

VERY IMPORTANT! READ THIS!

XRAY M18 PRO

SUPPLEMENTARY INSTRUCTIONS SHEET

MICRO BALL DIFFERENTIAL SETTING AND BREAK-IN

Please note that the factory pre-assembled ball differential is pre-built but is NOT tightened. To enjoy long life and smooth performance of the differential, you need to break in both front and rear differentials properly. You will need to run the car several times for a short time, and each time tighten both differentials a small amount.

DIFFERENTIAL SETTING

To tighten the differentials, remove the front/rear upper arms as described below, and use a Phillips screwdriver to tighten the diff adjustment screw.

BREAK-IN PROCEDURE

1. Run the car for the first time at only $\frac{1}{4}$ throttle for 30-60 seconds.
2. Tighten both front and rear diffs slightly by $\frac{1}{16}$ turn.
3. Run the car again for 2 minutes at $\frac{1}{4}$ throttle.
4. Tighten both front and rear diffs slightly by $\frac{1}{16}$ turn. The differential should still turn freely.
5. Run the car again for 5 minutes, this time up to $\frac{1}{2}$ throttle.
6. Again tighten both front and rear diffs by $\frac{1}{16}$ turn.

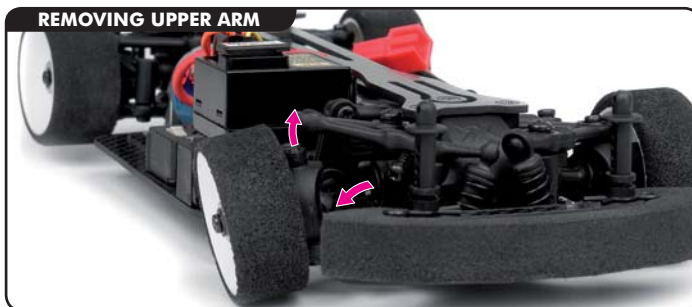
Now the differential should be tight enough. The differentials should still turn freely but it must slip with higher resistance.

REMOVING SCREW



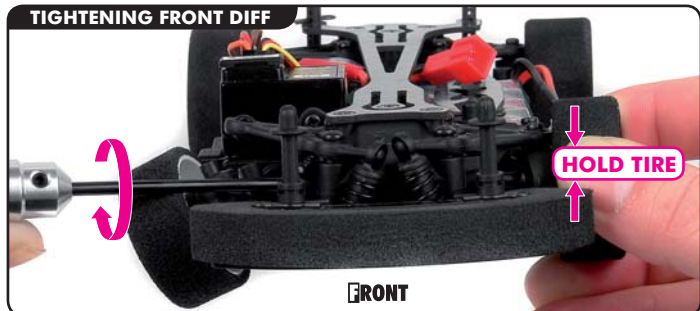
Remove the screw from the top and bottom of the front steering block or rear upright.

REMOVING UPPER ARM



After removing the screw, lift the upper and bottom arm to allow the drive shaft to disconnect from the ball diff. You can now fit the screwdriver into the ball diff.

TIGHTENING FRONT DIFF



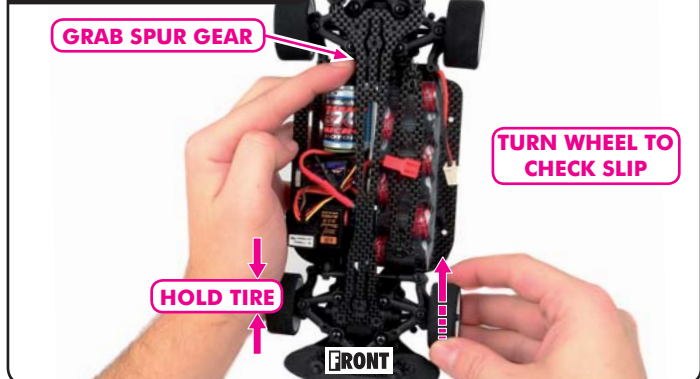
To tighten the front differential you need to remove the RIGHT front upper and bottom arm to give access into the diff for adjustment with the included Phillips screwdriver. Insert the screwdriver tip into the differential adjustment screw, hold the left front wheel firmly and then tighten (CW) the screw as required.

TIGHTENING REAR DIFF



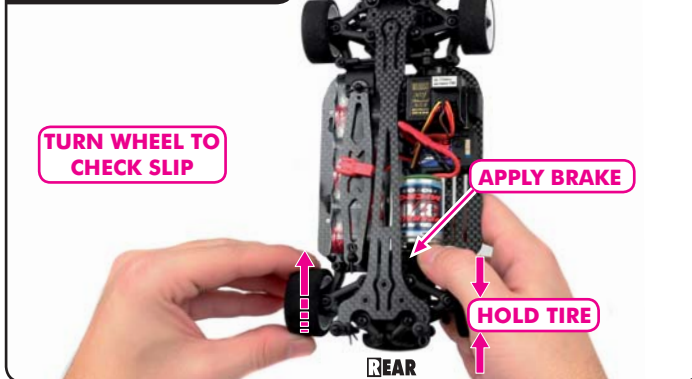
To tighten the rear differential you need to remove the LEFT rear upper and bottom arm to give access into the diff for adjustment with the included Phillips screwdriver. Insert the screwdriver tip into the differential adjustment screw, hold the right rear wheel firmly and then tighten (CW) the screw as required.

CHECKING FRONT DIFF SLIP



To check the slip of the front differential, grab the RIGHT front wheel and grab the spur gear or pinion. Turn the left front wheel. You should be able to turn the wheel but with resistance.

CHECKING REAR DIFF SLIP



To check the slip of the rear differential, grab the RIGHT rear wheel and grab the spur gear or pinion. Turn the left rear wheel. You should be able to turn the wheel but with resistance.

BREAK-IN PROCEDURE QUICK TABLE

Run	Run-time	Throttle applied	After run tighten diff by
1st	30~60sec.	$\frac{1}{4}$ throttle	$\frac{1}{16}$ turn (CW)
2nd	2 min	$\frac{1}{4}$ throttle	$\frac{1}{16}$ turn (CW)
3rd	3 min	$\frac{1}{2}$ throttle	$\frac{1}{16}$ turn (CW)