

Setup and Tuning

The *Nextup Controller* should now be completely wired into the bike. Test power and ground connections by turning the ignition (key) switch to the ON position. The LED bar graph display should light up and stay lit. There are two different ways to tune your *Nextup Controller* depending on whether a gear position sensor is being used.



Tuning WITHOUT a Gear Position Sensor

1. The *Nextup Controller* can be used to set the amount of time between when the shift is triggered and when the engine power is cut. This delay value can be set by pressing the Delay button repeatedly until the display bar shows the amount of time, in milliseconds, you want the delay to happen. Wait 2 seconds and the bar graph will flash the LED lights telling you that the setting has been written to memory.
2. The *Nextup Controller* can be used to setup the amount of time the engine power is cut (aka “kill time”). This kill time can be set by pressing the Kill button repeatedly until the display bar shows the amount of time, in milliseconds, you want the kill to happen. Wait 2 seconds and the bar graph will flash the LED lights telling you that the setting has been written to memory.

Congratulations! You're Done!

Tuning WITH a Gear Position Sensor

1. Turn both the ignition (key) switch AND the engine stop switch to the ON position.
2. **IMPORTANT** – the *Nextup Controller* **must** be configured to work with your motorcycles gear position sensor. Motorcycles such as Suzuki use a STANDARD gear position sensor that outputs lower voltage values at lower gear positions. Some motorcycles, such as Kawasaki, use a REVERSE gear position sensor that outputs higher voltage values at lower gear positions. If you do not know what type of gear position sensor you have use a multimeter connected between the Gear and Ground terminal screws and compare the voltage reading in 1st gear and 2nd gear. If the 1st gear value is lower than the 2nd gear value you have a STANDARD gear position sensor.

Refer to Figure 1-1 when configuring the *Nextup Controller*. Reset your *Nextup Controller* by holding both the Delay and Kill buttons until the LED bars turn OFF (takes about 5 seconds).

- a) Setup the *Nextup Controller* for the STANDARD (Suzuki) gear position sensor by releasing the Delay button first. The *Nextup Controller* will confirm this by flashing the Delay bar graph.
- b) Setup the *Nextup Controller* for REVERSE (Kawasaki) gear position sensor by releasing the Kill button first. The *Nextup Controller* will confirm this by flashing the Kill bar graph.

The *Nextup Controller* is now configured.

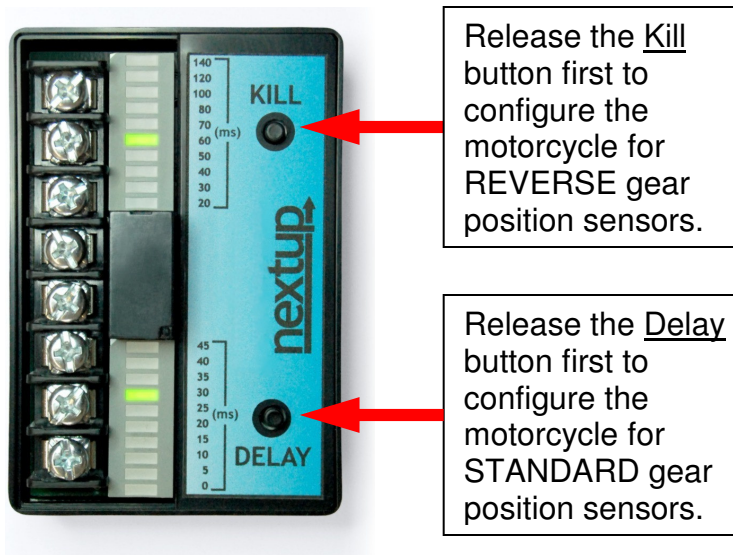


Figure 1 - 1

3. Place the motorcycle into 1st gear.
4. The delay value is the amount of time between when the shift is triggered and when the engine power is cut. Set the delay value by pressing the Delay button repeatedly until the display bar shows the amount of time, in milliseconds, you want the delay to happen. Wait 2 seconds and the bar graph will flash the LED lights telling you that the setting has been written to memory.
5. The kill time is the amount of time the engine power is cut during an upshift. This kill time can be set by pressing the Kill button repeatedly until the display bar shows the amount of time, in milliseconds, you want the kill to happen. Wait 2 seconds and the bar graph will flash the LED lights telling you that the setting has been written to memory.
6. Repeat steps 4 and 5 for gear positions 2, 3, 4, and 5. It is OK to leave delay and kill times unchanged for two or more gear positions.
7. Once complete, go back through the gears and confirm the LED bar graph displays the correct timing for each gear. Make changes as needed.

Congratulations! You're Done!

SUGGESTED STARTING VALUES

| | Engine Setup | |
|--|---------------------|-------------------|
| | Naturally Aspirated | Boosted / Sprayed |
| Delay | 10 – 20 ms | 10 – 20 ms |
| 1st Gear Kill | 40 – 80 ms | 60 – 80 ms |
| 2nd Gear Kill | 40 – 60 ms | 50 – 60 ms |
| 3rd – 5th Gear Kill | 30 – 40 ms | 40 – 60 ms |

When using a quickshifter, the *Delay* value can be tuned to vary the amount of preloading done by the foot before the power cut happens. For best results set the *Delay* value between 0 – 20 ms.

CONTACT INFORMATION & DISCLAIMER

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- DISCLAIMER -

This Product is for Off-road Use Only

The Purchaser understands and recognizes that this product is subject to many and varied conditions due to the manner in which it is to be installed and used. It is the purchaser's responsibility to determine the suitability of this product for his or her application. The Purchaser agrees to indemnify and hold Biperformance Development Corporation harmless from any loss, damage, injury, cost of repair, or consequential damages of any kind in connection with the sale or use of this product.