

# SPSD Series

## Solar Regulation System



### Features

- Bank switching design taper charge without heat
- 2 stage boost/float charging
- Temperature compensated regulation voltages
- Fully adjustable settings
- Comprehensive metering
- Built in Test Programs
- Performance data logging
- Remote control & monitoring
- Lightning protection
- Overload protection
- Reverse polarity protection
- Low battery protection
- Rugged IP66 sealed case

**12V, 24V 48V 75 to 200A Pos/Neg Ground**

The SSPD series Solar Regulation System is an advanced electronic control unit for solar power supplies in remote locations. It will prevent overcharging, reduce electrolyte loss and stop over discharge. This will extend battery life and reduce maintenance.

State of the art technology has been combined with simple modular

construction to create a system with better performance and more features than any other regulator in its class. All control levels are fully adjustable and can even be changed by remote control. They are flexible in use, easy to service and are powering telecommunications in some of the most remote parts of the world.

# Description

The SPSP series is designed to control the charging of batteries from photovoltaic panels and to protect the batteries from excessive discharge. It is designed for use in remote power supply systems for telecommunications or monitoring equipment.

## Charge Control

Two stage boost/float regulation is used. The regulation voltages are easily adjustable via the keypad and display. Up to four stage bank switching can be used which allows taper charging in the boost mode and low speed switching regulation in the float mode. The regulator achieves very low levels of audio and radio frequency emissions and is well suited to use with telecommunication equipment in weak signal areas.

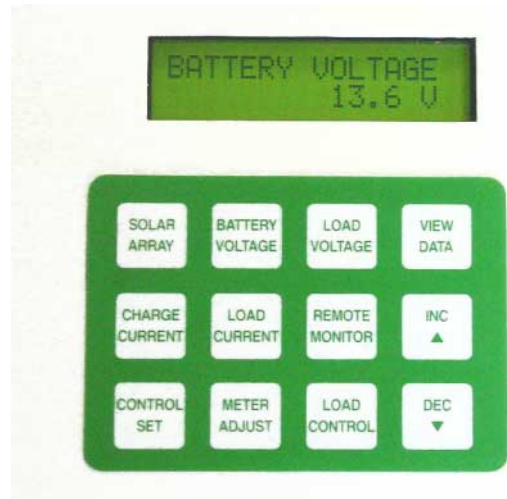
## Load Control

The optional load switch allows load disconnection when the battery voltage is too low or too high. The low and high disconnect voltages are adjustable.

## The Control Computer

A microcontroller with hardware watchdog protection is used with a 16 x 2 line alphanumeric LCD and sealed keypad. Set up data is stored in a non-volatile EEPROM. Battery & Load voltage, Charge & Load current and array data can be displayed

The microcontroller collects performance statistics. It logs daily charge and discharge amp hours and battery maximum and minimum voltages for 32 days.



Alarms and generator control are provided by voltage-free relay contacts. An external sensor for temperature compensation of the voltage settings can also be installed.

## Remote Control

An RS232/ RS485 serial port is provided which allows remote examination of the performance of the system and adjustment of the operating parameters.

Modular construction allows simple field repair. Two test programs are built in. The unit can be housed in a cabinet sealable to IP66 standard. Operating range is -15 to 60°C. The standard configuration is positive ground.

## Protection

Circuit breakers are provided to protect the batteries against fault conditions. To guard against lightning, surge protection has been included.

# Product Range

The SPSP series use a standard control board which can be used with a variety of switch boards. The range of combinations available is set out below. All versions can be ordered without load control if required. The controllers can be supplied as positive or negative ground and have an English or Chinese language Display.

Model	Voltage	Charge Current	Load Current
	V	A	A
SPS12D75	12	75	50
SPS12D100	12	100	50
SPS12D200	12	200	50
SPS24D75	24	75	50
SPS24D100	24	100	50
SPS24D200	24	200	50
SPS48D75	48	75	50
SPS48D100	48	100	50
SPS48D200	48	200	50
TS1	Temperature Sensor		

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