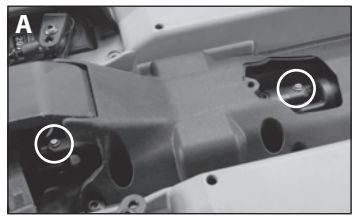
E-Revo Two-Speed Instructions

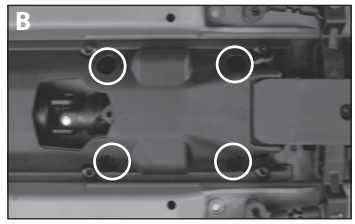
Covers Part #5692

Note: This kit requires a 3-channel transmitter, not included (TQ-3 3-channel transmitter available separately as Traxxas part #2225).

Remove Transmission From Vehicle:

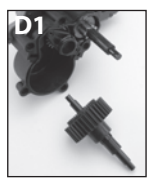
1. Remove the upper gear cover from the transmission by removing the 3x8mm button head screw with a 2mm hex wrench.
2. Remove the motors from the transmission. Using a 3mm hex wrench, remove the rear motor and finned mount assembly as a unit, and remove the front motor by removing the two 3x6mm cap screws with a 2.5mm hex wrench.
3. Using a 2mm hex wrench, unscrew the M4x15 screw pins from the output yokes (A), and remove the drive shafts from the transmission. Gain access to the rear driveshaft by using a 2mm hex wrench to remove the rear driveshaft access cover.
4. Using a 2.5mm hex wrench, unscrew the four 4x12mm button-head screws securing the transmission and remove the transmission from the chassis (B).

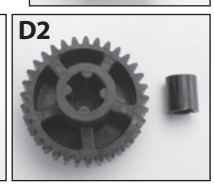


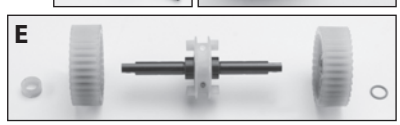


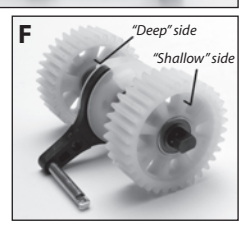
Install 2 Speed Kit Into Transmission:

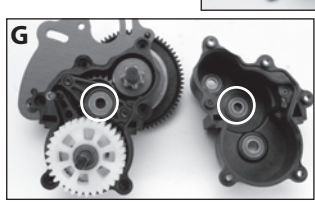
1. Using a 2mm hex wrench, separate the transmission case halves by removing the six 3x12 countersunk screws (C).
2. Remove the main output shaft (D1) and remove its stock gear (D2).
3. Install the selector disc, then, sandwich the two included drive gears on either side (E), noting orientation of each gear as shown. Slide the supplied white nylon spacer onto one end of the shaft, and the grey Teflon washer on the other. **Note**: Each output gear features a shallow side and a deep side. The deep side of each output gear faces the selector disc (F).
4. Insert the selector fork into the selector disc and reinstall the completed assembly into the transmission in the orientation shown (F). **Note**: It is imperative that the end of the assembly with the white spacer be inserted into the front half (spur gear side) of the transmission first.
5. Insert a 5x11mm ball bearing into the shaft support and case half as shown (G).
6. Locate the desired wide ratio (13/26) or close ratio (18/21) gear set supplied with this kit (H; see below for tips on selecting wide or close ratio gearing).
7. Remove the black spacer from the transmission input shaft (top shaft) and replace with the selected wide or close ratio gear (I).

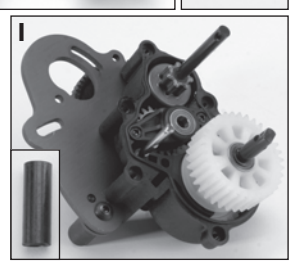




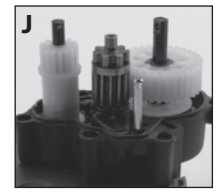


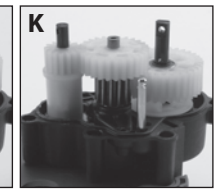


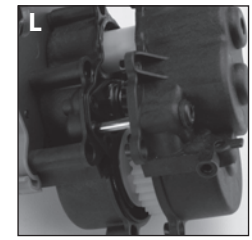




8. Locate the steel 1st gear idler gear, and insert it into the case support (J). Install the matching wide or close ratio gear onto the end of the idler gear as shown (K).
9. Remove the blue plug from the case's shifter port in the rear half. Line up the shafts and carefully reinstall the rear case half to the front half (L), allowing the shifter fork rod to insert through its port. Reinstall the six 3x12mm countersunk screws into the case halves to complete the transmission assembly.
10. Reinstall the Transmission. Installation is the reverse of removal. Caution: Use care during transmission installation to prevent crushing and damaging the servo wires.
11. Reinstall the motors; remember to reset your spur gear/pinion mesh as described in the 5605 Owners Manual.

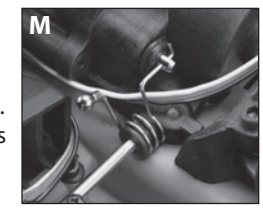


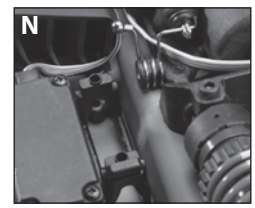


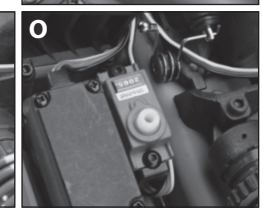


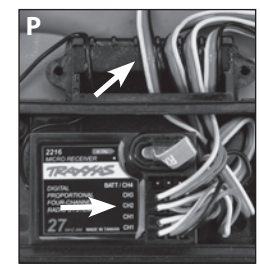
Install Shift Servo and Linkage:

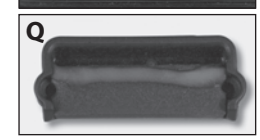
1. Insert the servo saver into the shift fork, and install the servo saver assembly onto the transmission, as shown using the 3x10 flathead screw and a 2.5mm hex wrench (M).
2. Install the shift servo mount into the chassis as shown using two 3x6mm button-head screws (N).
3. Install the servo into the servo mount as shown using two 3x6mm button-head screws (O).
4. Remove the receiver cover by removing the two 3x10mm button-head screws. Remove the wire clamp by removing the two 2.5x8mm cap screws. Lift the receiver to the side.
5. Route the shift servo lead through the water resistant receiver box and into channel 3 of the Traxxas receiver (P). **Note**: Take a moment to inspect the receiver box O-ring and foam seals. Maintain the water tight seal by replacing damaged seals and lubricating the foam with a small bead of silicone grease. (Traxxas part #1647).
6. Bundle excess wire inside the receiver box, and apply a small bead of silicone grease (Traxxas part #1647) to the wire clamp (Q). Install the wire clamp and tighten the two 2.5x8mm cap screws securely.
7. Make sure the O-ring is properly seated into the groove in the receiver box so that the cover will not pinch it or damage it in any way. Install the cover and carefully tighten the two 3x10mm button-head screws securely. Inspect the cover to make sure that the O-ring seal is not visible.
8. Turn on the vehicle's radio system and flip the transmitter into second gear (down position on Traxxas TQ-3 transmitters). Allow the servo to comply.
9. Locate the servo arm and assembled linkage. While in second gear, install the servo arm onto the servo to a "11 o-clock" position as shown (R).

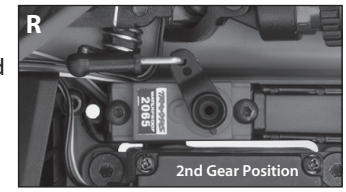












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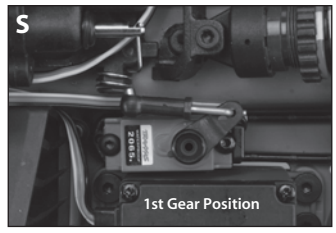
10. Shift from second to first and verify that the servo arm is moving away from the transmission. If necessary, switch the reversing switch for the shift channel (Ch. 3 on Traxxas TQ-3 radios). Verify that in first gear, the servo arm is oriented at approximately "2 o-clock" as shown (S).



11. Insert the shift linkage into the servo arm and servo saver. Install the supplied 3x10mm button-head screw, using caution to prevent damage from over-tightening.
12. The result should be a slightly spring bound positive engagement.

Important: Ensure proper installation and engagement.

13. Shift to second gear on the transmitter. Roll the truck a few inches so that the shift mechanism can fully engage.
14. Check the "pre-load" on the shift spring. You should feel a light resistance on the servo horn.
15. Shift to first gear on the transmitter. Again, roll the truck a few inches to fully engage the shift mechanism in the transmission
16. Check the "pre-load" on the shift spring. It should be about the same as it was in second gear (but in the other direction).
17. If the spring pre-load does not feel similar in first and second gear, remove the servo horn and reinstall, starting with step 6, and make the following adjustment:
    a. If the spring was tight in second gear, but loose in first gear, install the notched servo saver sleeve one tooth clockwise from the original position (see step 7).
    b. If the spring was tight in first gear, but loose in second gear, install the notched servo saver sleeve one position counter-clockwise from the original position (See step 7).

Selecting the Wide Ratio or Close Ratio Gear Set:

- Close Ratio (18/21): Ideal for most environments. The new first gear provides more torque and lower top speed for climbing and driving through mud, grass, and snow, but when shifted into second provides the same top speed as the stock single speed. With this set, first gear features a "close" numerical gear ratio to second gear, which has the same ratio as the stock single speed gear ratio. Ideal for almost seamless shifting into second for quicker acceleration, this set is recommended for most conditions.
- Wide Ratio (13/26): This gear set provides the most extreme first gear ratio for maximum torque and low speed control. This is best for rock crawling, thick mud and grass, or when speed in first gear is not a concern. The numerical gear ratio value between first and second gear is further from each other in this set, allowing this "wide" ratio gear set the lowest first gear ratio. Since second gear is unchanged, top speed remains the same as the stock single speed.

Gear Ratio Calculations:

2nd Gear (Same as single speed):
Spur / Pinion x 5.22 = Final Drive Ratio

1st Gear (Close Ratio):
Spur / Pinion x 8.43 = Final Drive Ratio

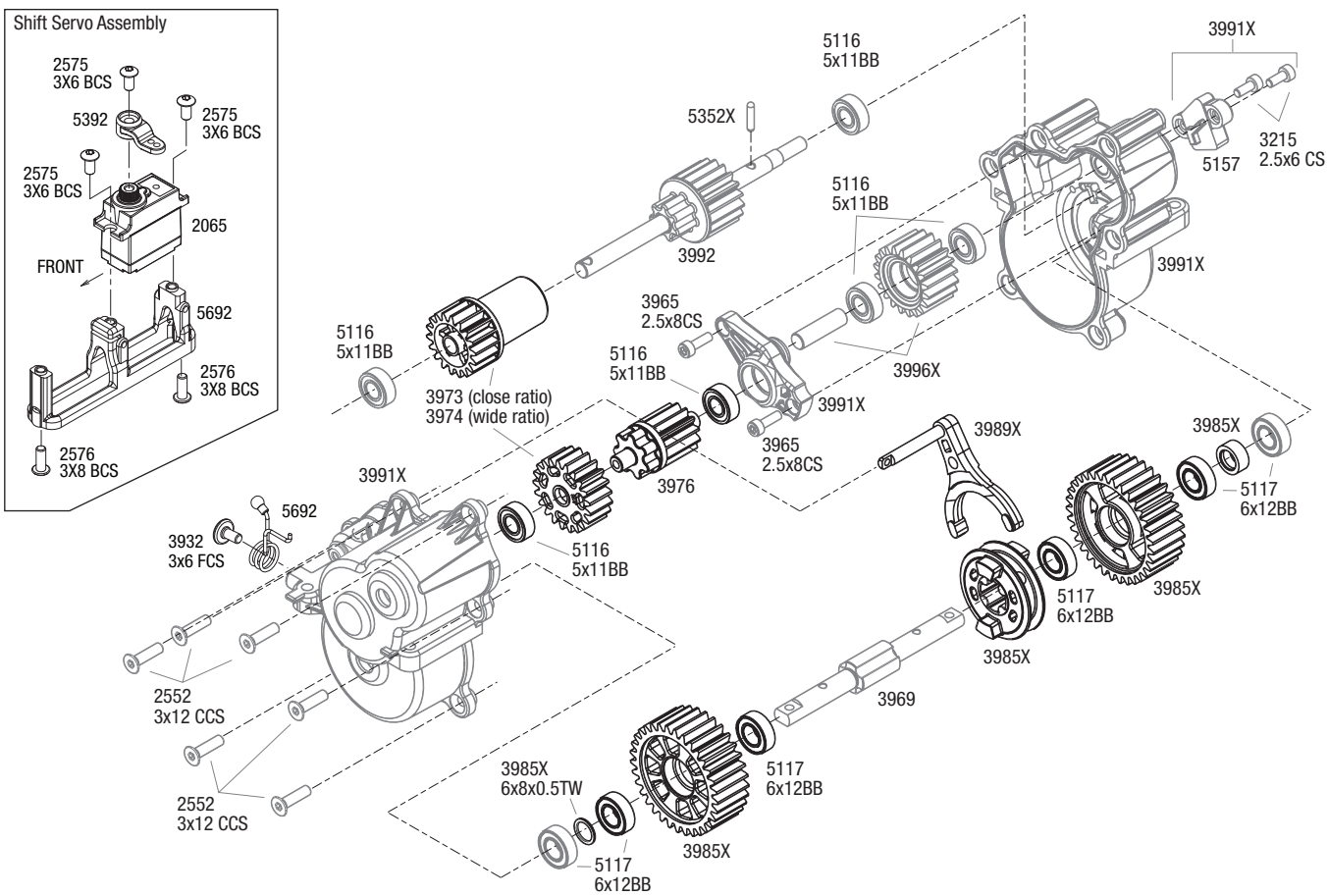
1st Gear (Wide Ratio):
Spur / Pinion x 14.45 = Final Drive Ratio

Example using stock 68/19 gearing:

2nd Gear (Same as single speed):
68 / 19 x 5.22 = 18.7:1 Final Drive Ratio

1st Gear (Close Ratio):
68 / 19 x 8.43 = 30.2:1 Final Drive Ratio

1st Gear (Wide Ratio):
68 / 19 x 14.45 = 51.7:1 Final Drive Ratio



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

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