



TECH SUPPORT : TRACTION CONTROL SETTINGS

Note: The Bazzaz Software Manual has basic instructions and images regarding setting up traction control

Introduction

There are two different aspects of the Bazzaz Traction Control that can be adjusted to yield the desired traction control characteristics: sensitivity and cut level. Cut level is simply the amount of interference imposed by the Z-Fi TC once traction control activates, while sensitivity is the tolerance the system has for wheel spin before activating. The Z-Fi TC system does not directly monitor wheel spin via a speed sensor. Instead it monitors the rate of change of the crankshaft, or basically how fast the RPMs are accelerating. Once the acceleration of the crank shaft falls within the set sensitivity level, it begins to cut spark at the coils to limit the power output to the rear wheel.

Cut Level

Cut Level is more specifically the frequency with which the system cuts spark. As the Cut Level value is increased the Z-Fi TC cuts spark more frequently when the TC is activated, thus lowering the power output to the rear wheel. Cut level values can be set 0-10, 10 being the maximum interference level, and 0 being no interference. Cut Levels are set for each throttle position represented in the Z-Mapper software and is not affected by either the software's gear trim function or the trim setting of the TC Adjust Switch.

Sensitivity

The sensitivity settings for the Bazzaz Z-Fi TC are highly adjustable and consist of four different layers. These layers, in order of priority are: TC Mode, Sensitivity Map, Gear Trim, and TC Adjust Switch Trim. The Sensitivity Map is laid out exactly like the fuel map, with the ability to set an individual value for each RMP vs. Throttle Position increment. These values can be set 0-10, 10 being the most sensitive and 0 representing TC off. When a cell is blank that means it holds a 0 as its value, and when the bike is operating at that point, there will never be any TC activity. This is important, because as you adjust your different Trim settings; the blank portions of your sensitivity map will not be affected. Final TC sensitivity level is always calculated as follows: $TC\ Level = Map\ Value + Gear\ Value + Switch\ Value$.

As mentioned previously, the sensitivity level is the tolerance the system has for wheel spin. So the lower the sensitivity level the more the wheel can spin before the TC is activated. In Expert mode, the displayed values for the sensitivity level are four steps less sensitive than in Default mode. So if you have a value of "5" in Expert mode, it is the equivalent of a "1" in Default mode. It is strongly discouraged to set your system to Expert mode if you are not at a highly advanced level of riding ability.

Once you have selected your TC mode, it is recommended to taper off the values in the sensitivity map in the areas where less TC is needed. The idea behind TC is that you need the most in the areas where you are leaned over and applying throttle. This is where customizing TC becomes a very case by case basis, depending on riding style and power delivery of the vehicle. Typically it is mid throttle values and upper midrange RPMs where you need the most TC, because those are the areas you are in when exiting a corner, before you have the bike stood up and on the meat of the tire. If you have a dyno graph of your bike's power output, then you can tailor the TC map around the bike's torque curve, putting the most TC in the areas where it has the most torque.

Gear Trim

After customizing your sensitivity map to your preferences and your bike's power characteristics, you can set your various trim options. The first layer of sensitivity trim is the Gear Trim. Here you select which gears you want more TC in and which you want less. Any value displayed in the gear trim will increment the entire sensitivity map by that amount, except for the blank cells. The range of values for gear trim is -5 through 5, with the option of turning TC "OFF" one click down from -5. If your entire map is populated with values of "5" and your 1st gear trim is set at a "2", your effective TC sensitivity level in first gear is "7". A zero in the Gear Trim is "No Adjustment", meaning that whatever levels are in your sensitivity map are the values being used while in that gear.

TC Adjust Switch

The final layer of TC sensitivity is the TC Adjust switch, which gets mounted on your handle bar for on the fly adjustments. The value range is the same as the gear trim, OFF through 5. The switch trim is applied after the gear trim and is a global change. If your TC Adjust switch is set to a value of "1" then the effective TC level will be incremented by +1. Going back to our previous example, if your map has a value of 5, your gear value is set at 2, and your switch value is at 1, then your effective TC level is 8; $5+2+1=8$.