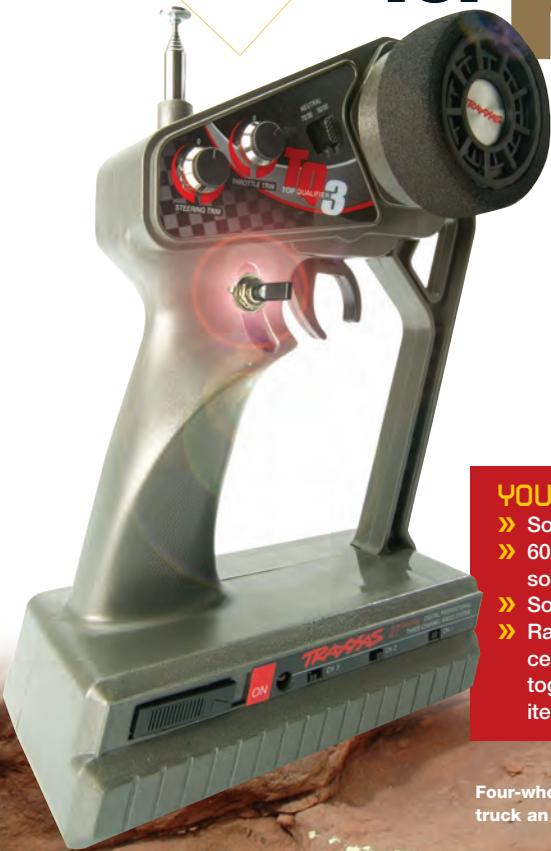


how to:

convert your Traxxas TQ3 for rear steer



Surprise—it's easy

WORDS PETER VIEIRA PHOTOS PETE HALL

Rear-steer is a popular option for rock crawlers, but it requires a 3-channel radio that will set you back at least \$100. Or, you can modify a Traxxas TQ3 transmitter and get the setup for \$5 (if you already have a TQ3), or \$30 (that's about how much it will cost you to get the \$5 RadioShack part and a TQ3 transmitter and receiver off eBay for \$25 or so). Here's how to make the mod. Just keep in mind, you'll void your radio's warranty!

YOU'LL NEED

- » Soldering iron
- » 60/40 rosin-core solder
- » Soldering flux
- » Radio Shack center-off mini toggle switch, item no. 275-664

how it works

As set up by Traxxas, the TQ3's third-channel switch delivers full left and full right servo throw. But if you hold the rocker switch so that it isn't activated in either direction, you'll see that the third-channel servo will center itself. All we need to do to access this center position is to replace the Traxxas rocker switch with a "center-off" toggle switch.

Four-wheel steering can give your truck an edge on the rocks.



how to: rear-steer radio mod

1. REMOVE THE BATTERIES AND CRYSTAL

No tools required here, just pop 'em out. If you leave the crystal in, it will pull itself out when you separate the transmitter-case halves.

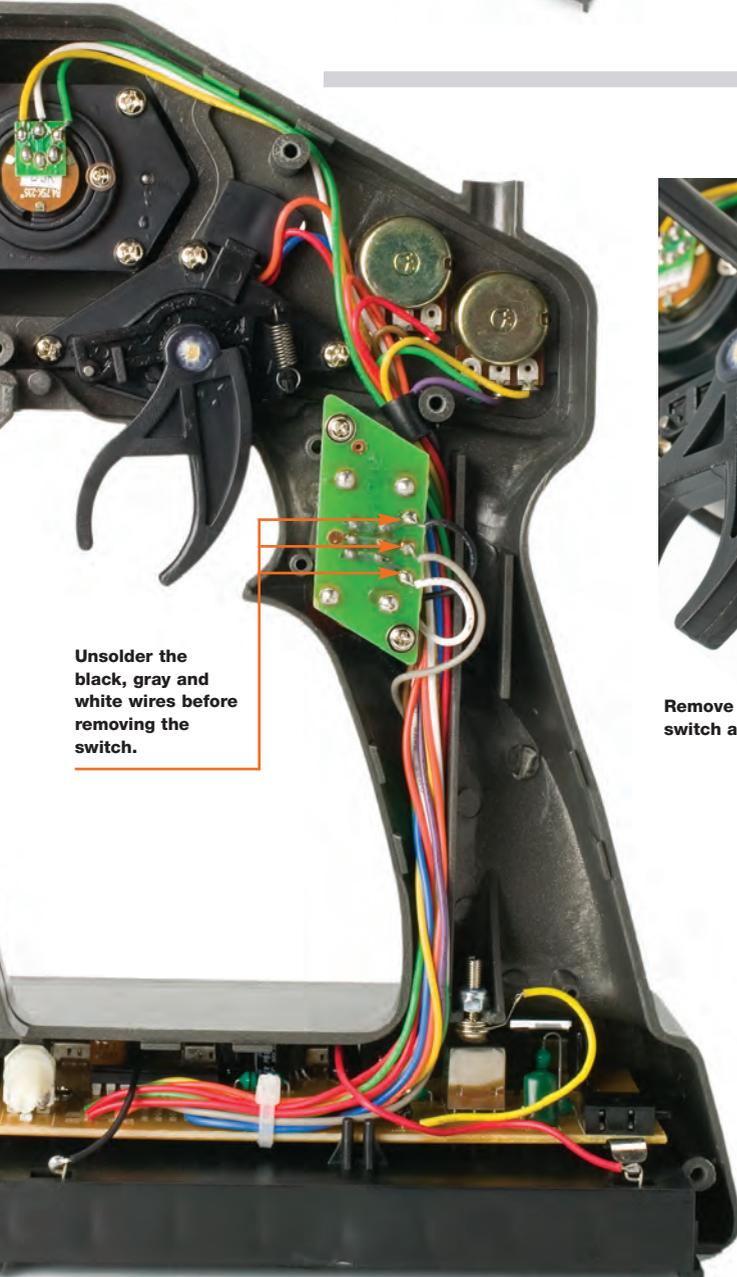
Remove the batteries and crystal before you begin.



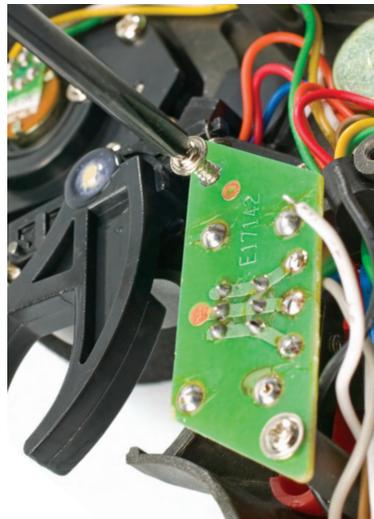
2. OPEN THE TRANSMITTER CASE

Using a number-2 Phillips driver, remove the five screws shown, then gently lift off the back of the radio.

Five screws hold the transmitter together.



Unsolder the black, gray and white wires before removing the switch.



Remove the two screws to release the switch after you've unsoldered the wires.

3. UNSOLDER AND REMOVE THE TOGGLE SWITCH

Unsolder the wires while the switch is still attached to the transmitter. A quick touch of the soldering iron while you tug on each wire will pop them off. Next, remove the two screws with a number-1 Phillips driver to free the switch.

TRIMMING THE SERVO

If the servo does not operate in the direction you want relative to the switch position, just use the third-channel servo-reverse switch on the bottom of the transmitter to reverse the servo's direction. To fine-tune the servo's center point, use the potentiometer on the back of the transmitter.



To reverse the servo's direction, use the switch on the front of the transmitter.



The trim pot for the third channel is on the back of the transmitter.

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4. INSTALL THE CENTER-OFF TOGGLE SWITCH

Use the supplied washers to span the slot in the transmitter case, and tighten the nut to hold it in the case. Dab a little flux onto each of the switch's tabs, then coat each with solder. Now you can attach the leads: gray in the middle, black and white on the sides. Hold the lead against the lug, touch the iron to the parts until the solder flows between them, then remove the heat and hold the wire until the joint cools. It'll just take a second or two.



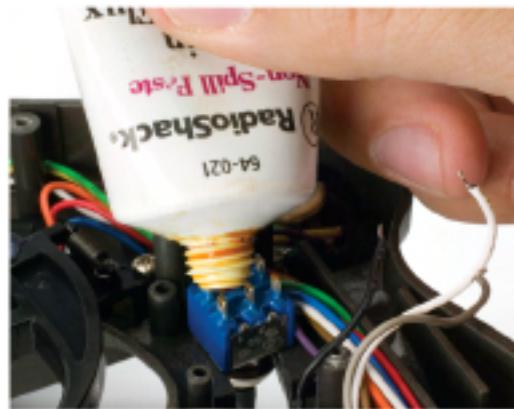
RadioShack's 275-644 switch is the perfect fit.



Insert the toggle switch from behind the front of the radio; then secure it with the supplied nut and washers.



Coat each terminal with solder, and then attach the wires.



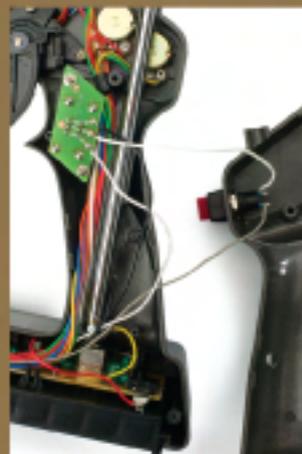
Dab a little flux onto each of the terminals. The switch is "double pole," so it has two rows of terminals. You can use either row.



Installation complete. The gray wire must be in the middle, but the black and white wires can be on either side.

REAR-STEER OPTION 2

If the "I did it myself" look of the toggle switch bums you out, you can get a more factory-looking rear-steer setup by simply installing a pushbutton switch to cut the rocker switch out of the circuit. I like RadioShack's "soft feel" pushbutton switch, 275-1565. To install the switch in the transmitter case, just ream a 10mm hole in the back of the case. The wiring is simple: remove the center wire from the Traxxas rocker switch, solder it to one of the switch's lugs, and then run a wire from the other lug back to the Traxxas switch. When the button is pushed in, the rocker switch is active, giving you rear-steer control. When the switch is out (off), the servo will go to the center position.



The installation is simple; just cut the switch into the rocker's middle lead. You'll need a scrap of wire to make the trip from the pushbutton switch back to the Traxxas switch.



To activate rear-steer, just hit the button. Note that the switch is off-set so it doesn't interfere with the antenna inside the case.

5. REASSEMBLE AND TEST

Reinstall the back of the transmitter case, battery and crystal. Leave the screws out, just in case you need to get back into the radio. Power up the transmitter and receiver, and plug a servo into the third channel. It should remain centered when the switch is in the middle position and swing left and right when you operate the switch. Everything working properly? Now you can button up the radio.



Power up and try out the new switch.

Who knew radio surgery could be so easy? Next time you're in a tight spot, you can thumb the rear-steer switch and get your truck out of trouble. You can also steer the rear wheels in the same direction as the fronts to "crab" the truck—whatever gets you over the rocks! 

SOURCES

Traxxas traxxas.com

RadioShack radiohack.com