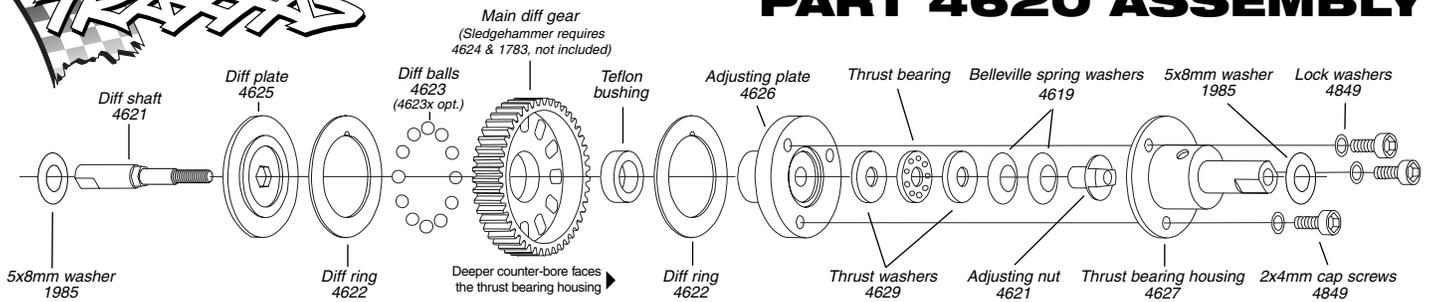




BALL DIFFERENTIAL PART 4620 ASSEMBLY



BEFORE YOU BEGIN ASSEMBLY:

A



Test to be sure that your ball bearings or bushings fit smoothly over the diff shaft and housing shaft. It may be necessary to polish the shafts with 220-440 fine grit sandpaper, until the bearings or bushings slide on smoothly.

B



Apply small amounts of lubricant the thrust bearing balls. Use a quality thrust bearing lubricant from your local hobby dealer. **DO NOT substitute thrust bearing lubricant with any other kind of grease or oil.**

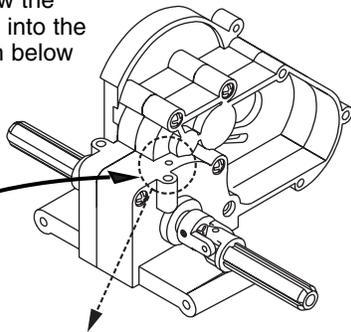
C



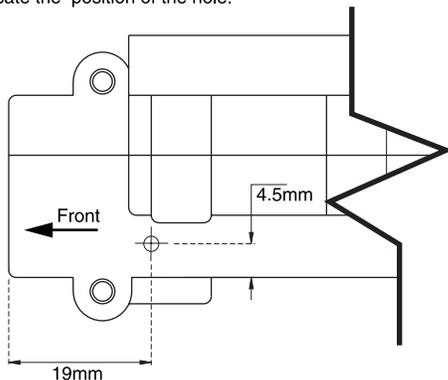
Insert the nine 1/8" balls into the main differential gear. Use a small screwdriver or knife to apply small amounts of lubricant both sides of the balls. Use a quality ball diff lubricant from your local hobby dealer. **DO NOT substitute ball diff lubricant with any other kind of grease or oil.** Also lubricate the inside of the diff gear with differential lubricant.

PREPARING THE GEARBOX

A small hole must be drilled in the top of the gearbox in order to allow the adjustment tool to be inserted into the ball differential. The illustration below shows where to drill the hole. The template is drawn to exact size so that it can be copied and taped to the top of the gearbox and used as a guide.



Drill a 2.5mm hole in the top of the gearbox to allow adjustment of the ball differential. Use the template below to locate the position of the hole.



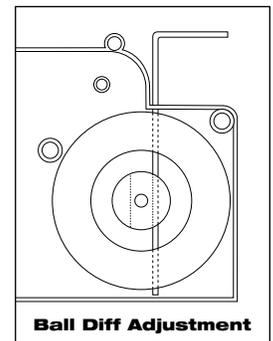
BALL DIFFERENTIAL ADJUSTMENT:

This section describes how to adjust the ball differential once it is installed in a Traxxas model.

Turn the model off before inserting the adjustment tool into the transmission. You may even wish to disconnect the battery as a further precaution. This is to prevent the receiver from picking-up a stray signal and causing the motor to turn while the adjustment tool is inserted in the transmission. This could result in serious damage to the gears and other components inside the transmission.

Because the differential is adjusted with the rear wheel, tremendous leverage on the adjusting nut is available. Do not over-tighten the adjusting nut. Just a small turn of the rear wheel (one or two degrees at a time) is all that is necessary to change the adjustment.

1. Insert the 1.5mm allen wrench through the hole in the top of the gearbox case. Rotate the **left** wheel until you feel the wrench drop into the hole in the side of the left output shaft. If the pinion wrench now only appears to be partially inserted, apply slight pressure to the wrench and slowly turn the right wheel until the wrench drops into place. Rotating the right wheel moves the adjusting nut and positions it so that the wrench can be inserted completely through the ball differential left output shaft. You should NOT have to apply excessive force in order to insert the wrench.



Ball Diff Adjustment

2. Once the wrench is engaged, simply turn the right rear wheel to change the adjustment (forward to tighten and backward to loosen). With practice, you will be able to adjust the diff very quickly.

3. Remove the wrench and insert a short 2.6x4mm self-tapping screw (not included in kit) into the adjustment hole to prevent dirt from entering the transmission case.

