

# **RC4WD R2 2 Speed Transmission Parts replacement guide**

**Thank you for your purchase. Welcome to the RC4WD family. This transmission is a combination of many specially engineered and manufactured parts.**

**This is an instruction guide for the R2 2 speed Transmission. We have tried to detail as many things in this as possible. If for some reason you don't find enough detail here, or you are having other issues with your transmission please visit the RC4WD Transmission forum [here](#).**

**Below are a few things you will need to have.**

**Metric Hex Wrenches  
Monster Lube X-0317  
Blue Thread locker**

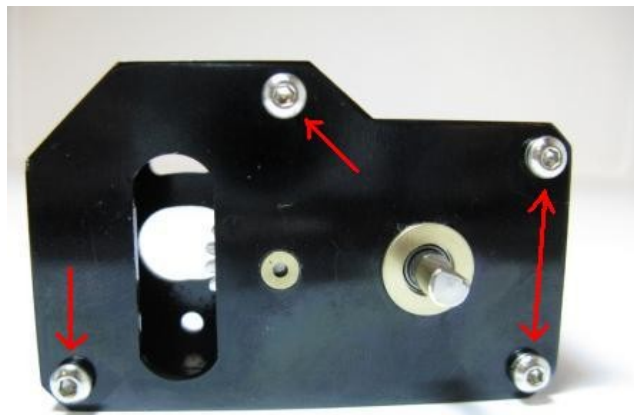
**When you reassemble you transmission you may want to use some Blue thread locker on the metal to metal parts. This will help the screws stay in place better.**  
*(please be sure to get blue thread locker, it is removable.)*

**You can purchase a rebuild kit for your R2 2 speed Transmission from RC4WD. The part number is X-0091. You can see the parts that come in the replacement kit below.**

**As you disassemble the transmission any parts that will be reused will need to be cleaned. This will include the transmission case.**



**Step 1.** Remove the screws highlighted in the photo below on the front cover. Then remove the two gears and bushings.



**Step 2.** Remove the other 4 screws from inside the transmission case. Once the screws are out slide the 2 speed unit off and remove the gears and 2 speed collar from the two speed unit.



**Step 3.** Below you can see the parts you need to rebuild the 2 speed case. The spring is a part that you will need to reuse. Assemble the two gears together like shown in the second photo. To help keep everything together use a small amount of Monster lube.

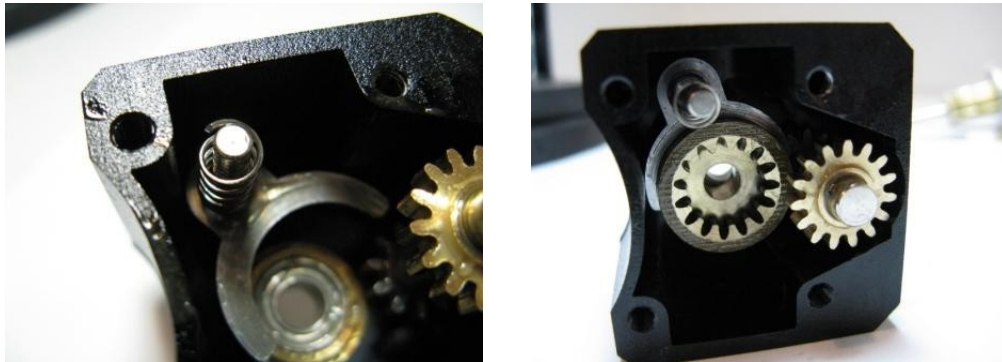


**Step 4.** Install the 2 speed collar into the case. Also install the double gear shaft into the bearing in the 2 speed case. Make sure the small gear goes in first.



**Step 5.** Now you can insert the spring onto the dig collar. Install the gear you assembled in step 3 onto the dig collar. Make sure the female teeth are facing forward. There is a small groove in the gear that fits into the collar. Make sure when done that it looks like the second photo.

Lubricate the gears inside the 2 speed unit before moving onto the next step.



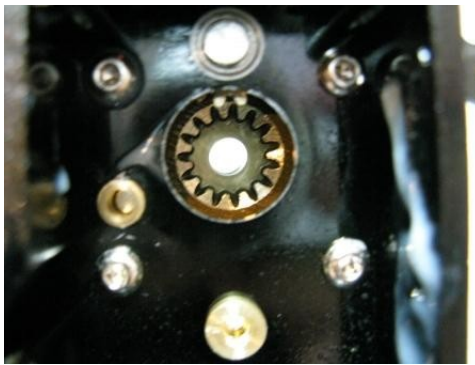
**Step 6.** Carefully assemble the 2 speed unit to the main transmission case. Reuse the 4 screws you removed earlier to reinstall the 2 speed. Make sure that you align the double gear shaft into the bearing in the main case. If the gear in the 2 speed falls down inside the case, use a screwdriver to slide it back into place.



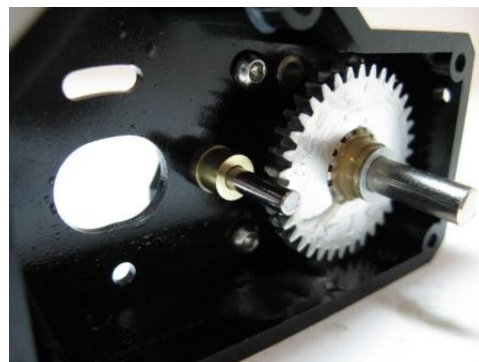
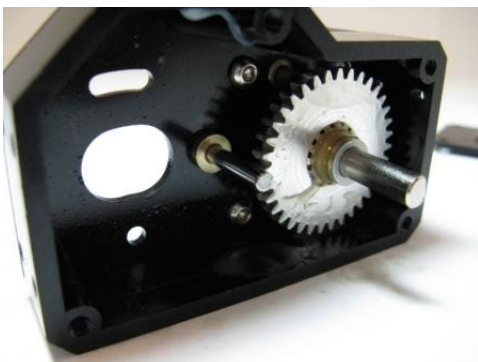
**Step 7.** Now find the main output shaft. Install the large gear onto the shaft like shown below. Insert the small brass spacer onto the shaft in front of the large gear. Install the other smaller brass spacer onto the shaft as well. Then install the washer that came off the gear you removed from the R2.



**Step 8.** Install the gear into the main case and then into the 2 speed unit. See the photos below.

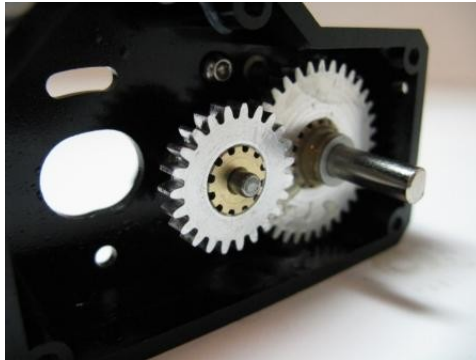


**Step 9.** You can now install the gear pin into the case. Now slide the new bushing onto the pin.



**Step 10.** Install the new gear onto the pin making sure the small gear side goes in first.

**Lubricate the gears inside the case before moving onto the next step.**



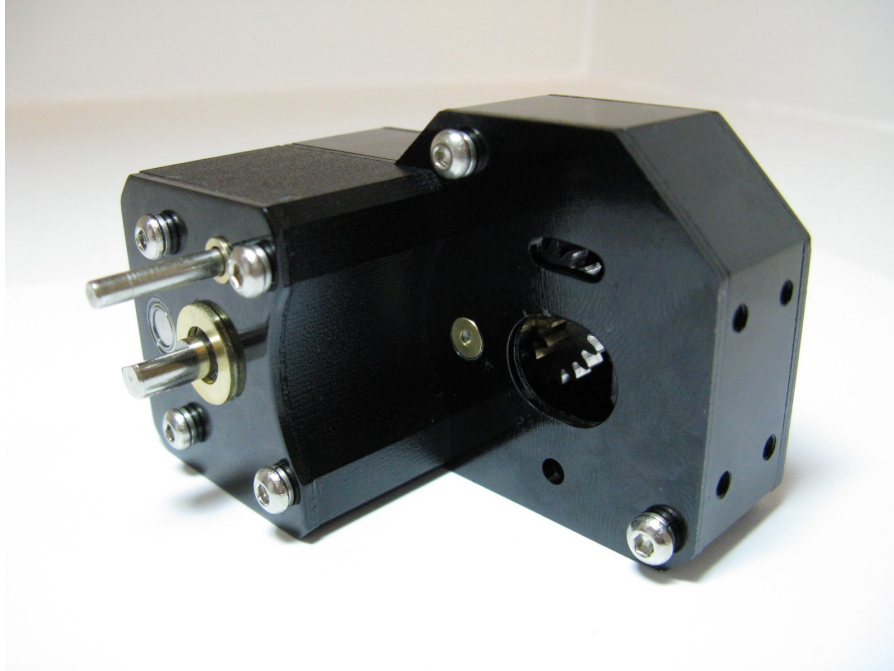
**Step 11.** Reinstall the front cover of the R2 2 speed. Use the screws you removed in step 1 to secure the cover. Make sure the pin lines up and the output shaft fits correct.



**Once the cover is installed, turn the output shaft and make sure everything is spinning inside the case. Try and shift the 2 speed and make sure everything is working correct here as well. If you have any issues with either of these, remove the screws and look for any issues, and follow the directions again.**

**Here is a photo of the completed unit.**





**We hope this guide helped you with your Transmission. Please use the forum if you have additional questions about your R2 2 speed transmission.**

**Thanks**  
**Team RC4WD**