

Safety Lighting: Be Seen, Not Hit

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"I didn't see the motorcycle." This is the number one reason/excuse car drivers give when they cause an accident with a motorcyclist which has given rise to the mantra "ride like you're invisible." I've had the displeasure of personally hearing the "no see MC" defense (or should that be inattentive 'offense') twice: once in court by a guy who pulled a left in front of me and the other by a gal who would have rear-ended me at night had I not pulled out of her skidpath into a traffic-less intersection. We all have similar tales or know those that do. So, how can we prevent it? First, there is NO guaranteed way to make sure cages see you, but you can use measures to increase your conspicuousness and lessen your chances of being an accident victim (even the best conspicuity devices are no replacement for defensive riding skills/tactics, but that's a different article). While not an expert, I'm going to germinate the ideas by focusing on three illuminatory groups of devices: headlight modulators, riding lights and enhanced brake lights. Some of the info is from a BMW perspective, but the concepts apply to all bikes.

Daytime headlight modulators are 50-state and Canadian legal. They are not flashers that go "on-off-on-off..." but rather modulate the headlight beam "bright-brighter-bright-brighter..." as per federal DOT frequency and output regulations. They work on the principal that the human eye best notices objects that change in its field of vision and give you a one-up over cars with DRLs. A kit can run in the \$100-200 range and be as small as a headlight socket plug, a electronic eye, a switch and some wires. Modulators are strictly a daytime measure and their electronic eye prevents them from modulating when it's too dark out. The switch allows you turn them on/off and all modulators are required not to impede normal headlight/high-beam function should they fail. Some also wire into to the horn to automatically activate or increase oscilation rate briefly if you honk. Occasionally cars will even misidentify you as a cop bike and pull onto the shoulder while others may think you're flashing your highbeam to pass, but as long as it conforms to DOT specs and usage (daytime), it's legal. Kriss and Kisan are some of the companies producing these devices. Riding lights or running lights can be quite eye-catching as semis and Christmas tree Goldwings have shown. The extra lights better define the profile and dimensions of a bike. Car headlights seems spread out as they get closer and their taillights converge as they drive away. Conversely, it's harder for others on the road to judge the distance of a MC with only a single headlight and taillight which can lead to a wreck. Two or more lights on the front and back of you bike will aid others in judging your distance. Also, side lights increase a MC's profile visibility to that SUV who wants your lane. The simplest setups need no additional lamps as they use a bike's existing turn signals, often are visible from the side too via their 180-degree lenses, and are about \$50 a set. For the front, Run-n-Lites replaces signal sockets for use with dual-filament bulbs common to brake lights where the 5-watt 'low' filament serves as a running light and the 21-watt 'high' filament serves as a turn signal. Lite-Buddy's (recently bought by Run-N-Lites) uses separate clusters of white or yellow LEDs mounted behind the lenses to illuminate the signal pod like a 'low' 5-watt filament thus retaining the stock 'high' signal bulbs and wiring. LED add-ons are often much easier to install and transplant onto different bikes in addition to drawing potentially less current. Though some use Run-N-Lites on the rear as yellow taillights or dye the lenses red, I recommend against it. **KEEP YOUR INTENTIONS CLEAR!** To avoid confusing other vehicles and being cited for "vehicle lamp code" violations, follow these guidelines for color, brightness, location and oscilation: White: Headlights, either 1, 2 or 3 headlamps for illumating the road only (or no more than one modulating daytime lamp arranged like 'O', 'oo' or 'oOo'). Note that three lamps is one main and two road/auxiliary lights. Yellow: Markers and indicators. Front or side marker light and not as bright as the flash of a turn indicator and hazard flasher lights which are also yellow. Red: Tail and braking. Solid identifies the rear of a vehicle whereas bright red or flashing indicates braking. Red rear turn sigals could make a following car think you're only pump braking and then hit you as it tries to pass. Yellow running taillights are widely illegal and can confuse following vehicles as to your intentions as well. This is why I like Lite-Buddy's for tail running lights in the signal pods since the red LEDs still shine red through the yellow lense, but are over-powered by the flash of the stock turn signal which still shows yellow. If you signal left for example, the tail of your bike with look like this "rRr, yRr, rRr, yRr,..." Enhanced Brake Light systems vary widely and start around \$50. First there's what they do while riding and braking. Some are off and come on only when braking for high blackness-to-light contrast. Others flash when braking, with some flashing faster the harder you brake, but are off or serve as riding lights when the brakes aren't applied. With some states disdain for continuously flashing brake lights, many companies' flashers blink six or so times then stay on steady. Various combinations can be tried depending on whether you wire the light/flasher to the taillight/stoplight wire. Just remember to K.I.S.S., Keep It Simple, Stupid so the car following knows what you're doing rather than just being mesmerized by your gratis Pink Floyd laser brakelight show. Location is the other option to choose from. Lite-Buddy's and similar products mount inside the signal pod preserving a stock appearance. Hyper Lites allow you to choose where you mount the LEDs like under the taillight, on the sides of the license plate or under the signal pods. Some, like Lite Buddy's Lite Blazer, mount to the license plate and use both running and flashing LEDs while others frame the plate with them. Most orient added brake lights so that they form a familiar "braking light triangle" just like the third brake light on cars and trucks does. What ever set-up you choose, it's essential that LED brake lights be properly adjusted as their narrower beam of high-intesity light is best aimed just a hair up from horizontal to get maximum attention from the driver behind you. Looking at the above and websites like www.bmwcruiser.com/Mods/hyperlights.htm, www.f650.com/TechTips/AccessoryTips.cfm and www.verrill.com/moto/moto.htm will give you a better idea of the nature, installation and look of these kinds of conspicuity enhancement measures. Some are even animated like your favorite Saturday cartoons. Still, there are a LOT more options and makers of these type of products out there. If you have any further questions, contact me, or just do some research on your own since many local MC dealers/suppliers carry them. Joe #3335

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