



12V & 24V Smart Switch

Adjustable Low Voltage Disconnect
Controller for all loads.

Owner's Guide

The Smart Switch is a Low Voltage Disconnect switch that will prevent battery damage due to over-discharge.

Low Voltage Disconnect Protection (LVD)

The Smart Switch will prevent damage to your battery by disconnecting the attached load if battery voltage drops below the adjustable disconnect threshold for more than 5 seconds. The Smart Switch will reconnect the load once the battery voltage remains above the adjustable reconnect threshold for at least 5 seconds.

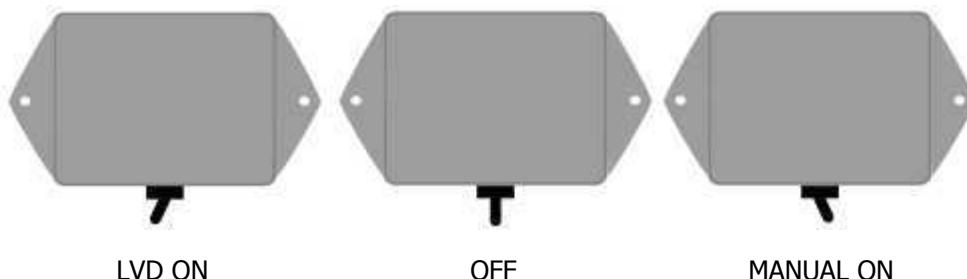
12V Smart Switch Factory settings: Disconnect 10.5 Volts / Reconnect 11 Volts

24V Smart Switch Factory settings: Disconnect 21 Volts / Reconnect 22 Volts

See section "Adjusting the Smart Switch" for instructions on how to adjust the threshold voltages.

Switch - LVD ON / OFF / MANUAL ON

The Smart Switch is equipped with a toggle switch that can be used to turn the device off as well as override the low voltage protection feature.



Adjusting the Smart Switch (optional)

The Smart Switch is equipped with two potentiometers that may be used to adjust the disconnect and reconnect voltage points at which the device switches. The Smart Switch may be adjusted with an adjustable power supply prior to installation or after installation at any time during its service. A small screwdriver will be required.

IMPORTANT NOTES:

When adjusting the voltage points, the reconnect voltage must always be adjusted first. The disconnect voltage must be set at least 0.5 volts lower than the reconnect voltage.

Setting the Smart Switch with an adjustable power supply.

Set the power supply to the desired reconnect voltage.

Turn the disconnect potentiometer clockwise to the highest setting.

Turn the reconnect potentiometer counter-clockwise to the lowest setting.

Connect the Smart Switch to the power supply with a fuse.

Slowly rotate the reconnect potentiometer until the switch "clicks" (turns on).

Because there is a time delay, the switch is most likely set higher than desired. Noting the current position, back the potentiometer off until the switch "clicks" again (turns off).

Make slight adjustments toward the noted setting waiting between adjustments for the time delay to elapse (about 5 seconds). Repeat this process until the desired voltage is set.

When the desired reconnect voltage is set rotate the disconnect potentiometer counter-clockwise to the lowest setting.

Make sure that the switch is on, raise the power supply voltage slightly if necessary, then lower the power supply voltage to the desired disconnect voltage.

Slowly rotate the disconnect potentiometer clockwise until the switch "clicks" (turns off).

Note the current position and back the potentiometer off slightly.

Increase the power supply voltage above the upper threshold until the switch "clicks" (turns on) again.

Lower the power supply to the desired disconnect voltage again.

Make slight adjustments toward the noted setting waiting between adjustments for the time delay to elapse (about 5 seconds). Repeat this process until the desired voltage is set.

Adjusting the Smart Switch after installation, during service.

Adjusting the Smart Switch after installation is an adjust and test process. Make very slight adjustments and check the voltage settings until the desired points are set. Set the reconnect voltage first before adjusting the disconnect voltage. Set the disconnect voltage at least half a volt lower than the reconnect voltage.



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Thank you for choosing the Smart Switch Low Voltage Disconnect from Power Planted LLCTM. Your new switch will provide you with many years of maintenance free service. Please visit www.powerplanted.com for more information.

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