



## ...CONFIGURATION...

The Twinlight Driver<sup>2</sup> has separate modes for “day light” and “low light” conditions. So during the day you can have a brighter mode, while having an appropriate mode for sunset to sunrise. It will switch between the modes you chose automatically, using its light sensor.

When first installed, it is configured with a modulating mode during day light, and to turn off between sunset to sunrise. It is easy to change this to suit your preference. All the settings can be changed by turning on the ignition and flashing the high beam with the passing button a number of times. The options below will tell you how many times to access each setting. Once you turn ignition on, you must start to flash within 2.5 seconds, otherwise it will ignore them. The flashes only need to be brief presses, you can go fast or slowly. Once you have flashed the number of times needed, it waits 2 seconds for any more before accepting the count.

All the features are described below. The one of most interest is “*Setting 3: Headlight Mode*”. If the Twinlight Driver<sup>2</sup> is not turning on or working as you want, don’t panic, read the “Testing” section.

### **Setting 1 : Start Now**

The Twinlight normally comes on after the engine has started, or 12 seconds after ignition on. For convenience, if you turn ignition on and flash once it will skip the delay this time and start immediately.

### **Setting 2: Master On/Off**

If the Twinlight is set to Master Off, it’s simply off! High beam still works as normal of course. If you turn ignition on and flash twice, it will toggle between Master Off and Master On. Factory Default = On.

### **Setting 3: Headlight Mode**

There are basically 3 group of modes:

- Modulator Modes: Modulates between full power and a lower power.
- Daytime Running Light: Constant brightness.
- Dim Modulator Modes: Lower brightness version of the modulator modes.

The Modulator Modes are designed to comply with the US, Canada and Australian regulations, which may only be used legally during daylight. The Dim Modulator Modes may be useful for night operation given the local regulations permit it’s use. The Brightness Modes effectively reduces the brightness of the high beam light. It is designed to provide an alternative Daylight Running Light, where at suitably low settings does not dazzle oncoming traffic during the day. This may not comply with local regulations, or may need to be under a certain brightness level to comply.

You can easily cycle through these modes to see what they look like and assign them to day light and low light use. Turn ignition on and flash 3 times. After a short pause, it will run the current mode. Flash to go to the next mode or hold the flash for at least half a second to go back to the previous mode.

You should set both the day time and night time modes to suit your preference. If it's currently daylight, you can cover the light sensor to set the low light mode. If it's already dark, shine a torch on the light sensor to simulate daylight. The mode will automatically change back and forth as you play with the light sensor. They are saved as soon as they are selected. Just set the modes for both day light and low light, then turn ignition off to exit. Just for reference, the shadow filter routine for the light sensor is bypassed while doing this, so it changes “quickly” between day and sunset while your playing with the light sensor and modes.

<b>HEADLIGHT MODES</b>	
With each flash, you go to the next mode down the list (loops to top).	
Off	(default low light mode)
Modulator	<b>Discrete</b>
Modulator	<b>Light</b>
Modulator	<b>Lower</b> (default day light mode)
Modulator	<b>Low</b>
Modulator	<b>Medium</b>
Modulator	<b>High</b>
Modulator	<b>Higher</b>
Modulator	<b>Max</b>
Off	
Daytime Running Light	<b>95%</b>
Daytime Running Light	<b>89%</b>
Daytime Running Light	<b>83%</b>
Daytime Running Light	<b>77%</b>
Daytime Running Light	<b>72%</b>
Daytime Running Light	<b>65%</b>
Daytime Running Light	<b>59%</b>
Daytime Running Light	<b>51%</b>
Daytime Running Light	<b>43%</b>
Daytime Running Light	<b>35%</b>
Daytime Running Light	<b>25%</b>
Off	
Modulator Low Brightness	<b>Discrete</b>
Modulator Low Brightness	<b>Low</b>
Modulator Low Brightness	<b>Medium</b>
Modulator Low Brightness	<b>High</b>

#### **Setting 4: DAY LIGHT Courtesy Function**

Some of the modulator modes appear like a flashing light and can annoy drivers unnecessary. For example, while stationary or travelling behind other vehicle for long period on highways. Those that do wish to use these highly conspicuous modes, may also be interested in enabling the Courtesy feature.

If enabled, a brief flash <0.5 seconds will toggle the Twinlight on/off. If the high beam is on for more than 0.5 seconds, it will not toggle. There are separate courtesy enables for both day light and low light modes. If both are enabled, then toggling in either lighting condition will toggle both on/off. If only one enabled, then the toggle only works for that light mode.

You can enable/disable the Day Light Courtesy function by turning ignition on and flashing 4 times. You don't need to turn ignition off. Factory Default = Off.

#### **Setting 5: LOW LIGHT Courtesy Function**

Similar to setting 4, but for Low Light Courtesy function. Flash 5 times to toggle enable/disabled status. Factory Default = Off.

### **Setting 6: Delayed On**

When you first turn ignition on, the Twinlight Driver<sup>2</sup> remains off for at least 12 seconds, or until it detects the engine has started. This practical feature helps avoid the strain on the battery when you are trying to start the engine.

You can turn the timed delay on/off, and instead it will turn on when ignition is on. Turn ignition on and flash 6 times to toggle the delay function. Factory Default = On.

### **Setting 7: Engine Running Detect**

When enabled, this feature will monitor the voltage to detect if the engine has started. If it detects a sufficient level, it will enable the Twinlight Driver<sup>2</sup> (over riding the delayed on). This may not work on all models of bikes, as it is dependant on the alternator output and wiring impedance which can vary.

You can enable/disable this function by turning ignition on and flashing 7 times. Factory Default = On.

### **Setting 8: Master Reset**

If you are unsure of the settings, use this to reset all options back to the factory defaults. Turn ignition on and flash 8 times.

### **Setting 9: Courtesy Mode Start-up Default**

This setting only applies if you have one or both of the courtesy functions enabled. Given the ability to toggle the Twinlight on/off, this option let you define if it starts in on or off mode when ignition is turned on.

To toggle the start-up default, turn ignition on and flash 9 times. Factory Default = Twinlight On.

### **Setting 10: Extended Sunset**

If the light sensor doesn't have a good view of the sky and it is switching to low light mode before you prefer, this option may help. If enabled, it will wait until it's darker before going to low light mode. To toggle this setting on/off, turn ignition on and flash 10 times.

## **Testing**

Once you install the unit, with default settings it needs 3 conditions to be met before you see something happen. The light sensor needs to see enough light (daylight). The ignition must be on for at least 12 seconds or the engine has been started.

Don't get confused between night time and "low light". The detection level has been set in accordance with regulations of some countries governing the use of headlight modulators (given setting 10 is not toggled on). If the sun has set, it's low light. Parked in the garage or within a dark shadow will be low light. The light sensor needs to get a clear view towards the sky for it to work accurately and as designed.

Adjust the Twinlight Driver<sup>2</sup> to suit your preference. Use setting 3. You can cycle through the modes and pick the ones you want to have running.

### **IMPORTANT DISCLAIMER**

The owner accepts ALL responsibility for the use and installation of this product. The product must not be used if malfunction occurs, a suspected malfunction occurs and/or not configured correctly. This product should not be used where it is not compliant with local laws. Such as, where the use of any high beam light may not be permitted in the presence of oncoming traffic.

It is recommend to only use this product with the bulbs recommended by the manufacturer of the motorbike. Although the Twinlight driver can run a 100W bulb, the wiring may not. Using over-rated bulbs could result in excessive heat in the wires, damage to the light assembly and possibly blowing a fuse. As many modern bikes only have one fuse for both headlights, it poses a safety risk to make any modifications to the lighting system. Only use if safe and permitted to do so and at your own risk.