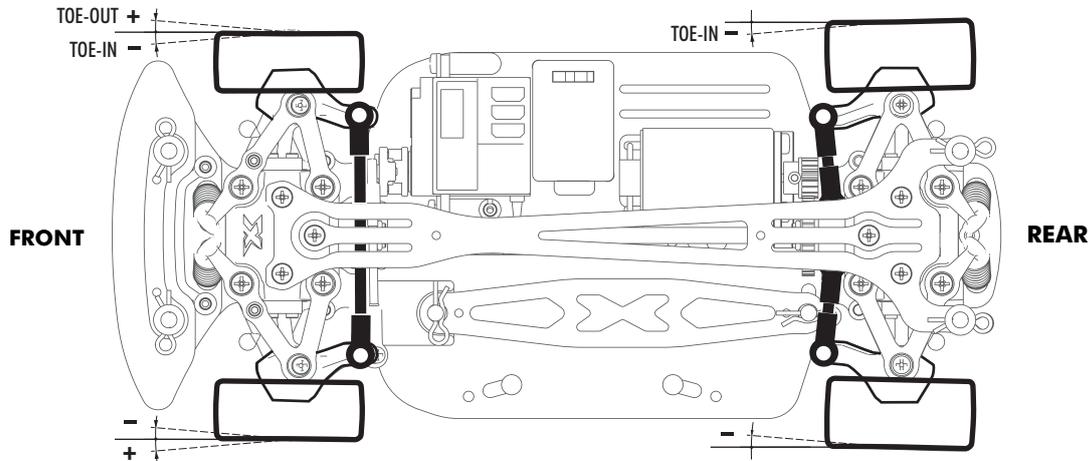


# XRAY M18 PRO

Please note that there is an assortment of optional tuning parts are additionally included in the M18 PRO kit. This includes set of pinion gears, 42T spur gear and adjustable toe-in linkages. Please check the instruction manual for tuning tips for how and why you might want to use these included option parts. Look for additional genuine XRAY option and tuning parts.

## TOE

An assortment of optional tuning parts is included in the M18 PRO kit; this includes a set of pinion gears, 36T/42T spur gears, and adjustable toe linkages. Please check the instruction manual for tuning tips of how and when to use these option parts. We recommend always using genuine XRAY options and tuning parts.



FRONT TOE-OUT (+)					
DEGREES	+2.0°	+1.5°	+1.0°	+0.5°	0.0°
LENGTH	65.18mm	65.51mm	65.84mm	66.17mm	66.5mm

FRONT TOE-IN (-)					
DEGREES	-0.5°	-1.0°	-1.5°	-2.0°	-2.5°
LENGTH	66.83mm	67.17mm	67.5mm	67.83mm	68.17mm



REAR TOE-IN (-)							
DEGREES	0.0°	-0.5°	-1.0°	-1.5°	-2.0°	-2.5°	-3.0°
LENGTH	29.8mm	29.64mm	29.47mm	29.3mm	29.14mm	28.97mm	28.81mm

## TECH TIP: BALL-BEARING MAINTENANCE AND CLEANING

### PART 1: BALL-BEARING CLEANING

We recommend performing the following procedures and tips after every raceday (or even during a raceday, depending on requirements) for cleaning critical exposed bearings on your M18. Cleaning your hub bearings takes the greatest priority; gearbox bearings should not require as frequent maintenance.

**WARNING:** Do not allow motor cleaner to come in contact with your skin. Wear gloves, and use handling tools during the cleaning process to minimize your exposure.

- 1 Spray the bearing on both sides with motor cleaner. Make sure you use a motor cleaner that does not leave a residue after it dries. Otherwise this may cause drag and wear inside the bearings.
- 2 Spin the bearing while it is still wet to dislodge any particles with the cleaner
- 3 Spray the bearing on both sides again
- 4 Blow both sides of the bearing dry with compressed air to make sure particles come out. Pat dry with clean towel/rag before handling.
- 5 Hold the inner part of the bearing with left thumb/forefinger and spin it to make sure it spins free without any peculiar vibrations or sounds. The XRAY bearings should spin freely for more than 5 seconds and come to a smooth stop. New bearings can spin upwards of 10 seconds. If one stops a little suddenly after spinning freely for a few seconds, repeat the cleaning process to make sure that all particles have been removed. Then spin test again.
- 6 If steps 1-5 do not work after repeated attempts, try the following:
  - Soak and if possible shake/vibrate the bearing in a sealed jar of cleaner.
  - Carefully remove the retaining "C" clip that holds the bearings shields with a hobby blade tip; this will allow direct access to the ball race.
  - Remove the bearing shields.
  - Spray out the bearing with motor cleaner, dry, then reassemble.
- 7 Place one drop of bearing oil into each side of the bearing. When you spin test the bearing after you have re-oiled, it will not spin as freely. This is normal and once you have mounted the bearings in the car again, the drivetrain will still spin freely.

### PART 2: MAINTENANCE ON CARPET

If you run your M18 on carpet, especially one that leaves debris and loose fibers on the car, we strongly suggest the procedures following are done at least once during a raceday. Otherwise, you risk wounded fibers becoming lodged in the bearings and drivetrain which may result in ball-bearing lockout or even failure.

- 1 Take off rims and driveshafts to inspect the hub bearings for any wound-up carpet fibers or debris. Remove if necessary before reassembling.
- 2 Remove all wound fibers from the drivetrain and clean all parts. Use compressed air, tweezers, brush, etc...