Overview

This solar regulator uses Maximum Power Point Tracking (MPPT) technology to extract the maximum possible energy from solar panels. In this way it can typically harvest 25% more energy than standard solar regulators.

Installation

The regulator should be installed horizontally or vertically as close to the leisure battery as possible but not inside the battery compartment. During operation the regulator may become warm, so ensure there is at least 10cm clear around the unit at all times.

For rapid installation, the regulator is provided with plug & play connectors, which are compatible with the Sargent solar panel range.

A1 A2   B1 B2

View looking into front of connectors

male   female

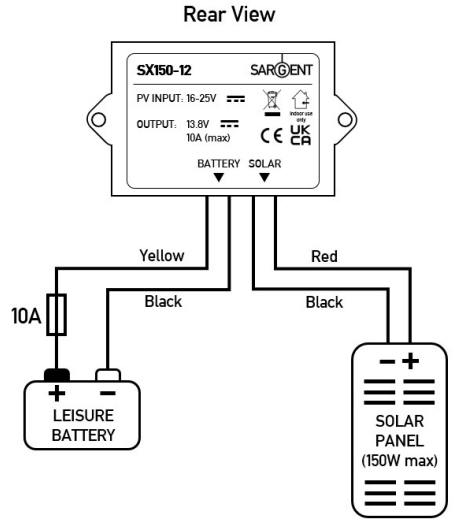| Pin	Colour	Function
A1	Yellow	Battery +VE
A2	Black	Battery –VE
B1	Red	Solar Panel +VE
B2	Black	Solar Panel –VE

Alternatively these connectors can be removed and wired using screw terminal block, as per the connection diagram.

Wiring & Fusing

When fitting, try to keep cabling runs as short as possible and do not underrate, as this will lead to excessive voltage losses and reduced performance. Please refer to the table to select a suitable wiring gauge, length and recommended fuse rating.

Cable	Up to 5m	Up to 10m	Fuse
from Solar	1.0mm² 17AWG	1.5mm² 16AWG	-
to Battery	1.0mm² 17AWG	1.5mm² 16AWG	10A

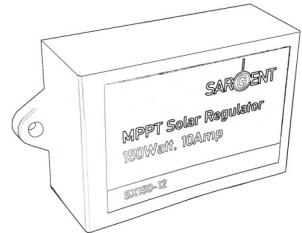## Connections

Rear View

Operation

The unit operates automatically to regulate power from the solar panel into a suitable charging voltage for the leisure battery. When the solar panel is exposed to sunlight, the regulator will automatically start to operate and no further action is necessary.

Specification

Model	DC20-12
Power	150W (max)
Solar input voltage	16 - 25V
Output voltage	13.8V
Output current	10A (max)
Regulation method	MPPT
Standby current	11mA
Efficiency	96% (max)
Ingress rating	IP67
Weight	115g
Dimensions (L x W x H)	40 x 75 x 22mm
Cable length	250mm

SARGENT

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MPPT Solar Regulator

Installation & User Instructions

SX150-12