



SOLAR CHARGE CONTROLLER
12V & 24V SOLAR SYSTEMS
PART # SCC30A



INSTRUCTION MANUAL

IMPORTANT SAFETY INSTRUCTIONS

WARNING – BATTERY HANDLING

Working near lead acid batteries is dangerous. Batteries generate explosive gases during normal battery operation.

PERSONAL SAFETY PRECAUTIONS

Wear proper eye and clothing protection when working with lead acid batteries.

Make sure that someone is within range of your voice to come to your aid if needed while you work with or are near lead acid batteries.

Have plenty of fresh water and soap nearby for use in case battery acid contacts your eyes, skin or clothing. If this happens, wash immediately with soap and water. Then seek medical attention.

Avoid touching your eyes while working with a battery. Acid particles (corrosion) may get into your eyes. If this occurs, flush eyes immediately with running cold water for at least 10 minutes. Then immediately seek medical attention.

Never charge a frozen battery.

Remove personal metal items such as rings, bracelets, necklaces, and watches when working with a battery. A battery produces a short-circuit current high enough to weld any metal objects and will cause a severe burn.

Do not drop a metal tool on the battery. The resulting spark or short-circuit on the battery will cause an explosion.

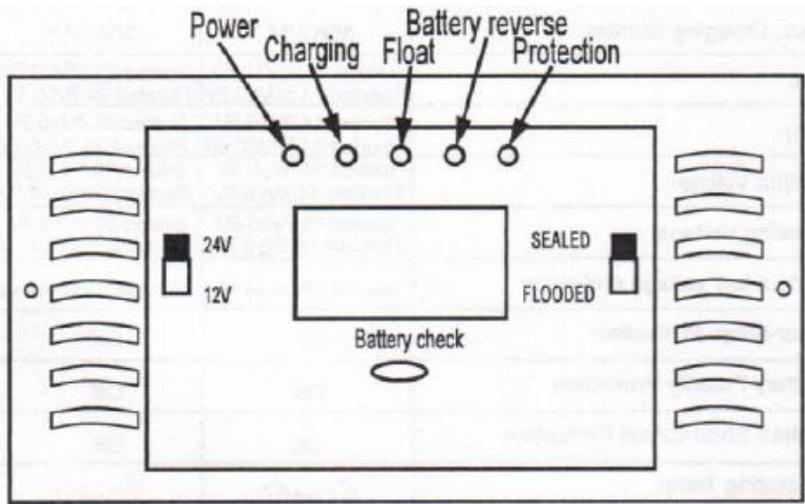
Never smoke or allow a sparks or flames near the battery.

Neutralize any acid spills thoroughly with baking soda before attempting to clean up.

NOTE: We recommend using AGM, GEL, or sealed lead deep cycle batteries especially in poorly ventilated areas. Not compatible with lithium batteries.

The solar charge controller is designed to regulate the charge voltage to your 12 Volt or 24 Volt battery(s) from the solar panels. The controller provides protection against overcharge and battery reverse polarity connection. The unit includes a convenient LCD display, which shows charge current and battery voltage.

FRONT PANEL FUNCTIONS



LED Indicators

Power: Solar power has sufficient voltage and connect to the battery(s) LED green.

Charging: Indicates the solar power is charging the battery(s).

Float: Indicates battery is full and charger is maintaining the charge.

Battery reverse: LED yellow when battery connections are reversed.

Protection: LED red when temperature of heat sink is up to @ 140°F and LED off when temperature drops down to @ 131°F.

Switch

24V / 12V selection switch: Set to 12V or 24V battery (s).

Battery type switch: Set battery type being charged.

Battery check button: When this button is pressed and held the battery voltage with display.

INSTALLATION

Install the charge controller near the battery(S) on a **stable** surface. This surface should be solid, even, dry and nonflammable. The battery cable should be as short as possible and have a cable diameter size to minimize loss, e.g. 4 mm² at 20 A and 6ft in length (16 AWG).

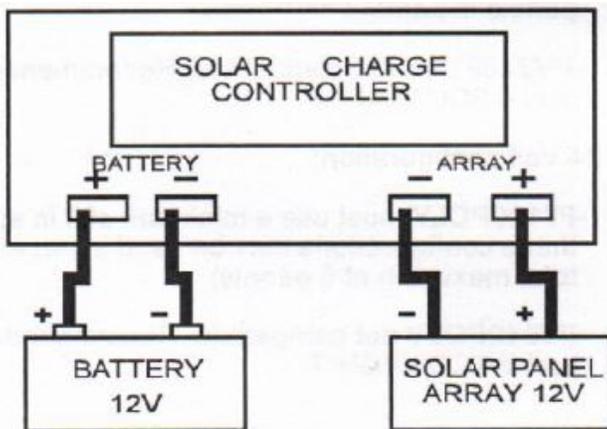
Do not install the controller in direct sunlight.

To ensure adequate airflow around the controller, allow a 4 inch clearance around the unit. The temperature at the installation site may never fall below or exceed the maximum permitted ambient temperature range.

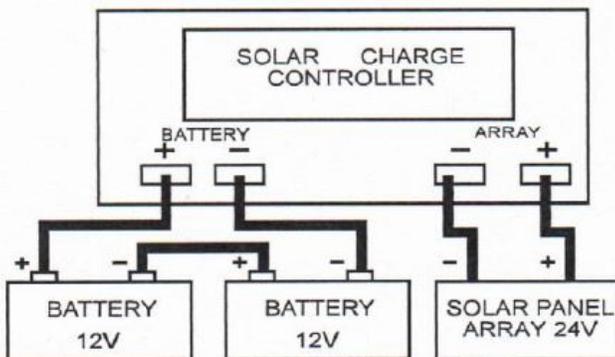
Connect the individual components according to the labels on the bottom of the controller.

CONNECTION DIAGRAM (BOTTOM VIEW OF CONTROLLER)

12 Volt



24 Volt



*Recommended wire = 10 AWG high quality cable

*There are no user serviceable parts inside the charge controller. Do not disassemble or attempt to repair the unit. Contact manufacturer.

SPECIFICATIONS

Specification	@ 12V	@ 24V
Max Solar Panel Array	400W	800W
Input Voltage	16.5V-22V	33V-40V
Max Voc	25V +/-1V	45V +/-1V
Max Charging Current	30A +/- 3A	30A +/- 3A
Voc	Sealed: 14.55V +/-0.5V Flooded: 14.65V +/-0.5V	Sealed: 29.15V +/-0.5V Flooded: 29.5V +/-0.5V
Vmp	Sealed: 14.8V +/-0.5V Flooded: 14.78V +/-0.5V	Sealed: 31.8V +/-0.5V Flooded: 31.7V +/-0.5V
Output Voltage	Sealed: 14.6V +/-0.5V Flooded: 14.8V +/-0.5V	Sealed: 29.2V +/-0.5V Flooded: 29.6V +/-0.5V
Floating Voltage	Sealed: 13.7V +/-0.5V Flooded: 13.8V +/-0.5V	Sealed: 27.4V +/-0.5V Flooded: 27.6V +/-0.5V
Output Low Voltage Protection	<7.5V	<15V
Overtemp Protection	Yes	Yes
Battery Polarity Protection	Yes	Yes
Output Short Circuit Protection	Yes	Yes
Operating Temperature	0°F - 104°F	0°F - 104°F
Storage Temperature	14°F - 158°F	14°F - 158°F
Dimensions	7"L x 4"W x 1.25"H	7"L x 4"W x 1.25"H
Weight	.6lb	.6lb

AIMS Power offers a 1 year limited warranty.

The following cases are not covered under warranty:

1. Disassembled or tampering of any kind
2. Incorrect or poor wiring
3. Operation in a moist environment

AIMS Power Warranty Instructions:

This product is designed using the most modern digital technology and under very strict quality control and testing guide lines. If, however you feel this product is not performing as it should, please contact us: techsupport@aimscorp.net or (775)359-6703.

We will do our best to resolve your concerns. If the product needs repair or replacement, make sure to keep your receipt/invoice, as that will need to be sent back along with the package and RA# prepaid to AIMS. You have a full 1 year warranty from date of purchase.

This warranty is valid worldwide with the exception that freight and duty charges incurred outside the contiguous 48 United States will be prepaid by customer.

Except as provided above, AIMS makes no warranty of any kind, express or implied, including without limitation the implied warranties of merchantability and fitness for a particular purpose. In no event shall AIMS be liable for indirect, special or consequential damages. This warranty only applies to AIMS Power branded products. All other name brand products are warranted by and according to their respective manufacturer. Please do not attempt to return non-AIMS Power branded products to AIMS Power.

For additional products such as:

- Modified sine wave inverters
- Pure sine wave inverters
- Solar charge controllers
- Generators
- Inverter chargers with automatic transfer switches
- Custom cut cables
- Batteries
- Solar panels

Please visit our web site: www.aimscorp.net

To find out where to buy any of our products, you may also e-mail: sales@aimscorp.net or call (775)359-6703.