

Getting Started Suggestions

a.k.a. **READ THIS FIRST**

After unpacking the controller please do not immediately hook up and start trashing. Each controller comes with an instruction manual that describes all of the functions of the controller. Please read it thoroughly as comments received from some owners indicate that the functions of the various controls and how they interact with each other were not fully understood.

I also suggest testing all functions of the controller in a private practice session as controls such as Sensitivity, UVL and the TPC switch interact with each other. The worst possible situation to try to learn how to operate the controller would be one where it was first hooked up at a race and the user is trying to figure out the controls in a competition setting. It is recommended to become comfortable with the controller before using it in competition.

The controller is shipped with the controls in the following positions.

- Coast/Brake Switch – Center (OFF)
- Sensitivity Range switch – Low Range
- Sensitivity Dial – Minimum starting voltage
- Coast/Brake dial - Minimum brake/coast
- UVL dial - Maximum final voltage
- TPC switch –Full Power/Position 0 (UP)

These control settings are recommended as the starting point for learning the controller.

First get used to the Sensitivity low range control as this will accommodate all HO cars from T-Jet to Unlimited. The high range was designed for cars that run on 12 volts and is typically used for G-Jets, Viper Jets and other brass cars.

Once you are familiar with sensitivity then experiment with coast and brake. Unlike a Parma controller the trigger must be fully released and the trigger contact must be resting on the brass post to activate coast or brake. Slight pressure on the trigger when released will result in intermittent coast/brake operation.

HO cars do not do well with full brakes. I have found that too much brake can lead to inconsistent lap times. This is especially true with T-Jets or cars with slip on silicones. It is best to start with minimum brake and increase braking force until the car is slowing such that it smoothly rolls into the turn before you need to apply power. Likewise, a small amount of coast is typically better than too much.

Once you are familiar with coast and brake its time to further expand your understanding by experimenting with the TPC switch in its three positions. The TPC switch is activated when the trigger is fully depressed. Position 0 (UP) provides full power supply voltage to the car. Position 1 (DOWN) inserts a diode into the circuit and reduces power supply voltage by approximately 0.7 volts. Position 2 (CENTER) disconnects the full power bypass and allows the UVL dial to set the voltage provided to the car when the trigger is fully depressed. TPC switch positions 0 (UP) and 1 (DOWN) are safe to use with any HO car. TPC Position 2 (CENTER) was specifically designed to limit voltage supplied to can motored Gravity class cars and is **not recommended** for use with magnet cars. This is especially true for Modified, CPCM, Drop-In Neo and Unlimited class cars.

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Finally experiment with the UVL dial with the TPC switch in all three positions. You will find that there are situations where you want to limit power in intermittent trigger positions while still supplying full power to the car when the trigger is fully depressed. Likewise you may find that certain cars like the TPC switch to be in Position 1 (DOWN) with some UVL voltage reduction. The following examples show where the TPC and UVL controls were tickets to fast and consistent laps.

One controller setup for T-Jets running wide slip on silicone tires used the UVL dial with the TPC switch in Position 0 (UP). The UVL dial set to about 80% of maximum and the brake dial was set to about 25% of maximum. I had a four foot diameter 180 degree sweeper that connected the back straight to the front straight. Taking this turn right was critical to a good lap. I entered the turn with a touch of brake (I brake very late) and then smoothly rolled the trigger up to about 95% throttle. I was at 95% throttle about halfway through the turn. The UVL dial was used to limit the voltage such that the car did not lose traction while in the turn. When the front of the car was about to enter the straight it was time to go to full throttle. With these controller settings and the above driving style I could take that turn perfectly lap after lap. The result was very consistent and very fast laps.

Before the UVL dial was added a trick when racing 12 Volt HO cars was to start a segment with the TPC switch in Position 0 (UP). After 4 or 5 minutes (or when the slip on silicone tires started to degrade) the TPC switch was placed in Position 1 (DOWN). This switch position slightly reduced power to the car but didn't significantly impact lap times. The reduction of power slowed tire degradation and made it possible to extend the run before having to stop to clean tires. A similar result could be accomplished with the TPC switch in Position 0 (UP) and the UVL dial set to take a bit off of the top.

Sometimes I refer to the Tri-Power Choke (TPC) switch as the Tri-Level Choke (TLC) switch. The Tri-Level Choke name and the TLC acronym were used in the controller's history and sometimes it pops up. They are one and the same switch.

Regards,

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