

*I think he's saying,
"Get this thing off my face!"
Is that what you heard?*

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Clearwater CANopener

**INNOVATION
OF THE MONTH**

CLEARWATER'S CANOPENER AUXILIARY lighting management device for late model BMWs interfaces with the factory CANbus system, allowing riders to control up to two select pairs of the company's dimmable LED lights (such as the previously tested Krista and Glenda kits, MCN February 2013 and March 2011, respectively) using the existing factory switchgear. The advantages are several: First, it cleans up the rider interface since no additional switches or dimmers are required for operation. Second, functionality of the lights can be tied in with other systems (such as triggers via horn and hazard light actuation.) Finally, CANopener can leverage real-time CANbus data to allow for dynamic adjustment to ambient daylight conditions, and even inertial auxiliary brake lighting capabilities (more on this below.)

Installation is very simple. The CANopener module plugs directly into BMW's existing Tire Pressure Monitor (TPM) interface on one side, while the LED light harness data cable plugs into the other. There is no need to splice or tap anything. Once hooked up, the CANopener has access to the myriad of monitoring information in the factory CANbus's bi-directional network.

We tested Version 1.84 of the CANopener 3, which includes these main functions:

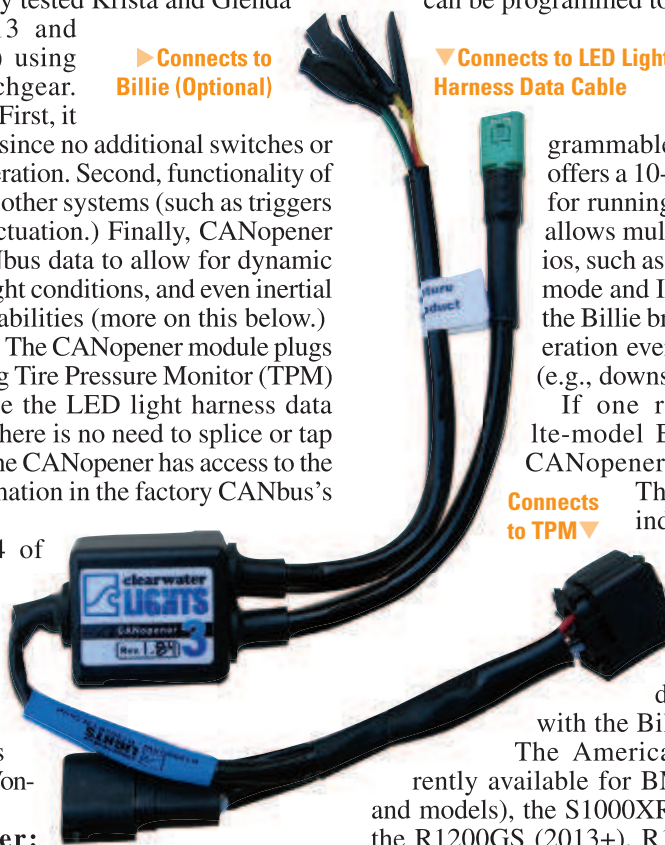
- **Dimming Feature:** Allows independent dimming of up to two pairs of Clearwater lights using the stock BMW "Wonderwheel."
- **Automatic Dimmer:** Compensates for ambient light using the bike's existing photocell.
- **Sevina / Erica / Krista On-Off Light Switching:** Using the existing turn signal cancel button.
- **Horn Activation Mode:** The LED lights can be programmed to illuminate or strobe when the horn button is pressed.

► Connects to
Billie (Optional)

▼ Connects to LED Light
Harness Data Cable

Connects
to TPM ▼

▲ Connects to TPM



■ **Hazard Flasher Alert Mode:** The LED lights can be programmed to strobe when holding the hazard flasher button.

■ **High Beam Mode:** The Sevina, Erica, and Krista lights can be programmed to illuminate in conjunction with the OEM high beam or flash-to-pass buttons.

■ **Billie Brake Mode:** The optional Billie programmable LED tail/brake light module offers a 10-step adjustable brightness range for running and brake light output. It also allows multiple attention-grabbing scenarios, such as the California-legal 4 Hz strobe mode and Inertial Braking Mode, in which the Billie brake lights activate during deceleration even if the brakes are not engaged (e.g., downshifting).

If one runs Clearwater LEDs on a late-model BMW, we would classify the CANopener as a "must have" accessory.

The ability to control the lights independently on the fly using the familiar factory switchgear is a boon, and we were especially impressed with the device's ability to translate CANbus data into real time dynamic brake light actuation with the Billie.

The American-made CANopener is currently available for BMW's K1600-Series (all years and models), the S1000XR, and water-cooled versions of the R1200GS (2013+), R1200RT (2014+), and R1200R (2015+.) Price varies by light kit since the CANopener is ordered with the dimmable LEDs of your choice. For reference, on our 2015 R1200RT test mule, prices start from \$519 for the complete G55 Glenda package. The optional CANopener-controlled Billie brake light system is \$149.

—Moshe Levy

Clearwater Company; www.clearwaterlights.com