



HotSpot2 Application Note

Fulham's HotSpot2 (PN: FHS2-UNV-36L & FHS2-UNV-56S) family of drivers has gone through recent upgrades to simplify installation and configuration. HotSpot2 emergency LED drivers were introduced as Constant Current emergency LED drivers with the emergency current determined by the harness connected to the driver.

We have introduced the following new features: programmable output current, constant power mode operation, and self-diagnostics. These new features allow for more flexibility and reliable operation.

Programmable Output Current

The output current during emergency operation can now be programmed using the TPSB-100 programmer. The programmed current will override any harness configuration.

Example - programming a HotSpot2 EM driver to 350mA will result in 350mA during emergency operation even if a 700mA FHS-HARNESS-700 or 100mA FHS-HARNESS-100 or any other value is connected to the driver.

Constant Power Mode

The output power of the HotSpot2 EM drivers will not exceed the rated power of the battery connected to it and will operate in constant power mode under certain circumstances. To take advantage of this, always use an output Harness (or program the output current) to the maximum of the LED module rating. Under these conditions the HotSpot2 driver will either operate at the set current or constant power, depending on the forward voltage of the LED module.

Example - In an application where the LED module is rated for 700mA or greater, one can standardize using a 700mA output Harness (FHS-HARNESS-700). During EM condition the output would be 700mA or the maximum output that the battery is rated for. If the LED module forward voltage is 20V and a 16W battery is connected, the unit will operate in Constant Current mode and provide 700mA / 14W. If an 8W battery was connected, the unit will automatically reduce the current and provide ~400mA / 8W of emergency power.

Self-Diagnostics

The HotSpot2 now features Self-Diagnostics. This feature is factory disabled and will need to be enabled using the TPSB-100 or using the test switch by performing the following:

With the unit powered, press and hold the test button for one second, then release and quickly press the test button two times, then release and press and hold the test button for two seconds. When properly executed the indicator on the test button will display the appropriate color for the Enable/Disable status. A flashing of 2.5s ON/0.5s OFF means "Enabled", while a flashing of 0.5s ON/2.5s off means "Disabled". Once Enable/Disable is set the status color on the test button will remain the same throughout normal operation.

Further information on Self-Diagnostics can be found at:

<https://www.fulham.com/PDFs/Fulham-Application-Note-Self-Diagnostic.pdf>