



OptiDrive™ Setup for After-Market Radio Systems

Complete instructions for setting up the Traxxas OptiDrive controller unit for the Traxxas TQ radio system is covered in the Revo manual. However, if an aftermarket radio system is used, the OptiDrive will need to be reprogrammed to work properly. The most important reason for reprogramming the OptiDrive is the “endpoint adjustment” featured on most aftermarket radio systems.

The OptiDrive controller works like a modern electronic speed controller, it detects the throttle trigger position between the range of 0 to 100% travel distance. Follow these quick instructions to program the Traxxas OptiDrive controller for use with an aftermarket radio system.

Aftermarket Transmitter Setup

(Refer to the radio manufacturer's manual for instructions on performing these steps)

Channel 1 (Steering Channel)

- **Servo reverse switch:** Set the reverse switch so the wheels turn in the correct direction in relation to the vehicle (clockwise right turn / counter-clockwise = left turn).
- **Trim:** Set the steering trim so the wheels point straight forward.
- **Steering EPA (servo endpoint adjustment):** Set the steering EPA adjustment to obtain the desired amount of steering. **Caution: Do not adjust more travel into the steering servos than the steering components will allow. This can cause permanent damage to the steering servos.**

Channel 2 (Throttle/Brake Channel)

- **Servo reverse switch:** Set the reverse switch to open the carburetor when the controller trigger is pulled. The brake system is activated when the trigger is pushed.
- **Trim:** Set the trim so the carburetor is closed when the trigger is in neutral position. **It may be necessary to reposition the throttle servo horn if the carburetor does not close completely with the trim adjustment. It's ideal for the trim position to be as close to center as possible when the carburetor is closed.**
- **Throttle EPA:** Set the throttle travel endpoint so the carburetor opens completely when the trigger is pulled completely. **Do not change this setting after it's programmed into the transmitter.**
- **Brake EPA:** Set the brake travel endpoint for the desired brake performance

Channel 3 (Shift Channel)

- **Servo reverse switch:** The OptiDrive controller will work with either shift channel position. Do not change the position of the reverse switch after programming the OptiDrive. **If the shift channel reverse switch needs to be switched in order to achieve the correct forward/reverse shifting position, see the *Reversing the Shift Channel* section below.**
- **Shift channel EPA:** Set channel 3's (shift channel) travel endpoints to achieve approximately 70 degrees total throw (35 degrees forward / 35 degrees reverse).
- **Shift horn position:** Set the position of the shift servo horn (see *Forward/Reverse Shift Servo Setup* section below).

The transmitter is now ready for Controller Programming.

OptiDrive Programming

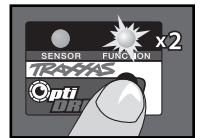
OptiDrive Programming Precautions

Ensure these conditions are met before programming:

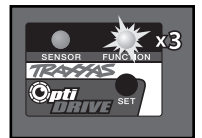
- The engine is OFF.
- The transmitter is turned ON and has been adjusted as described above (see *Transmitter Setup* section above).
- The vehicle's power is ON.
- The OptiDrive is connected to the receiver.
- **Always program the OptiDrive when engine is not running.**

Programming the OptiDrive

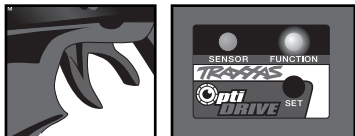
Press and hold the OptiDrive SET button (with the transmitter throttle at neutral) until the OptiDrive's function LED flashes green twice (about 2-3 seconds). Release the button immediately. You are now in programming mode. **If the set button is released before the function LED flashes green twice, the OptiDrive programming will have to be repeated.**



Pull the transmitter throttle trigger to the full throttle position. Hold it at full throttle until the function LED flashes green three times. Release the transmitter throttle trigger allowing it to return to neutral. **The throttle servo will not move during programming even if it is connected to the OptiDrive.**



The function LED will turn solid green, indicating that the shifting servo is OK to shift and the programming has been completed. **If you experience any problems during programming, turn off the receiver and repeat the programming steps.** The OptiDrive is now programmed and ready to go!



Note: Any time the transmitter settings are changed, the OptiDrive will have to be reprogrammed.

Reversing the Shift Channel

The OptiDrive is set at the factory for a shifting servo that rotates counter clockwise for forward gear position and rotates clockwise for reverse gear position.

To reverse the shift channel follow these steps:

1. Turn on the transmitter.
2. Turn on the receiver.
3. Set the shift channel reverse switch (Channel 3) on the transmitter to reversed direction.
4. Press and hold the OptiDrive's SET button until the function LED flashes red twice (about 6 seconds). Release the SET button.

Returning the shift channel to factory setting:

If the truck appears to be running underpowered (or at around 70% throttle) it is possible that the forward/reverse settings on OptiDrive and transmitter were accidentally set to the reversed setting. To change the settings back to normal, simply repeat steps 1 to 4 above and release the OptiDrive's SET button after one red flash.

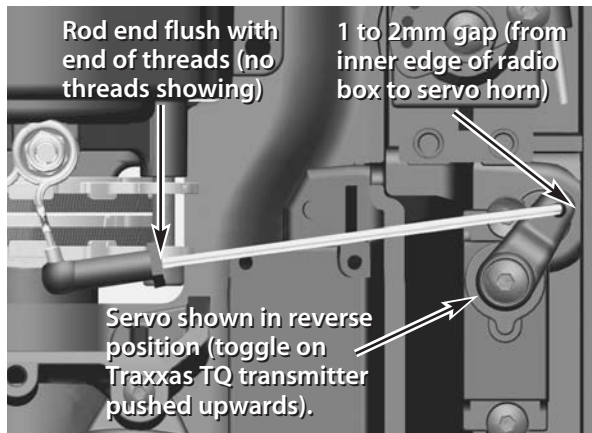
Red Flash Indication Summary

The number of red flashes indicates the shifting servo setting. A single red flash indicates the factory default setting and two flashes indicate a reversed setting.

One Red FlashDefault
Two Red FlashesReversed

Forward/Reverse Shift Servo Setup

The default setting for the forward/reverse shift servo is shown below. The shift servo horn is shown below in the reverse position. If the servo horns are removed, they should be oriented as shown when reinstalled.



If you have questions or need technical assistance, call Traxxas at:

1-888-TRAXXAS

(1-888-872-9927) (U.S. residents only)