G10100, G10101, 0M000, 0M001 A & L REAR SUSPENSION INSTRUCTIONS FOR ASSEMBLY

TO A & L GRAPHITE OR FIBERGLASS MID OPTIMA SHORT OR LONG CHASSIS

1. It is recommended that you use ball diffs front and rear. We also suggest that you drill out (6mm drill) or dremel out the lip on the inside of the drive cup (see Figure A). This will enable more dogbone movement without binding. Mount your existing front suspension, servo linkage, gearbox assemblies and radio gear to A & L chassis and top plate. (Replace belt with A & L #5010 if using longer chassis.)

2. Replace left stock tranny to bulkhead brace with A & L's for mounting of shock tower. Drill out the top middle hole of motor plate to 1/8 inch. Mount A & L shock tower to tranny bulkhead brace and motor plate using three 3mm x 8mm screws (see Figure B). Screw in the 3 x 12mm set screw in the top of shock tower. Screw on the body post and adjust height as needed.

3. Mount suspension hinge post to the toe-in adaptor plates (see Figure C). Note: the posts are at different heights with the shorter post going inboard. Also note hinge pin holes are drilled at an angle in the post. We recommend that you start off by using the 3° toe-in plates (see Figure D). Loosely mount the outside tall post to the outside countersunk hole of the toe-in plate. Temporarily mount the inside short post to the toe-in plate. Now take the hinge pin and slide it through the outside eye of the trailing arm and then through the outside mounting post. Next take a circlip and install on the outside hinge pin groove and then a shim next to it. Slide the pin throught the inside eye of the trailing arm and install another shim and circlip. Check the arm for freeplay between circlips, slightly file arm for clearance if needed. Now slide the hinge pin and arm through the inside post. Loosely tighten the inside post (this screw will have to be taken out later to go through the bottom of the chassis) and completely tighten the outside post that is countersunk in the toe-in plate.

4. Install bearings into the arm (bearings are a press fit) using a socket or nut driver the same size as the outside of the bearing and press them straight into the arms. Now install axles into the arms, stock axle and dogbones, or the various universals will work with our kit. Not that the axle lengths and sizes will vary between manufacturers (shimming may be required).

5. Remove the inside post screw from the toe-in plate and mount the arm assembly onto the chassis using the inside post hole and the hole inside of the outside post (see Figure C).

6. Slide the arm assembly in as close as possible but not enabling the dogbone to bind against the inside end of the drive cups. Once the dogbone play is set, install set screws into the top of the post with locktite.

7. Install shock onto arm, note it is necessary to use only a stock RC10 shock ball and plastic pivot eye for proper shock mounting into A & L trailing arm. Use supplied 3mm x 14mm button heads for shock mounting at top and bottom. The RC10 shock ball mounts into A & L arm with flanged end going towards the wheel. Use a piece of rubber tubing for mounting the top of shock over the 3mm x 14mm button head.

8. We recommend to run the car with a maximum travel giving the car 1-1/2 inches of ground clearance and with a race ready ride height of one inch. Put limiters in the shocks to stop the downward travel of arms at the 1-1/2 inch of ground clearance. Hard plastic tubing is recommended for limiting shock travel. Do not allow arms' downward travel to be stopped by hitting mounting posts or adaptor plate as this may cause breakage.

SCREWS — HOW MANY — WHERE THEY GO

2 4mm x 10mm Inside Hinge Post
2 4mm x 8mm Outside Hing Post
2 4mm x 12mm Toe-In Plate
2 4mm Nylock Nuts Toe-In Plate
8 1/8 Shims for Hinge Pins
4 3mm x 6mm Flat Heads

6 1/8 Circlips for Hinge Pins
1 3 x 12mm Set Screw Body Post
3 3mm x 8mm Shock Tower
4 3mm x 14mm Shock Mounting
4 3 x 3mm Set Screw Hinge Post

FIGURE A

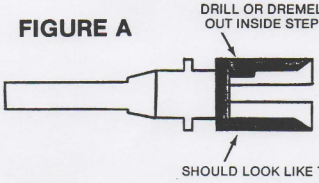


FIGURE B

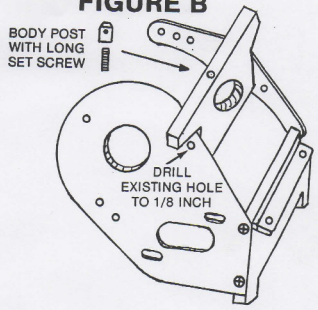


FIGURE C

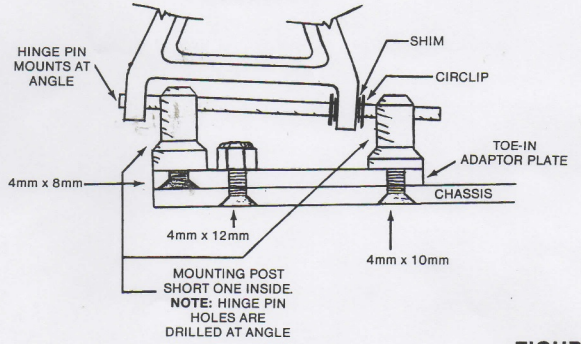
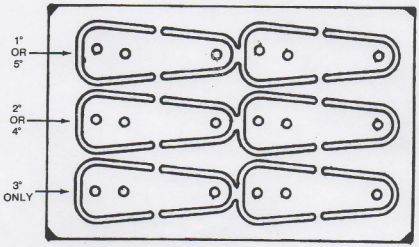


FIGURE D



A & L PARTS LIST FOR MID OPTIMA (G10100, G10101, 0M000, 0M001) CONVERSION KITS

PART	PART NUMBER	QUANTITY
Graphite Chassis Kit Mid Stock Length	G10100	discontinued
Graphite Chassis Kit Mid Long Length	G10101	Kit
Fiberglass Chassis Kit Mid Stock Length	0M000	discontinued
Fiberglass Chassis Kit Mid Long Length	0M001	Kit
Graphite Chassis Stock Length	G10000	discontinued
Graphite Chassis Long Length	G10001	1
Fiberglass Chassis Stock Length	2011	discontinued
Fiberglass Chassis Long Length	2012	1
Graphite Top Brace Stock Length	G10500	discontinued
Graphite Top Brace Long Length	G10510	1
Fiberglass Top Brace Stock Length	2040	discontinued
Fiberglass Top Brace Long Length	2041	1
Graphite Shock Tower Tranny Brace	G10511	1
Fibergalss Shock Tower Tranny Brace	2042	1
Nylon Shock Tower	3200	1
Right Trailing Arm	R104	1
Left Trailing Arm	L105	1
R & L Trailing Arm	RL106	1 ea.
Body Post	1005	1
Mounting Post Long & Short	1009	1 ea.
Kyosho Wheel Adaptors	1030	2
Hinge Pins	4200	2 ea.
Hex Wrenches	4101	discontinued
Screws & Nut Set	4106	set
5 x 10 Flange Bearings	5000	2 ea.
Adjustable Toe-In Plates 1° - 5°	2025	2 ea.
Lexan Belt Covers Long Chassis	3250	discontinued
Mid Long Length Belt	5010	1 ea.
Mid Short Length Belt (Stock)	5011	discontinued
Hinge Pin Clips	4002	1 pkg.
Hinge Pin 1/8 Shims	4003	1 pkg.

THANK YOU FOR USING OUR PARTS!
GOOD RACING

Chris Allec and Daryl Lane