

1:12 SCALE ON ROAD CAR KIT

RC12L3



INSTRUCTION MANUAL FOR KIT #4015



TEAM ASSOCIATED

SAVE THIS MANUAL!

Use with current catalog for future,
hassle-free re-ordering of parts.

©1998 Associated Electrics, Inc.

RC12L3

NEW chassis design

NEW VCS™ Micro shock

Race-proven front suspension

NEW 3 bolt precision hubs

Carbon-fiber composite chassis

NEW Pro-Line/Jaco 3 bolt wheel/tire combo

NEW Factory Team blue titanium turnbuckles

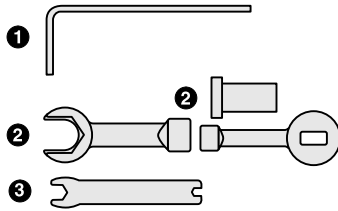
NEW Factory Team blue aluminum screws and ball ends

Pro-Line/Jaco wheel/tire combo

TOOLS

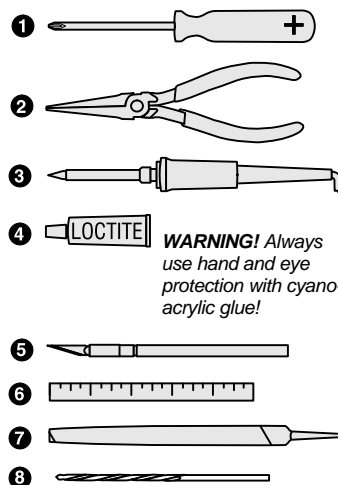
KIT TOOLS SUPPLIED

- 1 Allen wrenches, .050", 1/16", 3/32"
- 2 shock tools
- 3 metal turnbuckle wrench



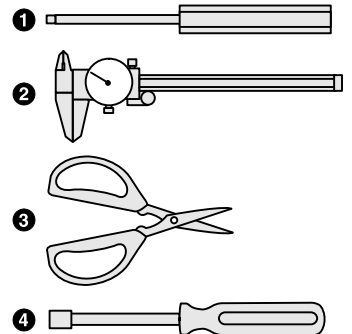
EXTRA TOOLS NEEDED

- 1 Phillips screwdriver, #2
- 2 needlenose pliers
- 3 soldering iron (40-50 watts) and a small amount of Rosin core solder. Pencil-type soldering iron is better than the gun type. **DANGER! Tip is HOT!**
- 4 thread locking compound (#242 Blue Loctite® or equivalent)
- 5 hobby knife **WARNING! This knife cuts plastic and fingers with equal ease, so be careful.**
- 6 precision ruler
- 7 file
- 8 hand drill with 3/32" (or #43) drill bit
- 9 electrician's tape
- 10 strapping tape



HELPFUL TOOLS (NOT REQUIRED)

- 1 Allen drivers (straight Allen wrenches with hex shaped handles) such as the following made by Associated:
 - #6957 .050" Allen wrench
 - #6958 1/16" Allen wrench
 - #6960 3/32" Allen wrench
 - #6961 2.5mm Allen wrench
- 2 vernier calipers
- 3 hobby scissors
- 4 nut drivers (screwdriver-handled hex socket tools) such as the following from Associated:
 - #SP-86 3/16" nut driver
 - #SP-85 1/4" nut driver
 - #SP-82 11/32" nut driver

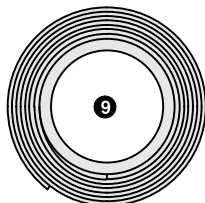
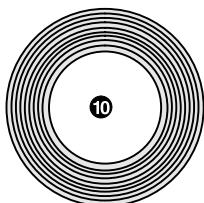


WARNING! Do not use a power screwdriver to install screws into nylon, plastic, or composite materials. The fast rotation speed can heat up the screws being installed. They can then break or strip the threads during installation.

ITEMS NEEDED TO OPERATE YOUR CAR

- 1 R/C two channel surface frequency radio system.
- 2 *Batteries (6 cell).
- 3 Battery charger (we recommend a peak detection charger).
- 4 *Electronic speed control.
- 5 *R/C electric motor.
- 6 *Pinion gear, size to be determined by type and wind of motor you will be using.
- 7 *1:12 scale Lexan body and wing.

* Available from Associated. See your catalog.



REACHING US

CUSTOMER SUPPORT

(714) 850-9342
 FAX (714) 850-1744
 web site: <http://www.rc10.com>
 ©1998 Associated Electrics, Inc.



ASSOCIATED ELECTRICS, INC.
 3585 Cadillac Ave.
 Costa Mesa, CA 92626
 USA

BEFORE BUILDING

OPEN THE BAGS IN ORDER

The assembly is arranged so that you will open and finish that bag before you go on to the next bag. **Sometimes you will have parts remaining at the end of a bag. These will become part of the next bag.** Some bags may have a large amount of small parts. To make it easier to find the parts, we recommend using a partitioned paper plate for spreading out the parts so they will be easier to find.

MANUAL FORMAT

The following explains the format of these instructions.

The beginning of each section indicates:

- 1 Which bag to open ("**BAG A**").
- 2 Which parts you will use for those steps. Remove only the parts shown. "**1:1**" indicates an actual size drawing; place your part on top and compare it so it does not get confused with a similar part.
- 3 Which tools you should have handy for that section.
- 4 In some drawings, the word "**REAR**" with an arrow indicates which direction is the rear of the car to help keep you oriented.

5 The instructions in each step are ordered in the order you complete them, so read the words AND follow the pictures. The numbers in circles are also in the drawing to help you locate them faster.

6 When we refer to left and right sides of the car, we are referring to the driver's point of view inside the car.

SUPPLEMENTAL SHEETS

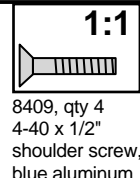
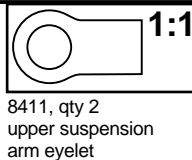
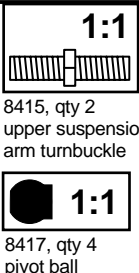
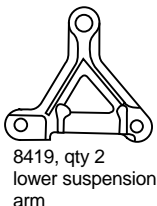
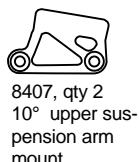
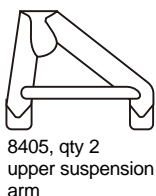
We are constantly developing new parts to improve our kits. These changes, if any, will be noted in supplementary sheets located in a parts bag or inside the kit box. Check the kit box before you start and each bag as it is opened. When a supplement is found, attach it to the appropriate section of the manual.

Now clear off your workbench, line up some partitioned plates, grab your hot dog, root beer, bag o'chips, hang up your **DO NOT DISTURB** sign, and let's go!

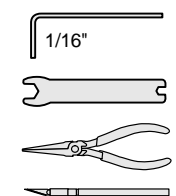
BAG A

REMOVE THESE PARTS FOR:

4015: step 1



TOOLS USED



Step 1 LEFT SIDE

ASSEMBLE UPPER SUSPENSION ARM

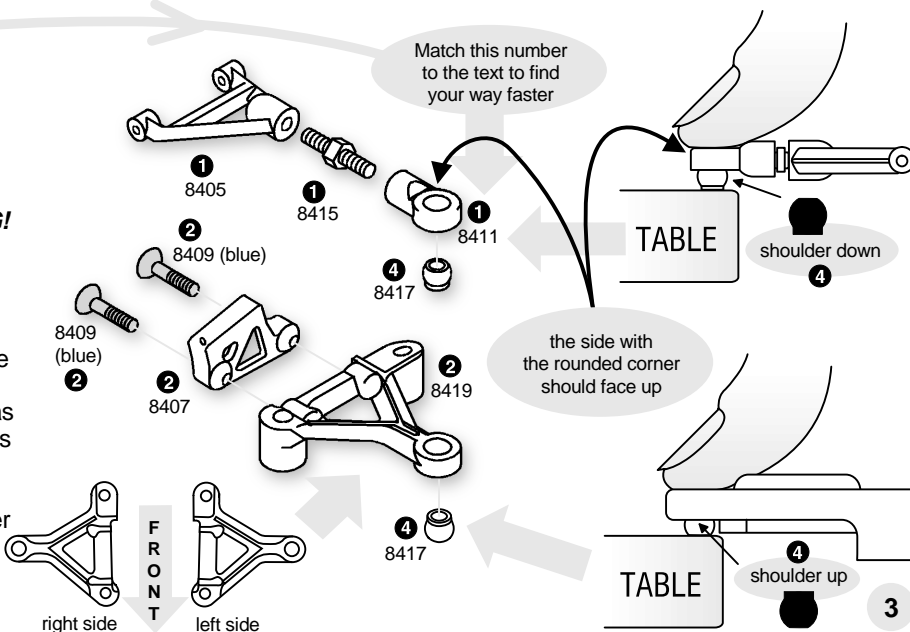
- 1 Assemble parts #8405, 8415, and 8411.

ATTACH UPPER ARM MOUNT TO LOWER ARM

- 2 Attach #8407 10° mount to the #8419 lower suspension arm using two #8409 screws. **WARNING!** Screws are difficult to screw in. Turn carefully so you do not strip out the head.

INSTALLING UPPER AND LOWER PIVOT BALLS

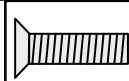
- 3 Before popping in the pivot balls, make sure there are no burrs inside the pivot ball holes.
- 4 Pop the #8417 pivot balls into the suspension arms as shown. Make sure that the shoulders of the pivot balls in the lower suspension arms are facing upward and the pivot balls in the upper arm are facing downward as shown. Orient ball to the rounded side of the upper arm as shown.
- 5 Now assemble the right side.



BAG A

REMOVE THESE PARTS FOR:

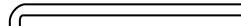
4015: steps 2-3



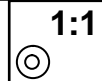
8439, qty 4
8-32 x 5/8
blue aluminum



6917, qty 2
4-40 x 3/8



8413, qty 2
hinge pin



8413, qty 4
caster shim



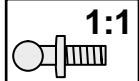
4506, qty 1
cross brace



3323, qty 4
#8 thick washer



6299, qty 6
E-clip



4448, qty 2
ball end
blue aluminum



4449, qty 2
4-40 locknut



4114, qty 2
spring, .018

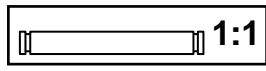


8425, qty 8
kingpin shim

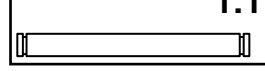


8421, qty 2
offset steering
block

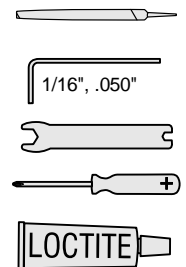
1599, qty 2
stub axle
titanium



4403, qty 2
kingpin



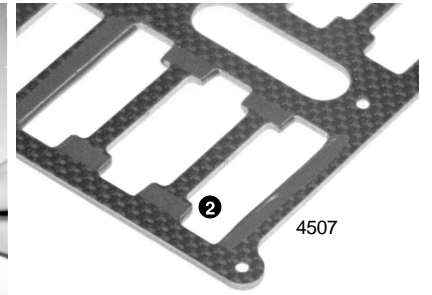
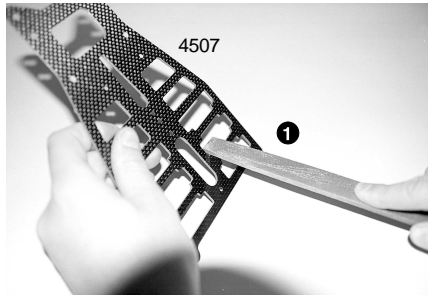
TOOLS USED



step 2

FILE THE CHASSIS

- Use your file to bevel the slots on the top of the chassis so the edges won't cut through the battery cell wrap. **WARNING! Graphite dust can be harmful to your health. File in a well ventilated area. Then wash the chassis with running water and dry with paper towels. Wash your hands afterward with cold water and soap. Deposit graphite filings in trash.**



TAPE THE CHASSIS

- Insulate the battery slots by wrapping the slots with electrical tape where the batteries will touch the chassis.

NOTE: The bottom of the chassis has the screw holes countersunk.

step 3 LEFT SIDE

SUSPENSION ARMS TO CHASSIS

- Bolt the #8419 suspension arm to the chassis with two #8439 blue aluminum screws from underneath the chassis, with one #3323 washer (between arm and top of chassis) for each screw. Do the other side.

MOUNT THE CROSS BRACE

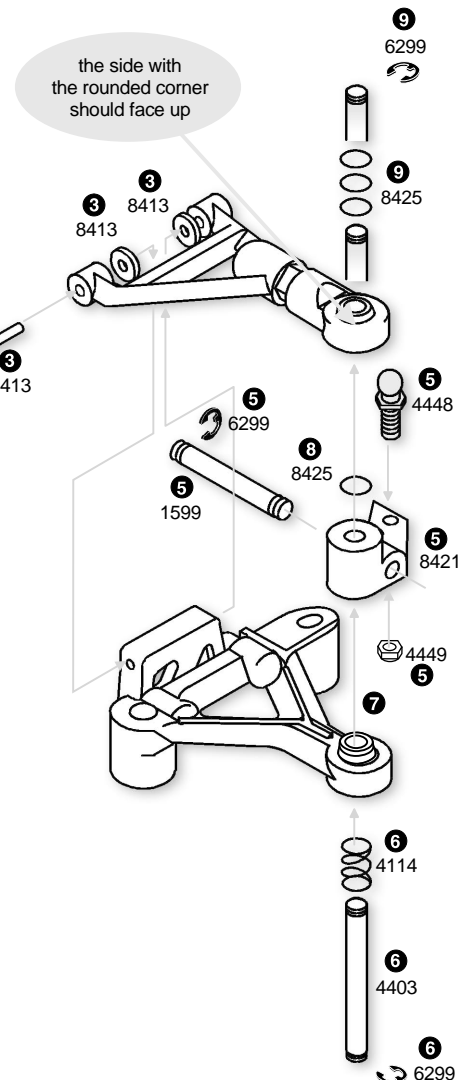
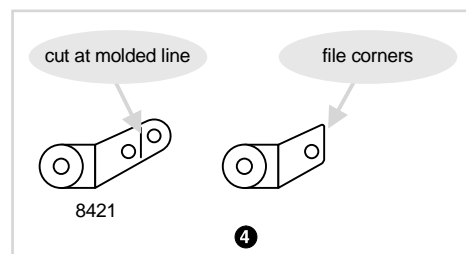
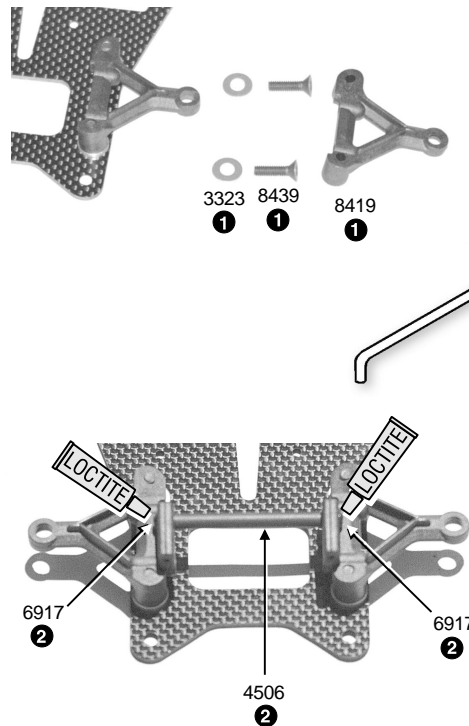
- Mount the #4506 cross brace to the front suspension using two #6917 button head screws.

UPPER ARM TO THE SUSPENSION MOUNT

- Assemble the upper arm assembly to the suspension mount as shown, using the #8413 hinge pin and shims.

FINAL FRONT SUSPENSION ASSEMBLY

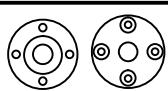
- Cut and file the #8421 steering block as shown.
- Assemble the #8421 steering block as shown using parts #1599, 6299, 4448, and 4449.
- Place one #6299 E-clip on the bottom of the #4403 kingpin then slide the #4114 spring over.
- Slide the #4403 kingpin completely through the bottom of the suspension arm and up through the steering block.
- Place one #8425 shim on top of the #8421 steering block.
- Now push the upper arm over the kingpin. Place three #8425 shims over the kingpin and secure with a #6299 E-clip.
- Do the other side.



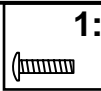
BAG B

REMOVE THESE PARTS FOR:

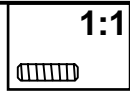
4015: steps 1-2



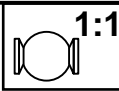
4335, qty 2 ea
pivot socket,
upper and lower



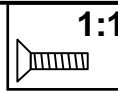
4334, qty 8
2-56 x 5/16



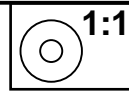
4436, qty 2
tweak set screw



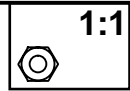
4336, qty 2
pivot ball



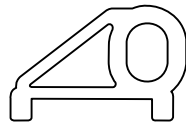
6292, qty 2
4-40 x 3/8



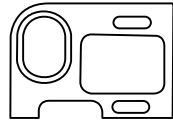
4526, qty 2
T-bar spacer



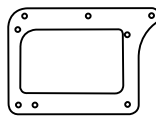
4449, qty 2
4-40 locknut



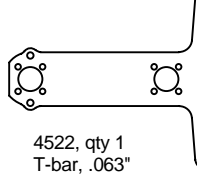
4536, qty 1
left rear bulkhead



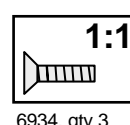
4537, qty 1
motor bulkhead



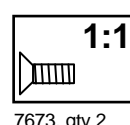
4532, qty 1
lower pod plate



4522, qty 1
T-bar, .063"

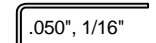
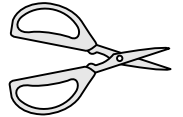


6934, qty 3
4-40 x 3/8
blue aluminum

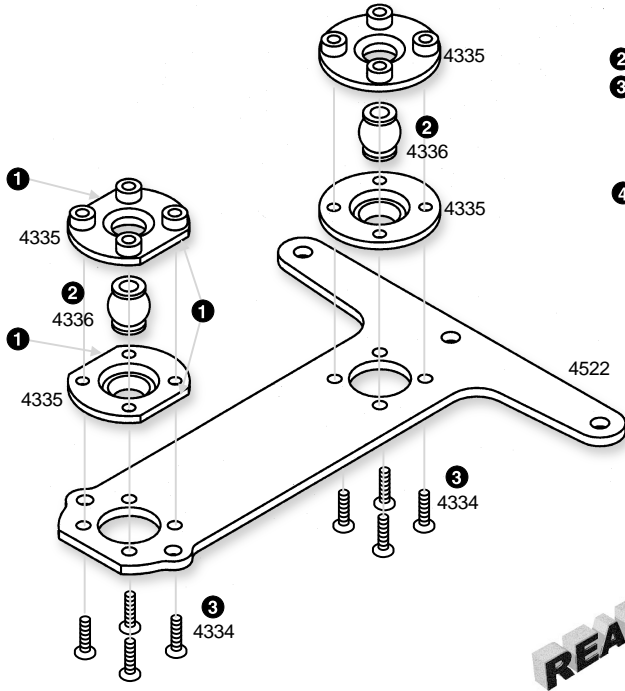


7673, qty 2
4-40 x 5/16

TOOLS USED

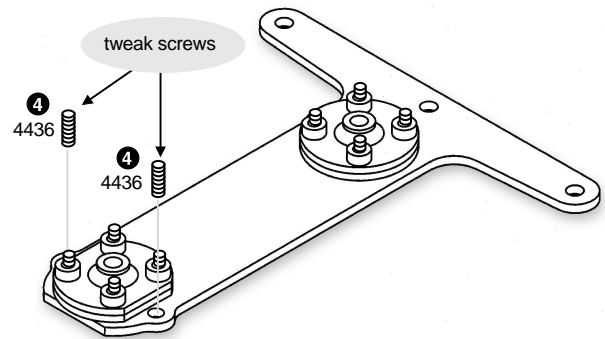


step 1 LEFT SIDE



T-BAR ASSEMBLY

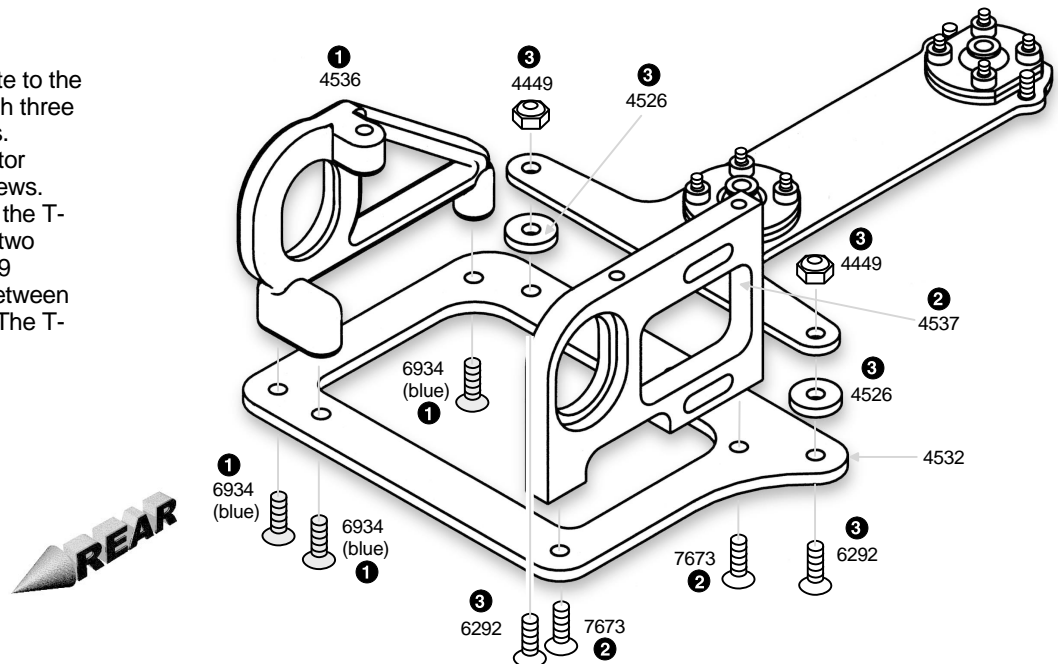
- 1 Trim the sides on the #4335 front pivot socket in order to make room for the T-bar tweak screws. Do not trim the rear pivot socket.
- 2 Assemble the #4335 T-bar sockets and #4336 pivot balls.
- 3 Secure the T-bar pivot assembly to the #4522 T-bar using eight #4334 screws as shown, installing both on the same side of the T-bar. The side with the screw head showing will be the bottom.
- 4 Install the two #4436 tweak screws as shown. Screw them so they are flush with the bottom of the T-bar.



step 2 RIGHT SIDE

REAR POD ASSEMBLY

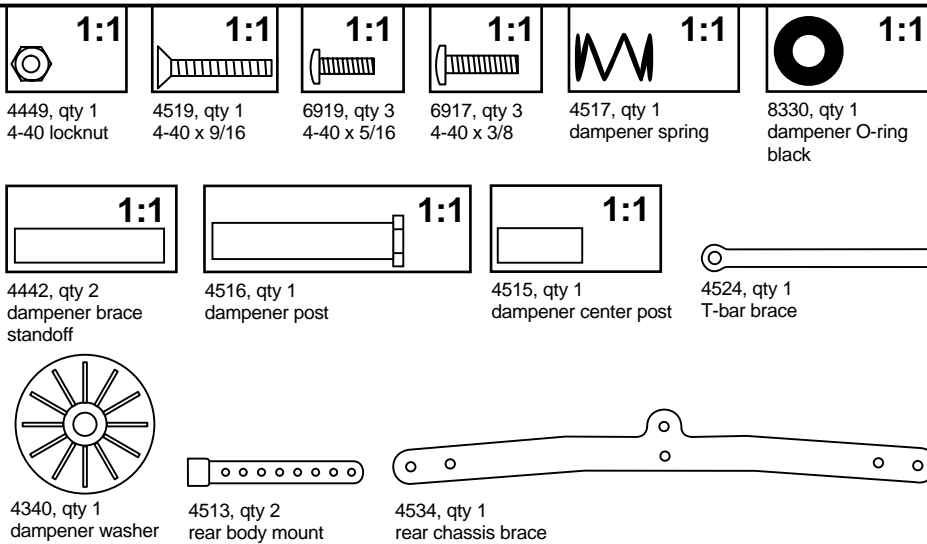
- 1 Bolt the #4532 lower pod plate to the black #4536 left bulkhead with three #6934 blue aluminum screws.
- 2 Bolt the aluminum #4537 motor bulkhead with two #7673 screws.
- 3 Attach the lower pod plate to the T-bar with two #4526 spacers, two #6292 screws, and two #4449 locknuts. The spacer goes between the T-bar and the pod plate. The T-bar is on top.



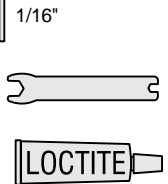
BAG B

REMOVE THESE PARTS FOR:

4015: steps 3-4



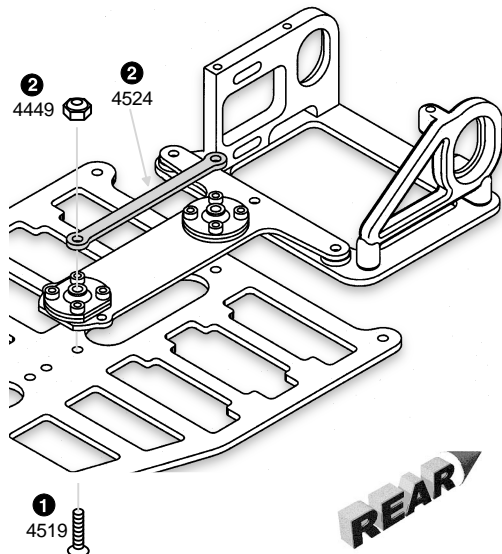
TOOLS USED



step 3 LEFT SIDE

T-BAR TO CHASSIS

- 1 Insert the #4519 screw through the chassis hole shown and into the T-bar.
- 2 Place the #4524 T-bar brace over the screw and secure with a #4449 locknut.



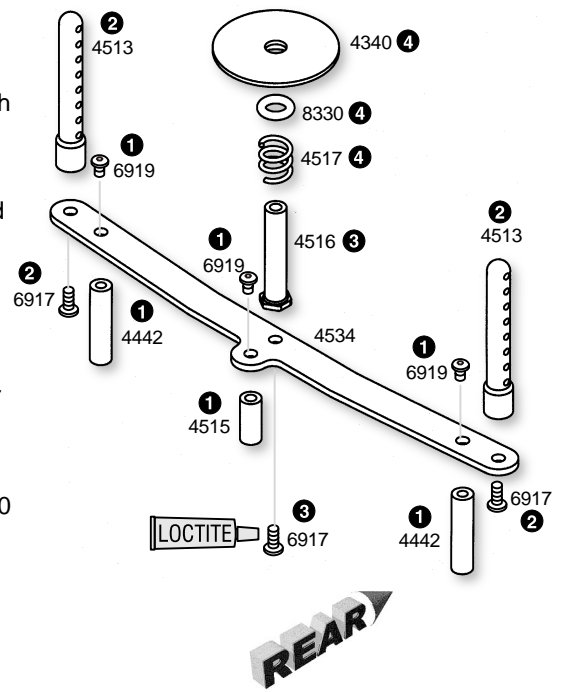
step 4 LEFT SIDE

REAR CHASSIS BRACE ASSEMBLY

- 1 Mount the aluminum #4442 and #4515 standoffs to the #4534 rear chassis brace with the #6919 screws.
- 2 Mount the #4513 rear body mounts to the rear chassis brace in the holes shown and secure the mounts using the #6917 screws.
- 3 Place a small amount of Loctite on the tip of a #6917 screw. Mount the #4516 dampener post to the rear chassis brace with the #6917 screw.

DAMPENER ASSEMBLY

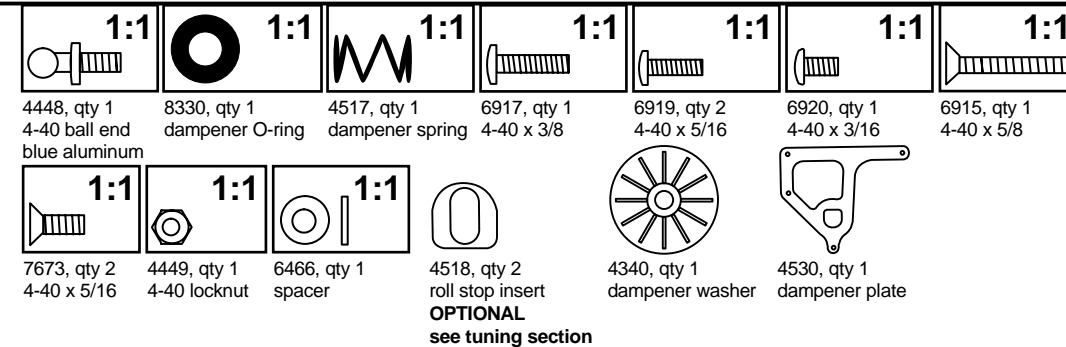
- 4 Slide the #4517 spring, #8330 O-ring, and #4340 washer over the #4516 post in the order shown.



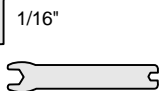
BAG B

REMOVE THESE PARTS FOR:

4015: steps 5-6



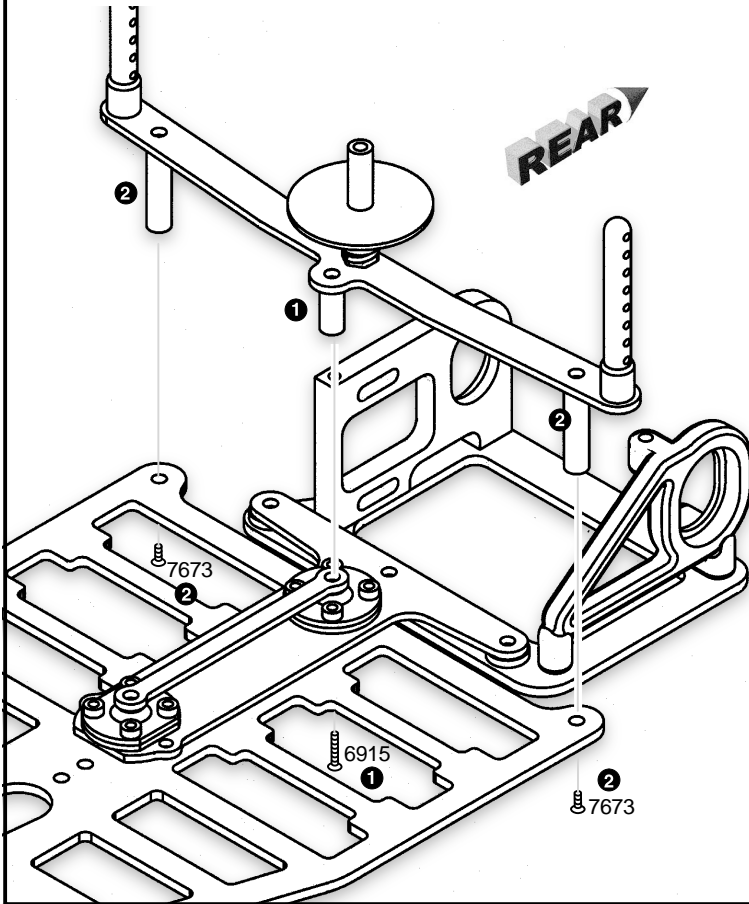
TOOLS USED



step 5 LEFT SIDE

T-BAR MOUNTING

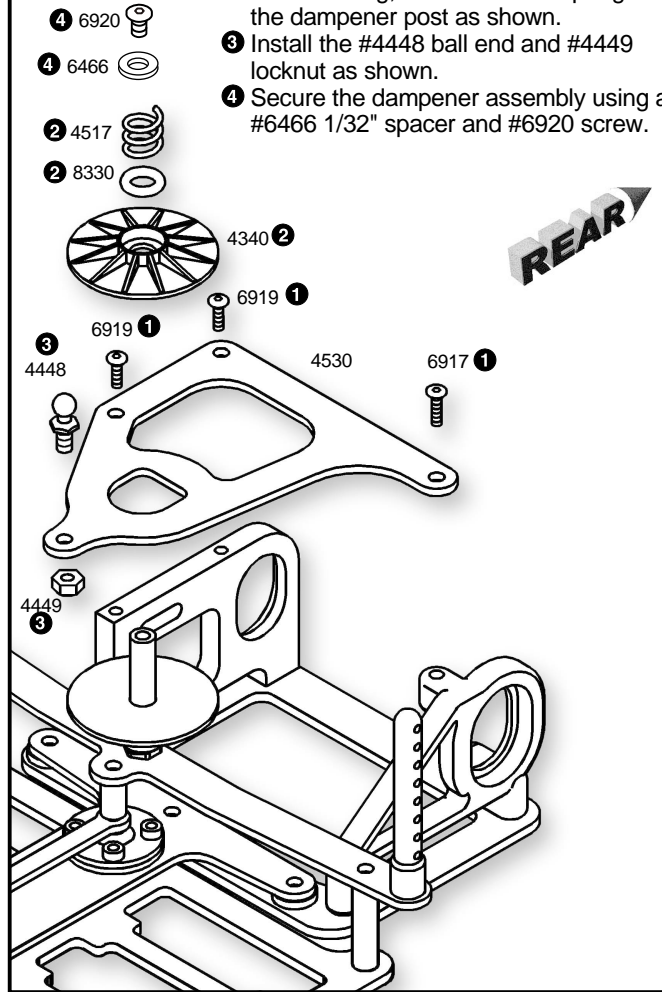
- 1 Insert the #6915 screw up through the chassis and into the rear part of the T-bar, and screw it into the center chassis brace standoff tube.
- 2 Secure the outside aluminum standoffs to the chassis with the #7673 screws.



step 6 LEFT SIDE

DAMPENER PLATE ASSEMBLY

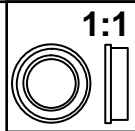
- 1 Install the #4530 dampener plate to the rear pod using two #6919 screws into the aluminum bulkhead and the longer #6917 screw into the plastic bulkhead.
- 2 Slide the #4340 dampener washer, #8330 O-ring, and the #4517 spring over the dampener post as shown.
- 3 Install the #4448 ball end and #4449 locknut as shown.
- 4 Secure the dampener assembly using a #6466 1/32" spacer and #6920 screw.



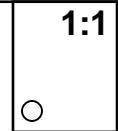
BAG C

REMOVE THESE PARTS FOR:

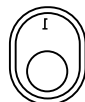
4015: steps 1-2



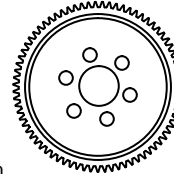
897, qty 2
1/4 x 3/8
flanged bearing



6626, qty 6
1/8" diff ball



4349, qty 2
ride height
adjuster, #1 down



4460, qty 1
diff gear
75 tooth

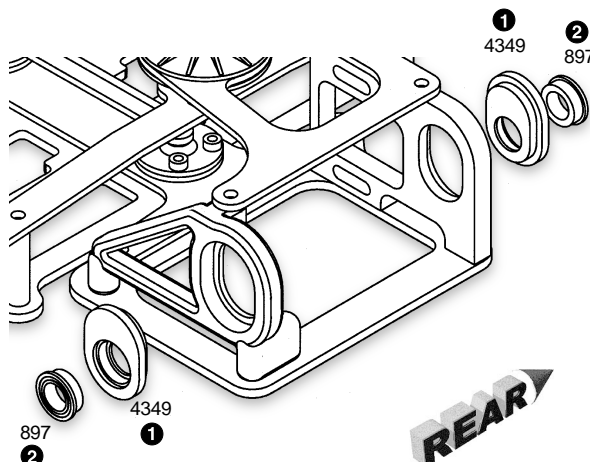


6636, qty 1
silicone grease

step 1 LEFT SIDE

DIFFERENTIAL ASSEMBLY

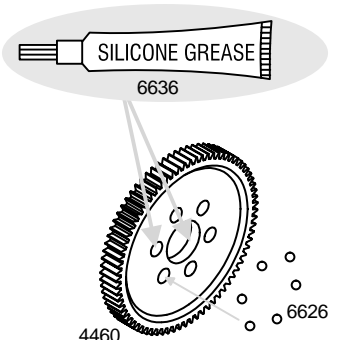
- 1 Find the #4349 adjusters that have a small #1 on them, and insert them into the rear pod, hole down. (For more info on these, see the tuning tips later in the manual.)
- 2 Insert two #897 ball bearings into the ride height adjusters as shown.



step 2

DIFF GEAR

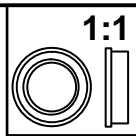
- 1 Add #6636 silicone grease to the #4460 diff gear ball holes and center hole.
- 2 Push the six #6626 diff balls into the holes.



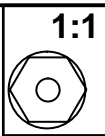
BAG C

REMOVE THESE PARTS FOR:

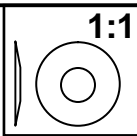
4015: steps 3-4



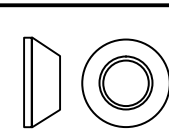
897, qty 1
1/4 x 3/8
flanged bearing



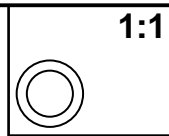
4185, qty 2
8-32 locknut



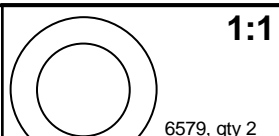
4459, qty 1
Belleville washer



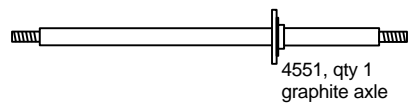
4555, qty 1
diff thrust cone



4554, qty 2
rear axle shim



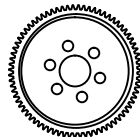
6579, qty 2
diff drive ring



4551, qty 1
graphite axle



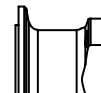
6636, qty 1
silicone grease



4460, qty 1
diff gear
75 tooth



4552, qty 1
left wheel hub



4553, qty 1
right hand rear wheel/
dif spacer

TOOLS USED

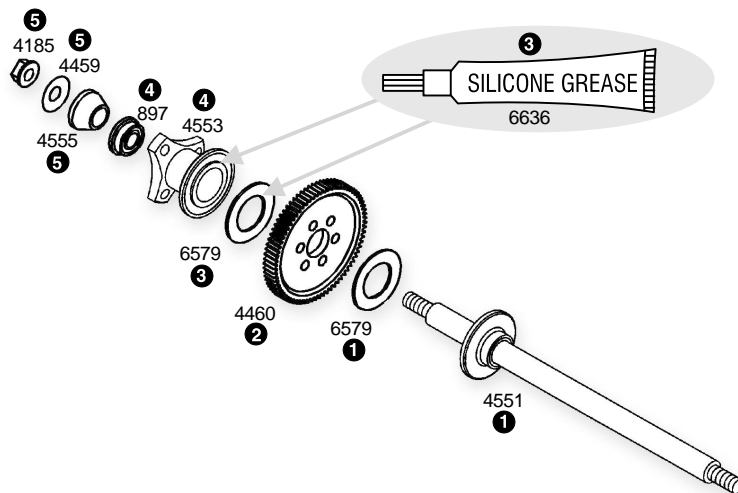
3/32"



step 3

FINAL DIFF ASSEMBLY

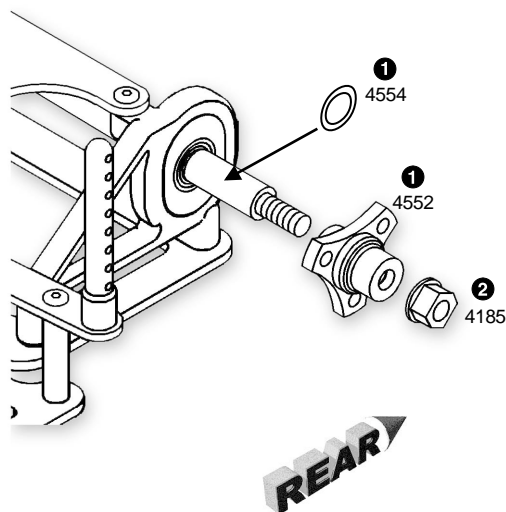
- 1 Hold the #4551 axle upright and slide the #6579 diff ring over the axle and onto the aluminum hub of the axle.
- 2 Slide the #4460 spur gear over the axle and center it on the hub.
- 3 Apply a small amount of #6636 grease to the second #6579 diff ring as shown. Slide it over the axle, greased side towards the gear. This will keep the diff ring in place while assembling.
- 4 Insert a #897 flanged bearing into the outside end of the #4553 wheel hub. Add a little #6636 grease to the smaller end, then slide the #4553 wheel hub over the axle.
- 5 Install the #4555 cone so that the smaller end is facing the bearing. Place the #4459 Belleville washer over the axle so that the smaller end faces away from the cone, and secure with a #4185 locknut. We will adjust the diff after we put the wheels on.



step 4

CHECK THE END PLAY



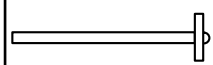



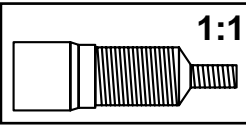
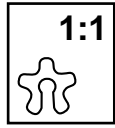
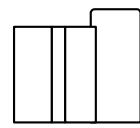
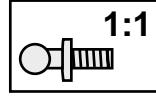
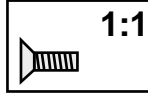

- 1 Screw on the #4552 left wheel hub, then check the axle for side to side end play. Use the #4554 shims to take up any excess end play.
- 2 When you have finished setting the axle end play, install the #4185 locknut to secure the left wheel hub.



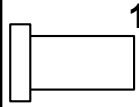

BAG D

REMOVE THESE PARTS FOR:

4015: steps 1-5

| | | | | | |
|--|--|--|---|--|---|
|  1:1 4473, qty 1 black VC foam |  1:1 4473, qty 1 VC housing |  1:1 4472, qty 1 shock shaft and piston |  1:1 4473, qty 1 large washer |  1:1 4473, qty 1 red O-ring |  1:1 4473, qty 1 small washer |
|  1:1 4471, qty 1 micro shock body |  1:1 4473, qty 1 star clip |  1:1 4511, qty 1 shock mount |  1:1 4448, qty 1 ball end blue aluminum |  1:1 6933, qty 2 4-40 x 5/16 blue aluminum |  1:1 5422, qty 1 30 wt silicone oil |

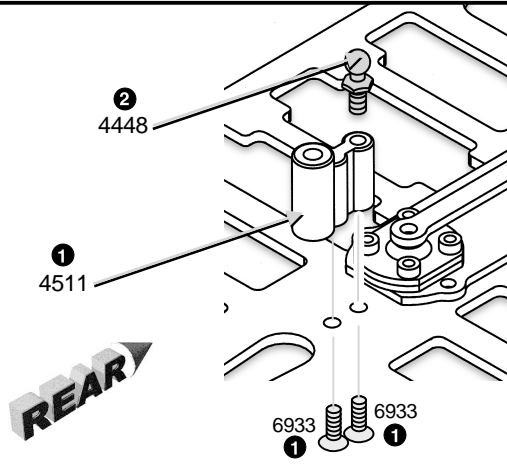
TOOLS USED

| |
|---|
|  1:1 4473, qty 1 assembly tool |
|  |

step 1

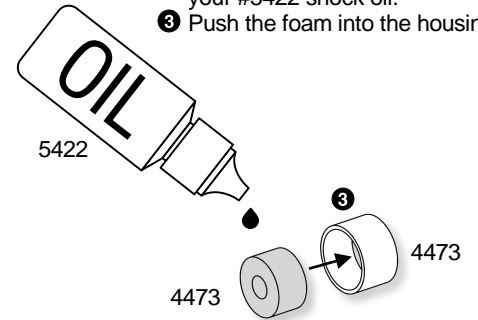
SHOCK/ANTENNA MOUNT

- 1 Install the mount using two #6933 screws.
- 2 Add one blue aluminum #4448 ball end to the hole shown.



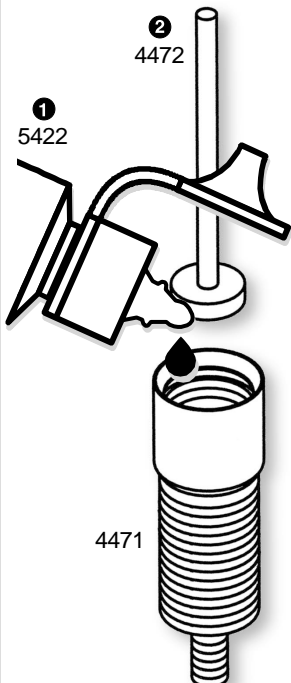
step 2

- 1 Remove the plastic #4473 VC housing from the parts tree.
- 2 Soak the #4473 VC foam with your #5422 shock oil.
- 3 Push the foam into the housing.



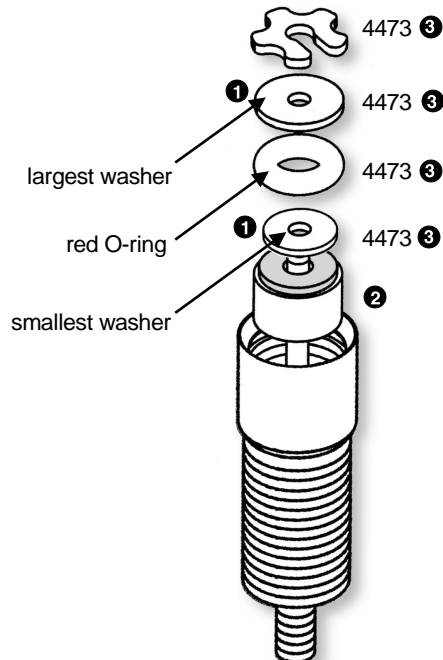
step 3

- 1 Fill #4471 shock body with oil up to the upper groove.
- 2 Insert #4472 shaft/piston all the way to the bottom.



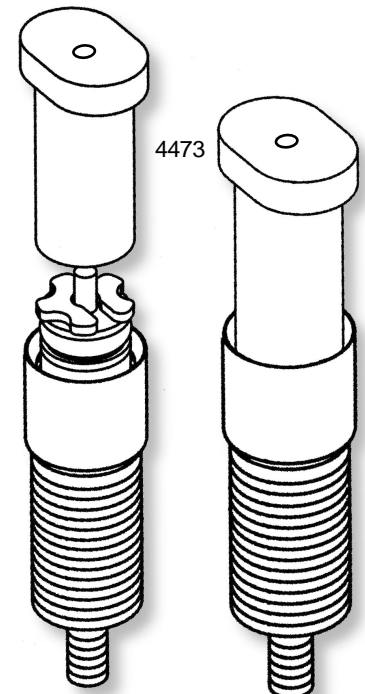
step 4

- 1 Remove the small and large #4473 washers from the parts tree. Remove any flash from the washers.
- 2 Slide the VC housing with foam onto the shaft, housing first (so foam is still seen through the body opening).
- 3 Slide on the following in this order: smaller washer, red O-ring, larger washer, then the star-shaped clip.



step 5

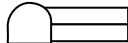
Use the assembly tool to push all the parts down into the body until the clip snaps into the groove. When you remove the tool, the shaft will push out somewhat if everything snapped into place correctly. **Make sure the clip snaps into the groove completely.**



BAG D

REMOVE THESE PARTS FOR:

4015: steps 6-8



6274, qty 2
ball cup



4473, qty 1
spring
adjusting nut



4474, qty 1
shock shaft end

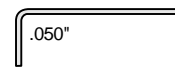


6951, qty 1
set screw



4476, qty 1
green spring

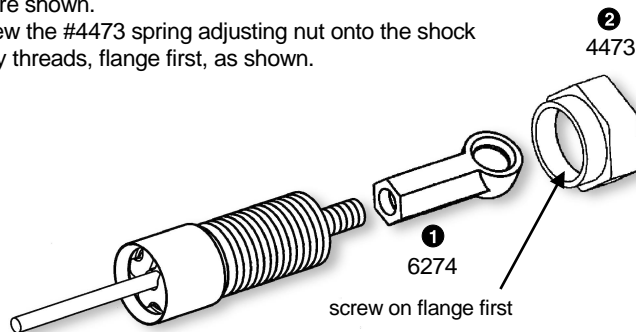
TOOLS USED



disassembly rod

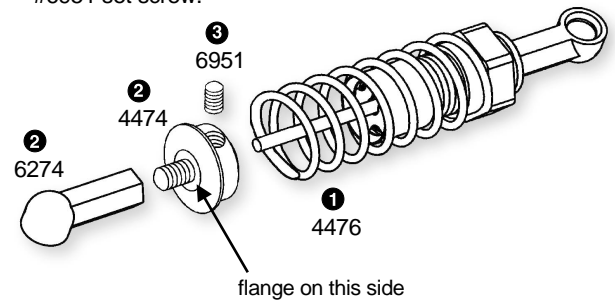
step 6

- 1 Remove the assembly tool and screw on the ball cup where shown.
- 2 Screw the #4473 spring adjusting nut onto the shock body threads, flange first, as shown.



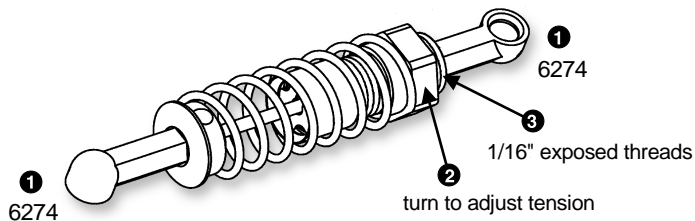
step 7

- 1 Slide the #4476 spring over the body and up against the #4473 adjusting nut.
- 2 Screw the #6274 ball cup onto the #4474 shock shaft end.
- 3 Tighten the #4474 shock shaft end to the shaft with the #6951 set screw.



step 8

- 1 Pop the #6274 ball cups on the ball ends of your kit.
- 2 Turn the spring adjusting nut to adjust spring tension.
- 3 Adjust spring nut to 1/16" from threaded end.



DISASSEMBLY

- 1 To remove the parts from inside the shock, first loosen the #6951 set screw of the #4474 shock shaft end (see step 7 above), then slide off the shaft end and spring.
- 2 Now carefully insert your disassembly rod into one of the rounded grooves of the star clip and pop it out.

