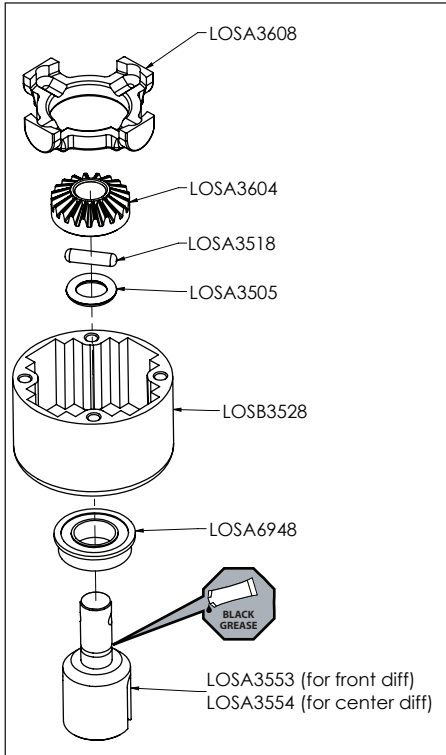




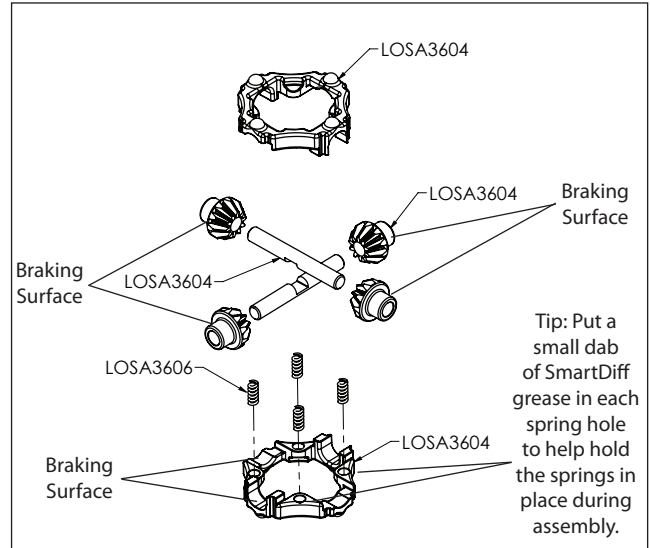
Team Losi Racing SmartDiff Instruction Manual

Thank you for purchasing the Team Losi SmartDiff! We are confident that the SmartDiff will enhance the performance of your 8IGHT Buggy or 8IGHT Truggy. Please take the time to read this manual fully to understand the technical aspects of the SmartDiff. This manual covers the assembly, disassembly, service information and tuning tips for improved racing.

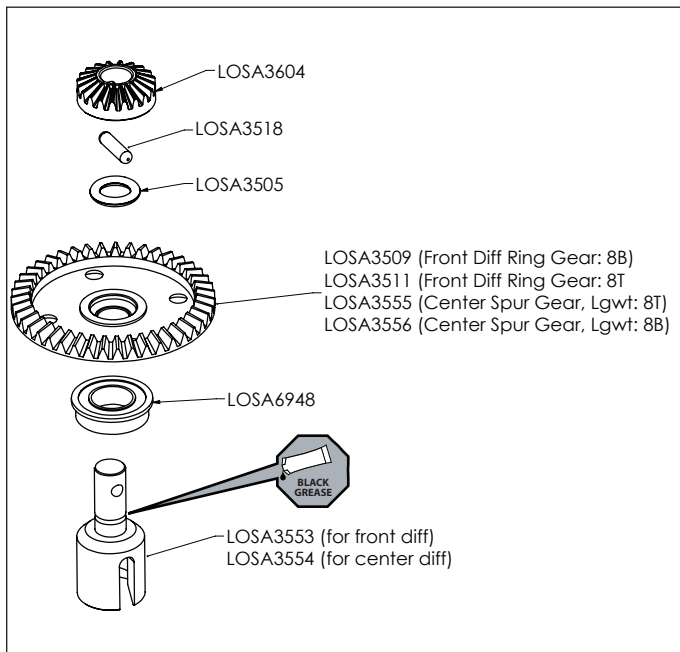
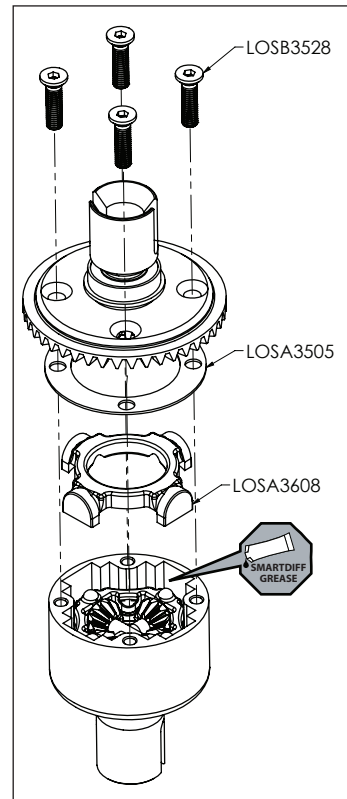
Diff Case/Outdrive Assembly



SmartDiff Planetary Gear/Cage Assembly



Diff Final Assembly



SmartDiff Maintenance

Team Losi Racing recommends regreasing with SmartDiff Grease (LOSA3607) and inspecting your SmartDiff periodically to maintain proper performance. Upon disassembly, please check the following:

- 1) Locate all springs and check for damage. Replace if necessary.
- 2) Visually inspect all brake surfaces on the small bevel gears (which the cages clamp down on). Check for excessive wear. The small bevels and cages should be replaced as a set to maintain proper braking force of the diff. The wear rate of the cages and small bevels depends on spring setup and driving style. If the small bevels start to develop grooves in the braking surface, it is time for replacement of the small bevel/cage.
- 3) Be sure to regrease all moving parts and also be sure to grease the outdrive shafts.
- 4) When reassembling, be sure to check for smooth diff operation and gear mesh.

Tuning Tips

Your SmartDiff comes with four .15mm wire diameter springs installed. This is a baseline setup that delivers a good balance of turn in precision, and exit acceleration. Changing spring rates will affect the timing at which the SmartDiff starts applying frictional force to the smaller bevel gears. In essence, the SmartDiff acts as though it has lighter viscosity oil when entering a turn, but then acts as though it has thicker oil on exiting the corner for increased drive. If the spring count is decreased to only two .15mm springs, the diff will not turn in as aggressively, but will drive out of the corner harder. For example, when two .20mm springs are installed with two .15mm springs, the turn in will be more aggressive, while exit acceleration will not be as aggressive. The SmartDiff comes equipped with 120° ramp plates for a more aggressive on-power drive (90° ramp plates (LOSA3605) are available for aftermarket use, which will reduce the aggressiveness of the on-power drive).

SmartDiff Spring Setup Matrix

SPRING WIRE DIAMETER	OFF-POWER TURN IN	ON-POWER DRIVE
4 x .15mm (installed)	NEUTRAL	VERY AGGRESSIVE
4 x .20mm	NEUTRAL/AGGRESSIVE	AGGRESSIVE
4 x .25mm	AGGRESSIVE	NEUTRAL/AGGRESSIVE
4 x .35mm	VERY AGGRESSIVE	NEUTRAL

SmartDiff Price List

Part Number	Description
LOSA3600	Complete Front SmartDiff: 8IGHT 2.0
LOSA3601	Complete Center SmartDiff: 8IGHT 2.0
LOSA3602	Complete Front SmartDiff: 8IGHT-T 2.0
LOSA3603	Complete Center SmartDiff: 8IGHT-T 2.0
LOSA3604	Gear and Shaft Set: SmartDiff
LOSA3605	Ramp Plate, 90 Degree: SmartDiff
LOSA3606	Return Spring Assortment: SmartDiff
LOSA3607	SmartDiff Grease
LOSA3608	Ramp Plate, 120 Degree: SmartDiff
LOSA6948	8x14x4 Flanged Rubber Seal BB (4)
LOSB3528	Heavy Duty Diff Case