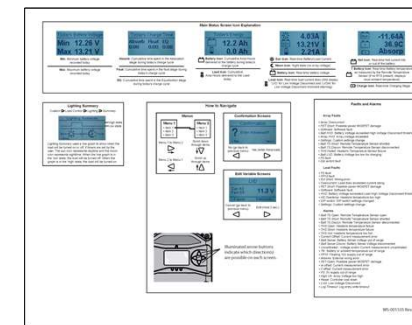
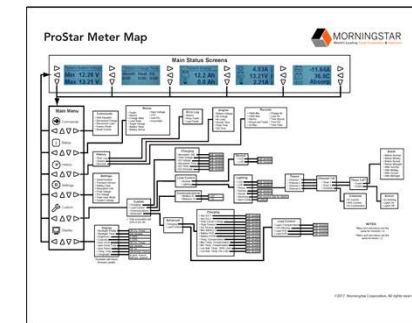
In the box:



ProStar Charge Controller



Self-Tapping Mounting Screws (x4)



Menu Map (2 pages)

Optional Accessories



Remote Meter (RM-1)



PV Ground Fault Protection (GFPD-150V)



Remote Temperature Sensor (RTS)



Ethernet MeterBus Converter (EMC-1)



USB Communications Adapter (UMC-1)



PC MeterBus Adapter (MSC)

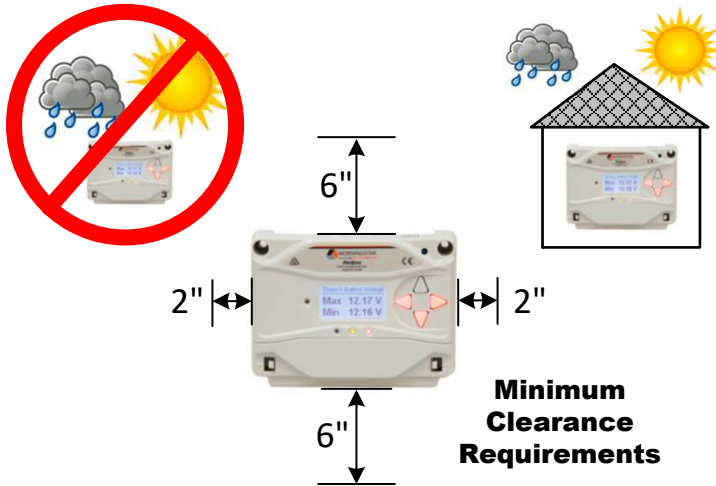
Tools Required:

- ⊕ — #2 Philips Screwdriver
- ⊖ — 3/16 (5 mm) & 3/32" (2.5 mm) Flathead Screwdriver



Caution: Equipment Damage

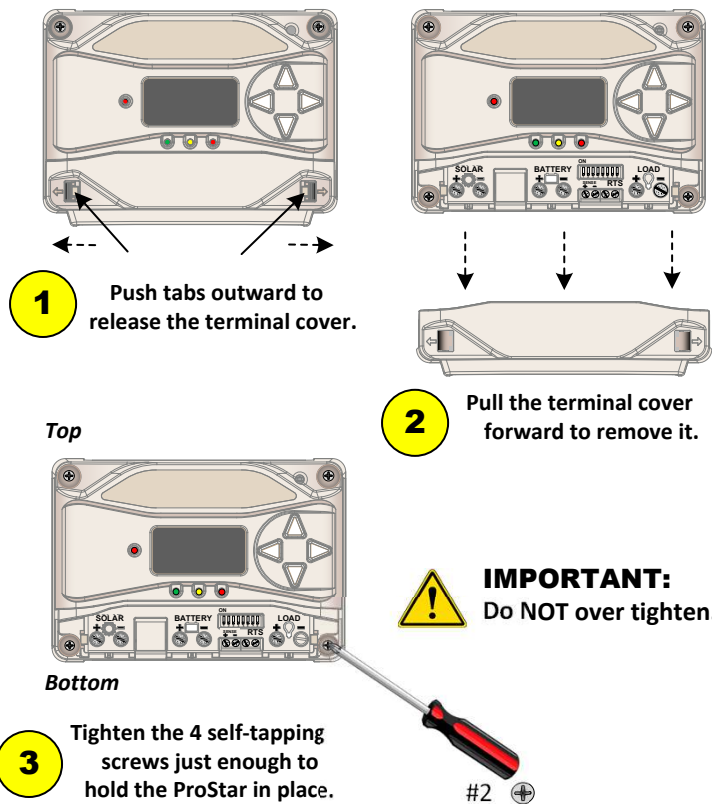
Do not expose the ProStar CC to weather. Locate in a dry, protected area to prevent equipment damage. Ensure the minimum clearance requirements are followed to provide adequate ventilation and prevent the unit from overheating.



Mounting:

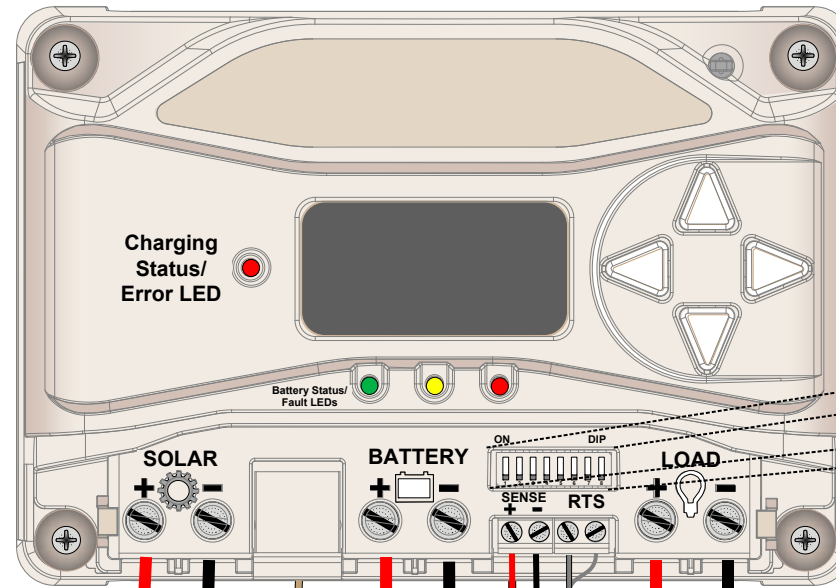
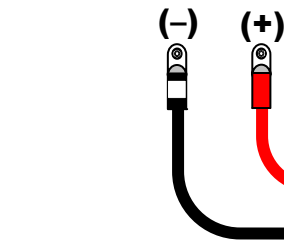
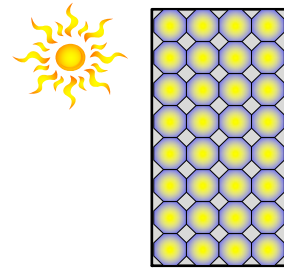


IMPORTANT: Mount in the orientation shown here with the heat sink fins vertical.



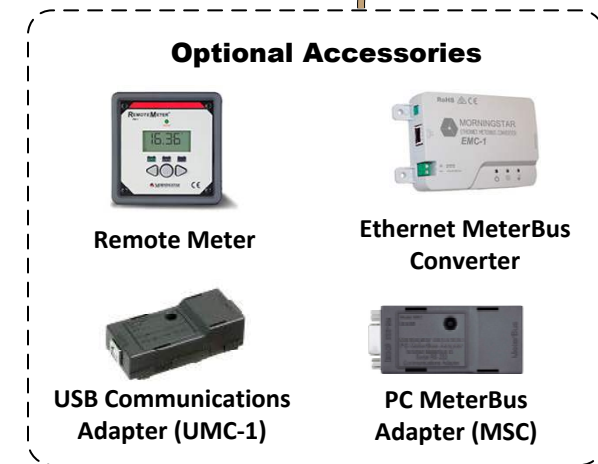
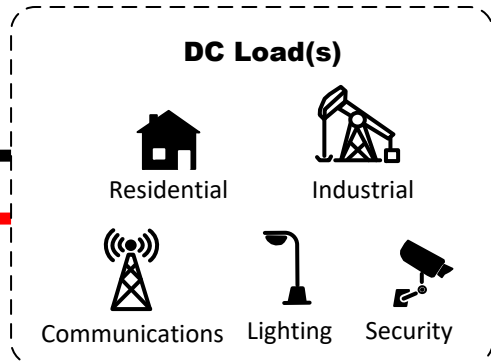
Photovoltaic (PV) Array

See the Morningstar PV String Calculator at: <http://string-calculator.morningstarcorp.com/>



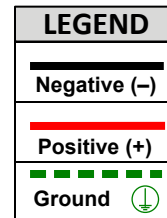
DIP Switch Block (enlarged)
(See Page 4 for settings)

LED Indicators:
See the ProStar Gen3 Installation Manual for details.



Wiring and Torque Requirements			
Component	Wire Size	Tool Required	Torque (Max)
Power Terminals	2.5 - 16 mm ² / #14 - 6 AWG	3/16" (5 mm) Flathead Screwdriver	35 in-lbs. (3.9 Nm)
Battery Voltage Sense	0.25 - 1.0 mm ² / #24 - 16 AWG	3/32" (2.5 mm) Flathead Screwdriver	5 in-lbs. (0.56 Nm)
Remote Temperature Sensor	(included)	3/32" (2.5 mm) Flathead Screwdriver	5 in-lbs. (0.56 Nm)
Mounting Screws	---	#2 Phillips Screwdriver	5 in-lbs. (0.56 Nm)

*Fuse or breaker sizing based on required wire ampacity



Power UP Sequence:

1. Connect Battery/Battery Bank.
2. Connect Solar.

Power DOWN Sequence:

1. Disconnect Solar.
2. Disconnect Battery/Battery Bank.



IMPORTANT: Ensure there is **only 1** DC Negative-to-Ground Bond in the entire system.