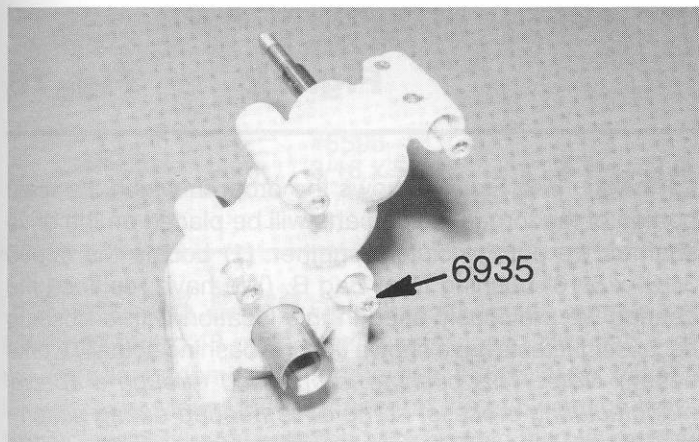


❑ **Fig. 64** Take the left hand case half and install it over the gears, making sure that each gear fits correctly into the appropriate bearing. Now open bag F and take out the four #6935 4-40 x 1" aluminum SHCScrews. Thread them into the four bolt hole locations on the left hand case. Screw in the bolts so that they extend about 1/8" out of the right hand case half.

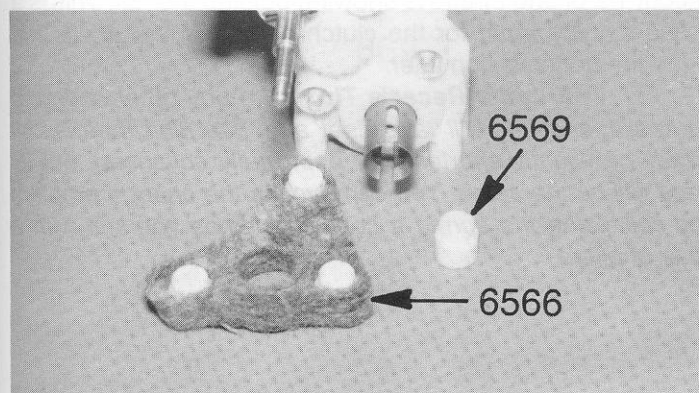


#6935  
4-40 x 1  
aluminum

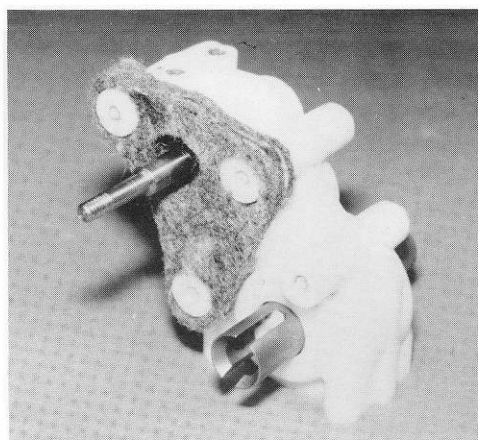
**Fig. 64**

❑ **Figs. 65 & 66** Back in bag C you will find four #6569 motor plate spacers, and one case dust end cap on a small molded parts tree. Remove the five parts from the tree. Now set the end cap aside; we will use it in a few moments. In bag F you will find the #6566 felt dust seal. Carefully remove the cutouts from the felt seal so that we can install three of the #6569 motor plate spacers into the appropriate holes as shown. Install the spacers so that the small ends will go into the case holes on the right case half as shown in fig. 66.

Install the #6566 felt seal and spacers over the drive shaft and onto the case as shown. The spacers will also be going over the threaded ends of the four #6935 aluminum case screws. Now install the remaining motor plate spacer in the fourth case hole as shown.

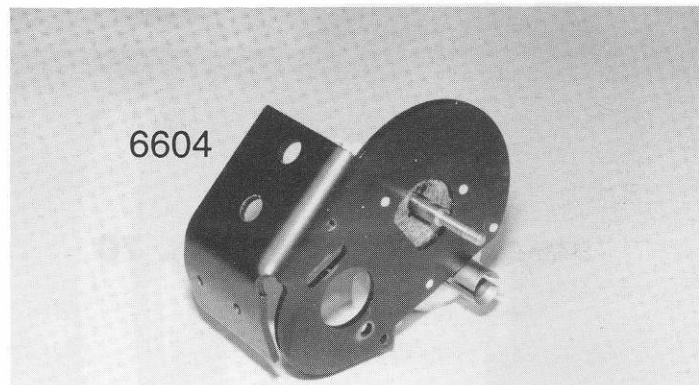


**Fig. 65**



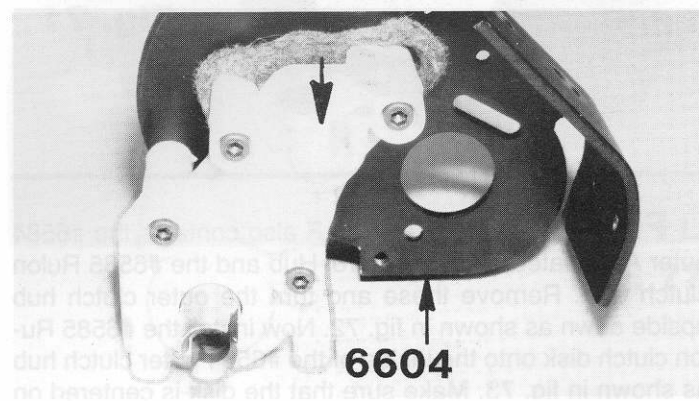
**Fig. 66**

❑ **Figs. 67** Now take the #6604 black anodized motor mounting plate from the Stealth main bag. Secure it to the right hand tranny case on the motor plate spacers using the #6935 screws already installed in the left case half. Tighten all four bolts. **WARNING! These are aluminum screws, so make sure all four screw threads are started into the motor plate before you begin to tighten the screws. Aluminum screws can strip their threads very easily.**

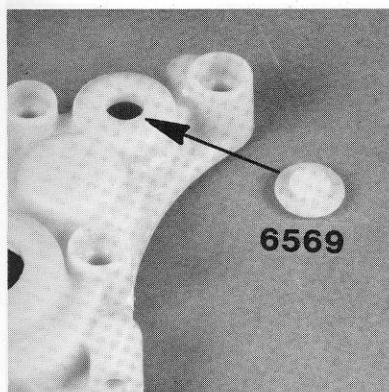


**Fig. 67**

❑ **Figs. 68 & 69** Now take the #6569 case dust end cap that we set aside in fig. 64 and install it in the hole of the left case half as shown in these photos. The location is indicated by the arrows.

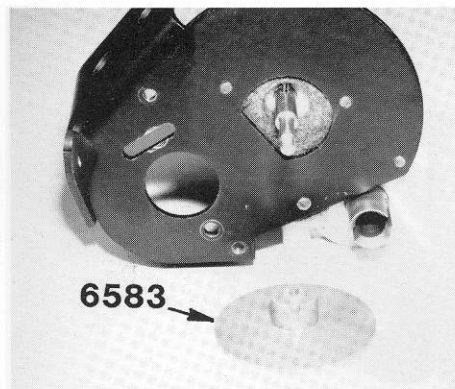


**Fig. 68**

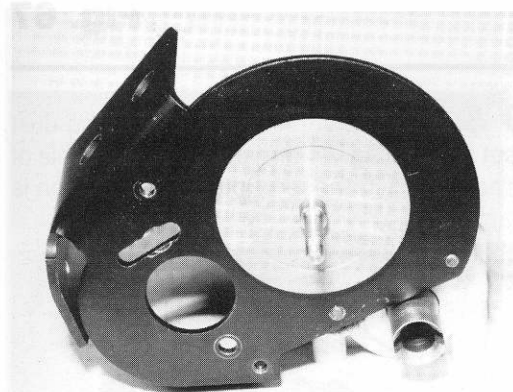


**Fig. 69**

❑ **Figs. 70 & 71** Now we are going to start assembling the Associated Torque Control assembly. From bag E remove the #6583 inner torque control hub (with the slot on the back side as shown in fig. 70). Slide the inner clutch hub over the gear shaft so that the hub aligns with and then slides over the drive shaft roll pin, as shown in fig. 71.

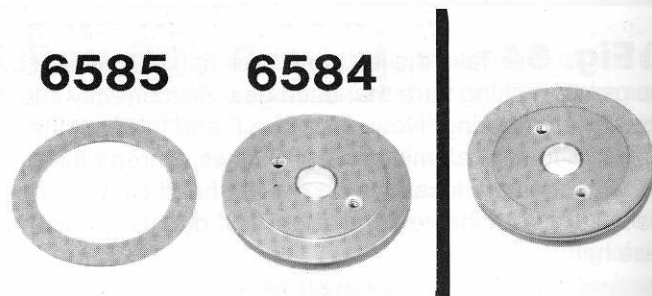


**Fig. 70**



**Fig. 71**

❑ **Figs. 72 & 73** Bag F also contains the #6584 outer Associated Torque Control Hub and the #6585 Rulon clutch disk. Remove these and turn the outer clutch hub upside down as shown in fig. 72. Now install the #6585 Rulon clutch disk onto the inside of the #6584 outer clutch hub as shown in fig. 73. Make sure that the disk is centered on the clutch hub.



**Fig. 72**

**Fig. 73**

❑ **Fig. 74** Fig. 74 shows the order in which the main portion of the torque clutch parts will be placed on the drive shaft as we put the clutch together. (1) Locate the #6596 3/16" x 5/16" bushing from Bag B. (We have replaced the bearing we previously used in this location with a bushing because our tests have shown that the bushing actually works better.) **Note:** This bushing is pre-oiled through a special manufacturing process, so no oil is needed during assembly. (2) Install the #6596 bushing inside the hole of the #6584 outer clutch hub.

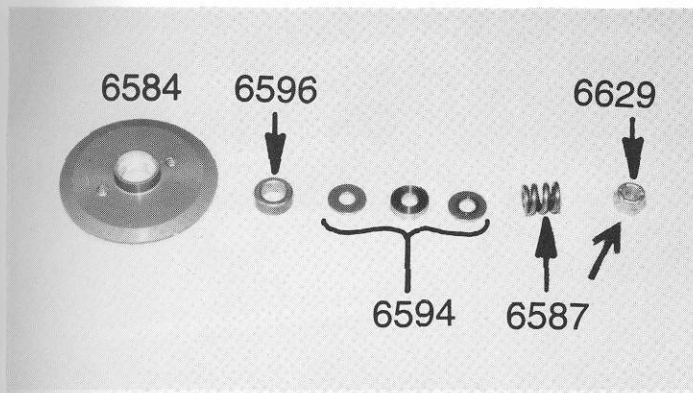
(3) Next, install the clutch hub with the bushing and clutch disk onto the gear shaft, the clutch disk still centered on the hub. Make sure that the bushing goes onto the larger portion of the gear shaft and that it is slightly below the surface of the clutch hub when properly installed.

(4) From bag E remove the #6594 thrust bushing and two thrust bushing washers. You can also remove the #6587 torque control spring and #6629 gold colored 5-40 locknut at this time. **Note:** Associated's #6687 contains both the torque clutch spring and one #6629 gold 5-40 locknut. (5) Take one of the thrust bearing washers and slide it onto the drive shaft. (6) Now install the bronze thrust bushing and the second steel thrust bushing washer. **WARNING!** Don't mix up the special hardened steel thrust washers from bag E with any other washers. Using any other washers from the kit will possibly ruin the clutch assembly or thrust bearing.

(7) Now install the #6587 torque control spring and #6629 gold colored 5-40 locknut. (8) Tighten the nut until about 1/2 of one thread is showing outside the nut. This is a good starting point for the clutch adjustment until we fine tune the transmission later.

**Cliff Lett's Racer's Tip:** "Like any other spring, a new slipper spring will 'take a set' after use. This means that it will be slightly shorter after being fully collapsed, but its rate will be the same. You can bypass the change problem by collapsing the spring a couple of times yourself with a pair of pliers."

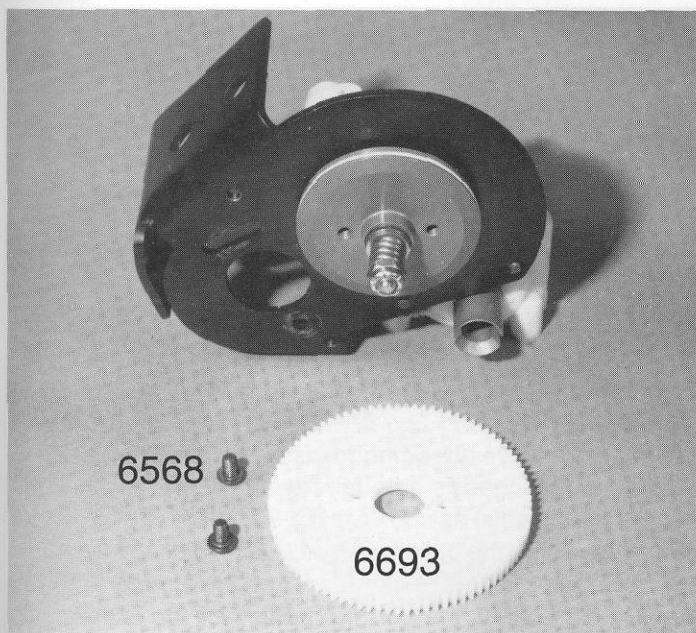




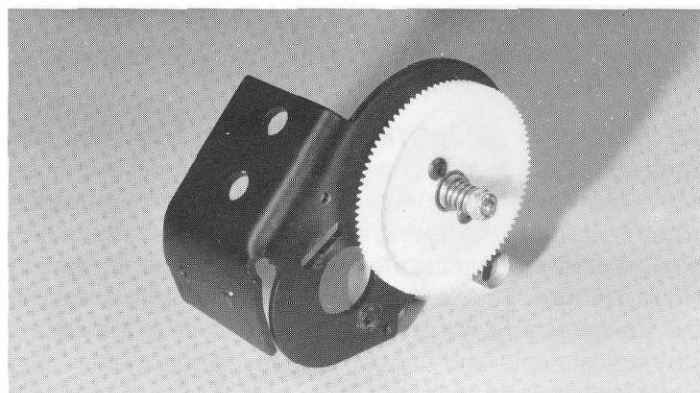
 #6629  
5-40 locknut
  #6596  
3/16 x 5/16  
unflanged bushing


**Fig. 74**

☐ **Figs. 75 & 76** Open bag #6-15 and remove the #6693 81 tooth, 48 pitch Stealth spur gear. From bag F of the Stealth transmission locate two #6568 4-40 x 3/16" BHCScrews. Mount the spur gear on the hub with the large flat center section towards the hub. Line up the two mounting holes in the spur gear with the two mounting holes in the gear hub, and install the screws. Your installed spur gear should look like fig. 76 when properly secured.



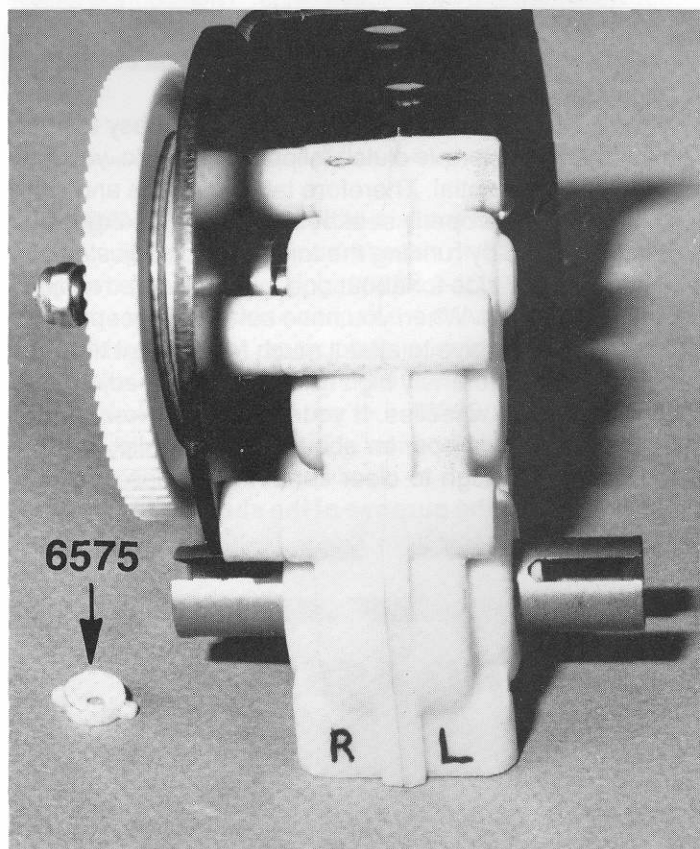
**Fig. 75**



 #6568  
4-40 x 3/16

**Fig. 76**

☐ **Fig. 77** Locate the #6575 diff thrust bolt cover we set aside in the figs. 38 & 39 step. On the right diff hub install the diff thrust bolt cover (flat side out). Push the thrust bolt cover in until it bottoms out in the outdrive hub. **Note:** If at any time you go back to standard dogbones, you must install one #6372 dogbone spacer in each outdrive hub for correct spacing.



**Fig. 77**

## TEAM DRIVER RACING ADJUSTMENTS IMPORTANT — PLEASE READ

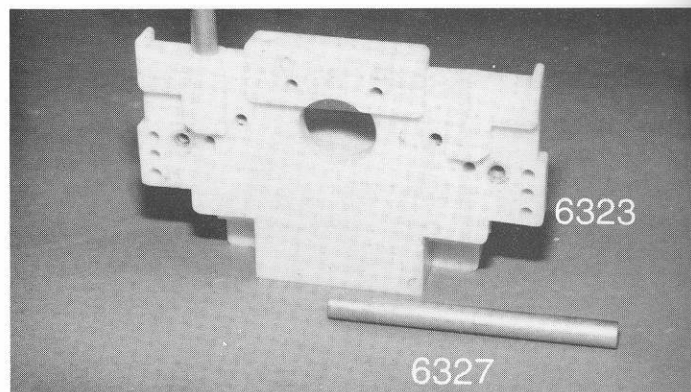
**DIFFERENTIAL ADJUSTMENT.** Once the differential has been correctly adjusted, there should be no need to change it until rebuilding time. **Be very careful not to overtighten when bottoming the spring and screw during adjustment, and be extremely accurate when backing the screw out 1/8 to 1/4 turn. This is the most important adjustment in the transmission.** When you have made all of the necessary adjustments and the car is ready to run (battery and motor installed and charged), apply a small amount of throttle while holding one of the rear wheels stationary. Do this for about 15 seconds. This will correctly seat all of the differential parts. Now recheck the differential adjustment.

You should rebuild the differential when the action gets somewhat "gritty" feeling. Usually cleaning and applying new lube per instructions will bring it back to new condition. The tungsten carbide diff balls (which are standard parts) should very rarely need changing. Normally as the parts seat, the diff will get smoother. If after carefully cleaning and re-lubing the diff parts, the diff still feels gritty, the parts should be replaced in this order: #6574 diff thrust balls, #6573 diff thrust washers, #6579 diff drive rings. Then, only after everything else has been replaced, the #6581 3/32" carbide diff balls should be checked and possibly replaced.

**TORQUE CLUTCH ADJUSTMENT.** It is very easy to overtighten or lock the torque clutch (slipper). If you do, you may damage the differential. Therefore take your time and allow the clutch disc to properly seat before adjusting to race setting. This is done by running the torque clutch adjustment a little on the loose side for about one minute before readjusting to race settings. When you have set the slipper properly you really will not have to alter it much for different tracks. If your track is an extremely high traction surface, adjust your slipper to prevent wheelies. If your track has a low traction surface, adjust the slipper for about two feet of slip, or make sure it is tight enough to clear certain obstacles (doubles, etc.). **Remember, the purpose of the clutch is to gain traction, not to break the tires loose.**

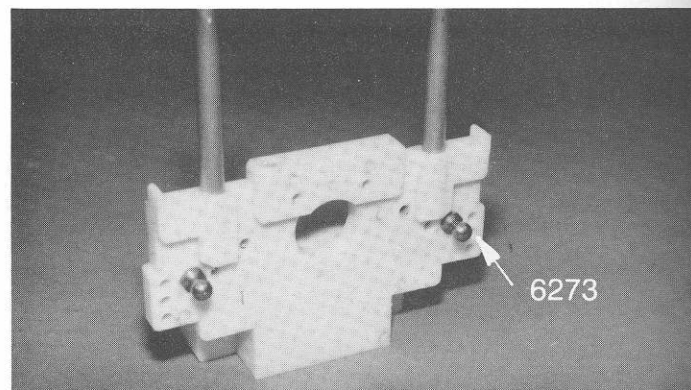
## REAR END ASSEMBLY

□ **Fig. 78** In bag #6-4 you will find the #6323 nylon rear bulkhead and the two #6327 aluminum wing tubes. If the edges of the wing tubes are sharp, round them off with a file so that they will go into the rear bulkhead easier. You may have to tap the tubes into the bulkhead so that they will fit.



**Fig. 78**

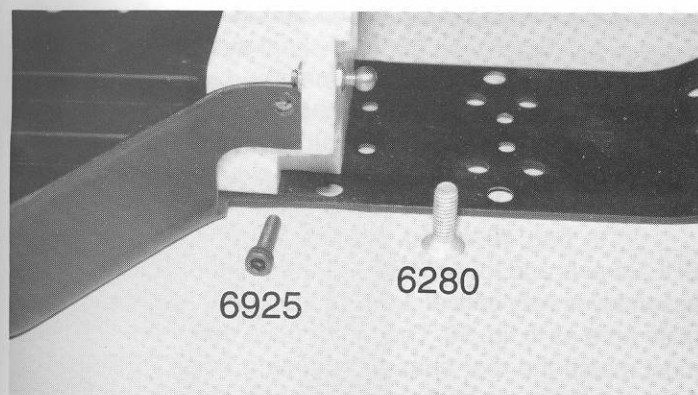
□ **Fig. 79** Remove two #6273 long steel ball ends from bag #6-14. We are going to install these into the rear bulkhead from the back side. There are five mounting holes on each side of the bulkhead for the tie-rod locations. You are going to use the middle of the top three holes as shown.



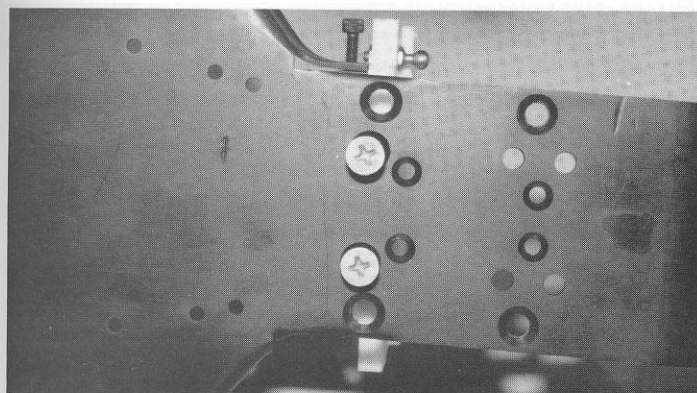
**Fig. 79**

□ **Figs. 80 & 81** Take two #6280 8-32 x 1/2" aluminum FHMScrews and two #6925 4-40 x 1/2" SHCScrews from bag #6-4. We are going to insert the rear bulkhead between the two chassis side tabs (with the ball ends to the back of the chassis) as shown in fig. 80. Install the two #6925 4-40 screws into the bulkhead through the sides of the chassis, but do not tighten them down yet. Now thread the two #6280 8-32 screws through the bottom of the chassis into the bulkhead. (See fig. 81). Do not tighten them down yet; we will tighten these four screws later in the instructions.



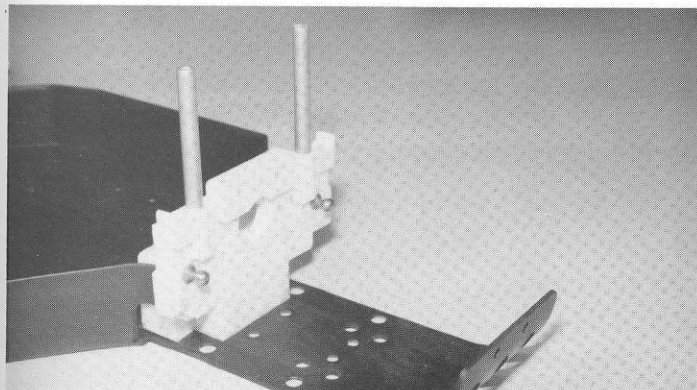


**Fig. 80**



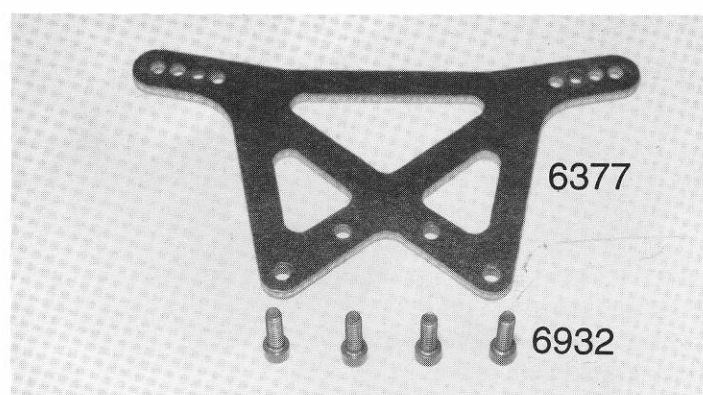
**Fig. 81**

□ **Fig. 82** Your installed bulkhead will look like fig. 82.

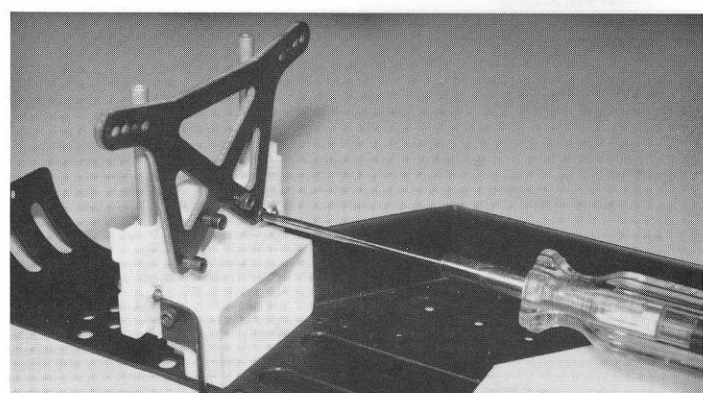


**Fig. 82**

□ **Figs. 83 & 84** In bag #6-4 you will find the #6377 graphite rear shock strut and four #6932 4-40 x 5/16" SHCScrews. Mount the rear shock strut to the front of the rear bulkhead using the four screws, as shown in fig. 84.

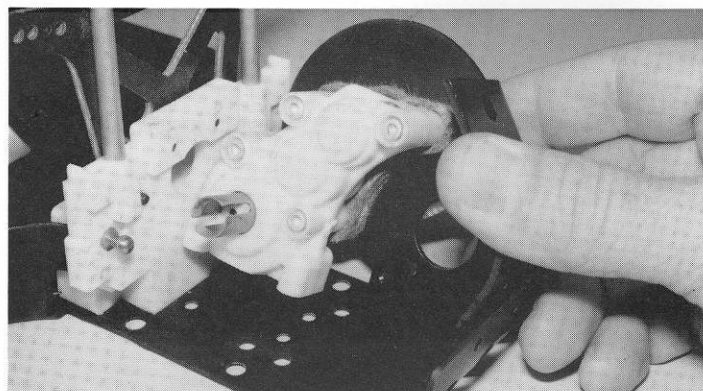


**Fig. 83**

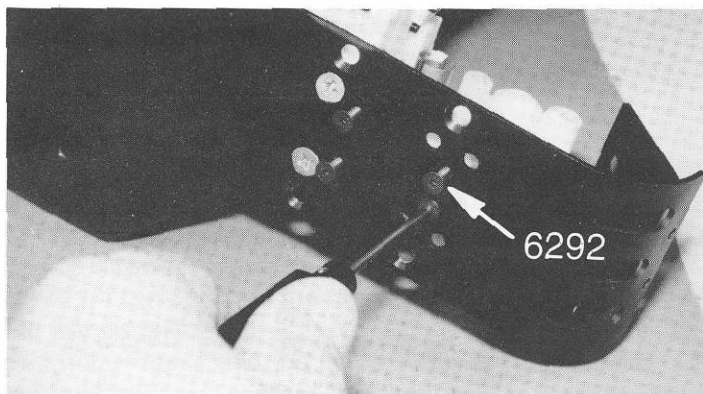


**Fig. 84**

□ **Figs. 85 & 86** Now it is time to mount the Stealth transmission to the aluminum chassis. In bag F of your transmission bag you will find four #6292 4-40 x 3/8" FHSScrews. Place the transmission on top of the chassis as shown in fig. 85, making sure the motor plate is inside the kickup at the end of the chassis. Now turn the transmission and chassis upside down and install the four #6292 screws in the four holes indicated in fig. 86. Do not completely tighten these screws yet.



**Fig. 85**

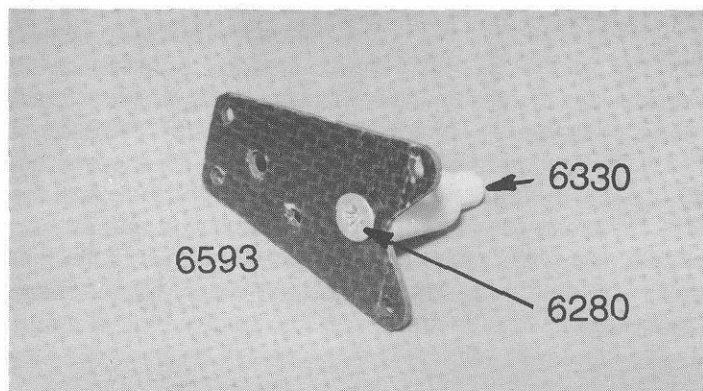


 #6292  
4-40 x 3/8

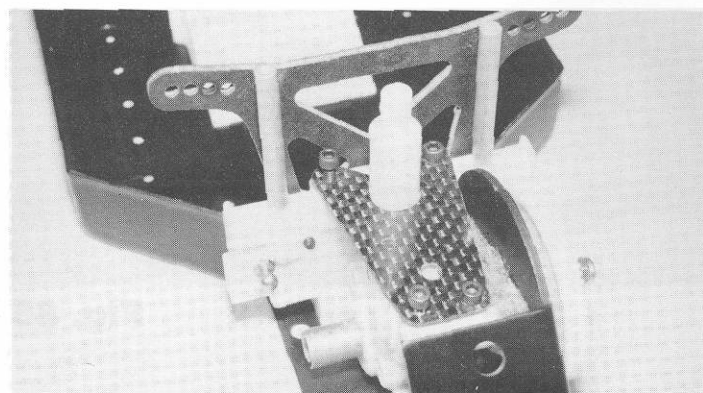
**Fig. 86**

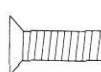
□ **Figs. 87 & 88** In bag #6-4 you will find the #6593 graphite transmission brace and four #6932 4-40 x 5/16" SHCScrews. In bag #6-5 you will find one #6330 nylon body mount and one #6280 8-32 x 1/2" FHMScrew. Install the #6280 screw through the graphite brace and then thread on the nylon body mount until it is tight against the brace. **Note:** The brace is not countersunk for the flat head screw, but it does not matter; it will work fine as it is.


Now place the brace and body mount on top of the bulkhead and transmission. Line up the four holes and thread in the four #6932 screws. Do not completely tighten the screws.



**Fig. 87**



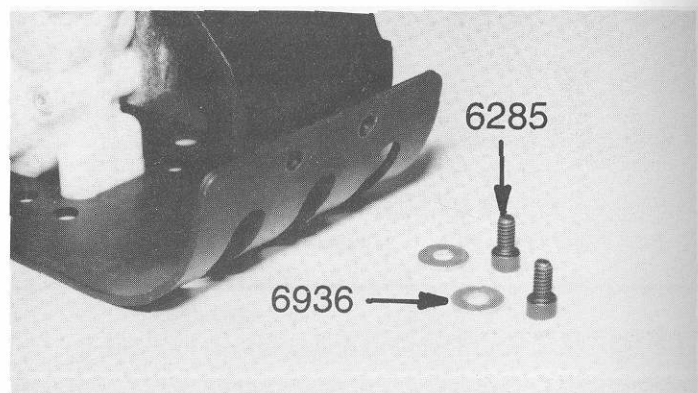
 #6280  
8-32 x 1/2  
aluminum

 #6932  
4-40 x 5/16

**Fig. 88**

□ **Figs. 89 & 90** Before the two motor plate-to-chassis screws are installed we need to tighten some of the other screws now. We will start with the four bulkhead mounting screws from figs. 80-88. DO NOT overtighten any screws going into nylon parts.

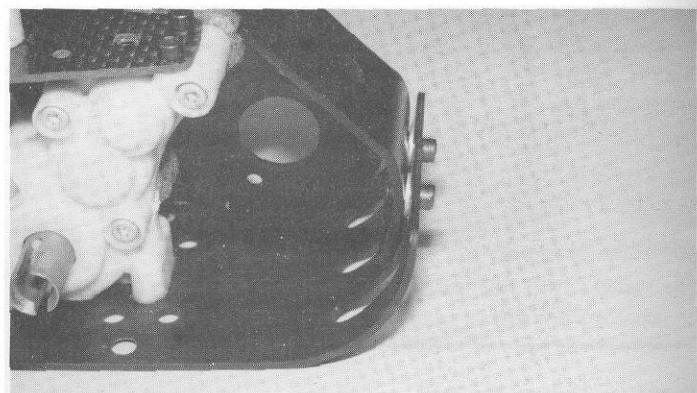
In bag #6-4 you will find two #6285 4-40 x 1/4" SHCScrews and four #6936 #4 flat washers. This part of the assembly is very critical. Look at the rear chassis and motor plate area as in fig. 90. The motor plate rear mounting holes must match the rear chassis mounting holes PERFECTLY. Any misalignment here might change the rear anti squat angle. If the holes do not match up, there are two things you can do. You can carefully bend the rear end of the chassis and the motor plate so they match, or you can place one or two #6936 #4 flat washers between the two surfaces as needed. Either way will work if done properly. **Note:** This is one of the areas that can give your car more consistent handling like our Team driver's cars, so take your time. Now go ahead and install the two #6285 SHCScrews and any of the needed #6936 flat washers (see fig. 90).



 #6285  
4-40 x 1/4  
steel

 #6936  
#4 flat washer  
aluminum

**Fig. 89**



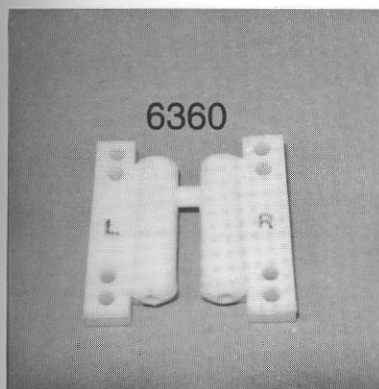
**Fig. 90**

□ **Figs. 91 & 92** Now it is time to open up bag #6-8 and remove the two #6360 nylon rear suspension mounts. Your rear suspension mounts will be connected by a nylon molding runner. Remove both mounts from the runner. On the bottom of the mounts you will find a "R" and "L" molded

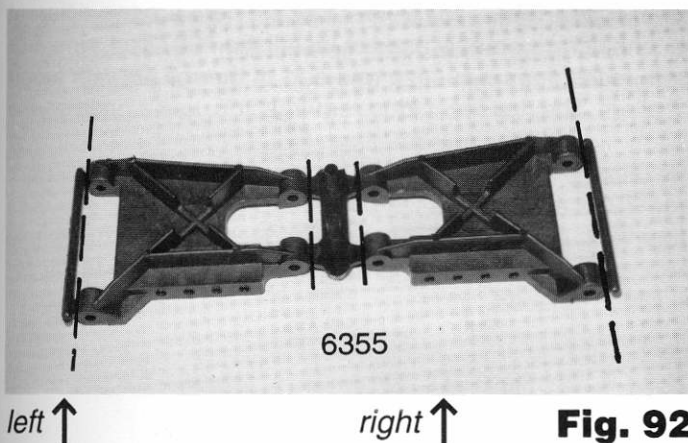


into them. Be sure to trim off ALL of the mold runner.

Now remove the two #6355 new black rear suspension arms from the same bag. Trim off every part of the molding runners. Fig. 92 shows the difference between the left hand and right hand rear arms.



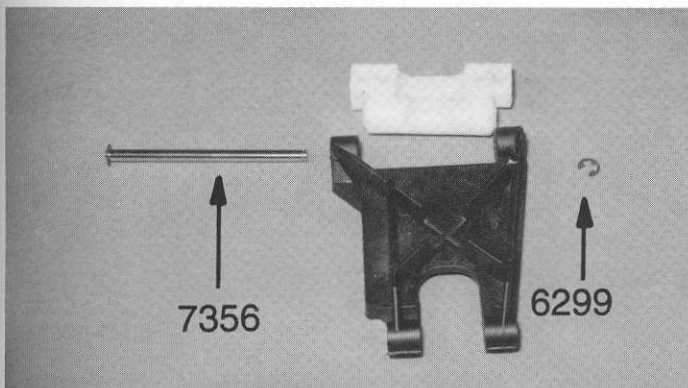
**Fig. 91**



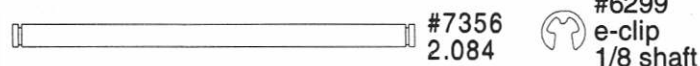
**Fig. 92**

□ **Fig. 93** From bag #6-8 remove two #7356 rear inner hinge pins and four #6299 1/8" E-clips. First check the fit of the hinge pins in the arms. The arms should swing freely on the hinge pins while still tight in the mounts.

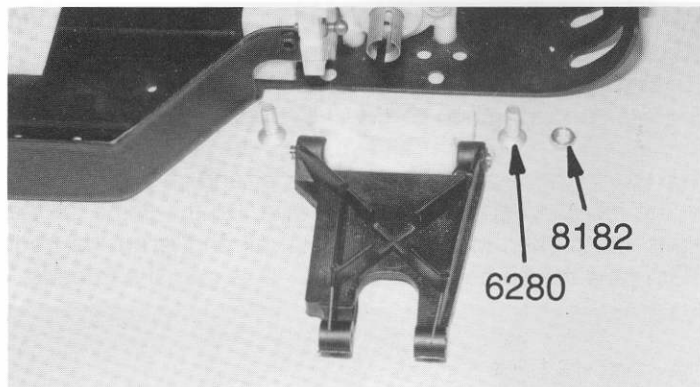
Place the #6360 rear mount with the "L" molded into it between the ears of the #6355 rear arm as shown. Now slide the #7356 hinge pin through one side of the rear arm, through the mount, and then out the other side of the rear arm. Now install an E-clip on each groove of the hinge pin. Now go back to fig. 91 and repeat the steps for assembling the right hand parts.



**Fig. 93**

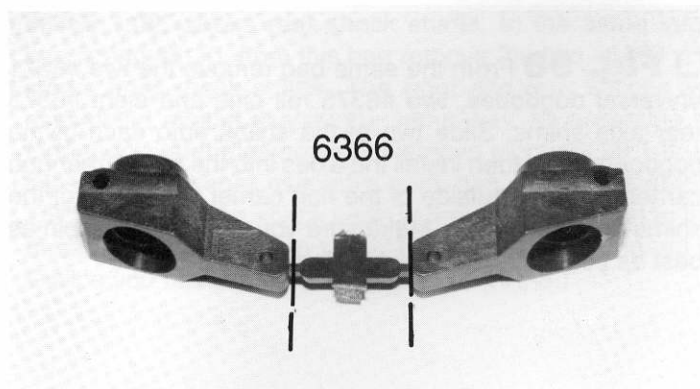


□ **Fig. 94** In bag #6-8 you will find four #6280 8-32 x 1/2" aluminum FHMScrews. Start by mounting the left hand rear suspension assembly onto the chassis. Slide the front edge of the #6360 rear mount underneath the rear bulkhead. This will line up the two rear mounting holes with the two holes in the chassis. Fasten the mount to the chassis using two of the #6280 FHMScrews. On the rear screw thread on the #8182 aluminum plain nut from bag #6-8. Now mount the right side parts the same way.

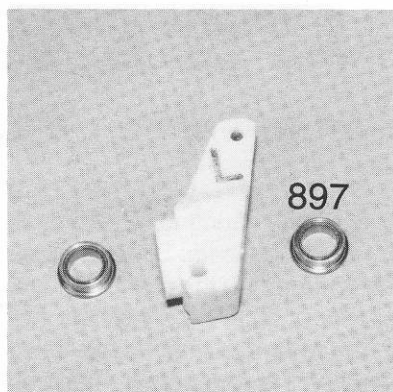


**Fig. 94**

□ **Figs. 95 & 96** Again from bag #6-8 remove the two #6366 rear hub carriers and four #897 1/4" x 3/8" flanged ball bearings. Fig. 95 shows the new black rear hub carriers. This is what will be in your kit, even though the photos show carriers that are white. The hub carriers may be connected by a molding runner; if so, break them off. Now install one of the #897 bearings into each side of the two rear hub carriers.

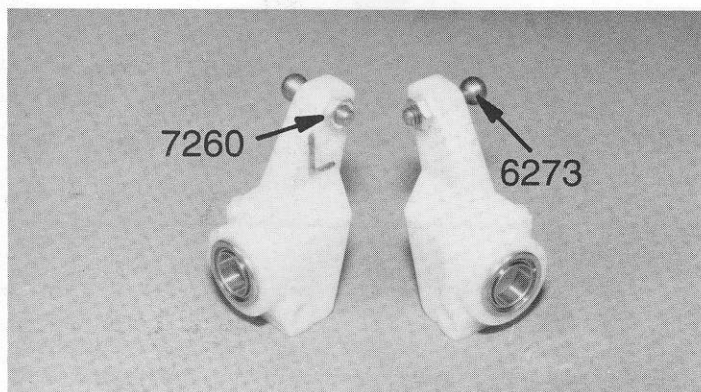


**Fig. 95**



**Fig. 96**

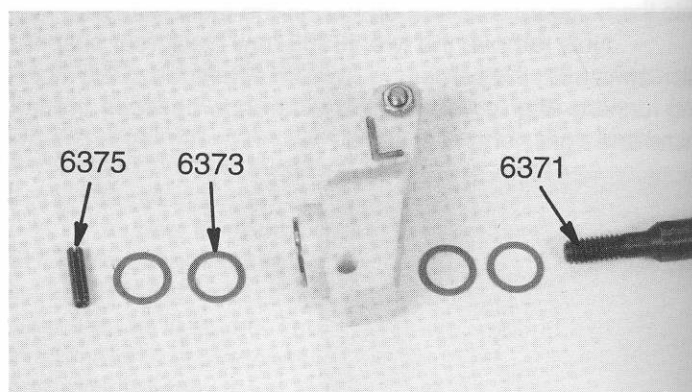
□ **Fig. 97** In bag #6-14 you will find two #6273 long steel ball ends and two #7260 small plain nuts. We are going to install these into the two #6366 rear hub carriers. There is a right and a left hub carrier, the left having an "L" molded into the back side of it as shown, but there is nothing molded into the right side carrier. Install the ball end on the front side of the left hand hub carrier as shown. Do the same for the right hub carrier, making sure the ball end is on the front side. Now thread both of the #7260 nuts onto the threads.



 #6273  
4-40
  #7260  
4-40  
thin plain nut

**Fig. 97**

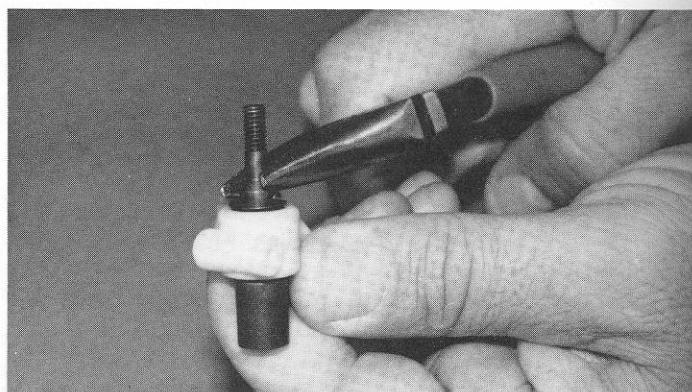
□ **Fig. 98** From the same bag remove the two #6371 universal dogbones, two #6375 roll pins and eight #6373 rear axle shims. Slide two of the shims onto each of the dogbones, and then install the axles into the #6366 rear hub carriers. On the outside of the hub carrier install two of the shims and the roll pin. Make sure you center the roll pin as best as you can; the following photos explain how.



 #6373  
spacer

**Fig. 98**

□ **Figs. 99, 100 & 101** There are two different techniques commonly used to install the #6375 roll pins. For both techniques, squeeze one end of the roll pin with a pair of pliers. The first technique requires you use a needlenose pliers (fig. 99) or slip joint pliers (fig. 101) to squeeze the roll pin into the axle. If you are unable to use your pliers you can use a vice and hammer as shown in fig. 100: Set the axle on your vice. Hold the roll pin aligned over the hole in the axle with your pliers. Lightly tap the pin into the axle until the pin is evenly spaced.

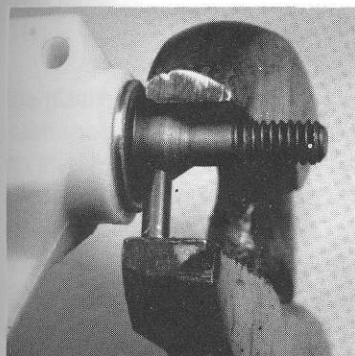


**Fig. 99**



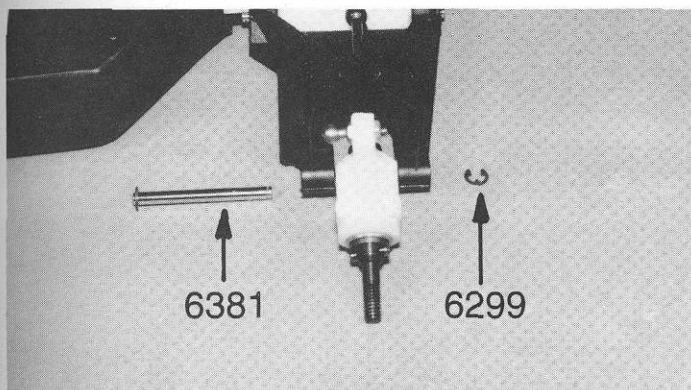
**Fig. 100**







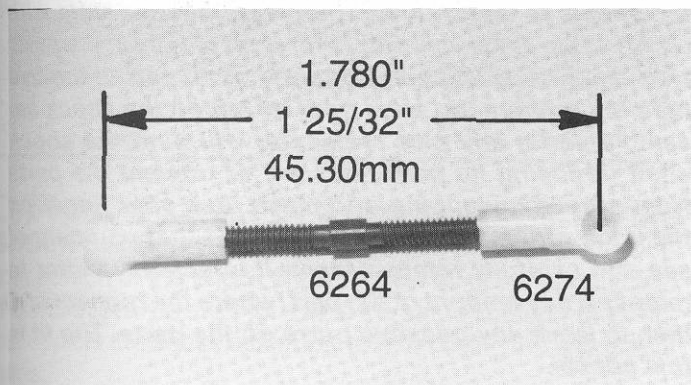
**Fig. 101**

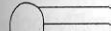
□ **Fig. 102** Remove the two #6381 rear outer hinge pins and four #6299 1/8" E-clips from bag #6-8. Now take the left hand hub carrier assembly and place it between the outer mounting points on the left hand suspension A-arm. Now slide the #6381 hinge pin through one side of the outer arm, through the hub carrier and out the other side of the arm. Install a #6299 E-clip onto each side of the hinge pin.

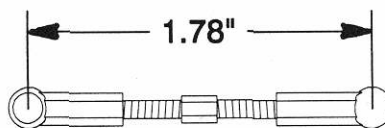


□ **Fig. 102**  #6299 e-clip 1/8 shaft  #6381

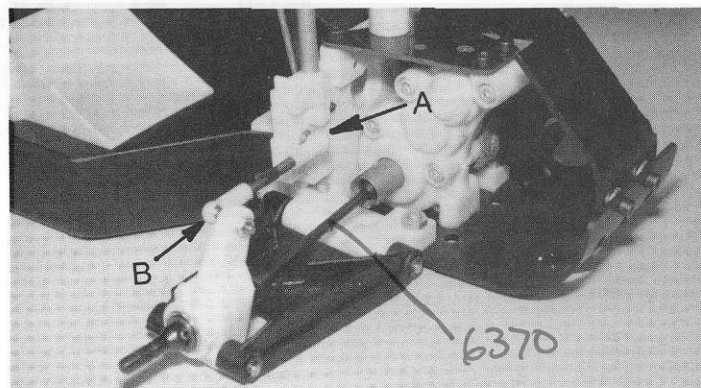
□ **Fig. 103** Now you will want to find the two #6264 1.375" long turnbuckles in bag #6-8. You will also need four #6274 plastic ball end caps from bag #6-14. Thread the plastic ball end caps onto the two turnbuckles to 1.78" (1 25/32" or 45.3mm) from the center of the ball cup hole to the center of the other ball cup hole. You will see that on these turnbuckles the plastic ball end caps are facing opposite directions (one faces forward, the other faces to the rear).



□ **Fig. 103**  #6274



□ **Fig. 104** Starting with the left hand suspension and turnbuckle, snap one end of the turnbuckle onto ball end location (A) on the rear bulkhead and the other end onto ball end location (B) on the rear hub carrier. When installed, your turnbuckle should look like fig. 104. Now go ahead and repeat the step for the right side turnbuckle.

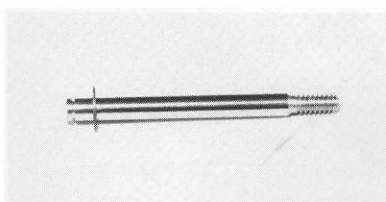
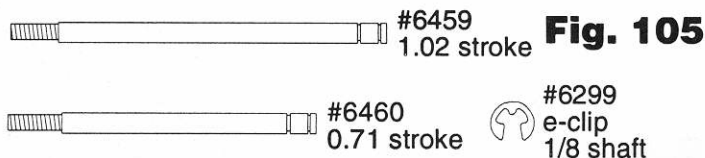
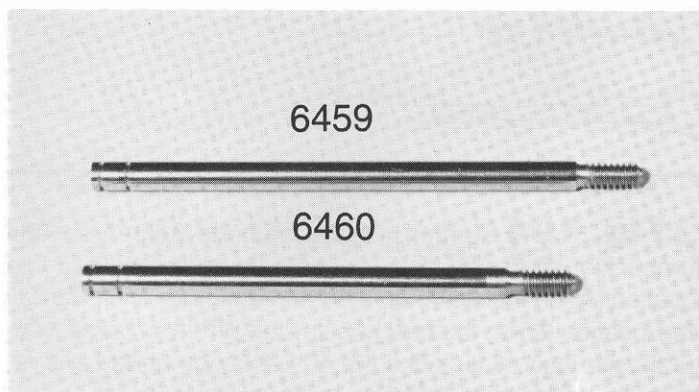


**Fig. 104**

## SHOCK ASSEMBLY

We have made several major improvements to our new internal assembly shocks with the addition of new molded Teflon shock pistons and internal shock seal assembly parts. **PLEASE FOLLOW THE NEW ASSEMBLY INSTRUCTIONS CAREFULLY!**

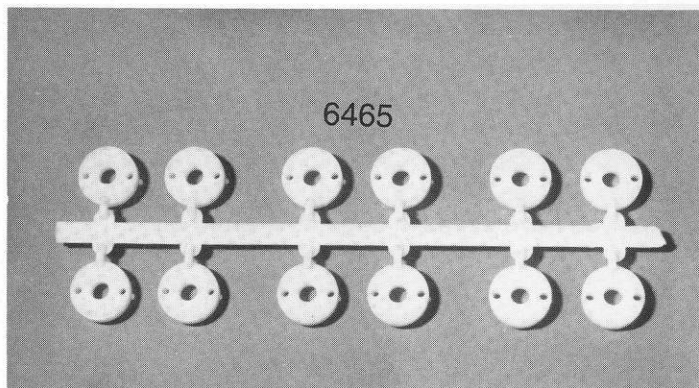
□ **Figs. 105 & 106** In the master bag you will find a large bag containing all the shock assembly parts. Inside this bag is bag #6-9; from this bag remove the two #6459 1.02" stroke rear shock shafts. In the same large bag is bag #6-10; from this bag remove the two #6460 .71" stroke front shock shafts. The front and rear shocks are assembled almost exactly the same way, so assemble all four shocks at the same time. Remove eight #6299 1/8" E-clips from the shock assembly parts bag. Install one #6299 1/8" E-clip on each shock shaft in the groove closest to the threaded end, as shown in fig. 105. (If you have run out of E-clips you have extras in bags #6-1 or #6-8.)



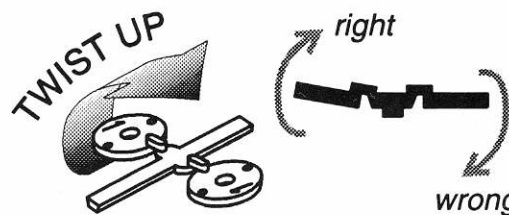
**Fig. 106**

❑ **Figs. 107 & 108** In a separate bag inside the large shock bag you will find the #6465 new Teflon shock piston set. You will find four each of #1, #2, and #3 shock pistons on this piston parts tree. The #1 piston is the lightest damping and the #3 piston is the heaviest damping.

The new pistons are molded to help eliminate the possibility of burrs on the piston edge, burrs which would interfere with smooth shock action within the shock body. To properly remove the shock pistons from the tree, twist the piston up as shown in fig. 107. Twisting down will leave a rough edge on the piston, reducing shock performance. For the buggy you will need to remove the four #1 pistons from the parts tree. If there are any burrs remaining on the pistons **carefully** remove them with a sharp hobby or X-acto® knife.



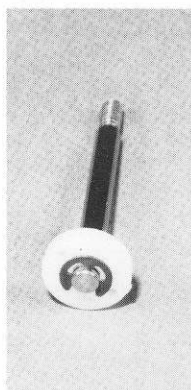
**Fig. 107**



(NOT ACTUAL SIZE)

**Fig. 108**

❑ **Fig. 109** Install the four shock pistons onto the #6459 rear shock shafts and #6460 front shock shafts. Secure each piston to the shaft with a #6299 1/8" E-clip. Fig. 109 shows one of your shock shafts with piston installed. **Racers Tip:** It does not matter which way you install the pistons, but we recommend having the molded number up so that it will be easier to remember what piston you are using when you service your shocks.



**Fig. 109**

#6299  
e-clip  
1/8 shaft

❑ **Figs. 110, 111 & 112** In another plastic bag you will find the new #6440 molded shock assembly parts and #5407 red O-rings and #6469 black O-rings. **Note:** Part number #6440 is a complete replacement set of O-rings and plastic assembly parts to rebuild four shocks. This molded parts tree contains only enough plastic parts to assemble four shocks, so don't lose any. The names of the parts are noted in fig. 110.

**WARNING!** Because of the precision tolerances of these new parts, correctly removing the parts from the parts tree is **CRITICAL!** Using an X-acto® knife with a very sharp blade, carefully trim each part from the parts tree. It is **EXTREMELY** important that no part of the two molding runners (on each part) be left on the shock assembly parts; any part remaining will bind the shock shaft (reducing its performance), or prevent the parts from properly snapping into place. Use your finger on the edge of the parts to feel for burrs that you cannot see and carefully remove them. It is actually better to remove a tiny amount of the part (where the runners are) than to leave any possible burrs on the parts. The fit is this critical.

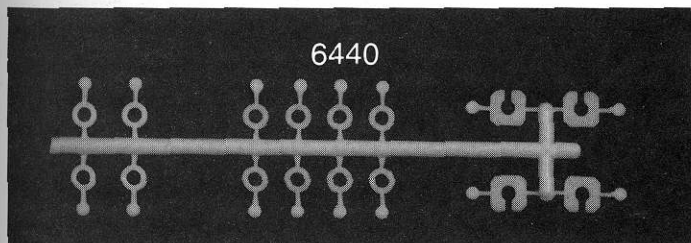
In the large shock main bag you will find a small plastic bag containing the #6429 plastic shock assembly tool.



This round plastic tool with the angle cut tip will look like fig. 111.

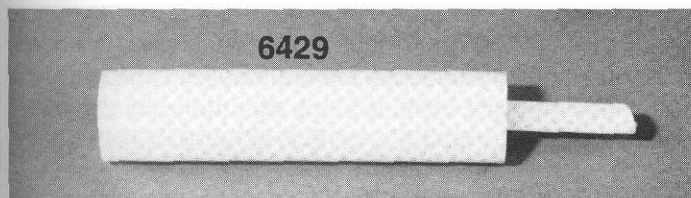
Remove the #5407 red O-rings from the same bag the plastic shock parts came out of. To correctly assemble each shock it is necessary to install each of the internal parts on the shock assembly tool in the correct order. Stand the assembly tool on end with the small tip up. Install the parts on the tool in the following order: (1) plastic split locking washer, (2) then one small plastic washer, (3) red O-ring, (4) large plastic spacer, (5) red O-ring, (6) and second small plastic washer. You can compare this sequence with layout in fig. 112. Fig. 113 shows a cutaway drawing of the shock body with the internal seal parts installed.

You can skip figs. 113 & 114 until you need to dismantle the shocks.

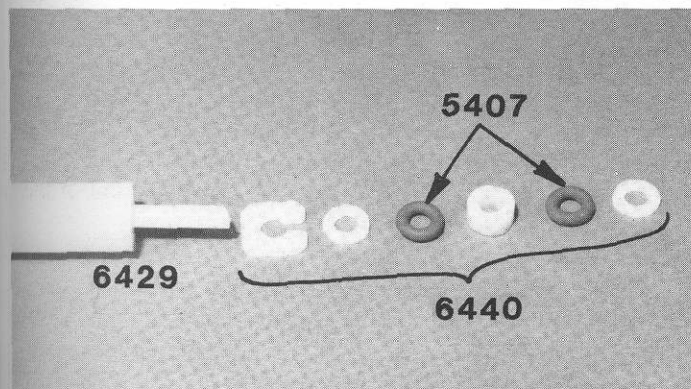


Above left: four large nylon spacers  
Center: eight small nylon washers  
Right: four split washers

**Fig. 110**



**Fig. 111**

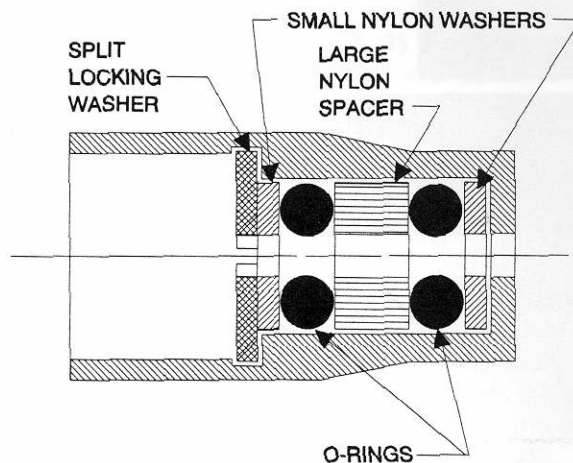


**Fig. 112**

**Fig. 113 & 114 HOW TO DISMANTLE THE SHOCK SEAL PARTS** fig. 113 shows a cutaway of the bottom portion of the shock showing how all of the parts fit into the shock seal cavity. Fig. 114 is the same cutaway drawing, but depicts the shock assembly tool removing the shock seal parts.

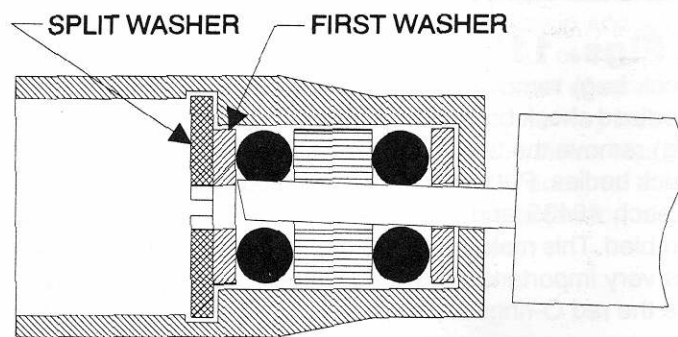
In order to dismantle the shock seal parts you must (1) remove the shock cap, (2) drain the shock oil, (3) and

remove the shock shaft with piston. (4) Insert the small angled tip of the shock tool into the bottom of the shock. (5) First slide the tool all the way in until the tool bottoms out against the shock body. (6) Now angle the tool slightly, and slowly slide the tool down until the tip slides over underneath the split washer and first small nylon washer. (7) Now place the pointed tip of the tool under one side of the split locking washer (fig. 114) and push firmly up until the split washer snaps out of its groove. (8) Then pull the tip of the tool down and use it to push the rest of the internal parts up and out of the cavity.



(NOT ACTUAL SIZE)

**Fig. 113**



(NOT ACTUAL SIZE)

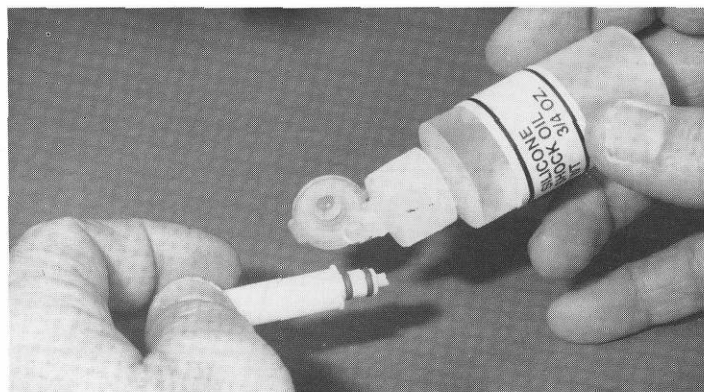
**Fig. 114**

Position shock assembly tool as shown and push the split washer out of its groove.

**Fig. 115 & 116** Open bag #6-11 and remove the container of 30 weight silicone shock oil. This is the recommended starting weight oil for the new shock pistons. (When you run out of silicone oil, its replacement number is #5422.) Apply a liberal amount of silicone oil to the internal seal parts on the assembly tool as shown.

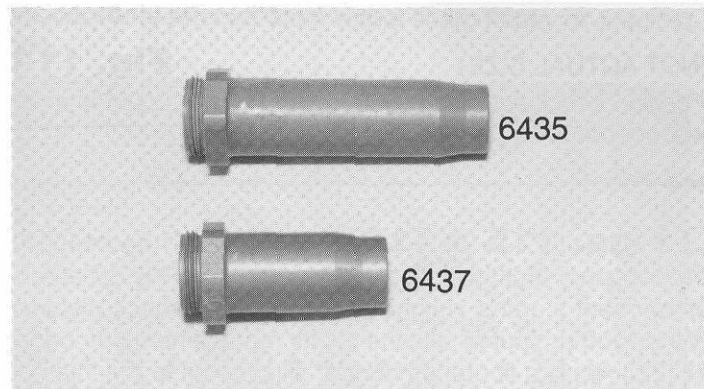


**Fig. 115**



**Fig. 116**

□ **Figs. 117 & 118** From bag #6-9 (in the main shock bag) remove the two #6435 1.32" stroke rear hard anodized shock bodies. From bag #6-10 (in the main shock bag) remove the two #6437 .71" stroke front hard anodized shock bodies. Put a few drops of silicone oil into the bottom of each #6435 and #6437 shock body as it is being assembled. This makes installation of the internal parts easier. It is very important that we do not accidentally cut or damage the red O-rings as they are being installed.

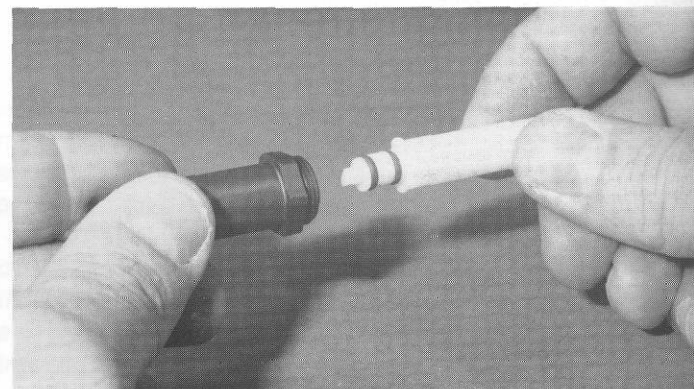


**Fig. 117**



**Fig. 118**

□ **Fig. 119** (1) Take one of the shock bodies and the shock tool, with the internal parts on it, and slowly insert the tool into the shock body until it bottoms out. If everything goes in smoothly, the tip of the shock tool will be even with or just slightly out of the bottom of the shock body. If it isn't, you may need to rotate the shock body to help it seat the parts the rest of the way into the shock cavity. (2) Now stand the shock tool on your workbench, with the shock body on top, and firmly push down on the shock body until you hear and feel the split washer snap into its groove. You may have to push hard before it will go in. (3) When properly installed, the end of the shock tool should be sticking out the bottom of the shock about 1/8". (4) Once the parts have been properly snapped into place, pull the tool out. (5) Look inside the shock body for any obvious signs that the parts did not go together correctly. **MAKE SURE THE WASHER IS FULLY SEATED IN ITS GROOVE.** If the parts are not seated correctly, the shock will leak or even come apart internally. (6) Go ahead and repeat the same steps for the other three shock bodies.



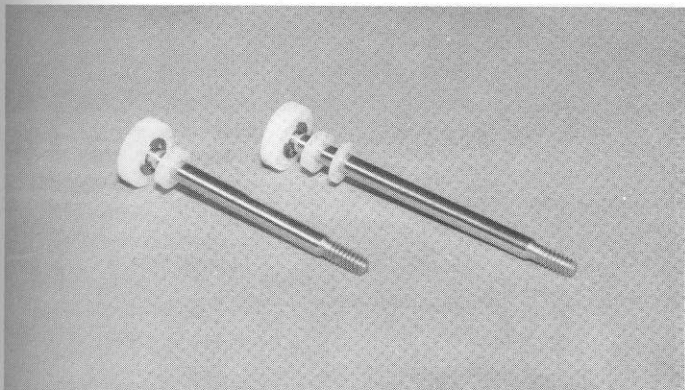
**Fig. 119**

□ **Figs. 120 & 121** In bag #6-9 you will find a small bag containing the #6466 plastic downstop spacers (travel limiters) of three thicknesses: .125", .062" & .031". (1) Install the travel limiters on the front and rear shock shafts. Install one .062" spacer and one .031" spacer on each rear shaft. (2) Install one .062" spacer on each front shaft.



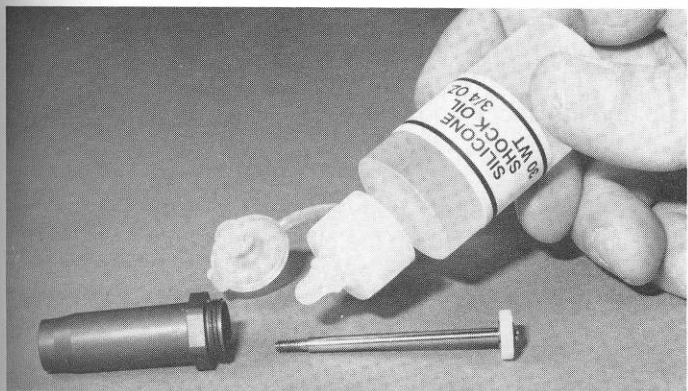


**Fig. 120**



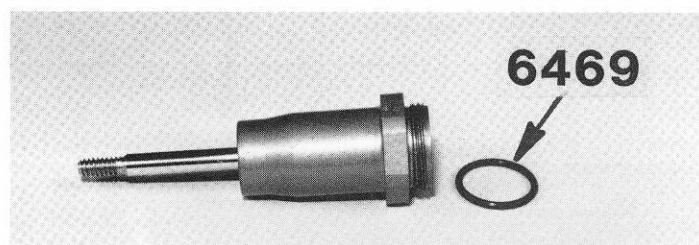
**Fig. 121**

□ **Fig. 122** We will now install the shock shafts with pistons and spacers. (3) Place a couple of drops of oil on each shock shaft, and (4) slowly insert the shaft and piston into the shock body. Be sure to install the long shock shafts in the long shock bodies and the short shock shafts in the short shock bodies. (5) Pull the shaft down until the piston seats against the bottom of the shock body. Be careful inserting the shaft, for we do not want to damage the red O-rings and cause the shock to leak.



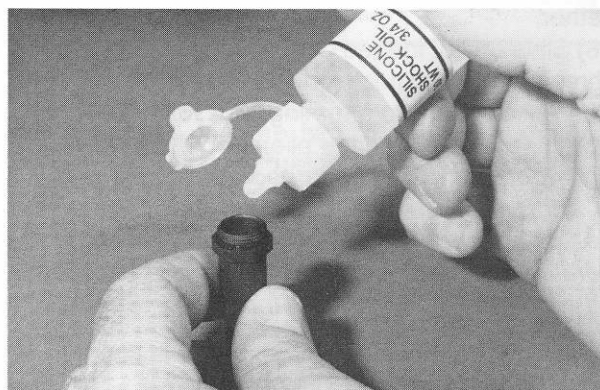
**Fig. 122**

□ **Fig. 123** Locate the four #6469 black O-rings in the shock accessory bag (inside the main shock bag). Install one black O-ring over the threads of the shock body, and seat it flush in the pocket at the bottom of the threads.

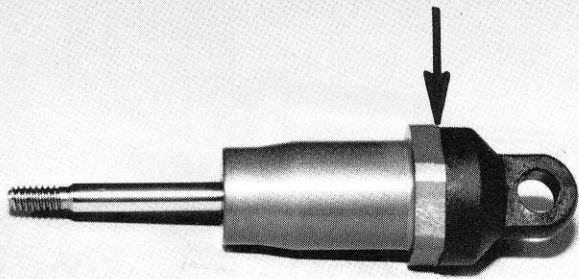


**Fig. 123**

□ **Figs. 124 & 125** (1) Now we are going to fill each shock with shock oil. Take your container of silicone 30 weight shock oil and fill a rear shock with oil until it is within 1/16" of the top of the shock body, and fill your front ones all the way to the top. (2) Now move the shock shaft up and down, slowly, several times, to make sure that there are no air bubbles trapped under the piston. (3) If there were air bubbles, refill the shock until it is within 1/16" of the top. (4) Now push the shock shaft up until the piston is close to the top of the shock body, but still completely covered by the oil. (5) Now thread your #6439 black aluminum shock cap (they are in bags #6-9 and #6-10) onto the shock body. There should be no gap between the cap and the hex portion of the shock body (see arrow in fig. 125). The O-ring will actually be doing the sealing, so as soon as the cap comes in contact with the body, just turn it a little bit further to seat it. (6) Now work the shock shaft up and down several times and then press the shaft all the way in and let go of the shaft. The shaft should come back out of the shock about 1/4" on its own. This is the correct amount of rebound. But you should be able to compress it all the way back in easily. (7) If it comes out more than 1/4", the piston was too far down in the shock body at step (4). If it does not come out enough, then the piston was too close to the top of the shock body. (8) Do the other three shocks.



**Fig. 124**



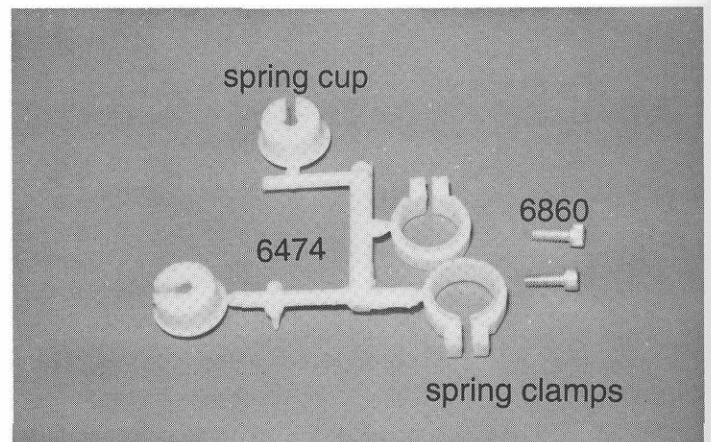
**Fig. 125**

□ **Fig. 126 & 127** (1) From bag #6-11 remove the two #6474 spring clamps and cups parts trees and four #6860 4-40 x 3/8" aluminum SHCScrews. (2) Remove the shock spring clamp and cup parts from the parts trees. (3) Each tree has both a left and a right spring clamp on it. Slide the nylon clamp onto each shock with the thin flange edge on the shaft side. (4) Each spring clamp has one hole that is slightly larger than the other. Install the #6860 aluminum screw through the larger hole and then thread it into the smaller hole. (5) Now slide the clamp to the top of the shock body and tighten it just enough to keep the clamp from moving.

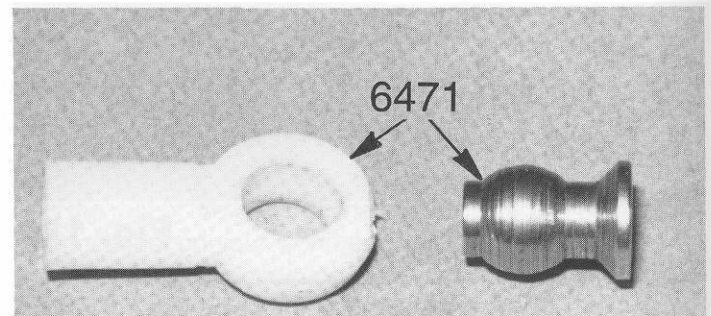
(6) From bags #6-9 and #6-10 and remove the #6471 nylon shock rod ends and .230 shock steel pivot ball ends, two from each bag. See fig. 127. From the shock assembly parts bag (inside the main shock bag) remove the remaining two #5407 red O-rings. (7) Now take one of the #6471 plastic shock rod ends and push it onto the steel shock pivot ball. The easiest way to do this is to place the metal ball end on a table with the flat side against the table. Set the plastic rod end over the ball and push it into place with your 1/4" nut driver. You can also use pliers to squeeze the parts together.

(8) Slide one of the red O-rings onto each rear shaft then (9) thread the nylon shock rod end onto the shock shaft. To keep the shock shaft from turning, you will have to hold the shaft with your needle nose pliers. **WARNING! Using only the smooth part of your needle nose pliers, grab only the shaft, not the threads, and as close to the threads as possible.** This is very important, for we do not want to scratch the shaft where it will ride in the O-rings, for this could damage them, causing the shock to leak. Assemble the other three shocks.

□ #6860  
4-40 x 3/8  
aluminum



**Fig. 126**



**Fig. 127**

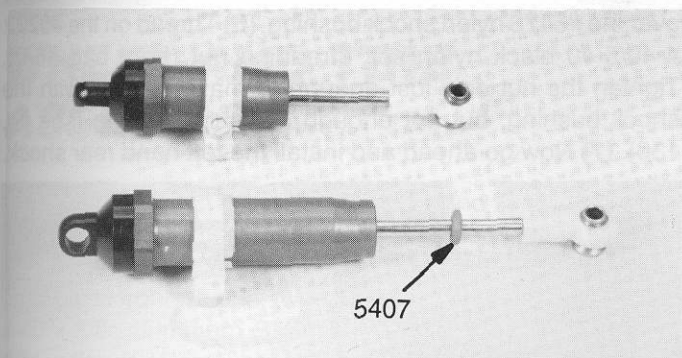
□ **Figs. 128 & 129** (1) From bag #6-11 remove the two long #6480 2.75" rear green springs. (2) Install one spring onto each of the long rear shocks. (3) Leaving the shaft extended, slide the red O-ring to the top of the shaft (4) and then slide on the spring and seat it against the spring clamp clamp. (5) Compress the spring and slide one of the #6474 spring cups onto the shaft and over the #6471 shock rod end. Make sure the red O-rings are between the spring cup and the shock body.

(6) For the rear shocks, adjust your spring clamps so that there is a .300" (3/10" or 7.65mm) gap between the hex portion of the shock body and the top of the shock clamp (see fig. 129). (7) Tighten the clamp enough so it cannot be moved, but not so tight as to strip out the threads.

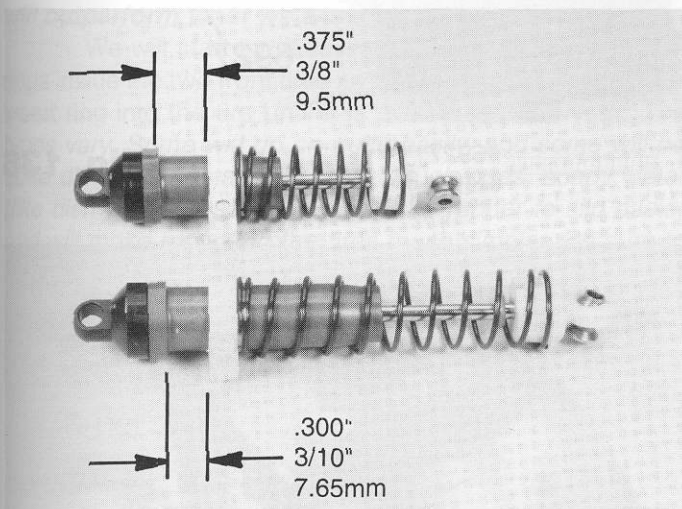
(8) Remove the two remaining #8232 1.4" front black springs from bag #6-11. Repeat the steps used in fig. 128, but using the #8232 springs, and adjust your spring clamps with a spacing of 3/8" (.375" or 9.5mm) as shown in fig. 129.

○ #5407  
red O-ring



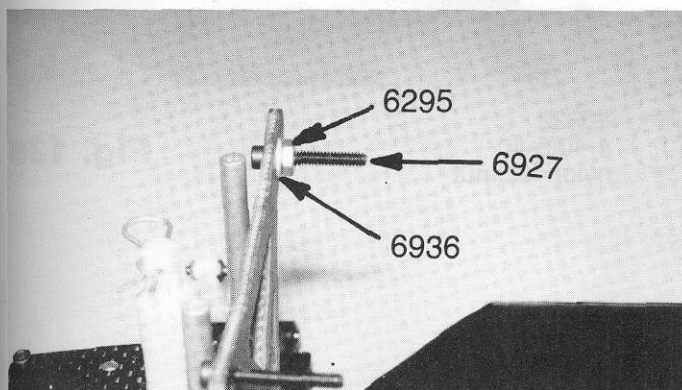


**Fig. 128**

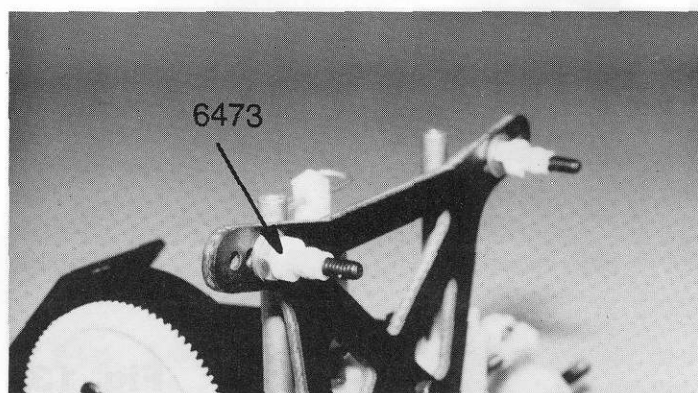
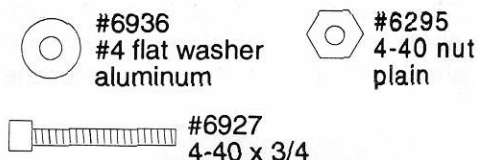


**Fig. 129**

**Fig. 130 & 131** (1) From bag #6-9 remove two #6927 4-40 x 3/4" SHCScrews, two #6936 #4 aluminum flat washers, and two #6295 4-40 plain nuts. (2) There are now four holes in the top of the rear shock strut. Screw the 4-40 x 3/4" SHCScrews into the second hole from the inside of the shock strut, from the back side as shown. (3) Now install one of the #6936 #4 flat washers on the front, and then (4) thread on the #6295 4-40 plain nut. (5) Tighten the screws and nuts. (6) Next install one of the #6473 nylon shock bushings, from bag #6-9, onto each screw (see fig. 131), the flange of the bushing against the 4-40 plain nut.

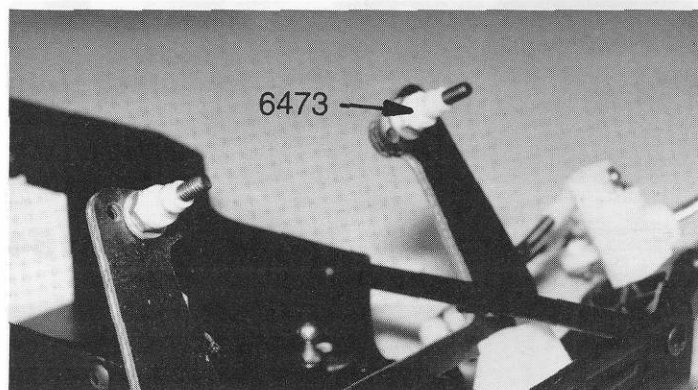


**Fig. 130**



**Fig. 131**

**Fig. 132** Take the two #6473 nylon shock bushings from bag #6-10 and install them onto the front shock mounting screws, the flange of the bushing toward the nut.

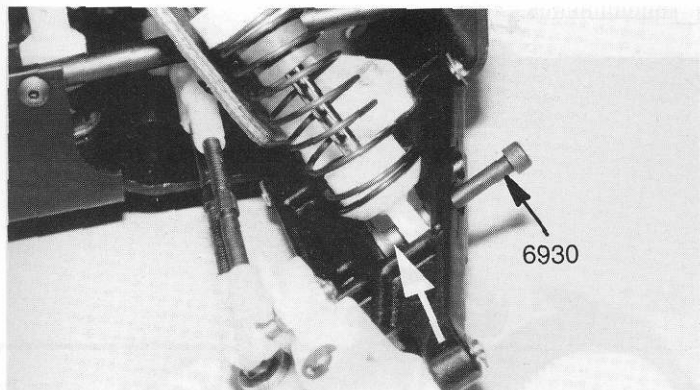


**Fig. 132**

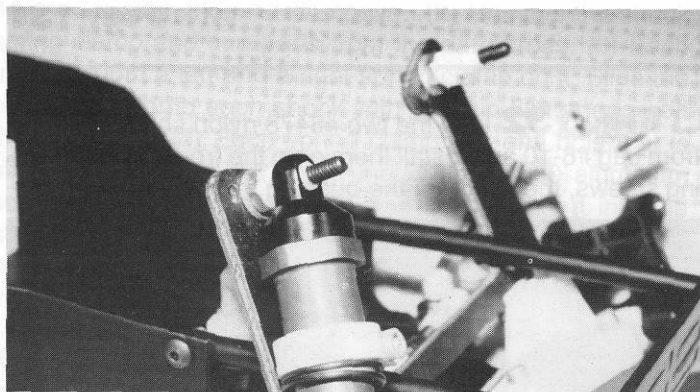
**Figs. 133, 134 & 135** (1) Go back to bag #6-1 and take out the two #6930 4-40 x 3/4" Special SHCScrews that have threads only on the end. (2) Take one of the front shocks and slide the shock pivot ball end into the front suspension arm mounting slot, as shown in fig. 133, into the outside hole of two mounting holes. (This photo shows installing the passenger side shock.) The flange side of the steel pivot ball should be toward the rear of the A-arm. (3) Now install one of the #6930 Special screws through the front of the A-arm, the steel pivot ball (see arrow in fig. 133) and thread it into the A-arm. Be careful not to overtighten the screw, or the shock could bind. Most drivers prefer to install their shocks with the spring clamp adjusting screws on the inside, facing forward, to make adjustment easier.

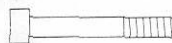
(4) Slide the shock cap eyelet onto the nylon shock bushing (fig. 134) and then (5) take one of the #6222 4-40/5-40 black self threading nylon locknuts (from bag #6-10) and thread it onto the shock screw (see fig. 135). Thread the nut

on until it just touches the bushing. Again, do not overtighten, for it could bind the shock and prevent it from working correctly. (6) Now go ahead and repeat these steps for the driver's side shock.

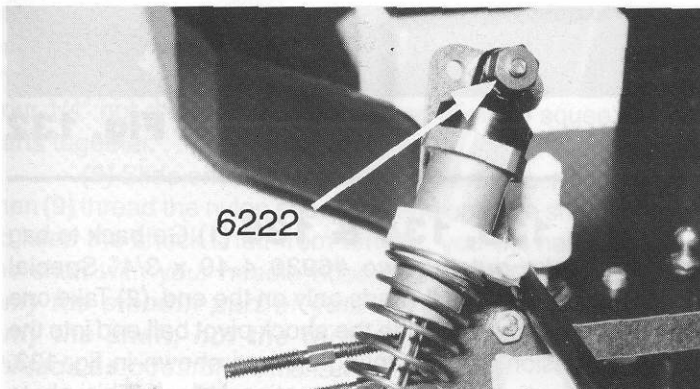



**Fig. 133**



 #6930  
4-40 x 3/4  
special

**Fig. 134**

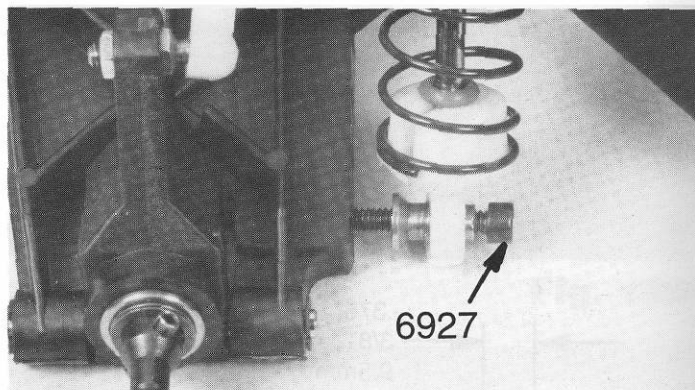


 #6222  
4-40/5-40  
nylon locknut

**Fig. 135**

**Fig. 136, 137 & 138** (1) From bag #6-9 take two #6927 4-40 x 3/4" SHCScrews. (2) Install the screw through the steel shock pivot ball on the bottom of the right hand rear shock, screwing it into the outside mounting hole on the rear A-arm as shown in fig. 136. (3) Make sure that the screw goes through the small end of the pivot ball and that the flat side will mount against the rear A-arm as shown.

(5) Now install the upper end of the right rear shock over the #6473 nylon shock bushing. (6) Thread on the #6222 4-40/5-40 black nylon self threading nut (from bag #6-9). Tighten the nut only just enough to make contact with the shock bushing, but not enough to cause binding (see fig. 136). (7) Now go ahead and install the left hand rear shock.

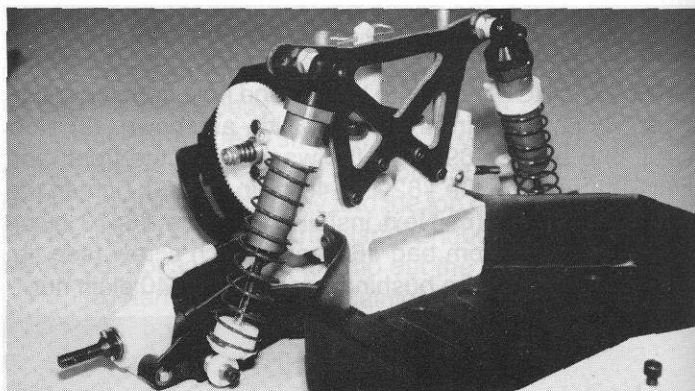



 #6927  
4-40 x 3/4

**Fig. 136**



**Fig. 137**



 #6222  
4-40/5-40  
nylon locknut

**Fig. 138**