How to add dimming functionality to a solar lighting system

Cable requirements

Use the VE.Direct TX digital output cable ASS030550500 (previously called PWM light dimming cable) which is used together with the MPPT 75/10, 75/15 or 100/15.

- This cable is intended for solar lighting applications (more applications may follow later).
- Energy consumption can be substantially reduced by light-dimming when appropriate.
- Lower energy consumption will reduce overall system cost, and increase light availability even when

the battery has only been partly charged due to bad weather.

The TX cable connects the TX pin on the VE.Direct connector of a MPPT 75/15 or 100/15 to the PWM light dimming input of a LED driver.

Software and firmware requirements

The MPPT solar charge controller must have software version V1.15 or higher. An MPPT with an older version can be upgraded with VE Power Setup which can be downloaded from our website: http://www.victronenergy.com/feeds/ve-power-setup/windows/VEPowerSetupInstaller.exe

The latest firmware can be requested from service@victronenergy.com

A VE.Direct to USB interface (ASS030530000) is needed to connect to the MPPT controller to the computer.

To configure the MPPT controller, download 'mpptprefs': http://www.victronenergy.com/Executables/mppt_vedirect_tools/mpptprefs.zip Please see: http://www.victronenergy.com/live/ve.direct:mpptprefs for the programming options. The dimming function has been tested with the following LED drivers: - RECOM RBD-12 - Glacial Power GP-LD7048-0B - Glacial Power GP-LD3548-0B - MEAN WELL LDH-45