

BEFORE YOU START...All of us here at Team Losi would like to personally thank you for purchasing the PRO-SE Kit. Team Losi strives to keep our customer in the winner circle by supplying you with the latest, innovative, state-of-the-art technology. In the last year, Team Losi moved into a new larger facility, increased our engineering staff and instituted the use of computer aided design and more importantly Intensive Stress Analysis Programs.

Although on the surface all R/C Buggies appear similar, the PRO-SE is indeed a dramatic step forward in design, construction, and ultimately performance. The front end features new geometry needed for today's tracks and increased speeds. The shocks have been revised utilizing a new double O-ring cartridge, teflon pistons and our famous "Hard Body" hard anodized/coated shock bodies. The unique and unequalled LRM Transmission features updated materials that are even tougher and more friction free. We have also included our tungsten carbide "Hard Balls" as standard equipment. Additional changes to shock towers, chassis, and suspension geometry make for a truly unique race car.

Without a doubt the most exciting and important breakthrough in the history of R/C Cars is Team Losi's innovative "Hydra-Drive." * Although this unique power transmitting device was not ready at the time we released the SE you will be able to install it onto the friction slipper which is included in this kit. The ease of use, adjustment, and maintenance of the "Hydra-Drive" * will take you to higher levels of performance.

Please take a moment and highlight your owners instruction manual to integrate this addendum. The additional information and tech tips included in this addendum will allow you to build this great kit quickly and correctly. Once again, thank you for choosing Team Losi, we're racing for you.

*Patent pending

Fig 1. Note that you will be using a molded chassis (2) instead of a graphite chassis. The steering posts (4) will fit into the two hexes on the chassis.

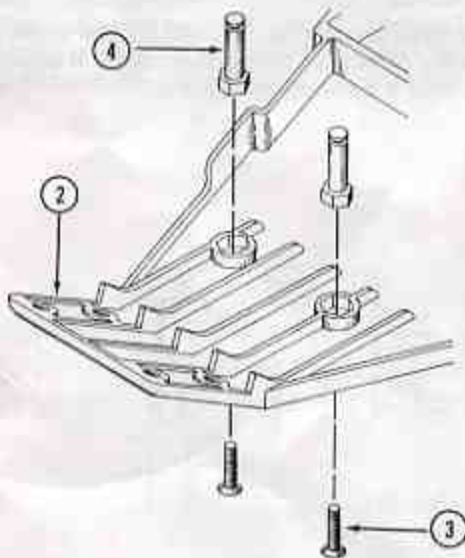


Fig 2. The rear shock tower (5) will attach in the same manner using the same screws (36 & 104). The shock-mounts (56) should be secured to the center hole. There are two sets of holes in which you can mount the rear bulkhead (6) on the chassis (2). It should be mounted in the forward set of holes so that the chassis touches the front of the bulkhead. Attach chassis to rear bulkhead with two 4-40 x 3/8" (7) screws and two gold washers (73). These screws go into the front of the bulkhead horizontally into the bottom inside of the four holes.

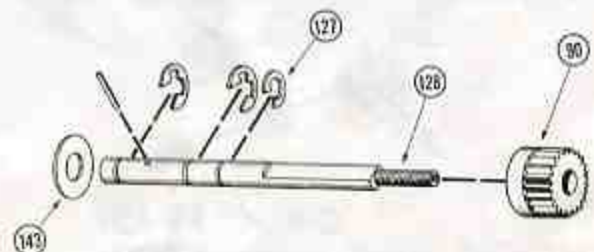
Fig 3. The front shock tower (9) attaches in the same manner with the same hardware. The shock mounts (56) should be mounted to the center hole and the studded ball (72) to the center of the three holes.

Fig 6. Before attaching the battery box (14), peel the backing from the large foam pad (126) (shaped like a bone) and attach it into the recessed area in the center of the chassis.

Fig 7. With the molded chassis, there is an area that the antenna mount (16) keys into. You should mount it so that the slot for the antenna wire is towards the rear.

Fig 9 & 10 Note that the kit is supplied with carbide (hard) balls 3/32" (18) and 1/16" (28) and Jammin grease (120). You should cover each ball (18) with grease on the center gear (17) and grease the thrust assembly very well on both thrust washers (26).

Fig 14. Attach and secure the top shaft gear (90) in the same manner. Note that you will attach a "C" clip (127) instead of an "E" clip to the end of the shaft with the threads. Next thread in the long 4-40 threaded set screw (128) into the end of the top shaft. A small amount of thread lock should be used.



Slipper Assembly

Fig. 15

Assemble gear box as shown in Fig. 15, Steps 24 thru 27. If a shim (143) is required, add to end of shaft as shown in previous illustration.

Fig. 15 Step 28

Press a 3/16"x 5/16" bearing (129) into the center of the spur gear (43). The bearing will only go in about half way. Do not try to force it any further. Slide the backplate (130) over the gearbox shaft (39), aligning the flat sections of the gearbox shaft (39) with the flat sections in the backplate (130). Place the slipper pad (131) on the gear plate (132), and align the notches on the gearplate (132) with the notches on the slipper pad (131). Place the slipper pad (131) and gearplate (132) over the gear box shaft (39), pad side first. Try to get this assembly as close to center on the shaft (39) as possible. Carefully install the spur gear (43) with bearing side out. Lightly rotate the spur gear until the 3 posts line up with the holes in the gearplate (132). Snap into place being very careful to keep the slipper pad (131) aligned. Now place the cup (133), open end out, over the shaft. Insert one thrust washer (134) then the thrust bearing (135) followed by the second thrust washer (134). These should all sit into the cup. Now place the slipper spacer (136), long side first, onto the shaft. The slipper spacer (136) should line up with the flat spot on the gearbox shaft (39) and sit into the center of the thrust bearing assembly. Place the spring (137) over the gearbox shaft (39), followed by the outer spring spacer (138) and secure with a 4 - 40 lock nut (139). Tighten the nut until it slightly compresses the spring. While doing so be sure that the slipper pad (131) stays aligned with the gear plate (132).

*See Tech Tip section for slipper adjustment.

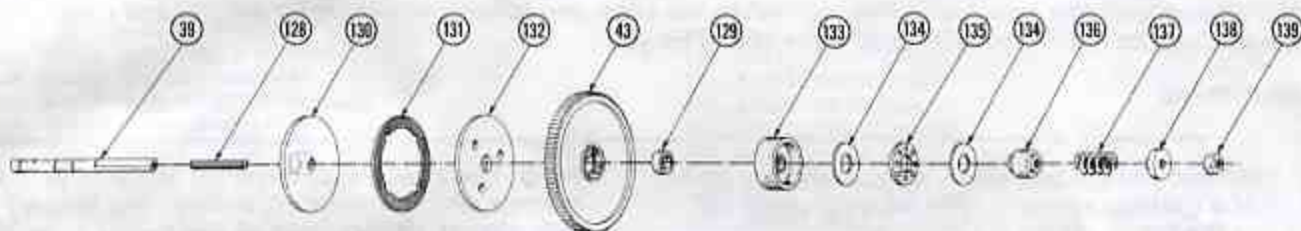


Fig 21. Before attaching the 3/8" studded ball (55), place a gold washer (73) over each studded ball. This step will assure the ball stud will sit flush with the hub, and minimize damage to this new stiffer hub carrier.

Fig 25 on Page 11. A 1 1/8" rod (86) is used in place of the 1 1/2" rod. The overall length (ball to ball) is the same as illustrated in the Pro manual.



Fig 26. Before attaching the camber link (70) locate the sheet of "Foam Things" (140) and remove four from the sheet. Punch out the centers and place the foam rings over each of the 4 ball studs. These will keep dirt out of the ball joints. A small amount of grease may be added to the ball joint. Now attach the camber link with "Foam Things" in place.



Fig 29. The front arms (78) will attach the same. Pay attention to the direction of the front arm. It should be installed so that it sweeps to the rear.

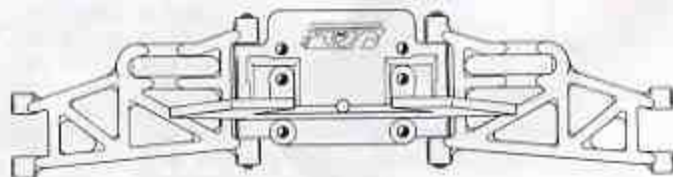


Fig 32. A 1 1/8" rod (86) is used in place of the 1 1/2" rod (71) and a 1 1/2" rod in place of the 1 7/8" rod. Both of the overall lengths should be the same as illustrated in the Pro manual.

Fig 33. Before attaching camber links (86), once again install "Foam Things" over the ball studs. (Note use Foam Things on camber links only! Do not use them on tie-rods for steering as they may bind the linkage.)

SHOCK ASSEMBLY (FIG. 35)

FRONT SHOCKS

Locate the 2 shorter shock shafts (87) and screw on the shock ends (91) holding the shafts between the "E" clip grooves. Now take one of the shock spacers marked "A" (141) and place one on each of the front shafts. Next place a shock cartridge on each shaft hex end first. Place an "E" clip (64) into the bottom groove of each shaft. Now locate the 2 shock pistons marked with a "4" (92) and place one on each shaft holding it in place with another "E" clip. Find the 2 shorter shock bodies (93) and fill them to just below the threads with oil (94). Now insert the shaft assembly with the cartridge against the shock end. Slowly tighten the cartridge allowing the oil to bleed out until finger tight. Now to secure turn approximately 1/8 turn with pliers.

* Note if leaking persists around outside, tighten more.

This should properly bleed the shock. If the shock won't compress all the way, loosen the cartridge just slightly and allow a little more oil to bleed out. Be careful not to over bleed the shock though as this will allow too much air to get in the shock.

* Note (the "A" spacer shown on the illustration on the inside of the shock is optional. See tip section).

REAR SHOCKS

Attach the shock ends to the long shock shaft (99) in the same manner. This time place the cartridge on the shaft first, followed by a "B" shock spacer (142). The rear shocks will use the pistons marked "5". The rear shocks should be filled in the same manner as the fronts.

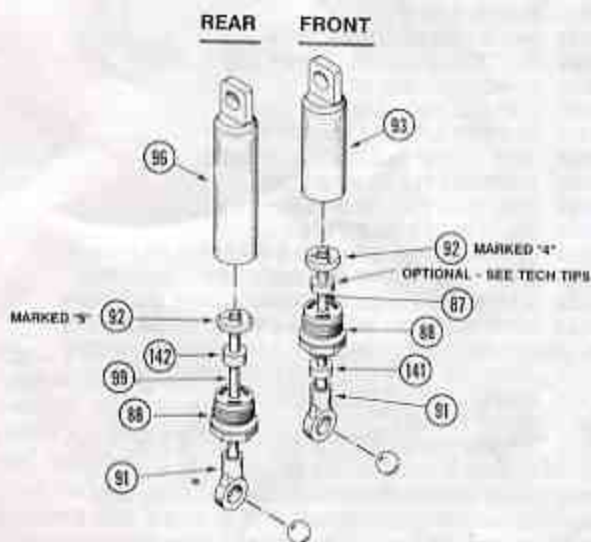


Fig 36. Note: The bottom of the rear shock now mounts to the top outside hole of the rear arm (1 & 123).

Fig 37. Note: The bottom of the front shock mounts to the outside hole on the front arm (78).

Fig 41. The gear cover (107) is already cut out. Locate the adjustment hole plug (144) and insert it in the gear cover.

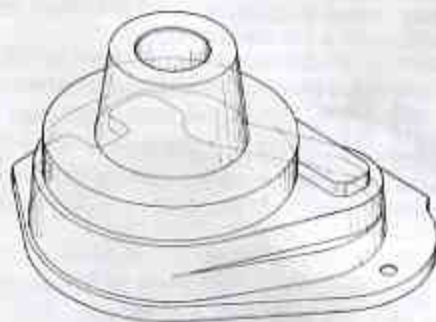
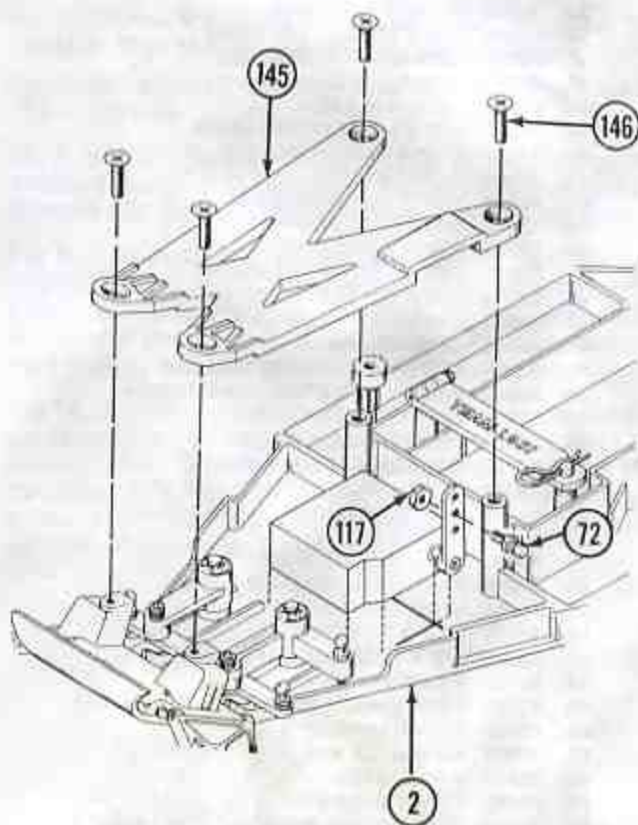


Fig 46. Attach steering servo using servo tape (53) to front of chassis (2) as shown. Thread an adjustable rod end (70) onto both sides of 1 1/2" threaded rod (119). Thread one 3/16" studded ball (72) into steering servo arm and secure with a 4-40 nut (117). Attach one end of 1 1/2" rod (119) onto studded ball (55) in steering bellcrank (75) and other end onto studded ball (72) in steering servo arm. Secure front stiffener (145) to chassis (2) using four 8-32 x 1/2" steel flathead screws (146).



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SPARE PARTS LIST

REFER TO YOUR TEAM LOSI PERFORMANCE PRICE LIST WITH YOUR KIT FOR PRICES, COMPLETE ASSEMBLIES,
PERFORMANCE UPGRADES, AND OTHER TEAM LOSI RACING ACCESSORIES.

KEY#	P/N	CONTENTS	KEY#	P/N	CONTENTS
1.	A2015	H-ARM RIGHT	75.	A1507	STEERING BELL CRANK
2.	A4051	S.E. MOLDED CHASSIS & BRACE	76.	A6200	4-40 X 1/8" SHOULDER SCREW
3.	A6210	4-40 X 3/8" FLATHEAD	77.	A1507	IDLER ARM
4.	A1511	EXTENDED STEERING POST	78.	A1013	FRONT A-ARMS
5.	A2035	S.E. REAR SHOCK TOWER	79.	A1007	FRONT BULKHEAD HINGE PINS
6.	A2001	REAR BULKHEAD	80.	A1012	FRONT AXLES
7.	A6206	4-40 x 3/8" SOCKET HEAD	81.	A1002	FRONT SPINDLE (LEFT)
8.	A6209	8-32 x 1/2" ALUM FLAT HEAD	82.	A1002	FRONT SPINDLE (RIGHT)
9.	A1014	S.E. FRONT SHOCK TOWER	83.	A1002	FRONT SPINDLE CARRIERS
10.	A1003	FRONT BULKHEAD	84.	A1006	KING PINS
11.	A2015	H-ARM SPACER	85.	A1008	FRONT OUTER HINGE PINS
12.	A2022	H-ARM HUB CLIPS	86.	A2005	1 1/8" TURNBUCKLE (L/R THREADED ROD)
13.	TL4011	5-40 SET SCREW	87.	A5004	.6" SHOCK SHAFT
14.	A4001	FRONT BATTERY CUP	88.	A5015	SHOCK CARTRIDGE
15.	A4002	ANTENNA MOUNTING CAP	90.	A3022	PINION GEAR (SLIPPER SHAFT)
16.	A4002	ANTENNA MOUNT	91.	A5023	LOWER SHOCK MOUNT
17.	A3024	CENTER DIFFERENTIAL GEAR	92.	A5012	SHOCK PISTONS (FRONT & REAR)
18.	TL4016	3/32 x HARD DIFF BALLS	93.	A5029	.6" SHOCK BODY
19.	A6901	1/4" x 3/8" BEARINGS	94.	A5205	40 WT. SHOCK FLUID
20.	A3024	FEMALE HALF OF DIFFERENTIAL	95.	A5023	SHOCK CUP
21.	A3024	MALE HALF OF DIFFERENTIAL	96.	A5031	1.2" SHOCK BODY
22.	A6302	5-40 LOCK NUT	97.	A5132	2" GREEN SPRINGS
23.	A3010	DIFF DRIVE RINGS/THRUST WASHERS	98.	A5023	SHOCK COLLAR
24.	A6211	5-40 X 3/4" SOCKET HEAD SCREW	99.	A5022	X-LONG SHOCK SHAFT 1.2"
25.	A3018	BELLEVILLE WASHERS	100.	A7114	REAR WHEEL
26.	A3018	THRUST WASHER	101.	A7211	FRONT TIRE
27.	A3018	THRUST BEARING CAGE	102.	A7321	REAR TIRE
28.	TL4017	1/16" HARD BALLS	103.	A7014	FRONT WHEEL
29.	A6900	5/16" X 1/2" BALL BEARINGS	104.	A6220	4-40 X 1/2" FLATHEAD SCREW
30.	A6903	3/16" X 3/8" BALL BEARINGS	105.	A8101	WING WIRE
31.	A3001	RIGHT HALF OF GEAR BOX	106.	A8006	PRO S.E. BODY
32.	A6902	8mm X 14mm BALL BEARING	107.	A3004	GEAR COVER (SLIPPER)
33.	A3024	OUTPUT GEAR	108.	A8104	WING
34.	A3017	REAR OUTDRIVE SPACERS	109.	A4002	ANTENNA TUBE
35.	A3013	U-JOINT OUTDRIVE	110.	A4003	ANTENNA CAP
36.	A6204	4-40 X 1/2" SOCKET HEAD	111.	A6201	3mm X 8mm MOTOR SCREW
37.	A3001	LEFT HALF OF GEARBOX	112.	A4001	BATTERY BOX LID
38.	A6101	3/16" E-CLIPS	113.	A6208	8-32 X 3/8" FLATHEAD SCREW
40.	A3002	MOTOR PLATE	114.	A8200	BODY CLIP
41.	A6203	4-40 X 1 3/8 SOCKET HEAD	115.	A6218	8-32 X 1/2" STEEL FLATHEAD SCREWS
42.	A6401	1/16" X 7/16" SPIROL PIN	116.	A8102	WING BUTTONS TOP
43.	A3906	SLIPPER GEAR	117.	A6301	4-40 NYLON NUT
44.	A6400	3/32" X 1/2" SPIROL PIN	118.	A6303	10-32 NYLON NUT
45.	A3014	UNIVERSAL PIVOTS	119.	A1503	SERVO ROD W/ENDS
46.	A3013	FEMALE DRIVE SHAFT	120.	J120	JAMMIN GREASE
47.	A2016	REAR PIVOT PIN SUPPORT	121.	A8102	WING BUTTONS TOP
48.	A6213	4-40 X 1/4" FLAT HEAD SCREW	122.	A6221	4-40 X 5/8" SOCKET HEAD SCREW
49.	A6202	4-40 X 1 3/4" SOCKET HEAD	123.	A2015	H-ARM (LEFT)
50.	A6215	#4 WASHERS	124.	A5152	REAR RED SPRING (LONG)
51.	A6301	4-40 NYLON LOCKING NUTS	125.	A4001	BATTERY FOAM (BATTERY CUP)
52.	A6212	4-40 X 1/8" BUTTON HEAD SCREW	126.	A4052	CHASSIS FOAM PAD
53.	A4004	SERVO TAPE	127.	A6102	C-CLIPS .1875 (LARGE)
54.	A3004	DUST COVER (DIFF ADJ.)	128.	A3120	SLIPPER SHAFT & HARDWARE
55.	A6000	3/8" STUDDED BALL JOINT	129.	A6905	3/16" X 5/16" BEARING (SLIPPER)
56.	A5008	UPPER SHOCK MOUNT BUSHING	130.	A3121	BACKING PLATE (SLIPPER)
57.	A6216	4-40 X 7/8" SOCKET HEAD SCREW	131.	A3123	FRICTION PAD (SLIPPER)
58.	A2006	SWIVEL BALLS	132.	A3122	GEAR PLATE (SLIPPER)
59.	A2038	REAR HUB CARRIER	133.	A3124	SPRINGS CUP, SPACER & WASHER (SLIPPER)
60.	A3015	REAR AXLE (WASHER & PINS)	134.	A3125	9/16" X 1/4" TRUST BEARING ASSY. (SLIPPER)
61.	A3013	MALE DRIVE SHAFT	135.	A3125	9/16" X 1/4" THRUST BEARING ASSY. (SLIPPER)
62.	A6401	1/16" X 7/16" PINS	136.	A3124	SPRINGS, CUP, SPACER & WASHER (SLIPPER)
63.	A2008	1/8" X 1.785" HINGE PIN (INNER)	137.	A3124	SPRINGS, CUP, SPACER & WASHER (SLIPPER)
64.	A6100	E-CLIPS 1/8"	138.	A3124	SPRINGS, CUP, SPACER & WASHER (SLIPPER)
65.	A2024	REAR SHOCK TOWER SPACER	139.	A6305	4-40 LOCK NUT (SLIPPER)
66.	A2023	OUTER HINGE PIN	140.	A6003	FOAM THINGS
67.	A3016	REAR AXLE SPACER	141.	A5015	SHOCK CARTRIDGE & SPACERS (A & B)
68.	A2010	WING TUBES	142.	A5015	SHOCK CARTRIDGE & SPACERS (A & B)
69.	A4045	FRONT BUMPER	143.	A6230	SHIM FOR SLIPPER SHAFT (SHIM BAG) .015
70.	A6005	PLASTIC ROD ENDS	144.	A3004	GEAR COVER (SLIPPER)
71.	A1009	1 1/2" TURNBUCKELS	145.	A4047	CHASSIS STIFFENER
72.	A6001	3/16" STUDDED BALL JOINT	146.	A6218	8-32 X 1/2" STEEL CHASSIS SCREWS
73.	A6215	BRASS WASHERS	147.	A4053	CHASSIS SPACER (LONG WHEEL BASE)
74.	A1510	STEERING SECTOR ARM			OWNERS GUIDE INSERT P/N 800-0032 (PROD RELEASE)