

OWNER'S MANUAL

A-0810 NXT Gas Truck Kit with Bushings/Bearings

A-0820 NXT Racer Gas Truck Kit with Bearings

A-0830 NXT Graphite Plus Gas Truck Kit with Bearings



- Carefully read through all instructions to familiarize yourself with the parts, construction, tuning tips, and techniques outlined in this manual. Being able to grasp the overall design of your NXT 1/10-scale gas-powered truck before construction will ensure a smooth assembly.
- Take your time and pay close attention to detail. Keep this manual for future reference.



TEAM LOSI, INC., CHINO, CA 91710 P/N 800-0123
MADE IN THE UNITED STATES OF AMERICA
scan courtesy of Vintagelosi.com

WELCOME NXT OWNER!

Thank you for choosing the NXT truck as your vehicle to enjoy the exciting world of gas-powered, all-terrain racing. The NXT is the result of hundreds of hours worth of computer-aided design and on-track testing by our engineers and development team. Needless to say, you will soon come to appreciate that the NXT represents the latest in technology and meets the unique demands of gas-powered, off-road racing.

Since gas-powered models tend to require greater mechanical and tuning ability, it is important that you read through this manual completely before beginning assembly. A little extra time now will save building time and help get your new truck running sooner. You will find that our unique bag-by-bag assembly is both quick and easy to follow. You will also notice that we have included a separate tip section along with helpful hints throughout this manual to help you tune your NXT and maximize your enjoyment of this kit.

Once again, thank you for making a wise choice... the NXT.

TEAM LOSI

1. INTRODUCTION

NXT COMPLETED KIT DIMENSIONS

Length: 16-1/2" Wheel base: 11-1/4" Front Width: 12-3/4" All dimensions at ride height. Rear Width: 12-3/4"

Height: 6"

Weight will vary depending on accessories.

NOTES & SYMBOLS USED

Figure 1

This is a common figure number found at the beginning of each new illustration throughout the manual.

□ Step 1. - Each step throughout the entire manual has a check box to the left of it. As you complete each step, mark the box with a check. If you need to take a break and return to building at a later time you will be able to locate the exact step where you left off.

*NOTE: This is a common note. It is used to call attention to specific details of a certain step in the assembly.

IMPORTANT NOTE: Even if you are familiar with Team Losi kits, be sure and pay attention to these notes. They point out very important details during the assembly process. Do not ignore these notes!

This wrench designates a performance tip. These tips are not necessary, but can improve the performance of your NXT truck.

In illustrations where it is important to note which direction parts are pointing, a helmet like this one will be included in the illustration. The helmet will always face the front of the car. Any reference to the right or left side will relate to the direction of the helmet.

KIT/MANUAL ORGANIZATION

The NXT kit is composed of different bags marked A through F. Each bag contains all of the parts necessary to complete a particular section of the NXT truck. Some of these bags have subassembly bags within them. It is essential that you open only one bag at a time and follow the correct sequence, otherwise you may face difficulties in finding the right part. It is helpful to read through the instructions for an entire bag prior to starting assembly. Key numbers (in parentheses) have been assigned to each part and remain the same throughout the manual. In some illustrations, parts which have already been installed are not shown so that the

current steps can be illustrated more clearly.

For your convenience, an actual size hardware identification guide is included with each step. To check a part, hold it against the silhouette until the correct part is identified. In some cases extra hardware has been supplied for parts that may be easy to lose.

The molded parts in the NXT are manufactured to demanding tolerances. When screws are tightened to the point of being snug, the parts are held firmly in place. For this reason it is very important that screws not be overtightened in any of the plastic parts.

To insure that parts are not lost during construction, it is recommended that you work over a towel or mat to prevent parts from rolling away.

IMPORTANT SAFETY NOTES

- Select an area for assembly that is away from the reach of small children. The parts in the kit are small and can be swallowed by children, causing choking and possible internal injury.
- 2. The shock fluid and greases supplied should be kept out of children's reach. They were not intended for human consumption!
- Exercise care when using any hand tools, sharp instruments, or power tools during construction.
- Carefully read all manufacturer's warnings and cautions for any glues, fuel, or paints that may be used for assembly and operating purposes.
 - Gas powered vehicles should not be operated indoors.
- Be careful when handling your truck after it has been run for any period of time. The engine and many parts can get extremely hot during operation.

TOOLS REQUIRED

Team Losi has supplied all Allen wrenches and a special wrench that is needed for assembly and adjustments. The following common tools will also be required: Small flatblade screwdriver, Phillips screwdriver, needle nose pliers, regular pliers, scissors, or other body cutting/trimming tools. 3/16", 1/4", 5/16", and 3/8" nut drivers are optional.

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RADIO/ELECTRICAL

A suggested radio layout is provided in this manual. Your high performance R/C center should be consulted regarding specifics on radio/electrical equipment.

HARDWARE IDENTIFICATION

When in question, use the hardware identification guide in each step. For screws, the prefix number designates the screw size and number of threads per inch (i.e., 4-40 is #4 screw with 40 threads per inch of length). The fraction following designates the length of the threads for cap head screws, and the overall length for flathead screws. Bearings and bushings are referenced by the inside diameter \mathbf{x} outside diameter. Shafts and pins are diameter \mathbf{x} length. Washers are described by inside diameter or the screw size that will pass through the inside diameter. E-clips are sized by the shaft diameter that they are attached to.

FUEL

The fuel used to power the NXT truck is a special blend of oils and nitro. This fuel is highly flammable and should be treated as such. Be sure to read any warnings and cautions that may appear on the packaging of the fuel. Because of the exhaust fumes that are produced from running any gas-powered vehicle, the NXT should not be operated indoors. Be careful when handling your truck while the engine is running. The exhaust fumes from the tuned pipe can cause irritation and burning of the eyes. Never point the exhaust pipe towards your face. I know this sounds stupid, but we've all had it happen to us and it really isn't a pleasant experience.

There are several different brands of fuel available for the gas-powered engines. We have found that the O'Donnel and Blue Thunder fuels are more reliable and perform better than the others. It is not recommended that you use a model airplane or model helicopter fuel in your NXT truck. The fuels for model airplanes and helicopters do not have the proper types, or content of oil in them. Model cars have a much more restricted air flow over the engine, so the oils that are used in the fuel for model cars help to cool the engine. Using a model airplane fuel may cause the engine to run hotter than desired.

FUEL BOTTLE

You will need some sort of a fuel bottle in order to fill the tank in your NXT with fuel. Your local hobby shop should have fuel bottles available.

STARTERS

If you will be installing an engine that is not equipped with a pull-start, you will need to have some sort of an electric starter in order to start the engine. There are several hand-held electric starters available on the market. There are also a few manufacturers that produce starter boxes. A starter box is easier to use, but is usually more expensive. When attempting to start the engine in your NXT truck with an electric starter, make certain that the engine is being turned the correct direction. Turning the engine over the wrong direction will cause the engine to run backwards.

GLOW IGNITER

You will also need a glow plug igniter in order to start the engine in your NXT truck. There is a wide variety of glow plug igniters available. Check with your local hobby shop.

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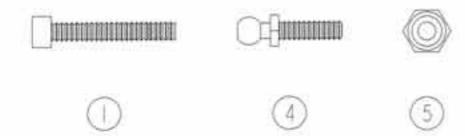
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Team Losi is continually changing and improving designs; therefore, the actual part may appear slightly different than the illustrated part. Illustrations of parts and assemblies may be slightly distorted to enhance pertinent details.

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BAG A

Figure 1



- ☐ Step 1. Insert a 4-40 x 3/4" cap-head screw (1) through the top middle hole on each side of the front shock tower (2). Thread a top shock mount bushing (3) onto each of the two screws (1).
- ☐ Step 2. Insert a 3/8" ball stud (4) into the inside hole of the two camber holes on the bottom of the shock tower (2). Mount the ball studs (4) from the same side of the shock tower (2) as the screws (1) on both sides of the shock tower (2). Secure the ball studs (4) with 4-40 locknuts (5).

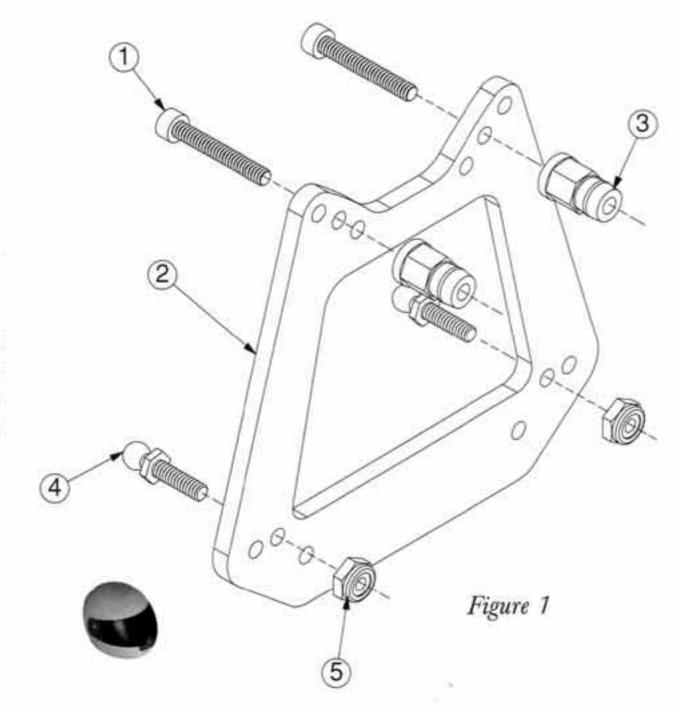


Figure 2

(7)

Description Step 3. Secure the front shock tower (2) to the front bulkhead (6) with two 4-40 x 7/8" cap-head screws (7) as shown. The screws (7) should extend through the front of the bulkhead (6). Be sure that the shock mount bushings (3) face the correct direction as shown in Figure 2.

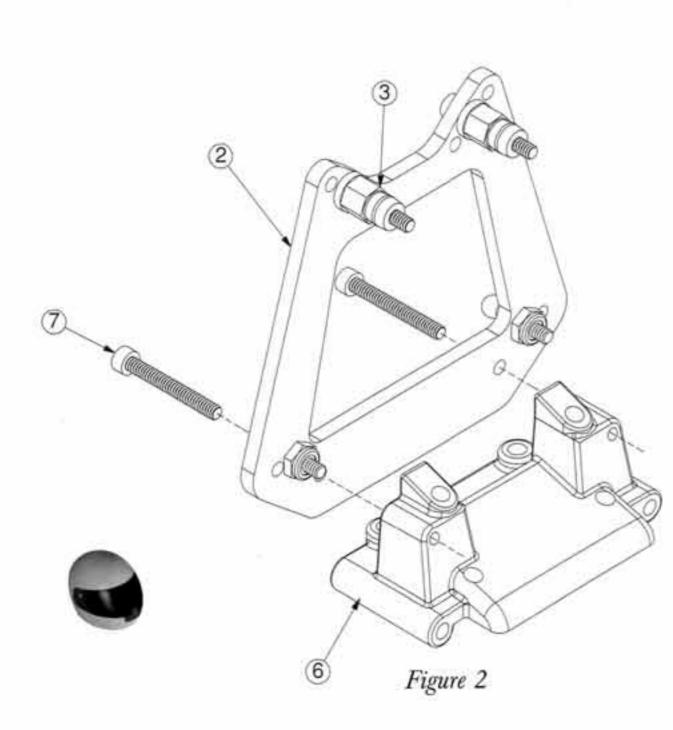


Figure 3



☐ Step 4. Attach the front suspension arms [left (8), right (9)] to the front bulkhead (6) by sliding a 1/8" inner front hinge pin (10) through the arm (8), (9) and bulkhead (6). Center the hinge pin (10) and secure it with two 1/8" E-clips (11).

IMPORTANT NOTE: Be sure that the arms sweep to the rear and the shock mounting area is facing up.

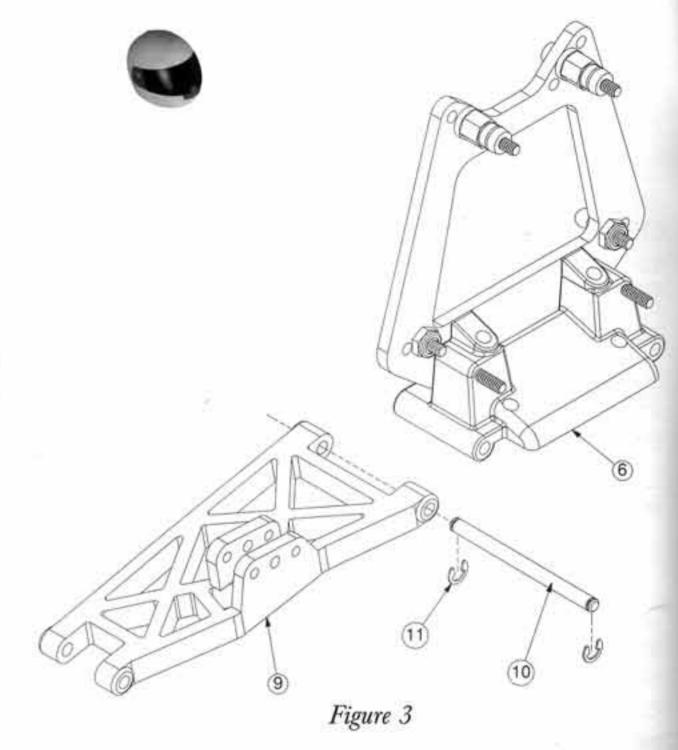


Figure 4



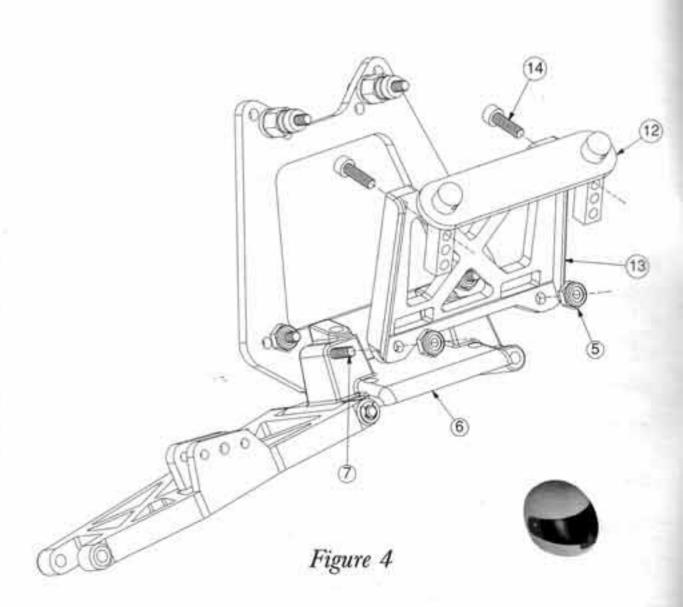


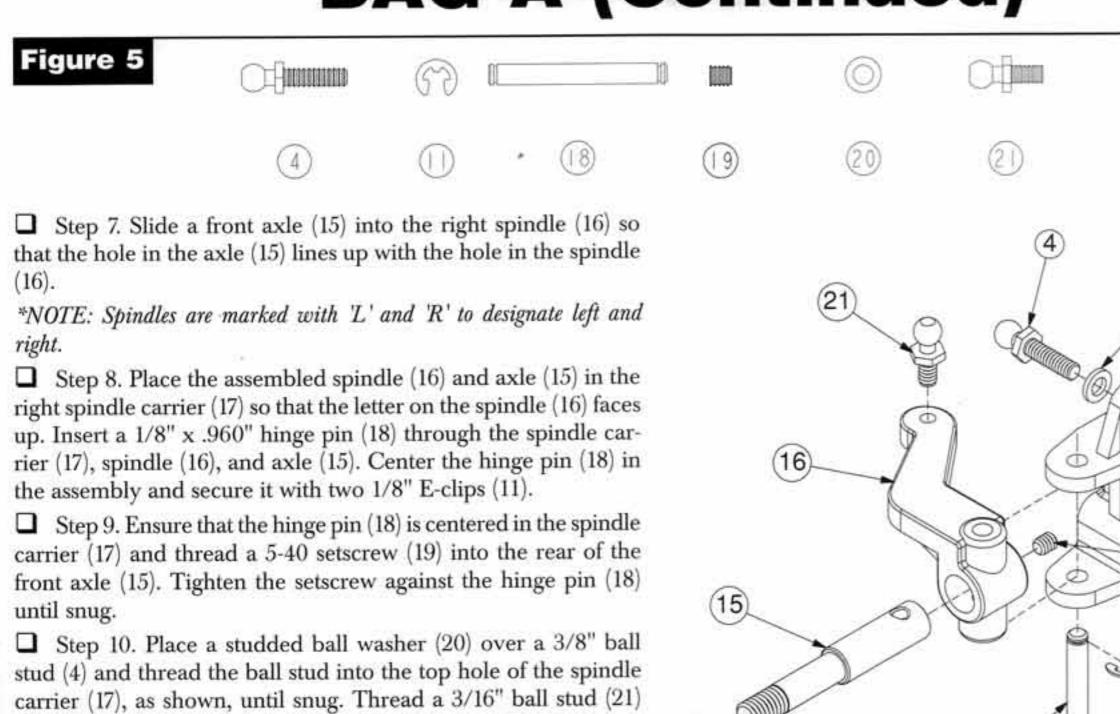




- ☐ Step 5. Attach the front body mount slide (12) to the front side of the front body mount support (13) by threading two 4-40 x 3/8" cap-head screws (14) into the top hole in the body mount slide (12) (this hole does not go all the way through) and through the holes in the body mount support (13) as shown.
- ☐ Step 6. Place the body mount support (13) over the two screws (7) extending from the front of the bulkhead (6) so that the body mount support (13) angles forward. Secure the body mount assembly with two 4-40 locknuts (5).

*NOTE: Assure that the body mount slide (12) angles down and towards the front.





IMPORTANT NOTE: Refer to the illustration and be certain that the spindle carrier and spindle are assembled correctly and the reference letters face the correct direction.

into the spindle from the top until snug.

□ Step 11. Repeat Steps 7-10 for the left side parts [left spindle (22), left spindle carrier (23)].

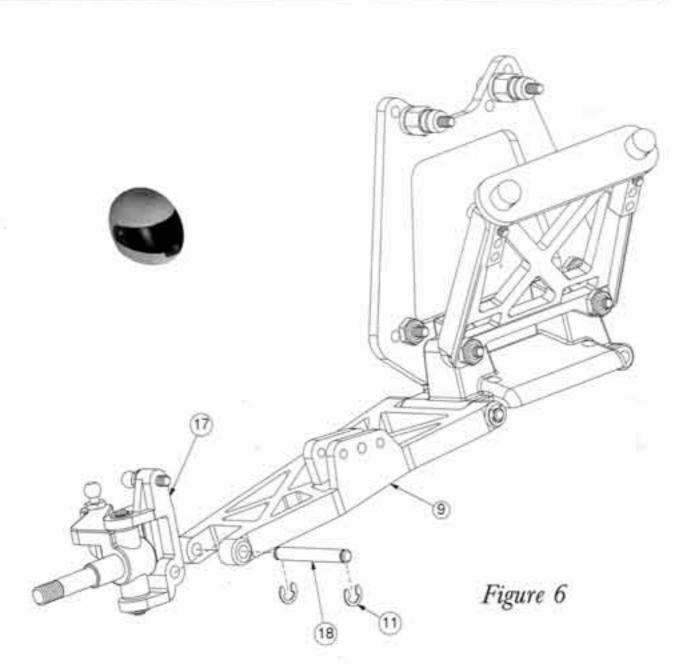
Figure 6



☐ Step 12. Attach the right spindle carrier assembly to the right suspension arm (9) by sliding a 1/8" x .960" hinge pin (18) through the arm (9) and spindle carrier (17). Center the hinge pin (18) in the arm (9) and secure it with two 1/8" E-clips (11).

IMPORTANT NOTE: Make sure that the letter on the spindle faces up.

Step 13. Repeat Step 12 for left side.

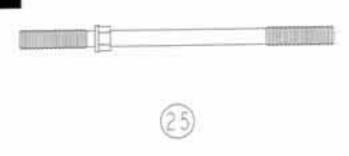


18

Figure 5

19

Figure 7



□ Step 14. Thread a plastic rod end (24) onto each end of a 1-7/8" turnbuckle (25). Tighten both rod ends equally until the rod is the same length as the rod shown in Figure 7A. Make two of the camber rod assemblies.

*NOTE: One end of the turnbuckle has left hand threads. The included Team Losi wrench can be used on the hex area of the turnbuckle.

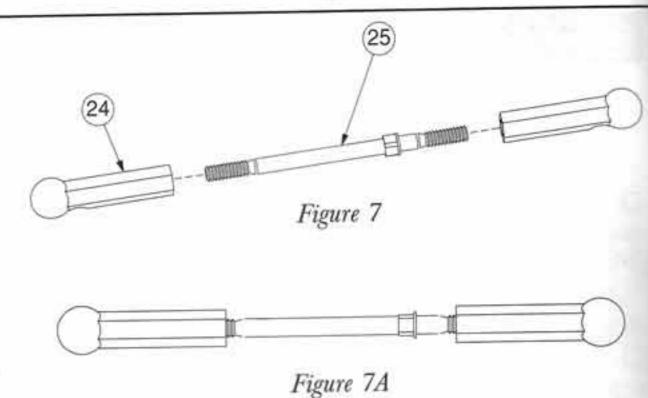
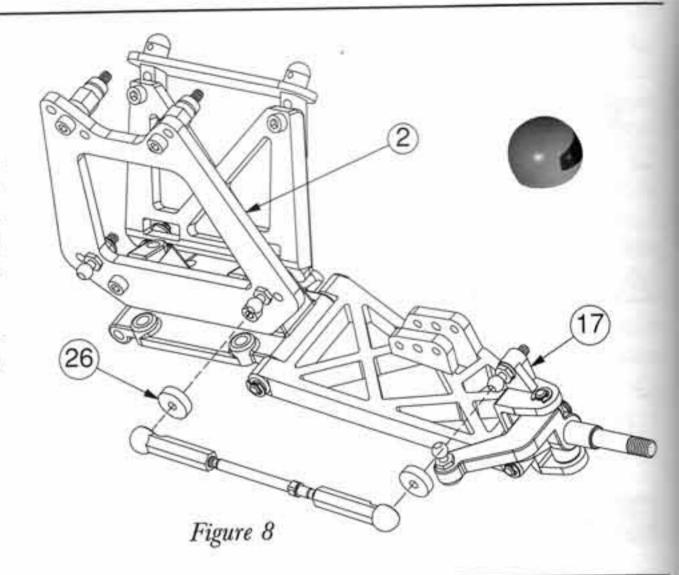


Figure 8

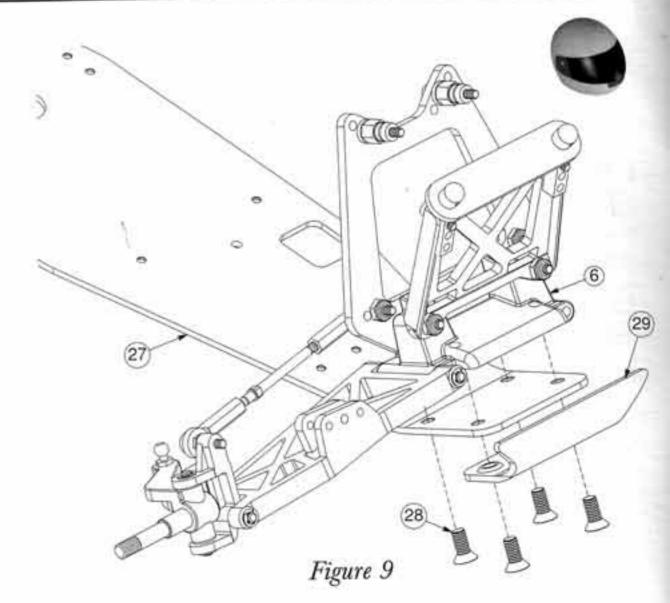
- Step 15. Place a "foam thing" (26) over each of the ball studs (4) on the spindle carriers (17), (23) and the shock tower (2). Attach one side of each camber rod assembly from Step 14 to the ball stud (4) on the shock tower (2) and the other end to the ball stud (4) on the spindle carrier (17), (23). Attach a camber rod to both the left and the right side.
- Mount all of the camber rods so that the adjustment hex is to the outside of the truck. This will make future adjustments much easier.







- ☐ Step 16. Place the completed front suspension assembly on the front of the main chassis (27). Thread two 8-32 x 3/8" screws (28) through the two rear holes in the front portion of the chassis (27) and into the rear holes in the front bulkhead (6).
- Step 17. Align the front bumper (29) with the two forward holes in the bottom of the chassis (27). Secure the bumper (29) to the chassis by threading two 8-32 x 3/8" screws (28) through the bumper (29), the chassis (27), and into the forward holes of the front bulkhead (6). Tighten all four screws (28) until snug.



BAG B

Figure 10





- ☐ Step 1. Secure the steering posts (30) to the outer holes in the front of the chassis (27) using two 4-40 x 3/8" flat-head screws (31) as shown.
- A mild thread-lock compound should be used on all screws that are to be threaded into aluminum on this vehicle. If a thread-lock compound isn't used, the vibration from the gas-powered engine will cause the screws to back out.

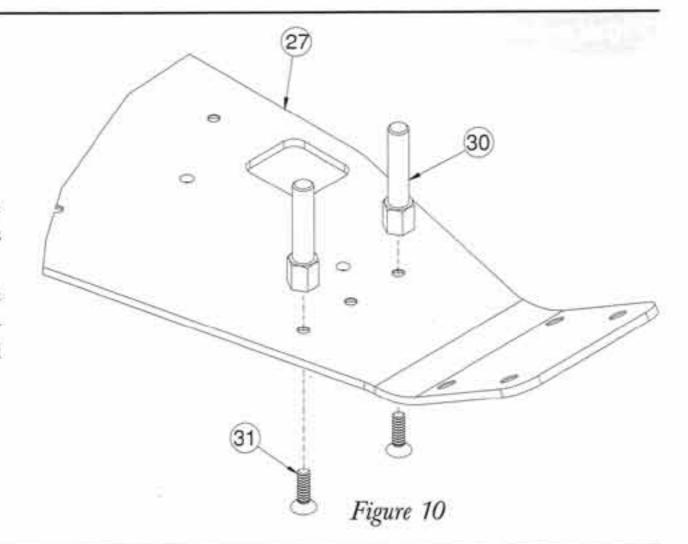


Figure 11









(4







- ☐ Step 2. Thread a 3/8" ball stud (4) into the outer hole on the short arm of the steering bellcrank (32) as shown. Tighten until snug. **Do not** overtighten!
- □ Step 3. Place a studded ball washer (20) over each of two 3/16" ball studs (21) and thread one into each of the outer holes in the steering sector arm (33).
- IMPORTANT NOTE: When the ball studs face up, the offset hole in the sector arm should face forward on the left side as shown.
- □ Step 4. Attach the steering bellcrank (32) to the sector arm (33) by threading a 4-40 x 1/8" cap-head shoulder-screw (34) through the bellcrank (32) and into the offset hole in the sector arm (33).
- ☐ Step 5. Attach the steering idler arm (35) to the sector arm (33) by threading a 4-40 x 1/8" cap-head shoulder-screw (34) through the idler arm (35) and into the remaining hole in the sector arm (33). Tighten the two cap-head shoulder-screws (34).
- If the bellcrank or idler arm doesn't rotate freely when the screws are tightened, remove the screw and lightly file the area around the threads on the sector arm. Attach the part again and check for free movement. File the arm slightly until the parts rotate easily. Again, it is a good idea to use a mild thread-lock compound in the aluminum sector arm.
- □ Step 6. Place the bellcrank (32) and idler arm (35) over the steering posts (30) as shown. If you are assembling a Graphite Plus kit, you must first install two 3/16" x 5/16" bearings (133) one in the top, one in the bottom into the bellcrank (32) and the idler arm (35) as shown in Figure 11A.

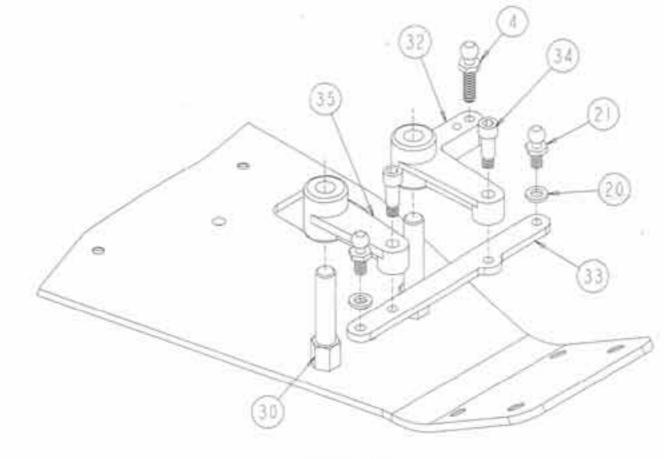


Figure 11

Graphite Plus Kit Only

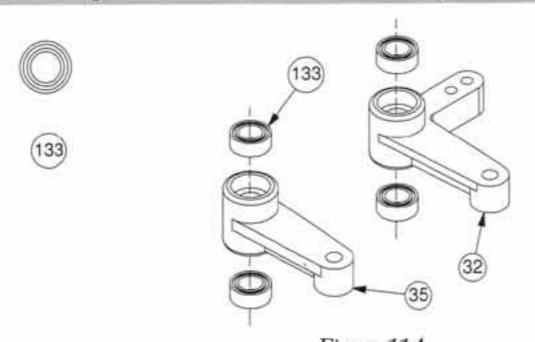
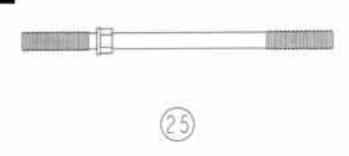


Figure 11A

Figure 12



☐ Step 7. Thread a plastic rod end (24) onto each end of a 1-7/8" turnbuckle (25). Tighten both rod ends equally until the rod is the same length as the rod shown in Figure 12A. Make two of the tie-rod assemblies.

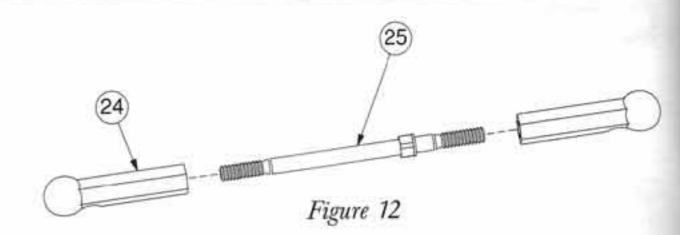




Figure 12A

Figure 13

- Step 8. Attach one end of a tie-rod assembly to the ball stud (21) on the right side of the sector arm (33) and the other end to the ball stud (21) on the right spindle (16).
- Step 9. Repeat Step 8 for the left side.
- > Mount all of the camber rods so that the adjustment hex is to the outside of the truck. This will make future adjustments much easier.

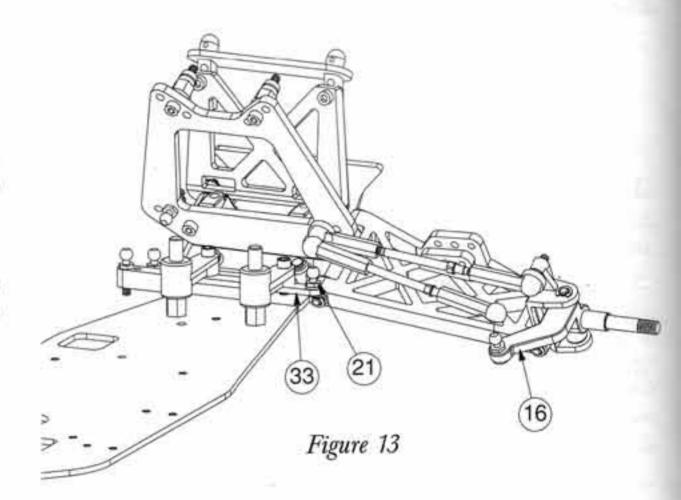


Figure 14





■ Step 10. Press a rubber tank-mounting grommet (36) into each of the three large holes in the top of the center chassis brace (37) as shown. The grommets (36) should be centered, top-tobottom, in the holes of the chassis brace (37).

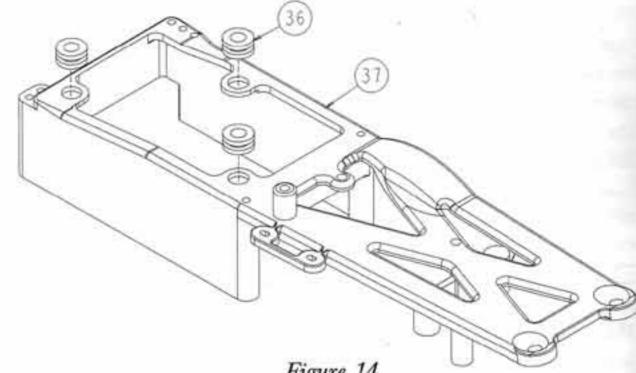


Figure 14

Figure 15







- ☐ Step 11. Line up the three posts on the fuel tank (38) with the three holes with grommets in the center chassis brace (37). Install the fuel tank (38) on the center chassis brace (37) from the bottom by pressing the three posts on the tank (38) through the three rubber grommets (36).
- Step 12. Place a #4 washer (39) over each of the three 4-40 x 3/8" cap-head screws (14). Thread a screw (14) through each of the grommets (36) and into the posts in the fuel tank (38). Hold the tank (38) all the way up against the chassis brace (37). Tighten each of the three screws (14) until the washer (39) just touches the grommet (36).

*NOTE: The screws should <u>not</u> be tightened so that the grommet smashes. By tightening the screws until the washers just touch the grommets, the tank will be "shock mounted." This helps to keep the fuel from foaming while running the truck.

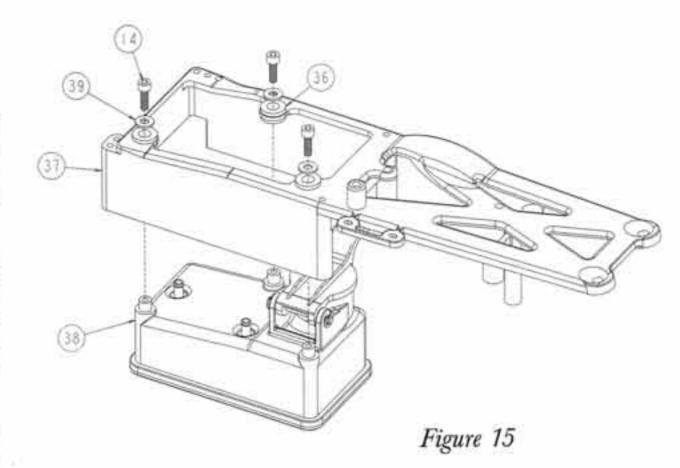
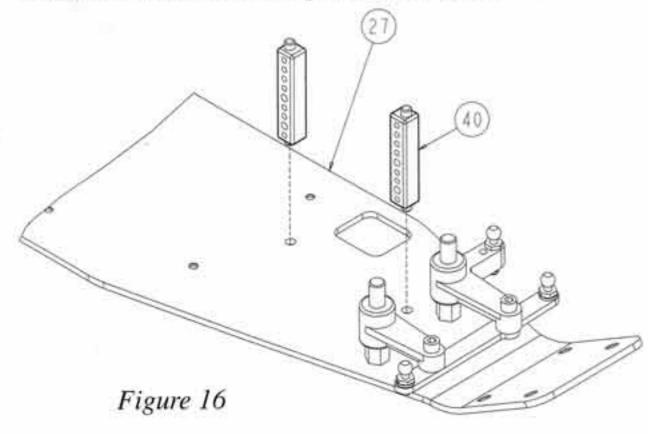


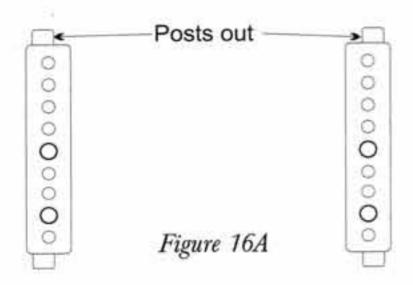
Figure 16

- ☐ Step 13. Refer to Figures 16A and 16B. These are full-size drawings of the steering servo posts mounted in the two different configurations. Hold your servo up to these diagrams and align the mounting ears on your servo with the holes in the posts. This will determine how to mount the steering servo posts (40).
- ☐ Step 14. Once you have determined the mounting position of the steering servo mounting posts (40), place the posts (40) into the holes in the chassis (27) so that the posts are offset in the correct direction from Figure 16A or 16B.

*NOTE: If you do not have your radio system yet, or do not know which servo you will use for steering at this time, mount the posts according to Figure 16A and continue. The direction of the posts can be changed once you have determined which servo you will use.

IMPORTANT NOTE: The 2nd and 5th hole from the bottom in the servo mounting posts are larger than the rest of the holes. These holes should be positioned closest to the chassis.





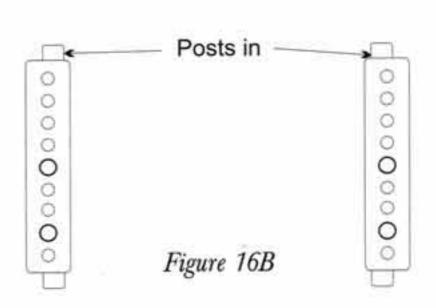


Figure 17







□ Step 15. Place the center chassis brace (37) on top of the chassis (27). Pay particular attention to the steering posts (30) and the servo mounting posts (40). The chassis brace has two extensions that fit over the steering posts (30), and the pins in the top of the servo mounting posts (40) should fit into two holes in the chassis brace (37). Once the chassis brace is lined up and in place, secure it to the front bulkhead (6) by threading two 8-32 x 3/8" screws (28) through the forward holes of the chassis brace (37) and into the holes in the top of the front bulkhead (6).

☐ Step 16. Secure the chassis brace (37) to the chassis (27) with five 4-40 x 3/8" flat-head screws (31) as shown.

*NOTE: Make sure that the pins on the top and bottom of the steering servo mount stay located in the holes in the chassis and the chassis brace.

There is an extra 4-40 x 3/8" cap-head screw packed in the wrench bag. This screw can be used to tap the threads into all of the "Stiffezell" plastic parts such as the center chassis brace. The larger cap-head uses a 3/32" wrench which will make it easier to start threads into the stiff plastic than the small 1/16" wrench used on the flat-head screws. Apply a thin coat of white thrust bearing/assembly grease (189) to the cap-head screw and thread the screw in each of the holes about half way before removing it. This will make it easier to install the flat-head screws and allow for the last few threads to be tapped when it is installed.

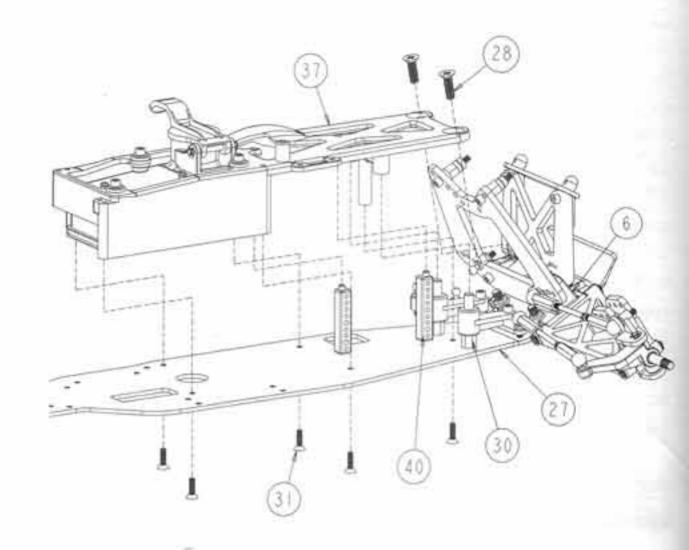


Figure 17

Figure 18

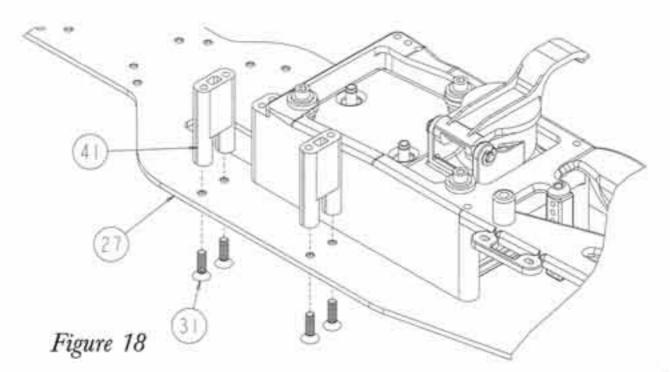


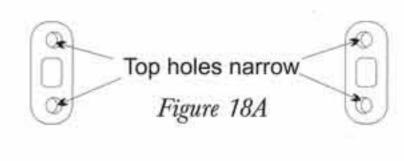


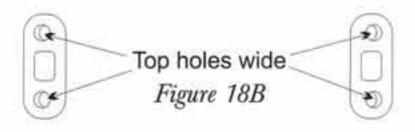
☐ Step 17. Refer to Figures 18A and 18B. These are full-size drawings of the throttle servo mounts (41) attached to the chassis in the two different configurations. Hold your servo up to these diagrams and align the mounting ears on your servo to holes in the mounts. This will determine how to install the throttle servo mounts (41).

☐ Step 18. Once you have determined the mounting position of the throttle servo mounts (41), attach each mount (41) to the chassis (27) with two 4-40 x 3/8" flat-head screws (31) so that the mounts are offset the correct way from Figure 18A or 18B.

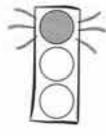
*NOTE: If you do not have your radio system yet, or do not know which servo you will use for throttle at this time, attach the servo mounts according to Figure 18A and continue. The direction of the mounts can be changed once you have determined which servo you will use.







BAG C



Bag C requires that you pay close attention to the bearings involved in the assembly (disregard this note for kit #A-0810). Some bearings used during the assembly of this bag are <u>very similar</u> in size. It is important that you <u>open the bags only as they are needed.</u> The bearings that are of concern are packed in separate bags.

Figure 19





☐ Step 1. Insert a 4-40 mini locknut (42) into the hex area of the diff nut carrier (43). The thread-locking portion of the nut (42) should face the outside.

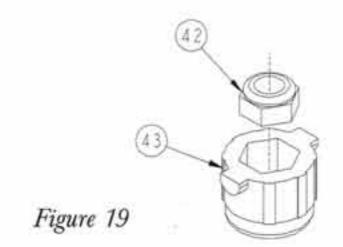
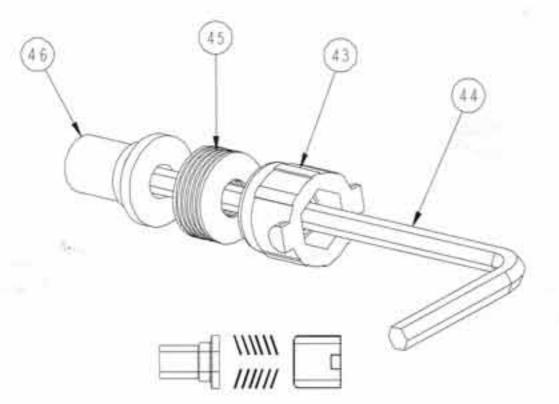


Figure 20





- ☐ Step 2. Locate the 5/64" Allen wrench (44) supplied with the kit. Place the diff nut carrier (43), nut side first, over the Allen wrench.
- ☐ Step 3. Stack the six beveled washers (45) over the wrench, next to the diff nut carrier (43). The washers (45) should all point the same direction and open away from the nut carrier (43) as shown.
- Step 4. Place the diff tube (46) over the wrench, big side first, so that it rests against the beveled washers (45).



Bevelled washers should face this direction Figure~20

Figure 21

Step 5. Insert all of the parts that are stacked on the wrench into one of the outdrive/diff halves (47). Line up the tabs on the diff nut carrier (43) with the slots in the outdrive (47). Make certain that the diff tube (46) is pressed all the way into the outdrive/diff half (47), and that it is straight. There is a small shoulder on the diff tube (46) that should be flush with the outer surface of the outdrive (47).

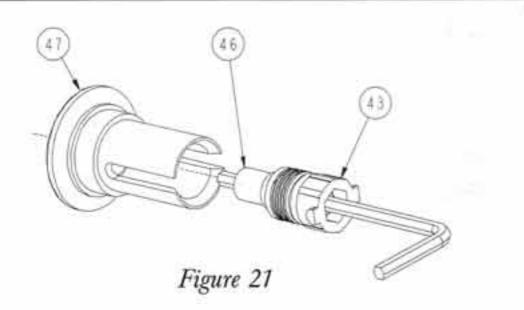


Figure 22

☐ Step 6. Apply a small amount of clear diff grease (48) to the outside ring of the outdrive (47). Attach a diff washer (49) to the outdrive (47) by lining up the slot in the washer (49) with the slot in the outdrive (47).

*NOTE: Only a small amount of grease is needed. It is only there to hold the diff washer in place.

IMPORTANT NOTE: Do not glue the diff washers to the outdrive/diff halves. Doing so may not allow the washers to mount flat.

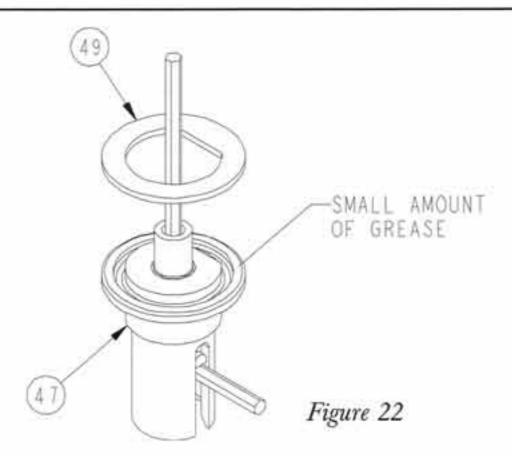


Figure 23







(50





- □ Step 7. Insert a 5mm x 8mm bearing (50) [5mm x 8mm bushing (51) if assembling kit #A-0810] into the center of the diff gear (52).
- ☐ Step 8. Press a 3/32" diff ball (53) into each of the small holes in the diff gear (52).

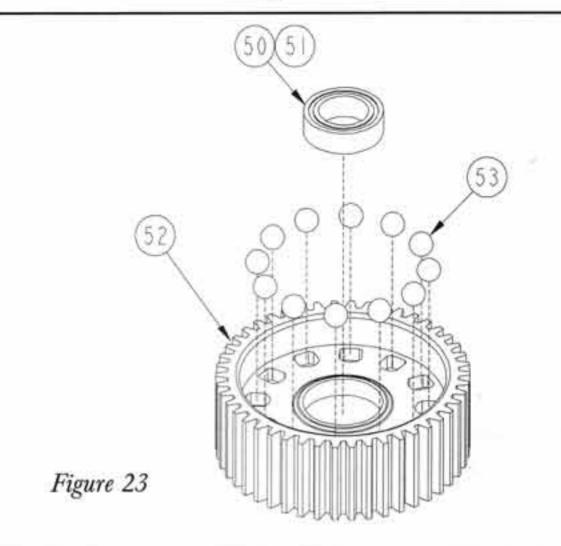


Figure 24

- ☐ Step 9. Apply a fairly heavy coat of clear diff grease (48) to the exposed side of the diff washer (49) that is already attached to the outdrive (47).
- ☐ Step 10. Carefully place the diff gear (52) over the diff tube (46) so that the diff balls (53) and diff gear (52) rest against the greased diff washer (49).

IMPORTANT NOTE: It is a good idea to hold the diff nut carrier in place so that the diff tube is not moved when the gear is pushed over it.

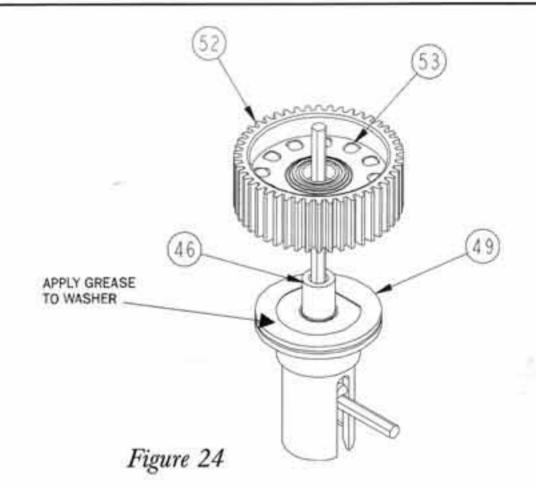


Figure 25













- □ Step 11. Insert a 5mm x 8mm bearing (50) [5mm x 8mm bushing (51) if assembling kit #A-0810] into the second outdrive/diff half (47). Make sure that the bearing (50) [or bushing (51)] is pushed all the way into the outdrive (47). The handle of a hobby knife (with the blade removed) or a pencil can be used to push the bearing (50) [or bushing (51)] into place.
- ☐ Step 12. Drop the 1/4" x 5/16" shim (54) into the outdrive (47), on top of the 5mm x 8mm bearing (50) [or bushing (51)]. Make sure that the shim (54) sits flat against the bearing (50) [or bushing (51)].

*NOTE: Be extra careful not to bend this shim!

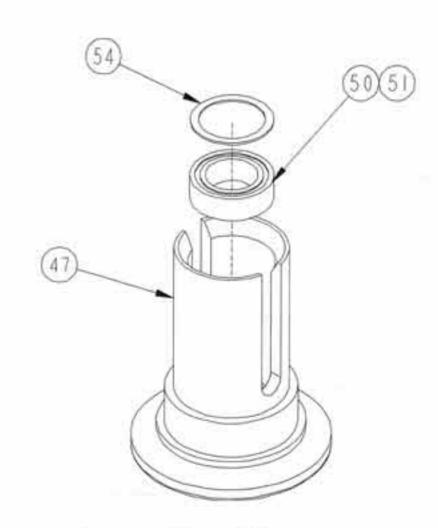
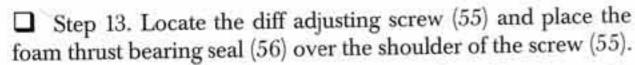


Figure 25

Figure 26







☐ Step 14. Place one of the 3mm x 8mm thrust bearing washers (57) over the diff screw (55).

☐ Step 15. Apply a liberal coat of white thrust bearing/assembly grease (189) to the thrust washer (57) and place the 3mm x 8mm thrust bearing (58) over the screw (55) and next to the washer (57). Grease the exposed side of the thrust bearing (58) with white thrust bearing/assembly grease (189) and place the second thrust washer (57) over the screw and against the thrust bearing (58).

☐ Step 16. Very carefully insert the diff screw (55), with the thrust bearing assembly installed, into the outdrive (47). Be very careful not to bend or pinch the shim (54) while inserting the diff screw (55). Pull the threaded end of the diff screw (55) until the thrust bearing assembly rests against the shim (54), next to the bearing (50) [or bushing (51)], inside the outdrive (47).

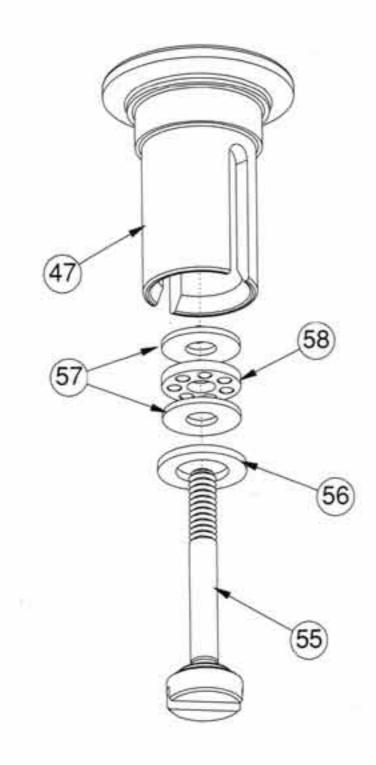


Figure 26

Figure 27

☐ Step 17. Locate the smallest of the Allen wrenches (44) and place it in the slot in the outdrive (47) containing the diff screw (55). Slide the wrench all the way against the screw (55). By handling the outdrive (47) with the wrench inserted, the diff screw (55) will be held in place while finishing assembly of the diff.

☐ Step 18. Apply a small amount of clear grease (48) to the outer ring of the outdrive (47). Install the second diff washer (49), again lining up the slots in the outdrive (47) and the washer (49).

☐ Step 19. Apply a fairly heavy coat of clear diff grease (48) to the exposed side of the diff washer (49).

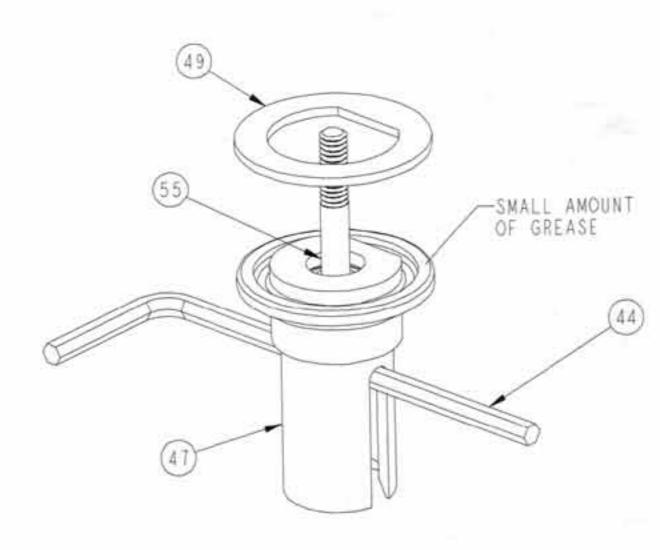


Figure 27

Figure 28

- Step 20. While holding the diff half (47) with the Allen wrench inserted, carefully assemble the two outdrive/diff halves (47).
- Step 21. Make sure that the slot in the diff screw (55) is lined up with the slot in the outdrive (47) and the Allen wrench is inserted in the diff screw (55).
- Step 22. Hold the diff so that the outdrive (47) with the diff nut carrier (43) is pointing up. Slowly turn the top diff half clockwise to thread the diff screw (55) into the 4-40 mini nut (42) in the diff nut carrier (43). Thread the two halves together until the screw just starts to snug up.

*NOTE: If the screw will not thread into the nut, make sure that the nut carrier is pushed all the way into the outdrive.

- When tightening the diff, tighten the screw a little and then "work" the diff a little. Then tighten the screw a little more and "work" the diff again. Continue this until the diff is tight. This will ensure that all the parts in the diff assembly are properly seated.
- Step 23. Tighten the diff until the gear (52) cannot be turned while both of the outdrives (47) are being held firmly. It's better to adjust the diff too tight than too loose. Final diff adjustment should be made after completion of the truck.

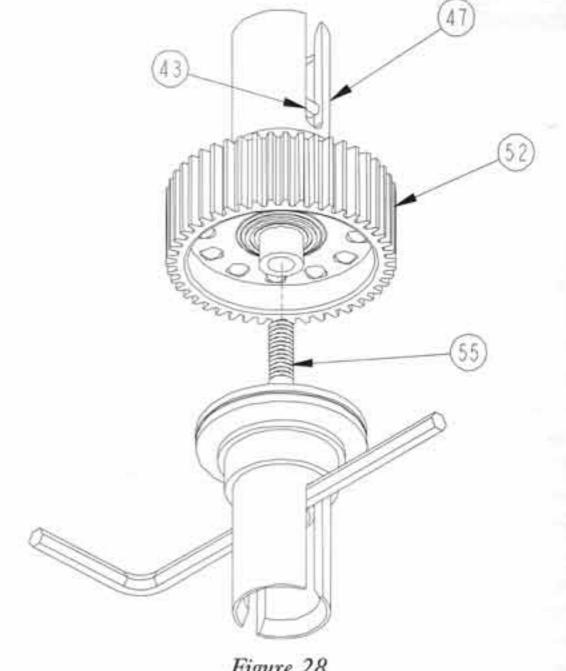


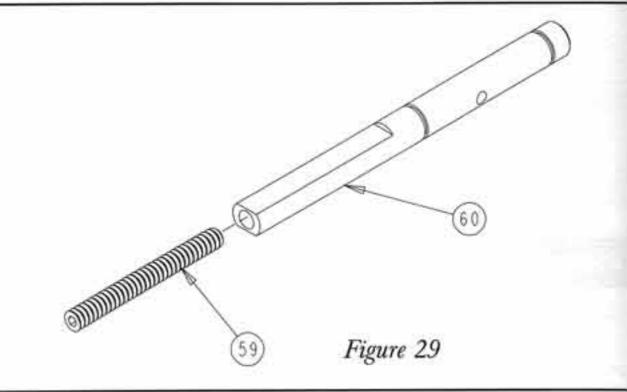
Figure 28

Figure 29





- Step 24. Thread the 4-40 x 1" setscrew (59) all the way into the threaded side of the slipper shaft (60). Make sure that the setscrew (59) is TIGHT!
- A small amount of liquid thread-lock will help to hold the setscrew securely in place.











- ☐ Step 25. Press the 1/16" x 5/16" spirol pin (61) into the small hole in the slipper shaft (60) so that it extends evenly from both sides of the shaft (60).
- Step 26. Slide the top gear (62) over the slipper shaft (60) from the side opposite the setscrew (59). Line up the groove in the gear (62) with the pin (61) and slide the gear (62) over the pin (61).
- Step 27. Secure the gear (62) to the shaft (60) by inserting a 3/16" C-clip (63) into the groove in the slipper shaft (60).
- Step 28. Slide the slipper shaft spacer (163) over the end of the slipper shaft (60) with the setscrew (59) so that the spacer (163) rests against the gear (62).

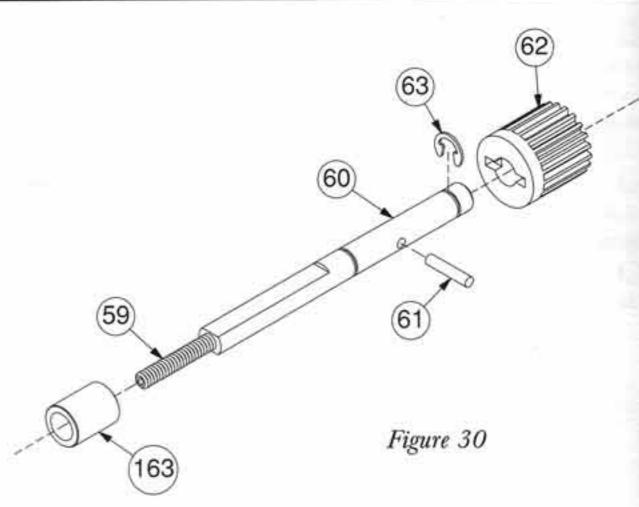
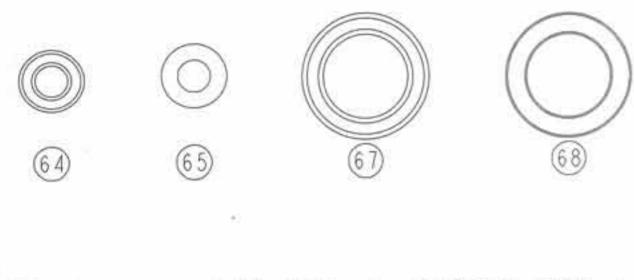


Figure 31



- ☐ Step 29. Insert a 3/16" x 3/8" bearing (64) [3/16" x 3/8" bushing (65) if building kit #A-0810] into the top bearing seat of the left gearbox half (66).
- ☐ Step 30. Insert a 1/2" x 3/4" bearing (67) [1/2" x 3/4" bushing (68) if building kit #A-0810] into the lower bearing seat of the left gearbox half (66).

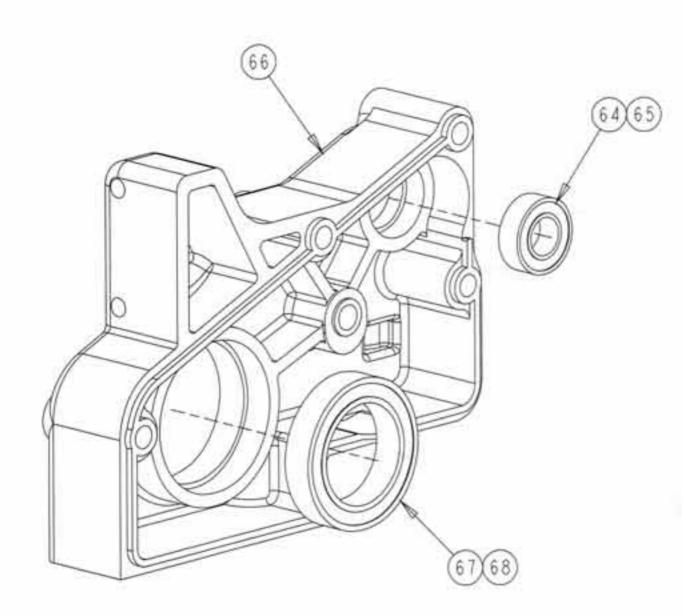
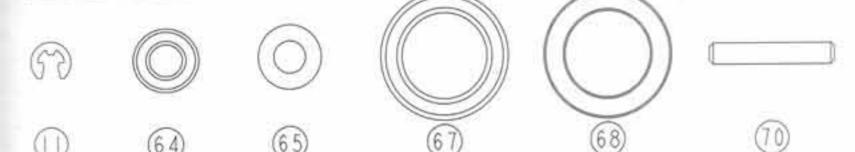


Figure 31



- ☐ Step 31. Insert a 3/16" x 3/8" bearing (64) [3/16" x 3/8" bushing (65) if building kit #A-0810] into the top bearing seat of the right gearbox half (69). Carefully push the bearing (64) [bushing (65)] all the way into the bearing seat using a pen or the handle of a hobby knife (with the blade removed). Care should be taken not to damage the bearing shields.
- ☐ Step 32. Press, and lightly tap the idler gear shaft (70), into the hole in the center of the right gearbox half (69).
- ☐ Step 33. Insert a 1/2" x 3/4" bearing (67) [1/2" x 3/4" bushing (68) if building kit #A-0810] into the lower bearing seat of the right gearbox half (69).
- ☐ Step 34. Attach a 1/8" E-clip (11) to one end of the brake arm pin (71) and press the other end through the hole in the right gearbox half (69) as shown. Push the pin (71) all the way in so that the E-clip (11) is pushed against the inside of the right gearbox half (69).

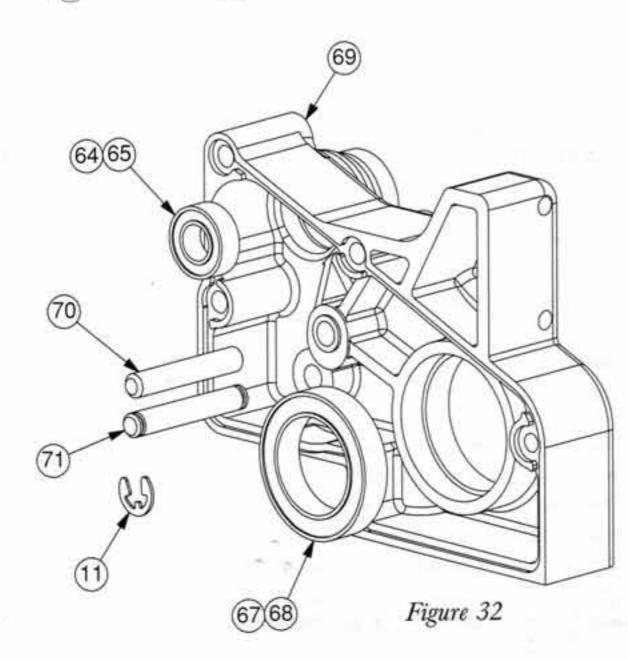


Figure 33



72 73

- ☐ Step 35. Slide the slipper shaft (60), threaded side first, through the bearing (64) [bushing (65)] in the right gearbox half (69).
- ☐ Step 36. Insert a 1/8" x 3/8" bearing (72) [1/8" x 3/8" bushing (73) if building kit #A-0810] into each side of the idler gear (74). Place the idler gear (74) over the idler gear shaft (70).
- □ Step 37. Insert the differential assembly into the 1/2" x 3/4" bearing (67) [or bushing (68)] in the right gearbox half (69). Insert the differential diff nut carrier (43) side first.

*NOTE: Align the teeth on all gears when installing the differential.

If building kit #A-0810 with bushings, apply a coat of white thrust bearing/assembly grease to the insides of the idler gear bushings before placing the gear on the shaft.

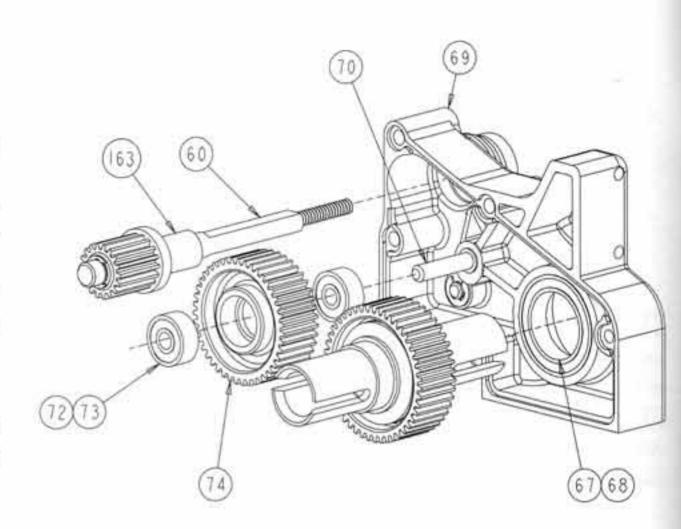
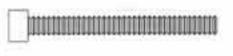


Figure 33





- Step 38. Carefully assemble the left gearbox half (66) to the completed right gearbox half (69).
- ☐ Step 39. Thread the 4-40 x 3/4" cap-head screw (1) into the rear hole in the transmission housing from the left side. Do not tighten the screw yet. Just snug it up.
- ☐ Step 40. Slide the transmission brace (75) over the top shaft and against the right gearbox half (69) so that the three holes in the brace (75) line up with the three holes in the gearbox half (69). Slide a 4-40 x 1-1/8" button-head screw (76) through the top, forward hole in the left gearbox half (66) and thread it into the transmission brace (75).
- □ Step 41. Slide a 4-40 x 1-1/8" cap-head screw (77) through each of the remaining two holes. Tighten all four transmission screws.
- There are outdrive shims (136) included with your kit. These shims can be used, if necessary, to reduce the amount of end play in the differential assembly. After the transmission is assembled and the screws are tightened, check the amount of end play that the differential has. Ideally, there should be about a business card's thickness worth of end play. If there is more end play than that, disassemble the transmission and add shims until the end play is correct. The differential needs to have a little end play. If the differential has no end play, the transmission will bind once it heats up during extended run times.





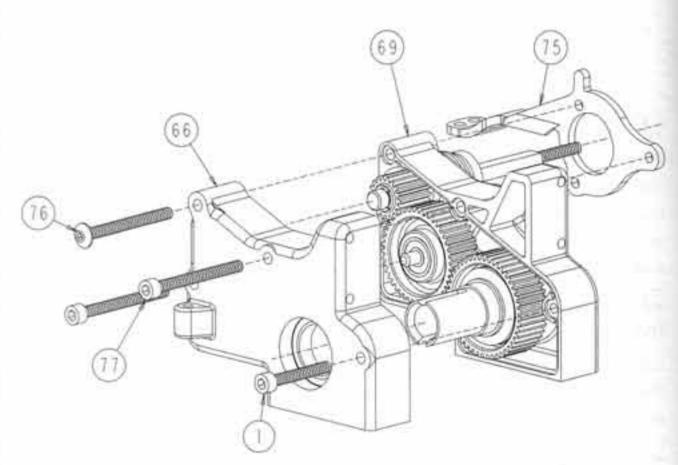


Figure 34

Figure 35

Step 42. Glue one of the brake pads (78) to the bottom of the brake arm (79) just under the raised tab. A good cyanoacrylate glue (superglue) should be used to hold the pad (78) in place. The pad (78) should be positioned on the arm (79) so that the edge of the pad (78) is flush with the tab on the arm (79) and the pad (78) should be centered so that it extends over each side of the brake arm (79) equally. Press the pad (78) firmly in place with your thumb while the glue sets. The pad (78) should be pressed into place so that it matches the shape of the brake arm (79). Cut the second brake pad (78) so that you are left with a piece 1/4-1/3 the original length. Glue this smaller pad to the brake arm (79) near the top as shown in Figure 35. Again, hold the pad in place so that it matches the shape of the brake arm (79). The glue joint should be allowed about 1/2 hour to fully dry before continuing. Now's a good time to read ahead a little in the manual to familiarize yourself with upcoming assemblies.

The slipper back plate/brake drum can be used to hold the brake pads to the brake arm while the glue sets. This will ensure that the brake pads make full contact with the brake drum once assembly is complete.

□ Step 43. After the glue joints have been allowed time to set, use a sharp hobby knife to carefully trim the edges of the brake pads (78) so that they are flush with the edges of the brake arm (79).

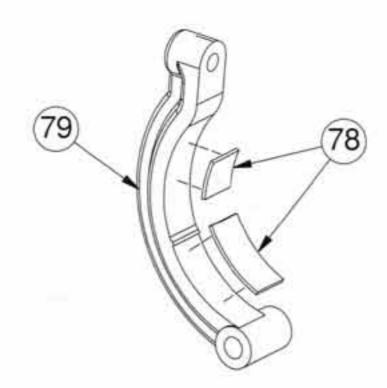


Figure 35

Figure 36





☐ Step 44. Slide the brake arm/pad assembly over the brake arm pin (71) so that the brake arm forms an arc around the slipper shaft (60). Secure the brake arm (79) with a 1/8" E-clip (11).

IMPORTANT NOTE: The brake arm should be positioned between the differential outdrive and the top shaft.

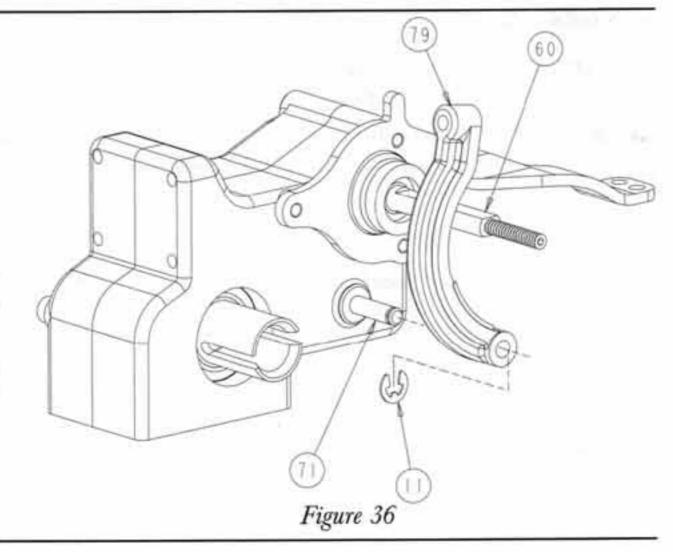


Figure 37





☐ Step 45. Press a 3/16" x 5/16" bushing (80) into the center of the spur gear (81).

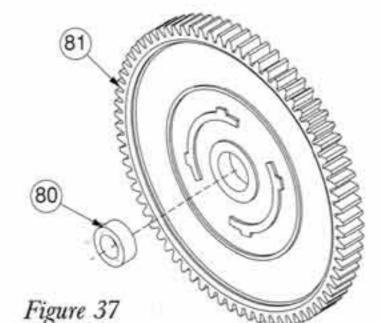
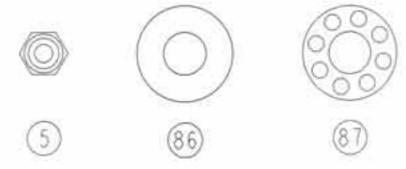
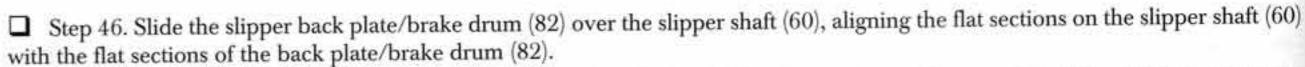


Figure 38-Bushing

Kit #A-0810 (Bushing Kit) Only





☐ Step 47. Place the slipper pad (83) on the slipper gear plate (84) and align the notches on the gear plate (84) with the notches on the slipper pad (83).

■ Step 48. Place the slipper pad (83) and gear plate (84), pad side first, over the slipper shaft (60) and against the back plate/brake drum (82). Try to get this assembly as close to center on the shaft (60) as possible.

☐ Step 49. Carefully install the spur gear (81) with the bushing side out. Lightly rotate the spur gear (81) until the three posts line up with the three holes in the gear plate (84). Snap the gear (81) into place being careful to keep the slipper pad (83) aligned with the gear plate (84).

□ Step 50. Place the slipper spring cup (85), open side out, over the shaft (60) and against the spur gear (81).

☐ Step 51. Insert one 1/4" x 9/16" thrust washer (86) into the spring cup (85), then the 1/4" x 9/16" thrust bearing (87), followed by the second thrust washer (86). All three should be positioned all the way in the cup (85).

☐ Step 52. Slide the slipper spacer (88), long side first, onto the shaft (60). The post on the spacer (88) should fit inside the thrust bearing assembly.

☐ Step 53. Place the gold slipper spring (89) over the shaft (60), followed by the spring retaining washer (90), and secure with the 4-40 locknut (5).

IMPORTANT NOTE: Before tightening the nut, check to see that the slipper pad is properly aligned with the gear plate. If it is not, correct it before proceeding.

Step 54. Tighten the 4-40 locknut (5) all the way down, and then back it off one full turn (e.g., 360° x 1). This is a good starting point for adjustment. Final adjustment can be made later.

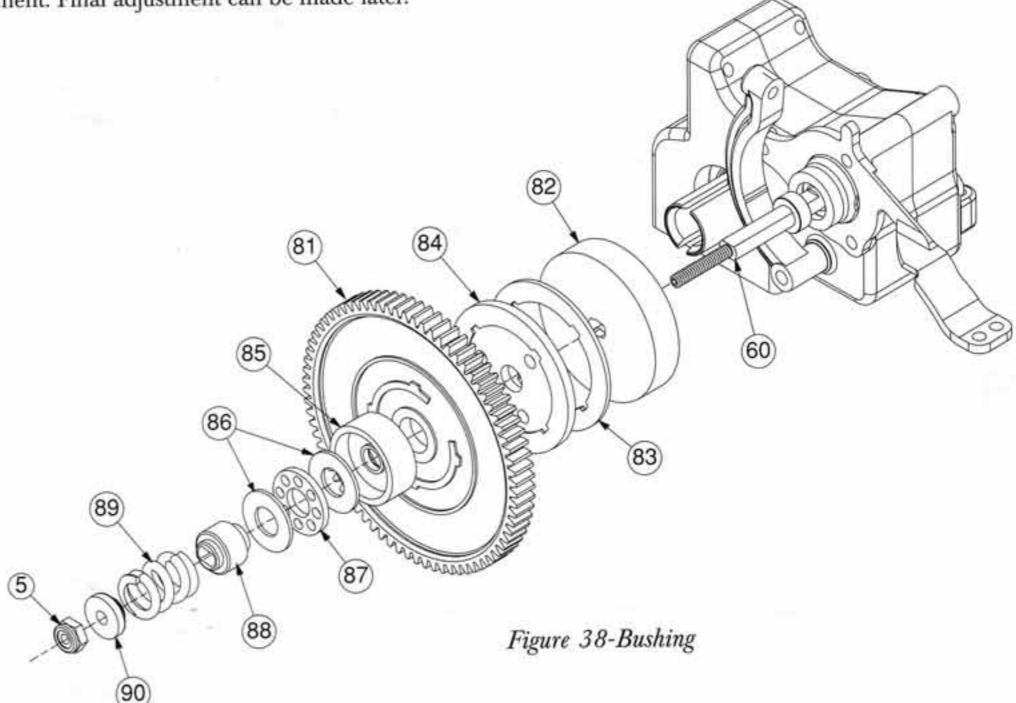


Figure 38-Bearing

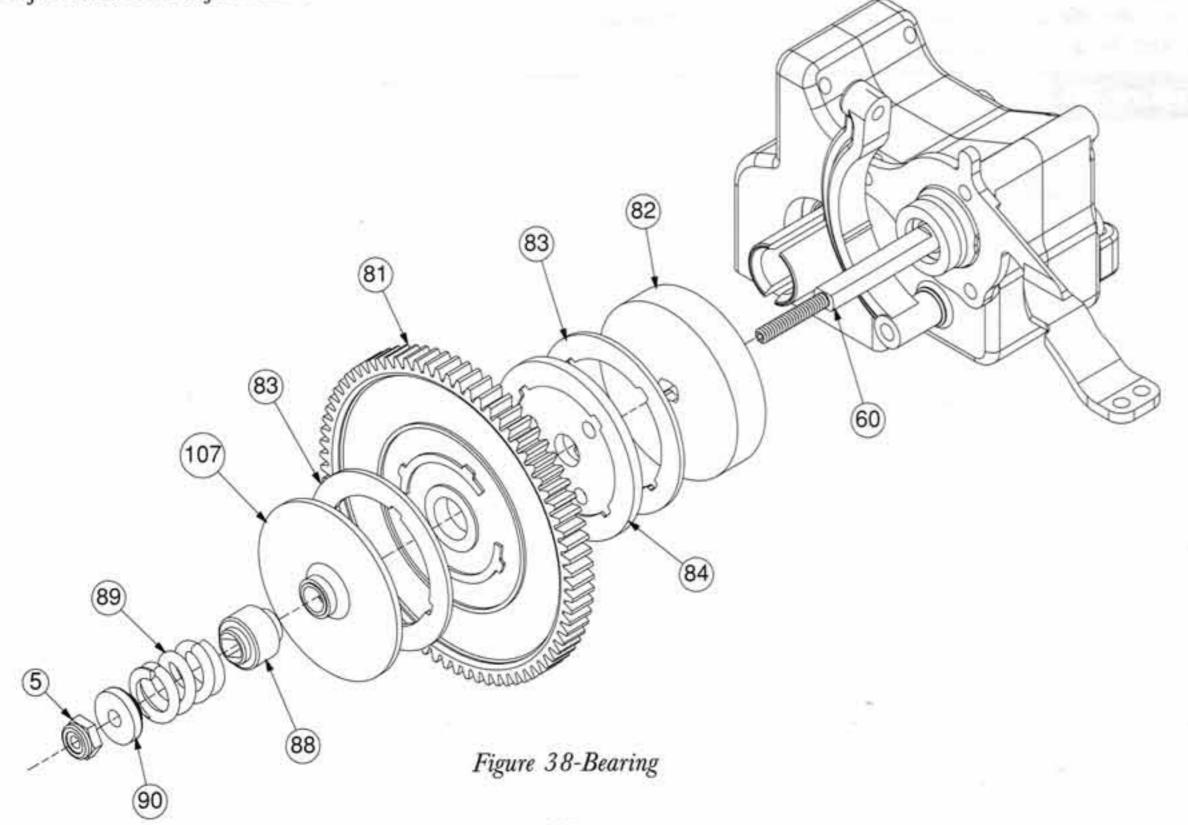




- ☐ Step 46. Slide the slipper back plate/brake drum (82) over the slipper shaft (60), aligning the flat sections on the slipper shaft (60) with the flat sections of the back plate/brake drum (82).
- ☐ Step 47. Place one of the two slipper pads (83) on the slipper gear plate (84) and align the notches on the gear plate (84) with the notches on the slipper pad (83).
- □ Step 48. Slide the slipper pad (83) and gear plate (84), pad side first, over the slipper shaft (60) and against the back plate/brake drum (82). Try to get this assembly as close to center on the shaft (60) as possible.
- Step 49. Carefully install the spur gear (81) with the three small posts facing the gear plate (84). Lightly rotate the spur gear (81) until the three posts line up with the three holes in the gear plate (84). Snap the gear (81) into place being careful to keep the slipper pad (83) aligned with the gear plate (84).
- □ Step 50. Place the second slipper pad (83) against the outside of the spur gear (81) and align the notches on the spur gear (81) with the notches on the slipper pad (83).
- □ Step 51. Slide the outer slipper back plate (107) over the slipper shaft (60) so that the small shoulder on the back plate (107) faces the outside.
- Step 52. Slide the slipper spacer (88) onto the shaft (60).
- ☐ Step 53. Place the gold slipper spring (89) over the shaft (60), followed by the spring retaining washer (90), and secure with the 4-40 locknut (5).

IMPORTANT NOTE: Before tightening the nut, check to see that the slipper pads are properly aligned with the gear plate and the spur gear. If they are not, correct the alignment before proceeding.

☐ Step 54. Tighten the 4-40 locknut (5) all the way down, and then back it off three full turns (e.g., 360° x 3). This is a good starting point for adjustment. Final adjustment can be made later.



BAG D

Figure 39



☐ Step 1. Locate the forward rear suspension pivot (91) (the one with the notch on one side). Place the suspension pivot (91) on the chassis (27) so that the holes for the hinge pin point to the rear, and the letter notch is on the right side of the chassis (27). Secure the suspension pivot with two 4-40 x 3/8" flat-head screws (31).

☐ Step 2. Slide an inner rear hinge pin (92) through the end of each of the two rear suspension arms [right (93) (marked "L"), left (94) (marked "R")] farthest away from the shock mounting holes.

□ Step 3. Position the two arms (93), (94) as shown so that the shock mounting holes are on the top side. Insert the hinge pins (92) into the forward suspension pivot (91). Place the back rear suspension pivot (95) behind the suspension arms (93), (94) so that the hinge pins (92) fit into the rear suspension pivot (95) and the holes are offset towards the bottom of the chassis (27). Secure the suspension pivot (95) with two 4-40 x 3/8" flat-head screws (31).

IMPORTANT NOTE: The rear suspension arms are marked backwards. This was not a mistake. The arms were originally used on another truck in the other configuration. The NXT optimizes the location of the shocks and enhances the suspension geometry by mounting the arms in the opposite direction. Be sure that the arm marked "L" is on the right side and the arm marked "R" is on the left side.



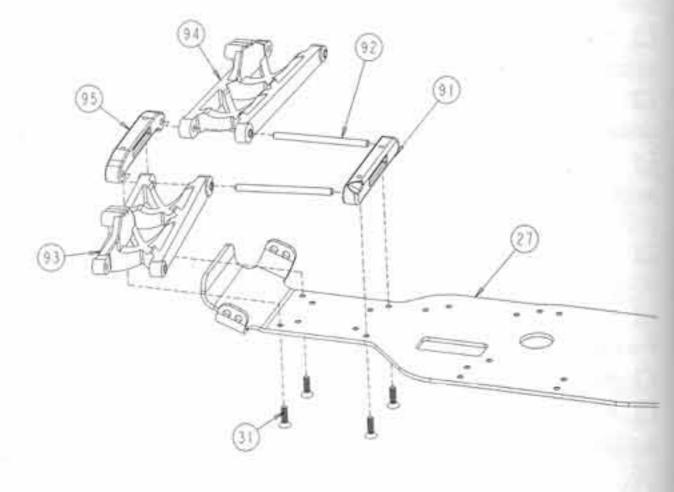
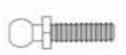


Figure 39

Figure 40













☐ Step 4. Insert a 3/8" ball stud (4) through the middle hole in the bottom row on each side of the rear shock tower (96). Secure the ball studs (4) with 4-40 locknuts (5). Place a "foam thing" (26) over each ball stud (4).

☐ Step 5. Slide 4-40 x 3/4" cap-head screws (1) through the middle holes in the top of the shock tower (96). The screws (1) should be inserted from the same side as the ball studs (4). Thread a top shock mount bushing (3) onto each of the two screws (1) and tighten.

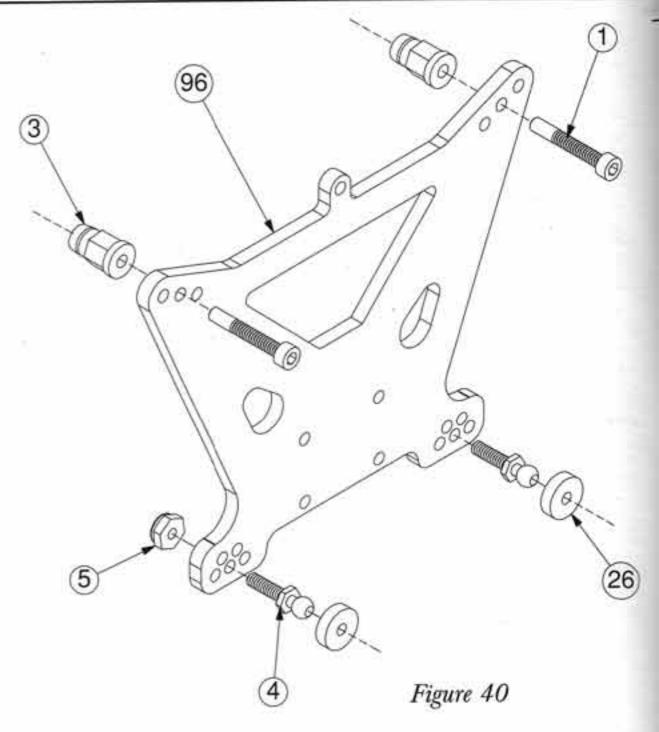


Figure 41



(14)

☐ Step 6. Attach the rear shock tower (96) to the back of the transmission with four 4-40 x 3/8" cap-head screws (14). The shock mount bushings (3) should face the rear as shown.

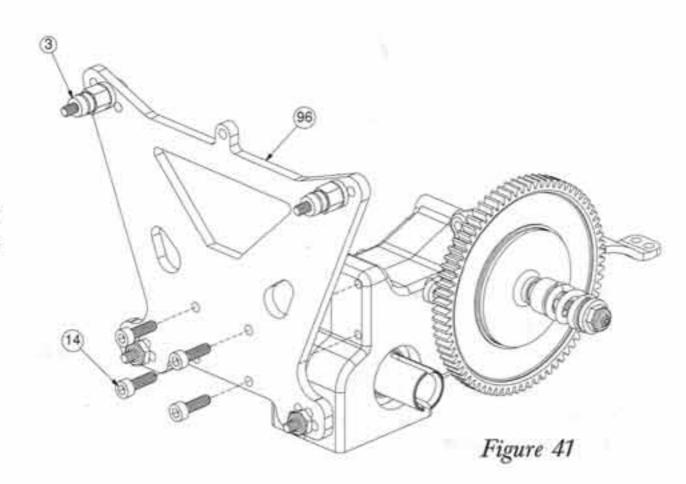


Figure 42



(14



- ☐ Step 7. Place the completed transmission between the rear suspension pivots (91), (95) as shown.
- ☐ Step 8. Secure the transmission to the chassis (27) with four 4-40 x 3/8" flat-head screws (31).
- ☐ Step 9. Attach the transmission brace (75) to the center chassis brace (37) with two 4-40 x 3/8" cap-head screws (14).
- Applying small amount of white thrust bearing/assembly grease to the threads of the screws will help to make the screws install easier the first time.

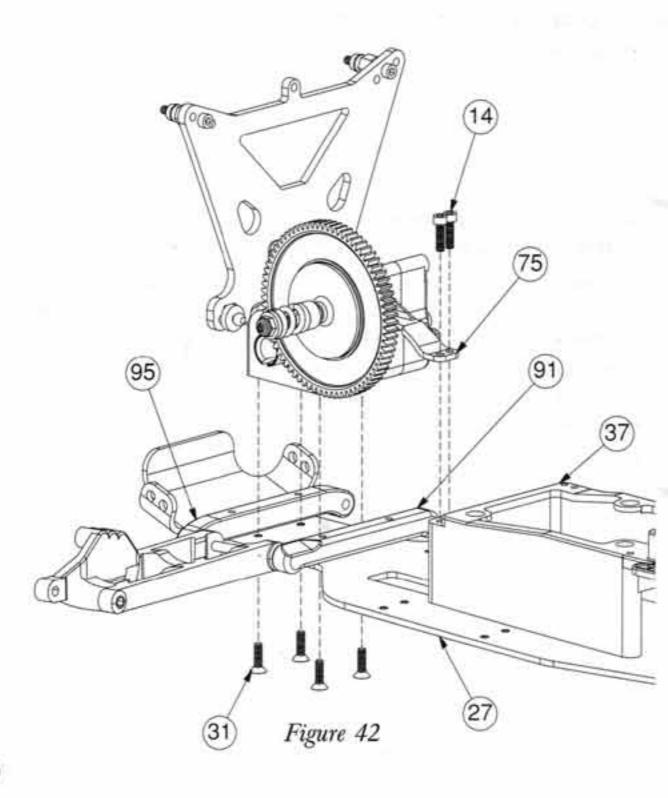


Figure 43-Dogbone

Graphite Plus Builders Go To Figure 45-CVD





- ☐ Step 10. Attach the dogbones (97) to the plastic universal yokes (98) by lining up the slot on the dogbone (97) with the groove in the universal yoke (98). Secure the two pieces with a 4-40 x 3/8" cap-head screw (14).
- A small amount of thread-lock compound should be used on the threads of the 4-40 x 3/8" screws to help keep them tight.

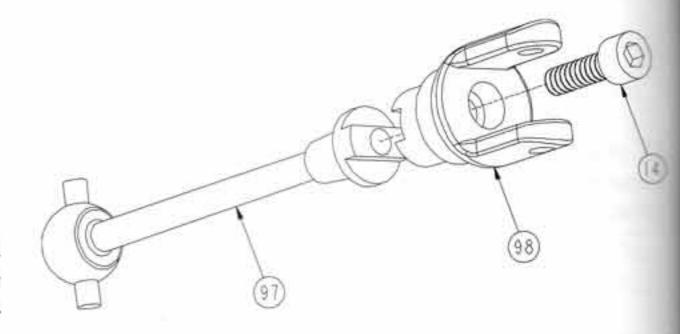
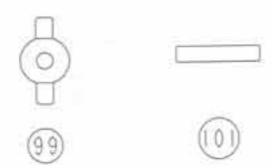


Figure 43-Dogbone

Figure 44-Dogbone



- □ Step 11. Position the universal pivot (99) in the rear axle (100) so that the holes in both are aligned.
- ☐ Step 12. Using pliers, carefully push a 3/32" x 1/2" spirol pin (101) through the rear axle (100) and universal pivot (99) until the pin (101) extends evenly from both sides of the rear axle (100).
- The pin can be made to press in tighter. This will ensure that it stays firmly in place. To do so, *SLIGHTLY* crimp the center of the pin with heavy duty wire cutters. When inserting the pin, be careful not to smash the ends of the pin, or the universal may not operate freely.

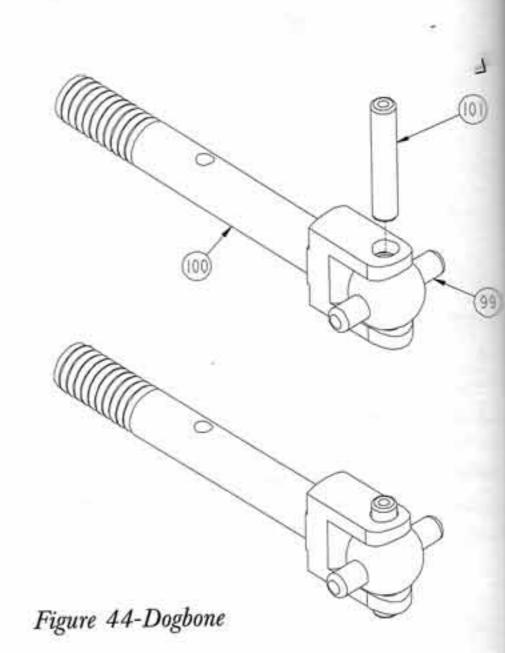
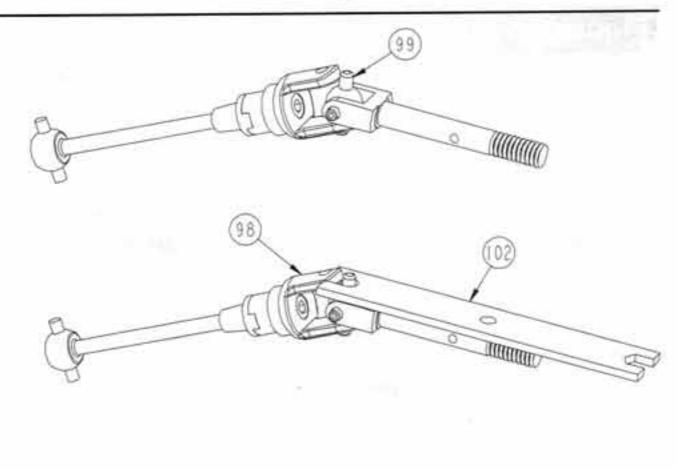


Figure 45-Dogbone

- □ Step 13. Using the small end of the assembly wrench (102) supplied with your kit, pry the pins on the universal pivot (99) into the holes in the plastic universal yoke (98).
- The dogbones should rotate freely. If they do not, the ears of the universal yoke can be squeezed slightly with a pair of pliers. Squeezing the ears will press the outside of the hole in the ears against the pin in the universal pivot. This will cause the hole to enlarge slightly, helping the dogbone to rotate freely.



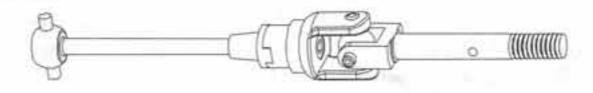


Figure 45-Dogbone

Figure 45-CVD

For Graphite Plus Kit Only





- ☐ Step 10. Apply a thin coat of white thrust bearing/assembly grease (189) to the outside of the CVD yoke (190). Insert the greased CVD yoke (190) into the large hole in the CVD rear axle (191) so that the hole in the CVD yoke (190) can be seen through the slots in the CVD rear axle (191).
- ☐ Step 11. Place the CVD dogbone (192) over the CVD rear axle (191). Align the holes in the CVD dogbone (192) with the hole in the CVD yoke (190). Secure all three parts by inserting a 1/16" x 7/16" (solid) pin (193) through the holes in the CVD dogbone (192), the slots in the CVD rear axle (191), and the hole in the CVD yoke (190).
- ☐ Step 12. Center the pin (193) in the CVD dogbone (192) and secure it by threading a 4-40 setscrew (177) into the end of the CVD yoke (190). Thread-lock compound should be applied to the setscrew (177) before installing it.
- ☐ Step 13. Repeat Steps 10-13 for the second CVD assembly.

IMPORTANT NOTE: Apply the enclosed thread-lock to the setscrew before threading it into the CVD-yoke. If thread-lock is not used, the setscrew will loosen during operation. This will cause your truck to stop running.

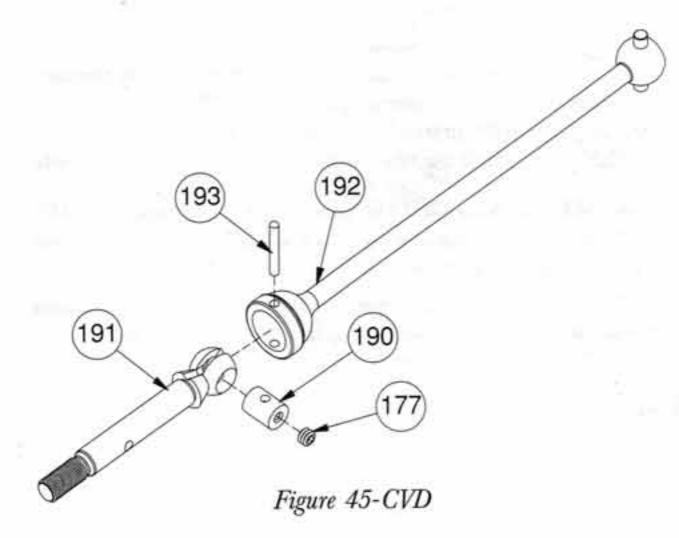


Figure 46 **a b c** ☐ Step 14. Press a 3/16" x 3/8" bearing (64) [3/16" x 3/8" bushing (65) if building kit #A-0810] into the inside of a rear hub (103). Slide the rear axle, from the inside, through the bearing Figure 46A (64) [bushing (65)]. Step 15. If assembling kit #A-0810, slide the second bushing (65) over the axle (100) and press it into the outside of the rear hub (103). If assembling kits other than #A-0810, slide the center bearing spacer (195) over the axle and against the bearing (64). Slide the second bearing (64) over the axle and press it into the outside of the rear hub (103). 103 Step 16. Place a studded ball washer (20) over a 3/8" ball stud (4). Thread the ball stud (4) into the 'A' hole (shown in Figure 46A) in the rear hub (103) from the side opposite the letter ('L' and 'R') designating left and right. Place a "foam thing" (26) over the ball stud (4). Step 17. Repeat Steps 14-16 for the other rear hub (103). 195 Step 18. Place a rear axle spacer (104) over each rear axle, against the outside bearing (64) [or bushing (65)]. If the bearing spacer (104) is stepped (kits other than #A-0810), the small side of the spacer (104) should be positioned against the outside bear-64)65 ing (64). Step 19. Secure the rear axle and spacer (104) by pressing a Figure 46 1/16" x 7/16" pin (105) through the small hole in each of the rear axles. The pin (105) should be centered in the rear axle.





Step 20. Slide an outer rear hinge pin (106) partially through the outside of the right rear suspension arm (93) from the rear. Slide a spacer (117) (marked 'A' - smaller of the spacers) over the pin (106) and against the rear portion of the suspension arm (93).

IMPORTANT NOTE: The larger of the spacers (117) (marked 'B') will be used in the shock assembly in Bag E. Do not misplace the remaining spacers.

- ☐ Step 21. Place the right rear hub (103), marked 'R', (ball stud (4) facing rearward) between the outer rails of the suspension arm (93), against the spacer (117). Slide the hinge pin (106) partially through the hub (103).
- ☐ Step 22. Insert another spacer (117) marked 'A' (smaller of the spacers) between the rear hub (103) and the forward rail of the suspension arm (93). Slide the hinge pin (106) through both sides of the suspension arm (93), the rear hub (103), and both spacers (117). Secure the hinge pin with two 1/8" E-clips (11).
- ☐ Step 23. Repeat Steps 20-22 for the left suspension arm (94) and left hub (103).

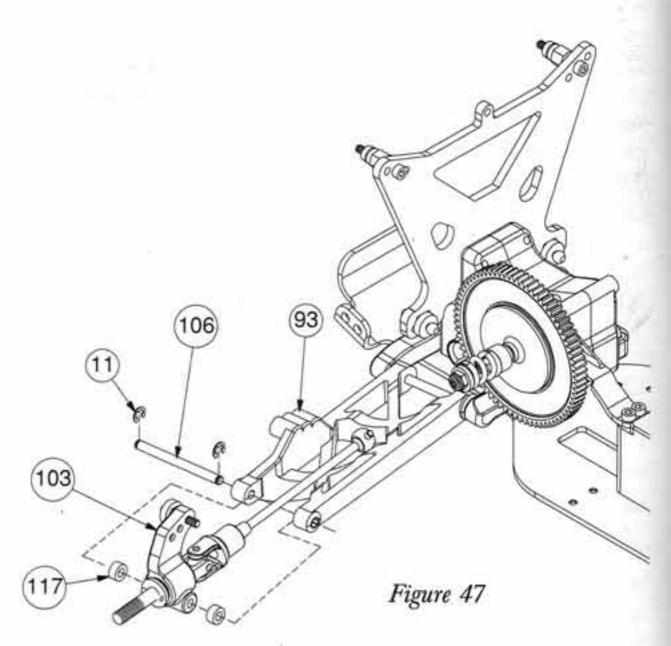
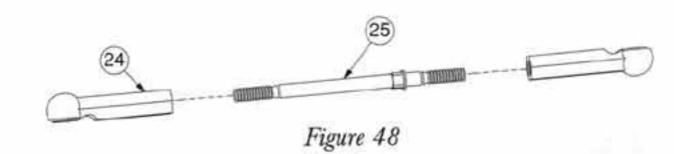


Figure 48





☐ Step 24. Thread a plastic rod end (24) onto each end of a 1-7/8" turnbuckle (25). Tighten both rod ends (24) evenly until the rod is the same length as the one shown in Figure 48A.

*NOTE: Make two of these camber link assemblies.

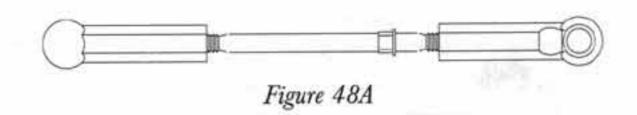
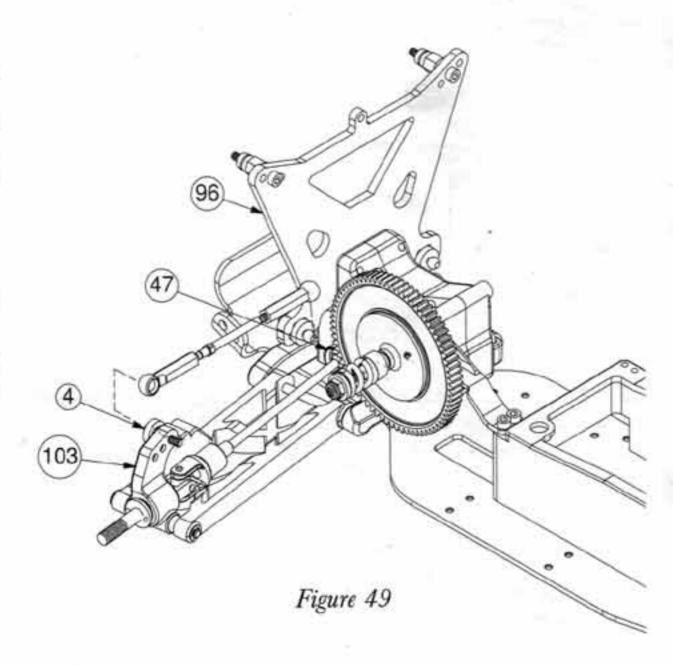


Figure 49

- ☐ Step 25. Attach one end of a rear camber link from Figure 48 to the ball stud (4) in the rear hub (103).
- ☐ Step 26. Insert the end of the dogbone or CVD into the right differential outdrive (47) by lining up the pin on the dogbone or CVD with the slot in the outdrive (47). Attach the free end of the camber link to the ball stud (4) in the rear shock tower (96).
- Step 27. Repeat Steps 25 and 26 for the left side.
- Remember to mount all of the camber rods so that the adjustment hex is to the outside of the truck. This will make future adjustments much easier.

*NOTE: It's a good idea to leave your truck sitting on a flat surface until the shocks are assembled and installed. This will keep the dogbones/CVDs in place.



BAG E





(08

☐ Step 1. Place one shock O-ring (108) into the cartridge body (109), making sure that the O-ring (108) sits flat on the bottom of the cartridge body (109).

☐ Step 2. Insert the cartridge spacer (110) into the cartridge body (109) followed by a second O-ring (108).

□ Step 3. Once the second O-ring (108) is inserted, and is flush with the top of the cartridge body (109), "snap" the cartridge cap (111) onto the cartridge body (109).

Step 4. Make four cartridge assemblies.

*NOTE: Cartridges in some kits may be pre-assembled at the factory.

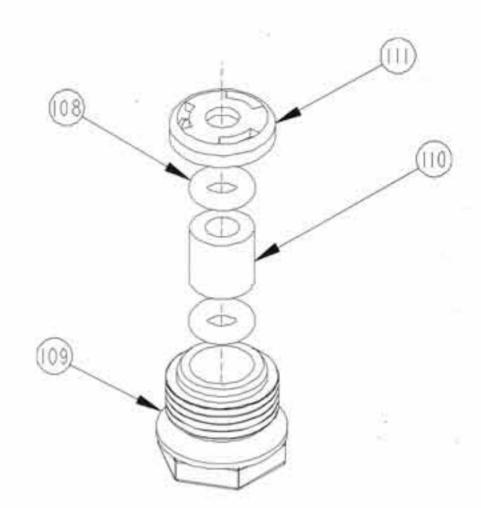


Figure 50

Figure 51

(1)

(1)

☐ Step 5. Place a drop of shock fluid (112) on the grooved end of each shock shaft [front (113), rear (114)] and slide a cartridge, hex end first, down the shock shaft (113), (114) toward the threads.

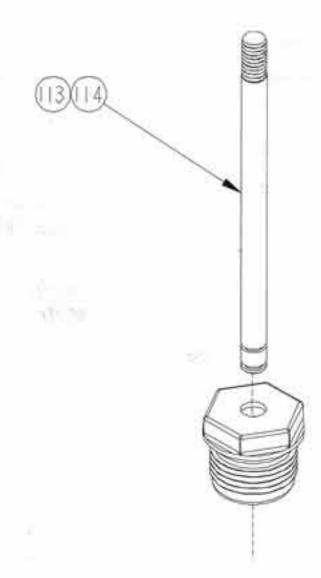


Figure 51

Figure 52



(16)

- Step 6. Using needle nose pliers, or small vise grips, grasp the front shock shaft (113) between the grooves and thread a shock end (115) onto the shaft (113). Thread the shock end (115) all the way onto the shaft (113).
- ☐ Step 7. Repeat Step 6 for the second front shaft (113) and both rear shafts (114).
- ☐ Step 8. Carefully snap a 1/4" swivel ball (116) into each of the shock ends (115) on the four shock shafts (113), (114).

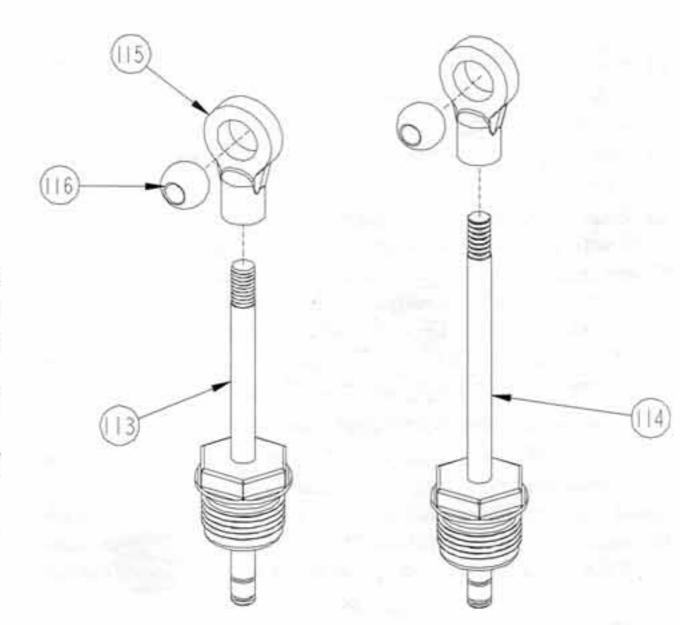


Figure 52

Figure 53



1

- Step 9. Snap a 1/8" E-clip (11) into the groove closest to the cartridge on both rear shock shafts (114).
- Step 10. Before installing the E-clip to the front shock shafts (113), slide a 'B' shock spacer (117) (the larger of the two spacers, marked 'B', from Figure 47, Bag D) over the shaft (113) next to the cartridge. Once the spacers are in place, snap a 1/8" E clip (11) into the groove closest to the cartridge on both front shock shafts (113).

*NOTE: Shock spacers are only used on the front shock shafts in this step.

Step 11. Slide a shock piston (118) onto each of the four shafts (113), (114) until it rests against the E-clip (11). Secure the pistons (118) to the four shafts (113), (114) with a second E-clip (11).

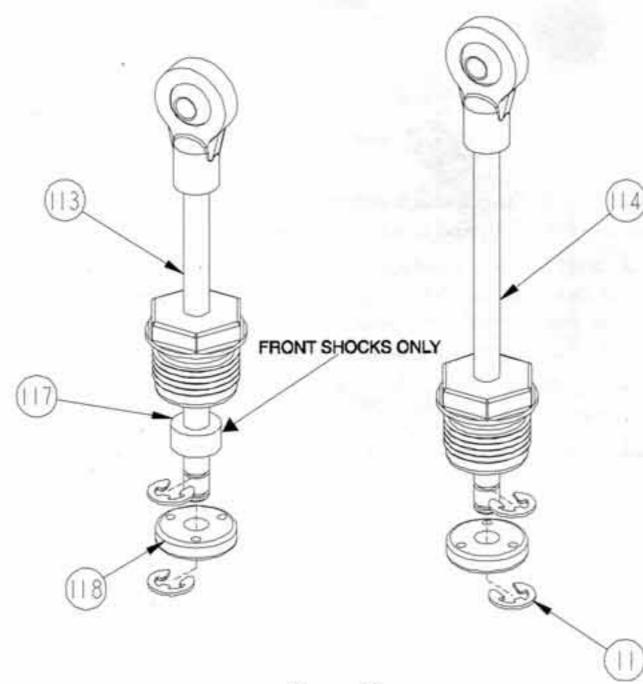


Figure 54

- ☐ Step 12. Match the short, front shock bodies (119) to the short, front shafts (113), and the long, rear shock bodies (120) to the long, rear shafts (114).
- ☐ Step 13. Fill the shock body (119), (120) with shock fluid (112) up to the bottom of the threads.
- ☐ Step 14. Insert the shaft assembly into the shock body (119), (120) with the cartridge against the shock piston (118). Slowly tighten the cartridge approximately two full turns. With the cartridge still slightly loose, slowly push the shock shaft (113), (114) into the shock body (119), (120). This will bleed the excess fluid out of the shock. With the shaft (113), (114) all the way in, hand tighten the shock cartridge the rest of the way.
- *Note: Be sure to match the front shock shafts with the front shock bodies.
- ☐ Step 15. With the shaft (113), (114) still all the way in, secure the cartridge by tightening it with pliers approximately an additional 1/8-turn. There should be no air in the shock as you push the shaft (113), (114) in and out. If there is, the shock needs more oil. If the shock does not compress all the way, the shock has too much oil.
- *NOTE: If leaking persists around the outside, tighten the cartridge more.
- Step 16. Repeat Steps 13-15 for all four shocks.

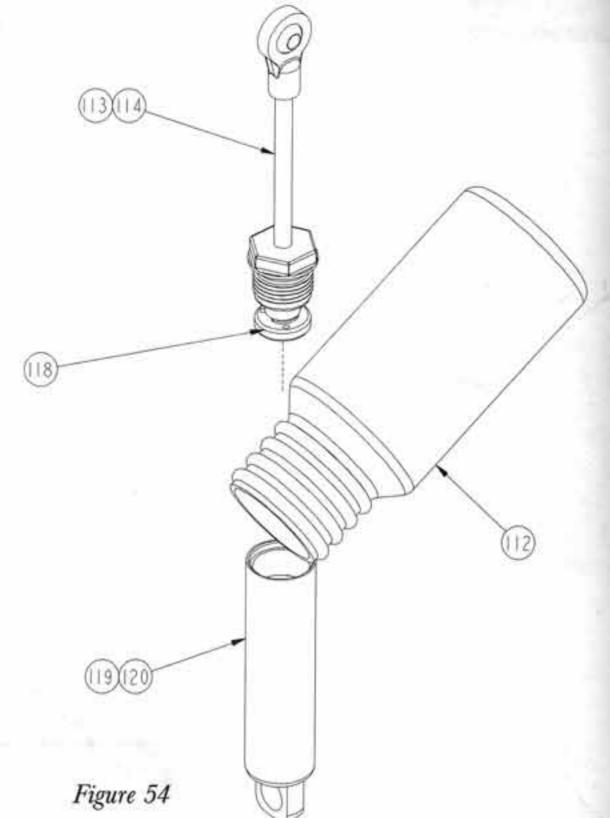


Figure 55



- ☐ Step 17. Snap a shock spring cup (121) onto each of the four shafts (113), (114) and around the shock end (115).
- ☐ Step 18. Slide a red shock spring (122) over each of the two front shocks so that the springs rest on the spring cup (121). Slide a pink shock spring (196) over each of the two rear shocks so that the springs rest on the spring cup (121).
- *NOTE: Be sure that the two red springs are on the short shocks and the two pink springs are on the long shocks.
- ☐ Step 19. Insert a 4-40 x 3/8" cap-head screw (14) into the larger hole of each of the four shock collars (123) and thread it into the smaller hole.
- □ Step 20. With the collar (123) loose, slide it over the top of each shock body (119), (120) and against the spring (122). Tighten the collar (123) to hold it in place. Do not overtighten!

*NOTE: Final adjustment will be made later in the ride height section in the tips portion of the manual.

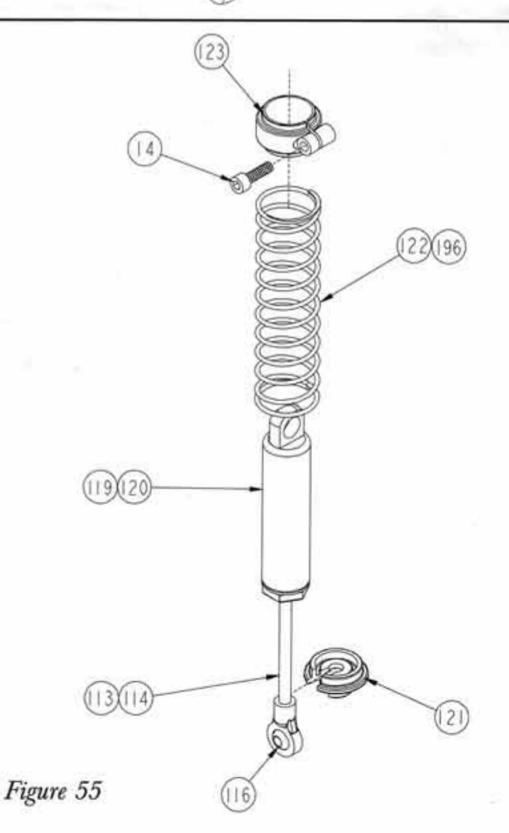
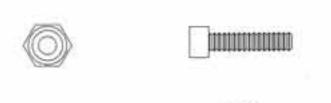


Figure 56





- Step 21. Make sure that the dogbones are in the outdrives (47) before continuing.
- Step 22. Insert a 4-40 x 1/2" cap-head screw (124) into the hole in the swivel ball (116).
- Step 23. Attach the bottom of the shock to the rear arm (93), (94) by threading the 4-40 x 1/2" cap-head screw (124) into the outside shock mounting hole of the arm (93), (94).
- Step 24. Place the top of the shock body (120) over the shock mount bushing (3) on the rear shock tower (96) and secure it with a 4-40 locknut (5).

*NOTE: Before attaching the top of the shock, make sure that the dogbone is in place in the outdrive.

■ Step 25. Repeat Steps 22-24 for the second rear shock.

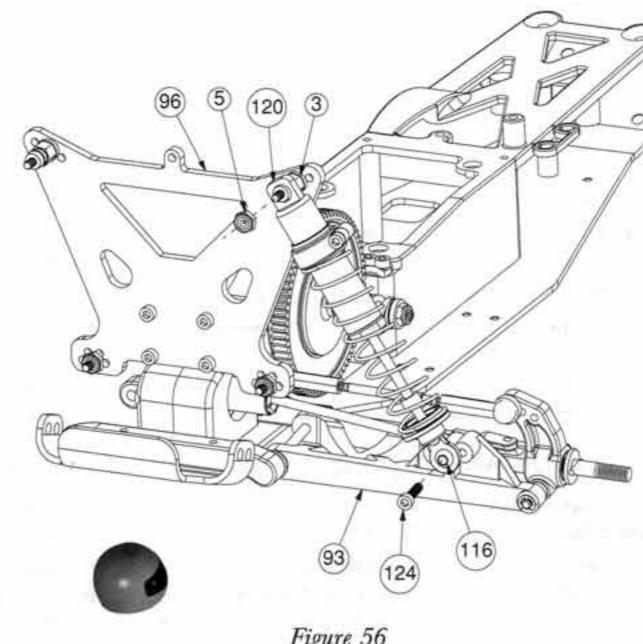
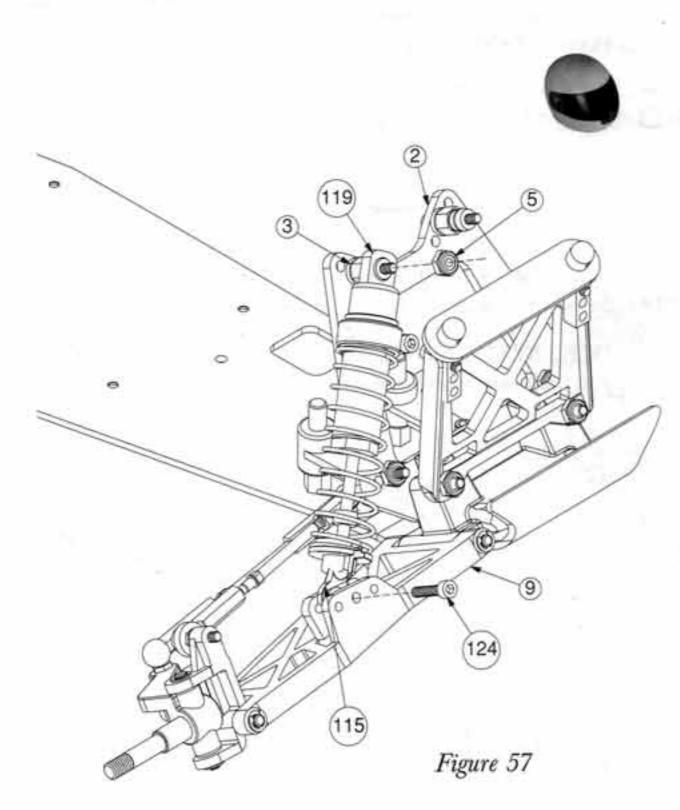


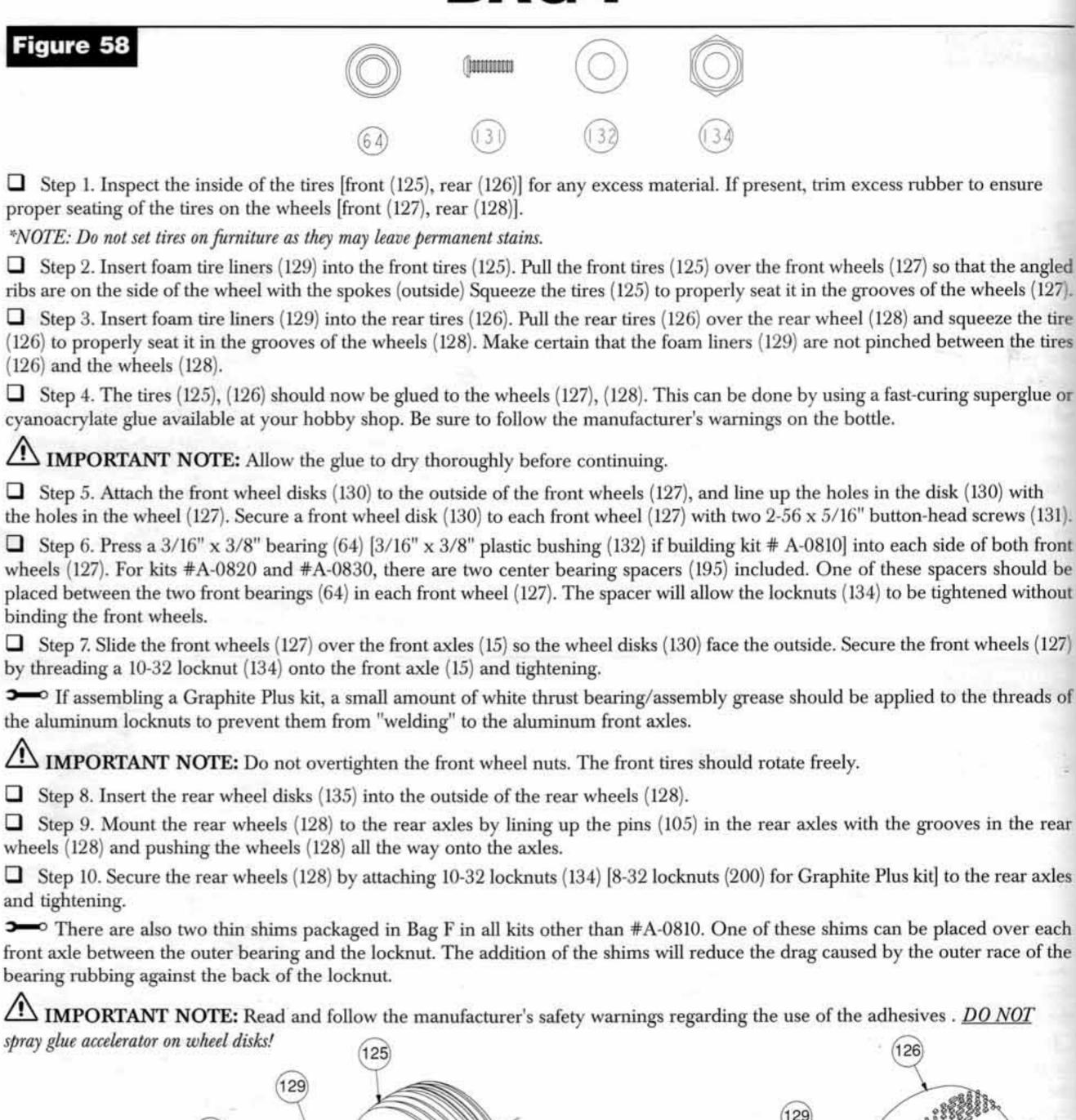
Figure 56

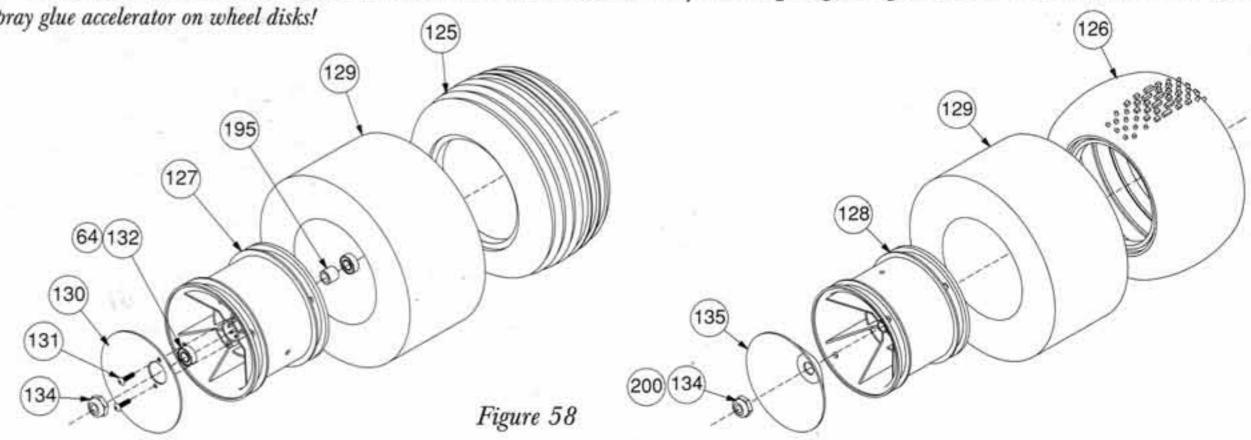


- Step 26. Insert the shock end (115) of a front shock between the shock mounting rails of the front suspension arm (8), (9) and line up the hole in the swivel ball (116) with the middle hole in the arm (8), (9).
- Step 27. Attach the shock end (115) to the front arm (8), (9) by threading a 4-40 x 1/2" cap-head screw (124) all the way into the arm (8), (9).
- ☐ Step 28. Place the top of the shock body (119) over the shock mount bushing (3) on the front shock tower (2) and secure it with a 4-40 locknut (5).
- Step 29. Repeat Steps 26-28 for the second front shock.



BAG F





ENGINE INSTALLATION

Figure 59





- ☐ Step 1. Thread a clutch pin/screw (137) into each of the small holes in the flywheel (138) and tighten with a .050" Allen wrench 44). The screws should be inserted from the rear as shown.
- A small amount of thread-lock compound should be used on the threads of the clutch pins.

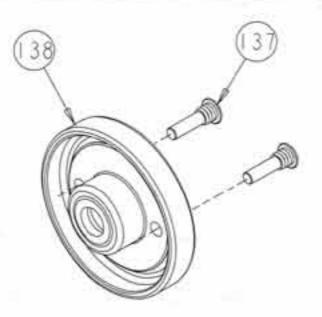


Figure 59

Figure 60

- ☐ Step 2. Remove any hardware that came installed on your engine. This includes all nuts, washers, and prop hubs.
- NOTE: If your engine did not come with a glow plug you will need to purchase one. Use a glow plug wrench, or a 5/16" nut driver to install the glow plug into the head of the engine. Most glow plugs come with a brass washer. Make sure that this washer is placed on the glow plug before it is installed.

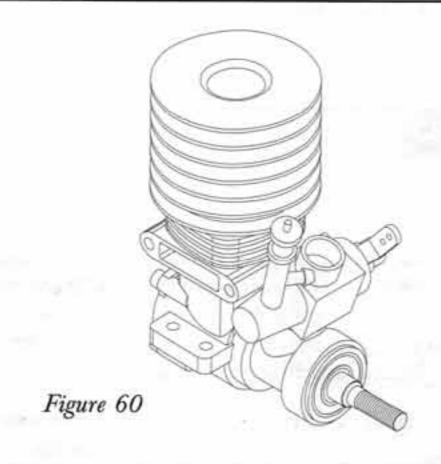


Figure 61





- Step 3. Slide a flywheel shim (139) over the crankshaft, and against the front bearing on the engine. Slide the flywheel collet 140), large side first, over the crankshaft and next to the shim 139).
- There are two shims included in the kit. If the flywheel interferes with the case of the engine, add a second shim. If after the engine is installed, the gears don't line up properly, a second shim can be added to help correct the alignment.
- Step 4. Slide the flywheel (138), pins (137) out, over the crankshaft. The flywheel (138) should be seated over the collet (140). Thread the clutch nut (141) onto the crankshaft and tighten it using a 1/8" Allen wrench (44).

IMPORTANT NOTE: The clutch nut should be very tight. Hold the flywheel with a rag in order to get a good grip while tightening the clutch nut. There are special tools available for inserting in the head of the engine to keep it from turning over while tightening the clutch nut. Other than these special tools, nothing should ever be inserted in the head of the engine to keep it from turning over!

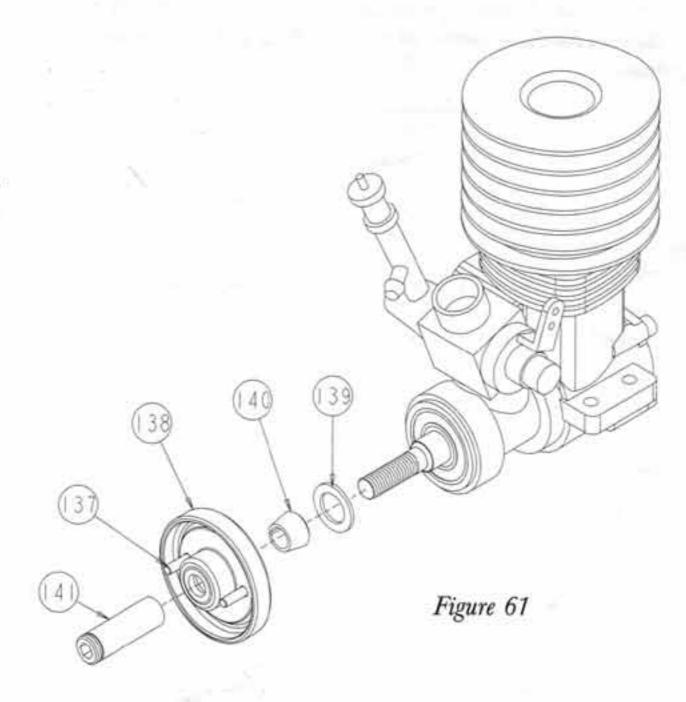


Figure 62

☐ Step 5. Hook the two ends of the clutch spring (142) together to form a loop as shown. Stretch the looped spring (142) over the two clutch shoes (143) so that the clutch shoes (143) form a circle.

IMPORTANT NOTE: Make sure that the holes in the clutch shoes are on opposite sides of the circle as shown

LIGHTLY sanding the surface of the clutch shoes can improve their performance. Sand the shoes using a 400 grit, or finer, sandpaper. Sand the shoe surface lengthwise, not across the shoe sideways. DO NOT use a sanding block, or lay the sandpaper on a flat surface. Too much sanding may cause flat spots to develop on the shoes.

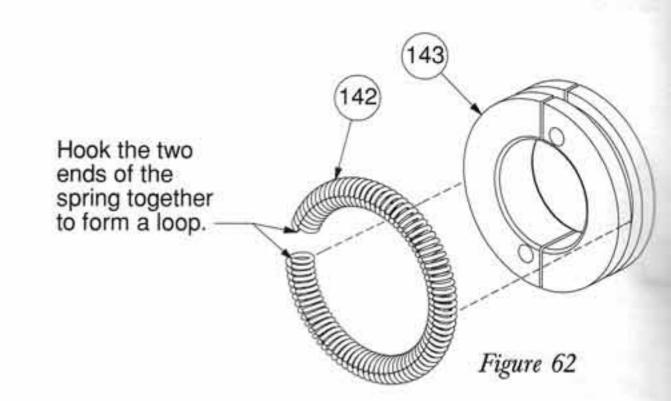


Figure 63

☐ Step 6. Slide the clutch shoe assembly over the clutch nut (141). Place each shoe (143) over a clutch pin (137) and slide the shoes (143) all the way against the flywheel (138). In order for the shoes (143) to slide over the clutch nut (141), they will have to be pulled apart slightly, stretching the springs (142).

IMPORTANT NOTE: Make sure that the clutch shoes are facing the correct direction as illustrated. Position the clutch so that the shoes are separated one on top, one on bottom. The top clutch shoe should be attached to the pin at the left side of the shoe, as shown in Figure 63, when looking at the engine from the front.

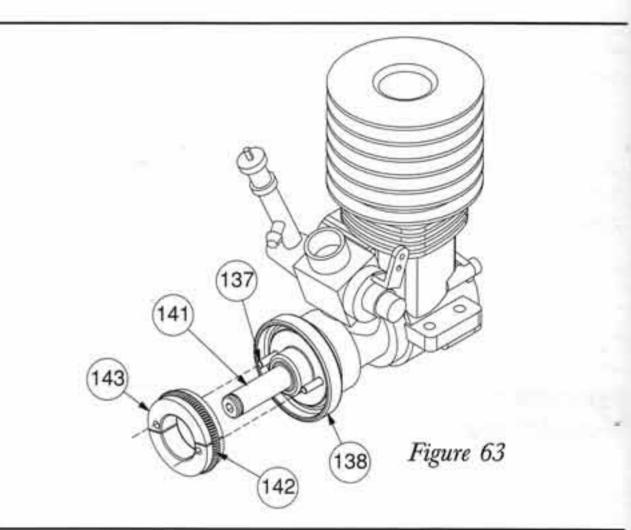
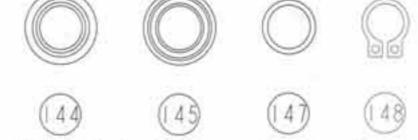


Figure 64



- ☐ Step 7. Insert a 1/4" x 3/8" clutch bearing (144) [1/4" x 3/8" bushing (145) if assembling kit # A-0810] into each side of the clutch bell (146).
- □ Step 8. Slide the clutch bell (146) over the clutch nut (141) so that the gear faces out. Push the clutch bell (146) all the way against the clutch assembly.
- ☐ Step 9. Place the clutch spacer (147) over the clutch nut (141) and against the clutch bell (146). Secure the assembly by pushing the 1/4" clutch nut clip (148) over the end of the clutch nut (141) and into the groove in the clutch nut (141).

IMPORTANT NOTE: The bearings used in the clutch contain a special grease that does not migrate. It is important that these bearings only be replaced with Team Losi's replacement clutch bearings. It is also important not to oil the bearings in the clutch. Any oil that is put on the bearings can find its way into the clutch assembly and cause the clutch to slip.

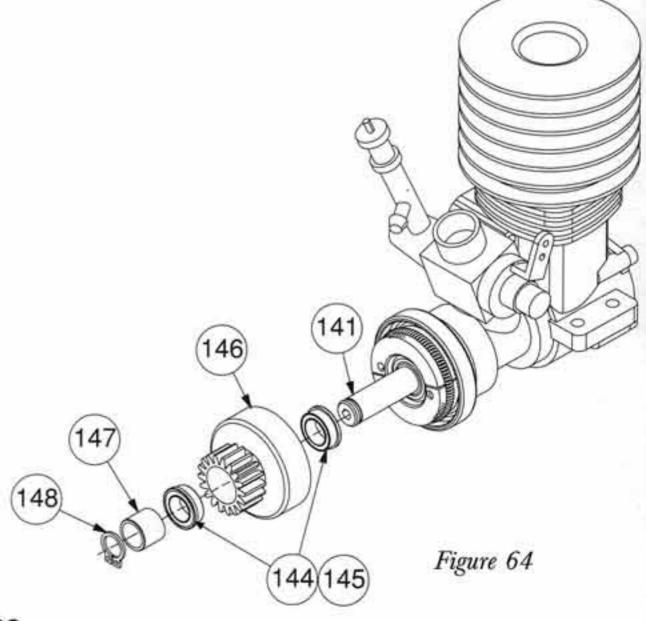
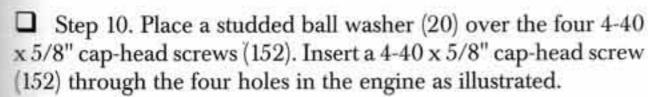


Figure 65

Pull-Start Engines







☐ Step 11. Place an engine mount spacer (150) over each of the four screws (152). Attach the engine to the engine mounts (151) by threading the four screws (152) into the four holes shown. Do not fully tighten the screws yet.

*NOTE: The two engine mounts should be positioned differently on each side of the motor as shown in Figure 65.

IMPORTANT NOTE: Make sure that the engine mounts are installed correctly as indicated in Figure 65. The four screws should be threaded into the holes which do not pass all the way through the engine mounts.

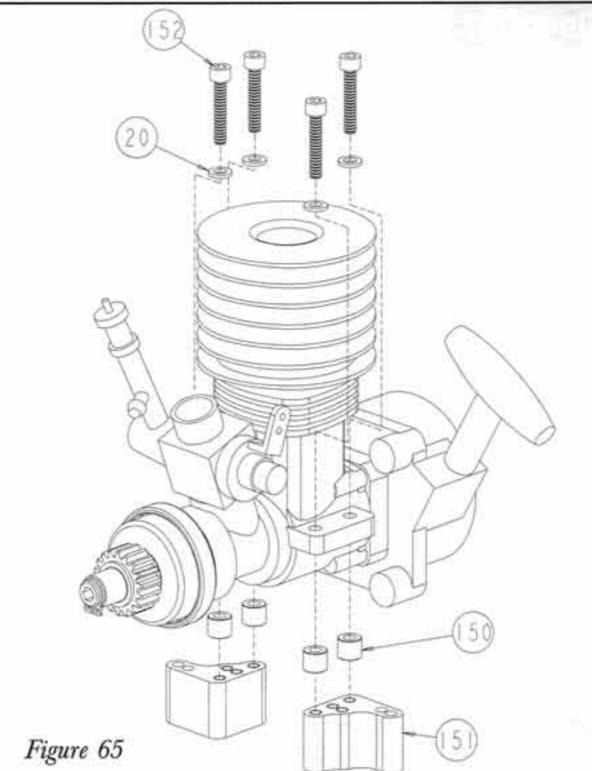
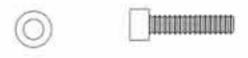


Figure 66

Non-Pull-Start Engines





☐ Step 10. Place a studded ball washer (20) over the four 4-40 x 1/2" cap-head screws (124). Insert a 4-40 x 1/2" cap-head screw (124) through the four holes in the engine as illustrated.

☐ Step 11. Attach the engine to the engine mounts (151) by threading the four screws (124) into the four holes shown. Do not fully tighten the screws yet.

*NOTE: The two engine mounts should be positioned differently on each side of the motor as shown in Figure 65.

IMPORTANT NOTE: Make sure that the engine mounts are installed correctly as indicated in Figure 66. The four screws should be threaded into the holes which do not pass all the way through the engine mounts.

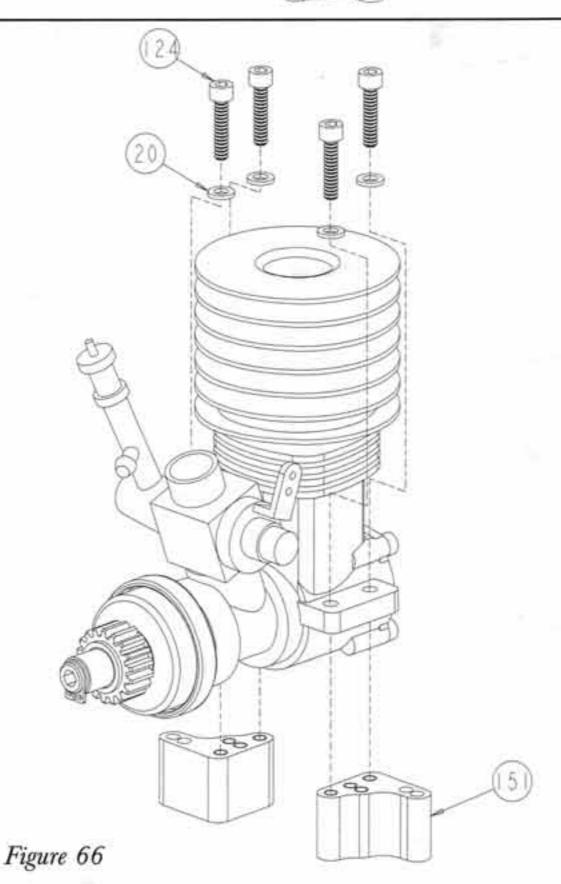


Figure 67

- ☐ Step 12. Install the carburetor to the engine as per the instructions supplied with the engine. The carburetor throttle arm should be on the left side of the engine as shown.
- ☐ Step 13. Tighten the carburetor locking screws or other mechanism per the instructions included with your engine.

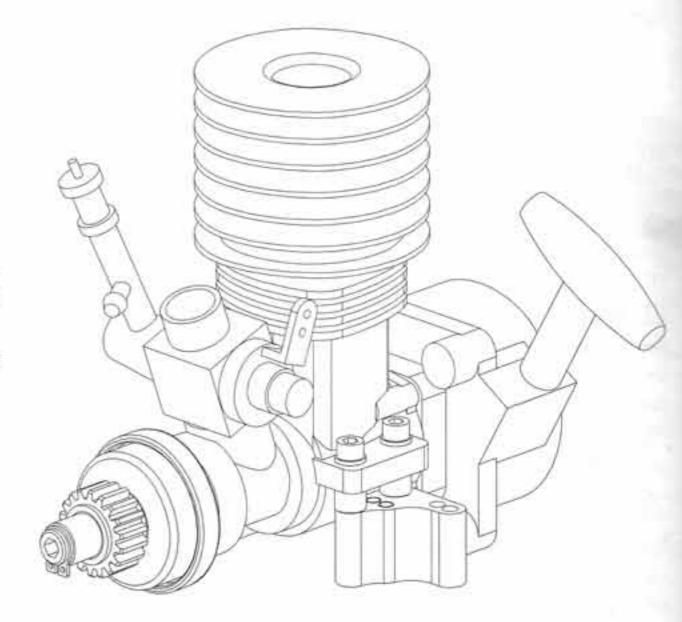


Figure 67

Figure 68

- Step 14. Press the paper air filter element (154) into the large end of the air filter boot (155). Be sure that the side of the paper element (154) with the hole in it is inserted into the boot (155).
- Step 15. Slide the foam pre-filter (156) over the paper filter (154).
- Air filter oil can be applied to the foam pre-filter if you plan to run in a dusty area. Filter oil can be purchased at any motorcycle shop. Do not apply filter oil to the paper filter element.
- ☐ Step 16. Attach the air filter boot (155) to the carburetor. Secure the boot (155) to the carburetor with a 4" tie-strap (157). Tighten the tie strap (157) and cut any excess material off of the tie-strap (157).

*NOTE: The locking portion of the tie strap should be positioned away from the fuel fitting on the carburetor. This will keep the tie strap from interfering with the fuel line.

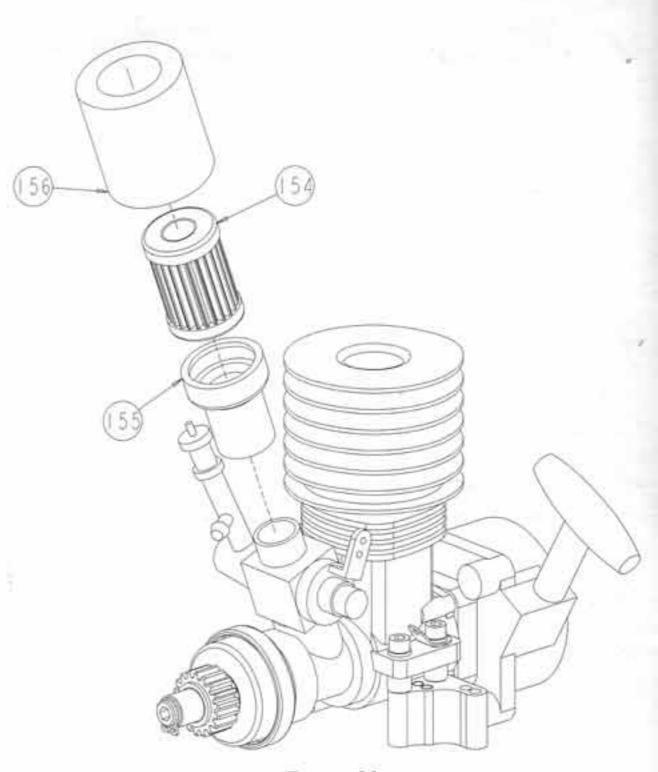


Figure 68

Figure 69





- ☐ Step 17. Loosen the left, rear screw in the center chassis brace (37), and the two forward screws in the transmission, so that the engine can be installed. Slide the engine into place from the left side of the chassis. The rear engine mount (151) should fit under the transmission, and the front engine mount (151) should fit under the center chassis brace (37).
- Step 18. There are two sets of holes in the engine mounts (151). If you are installing an engine with a pull-start, the holes in the chassis (27) should be lined up with the rear set of holes in the engine mounts (151). This will mount the engine farther forward. If you are installing an engine without a pull-start, the holes in the chassis (27) should be lined up with the front set of holes in the engine mounts (151). This will mount the engine farther back.
- ☐ Step 19. Insert a 4-40 x 3/8" flat-head screw (31) into each of the two holes in the engine mounts (151) that are closest to the center of the engine.
- ☐ Step 20. Insert a 4-40 x 7/8" flat-head screw (158) into the front and rear holes in the engine mounts (151). These two screws (158) pass through the engine mounts (151) and thread into the transmission housing and center chassis brace (37).
- Step 21. Tighten all four engine mount screws (31), the screw in the center chassis brace (37), and the two screws in the transmission that were loosened earlier.
- It's a good idea to use a thread-lock compound on the threads of the screws in the engine mounts.

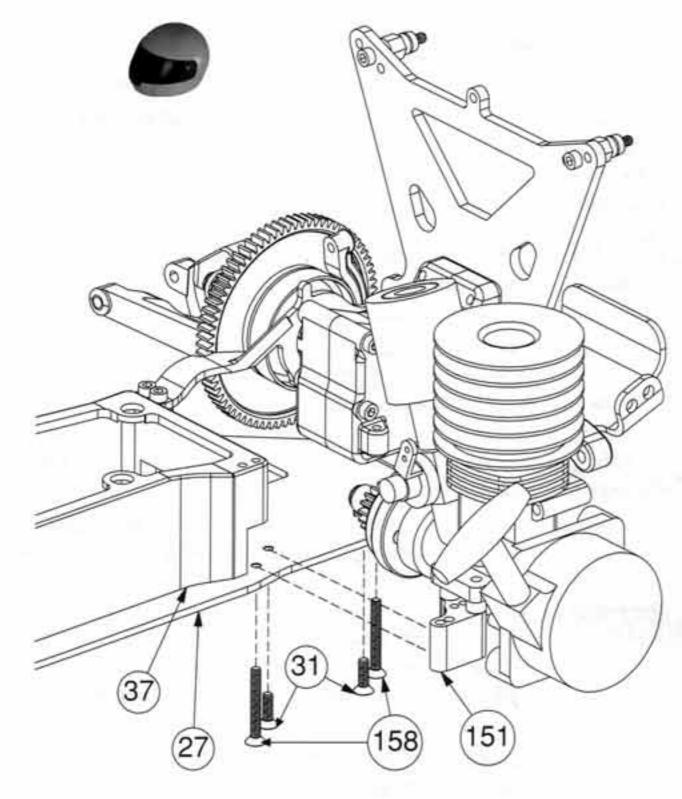


Figure 69

- Step 22. Once all of the screws in the bottom of the engine mounts (151) are tight, check the gear mesh between the clutch bell gear (146) and the spur gear (81). If the gear mesh is extremely tight, and you are using a pull-start engine, chances are that you installed the engine mounts (151) using the wrong set of holes. If the gear mesh is extremely loose, and you are using a non-pull-start engine, you've probably used the wrong holes in the engine mounts (151). If you are having one of the two problems mentioned, return to Figure 68 and install the engine mounts (151) to the chassis (27) using the other set of holes.
- Step 23. With the four screws holding the engine to the engine mount loose, make your final alignment of the clutch bell (146) to the spur gear (81). The engine can be moved slightly because the 4-40 screws are slightly smaller than the metric-size holes in the engine. Once the alignment is correct (a small amount of gear backlash is necessary), tighten all of the screws (124), (152).

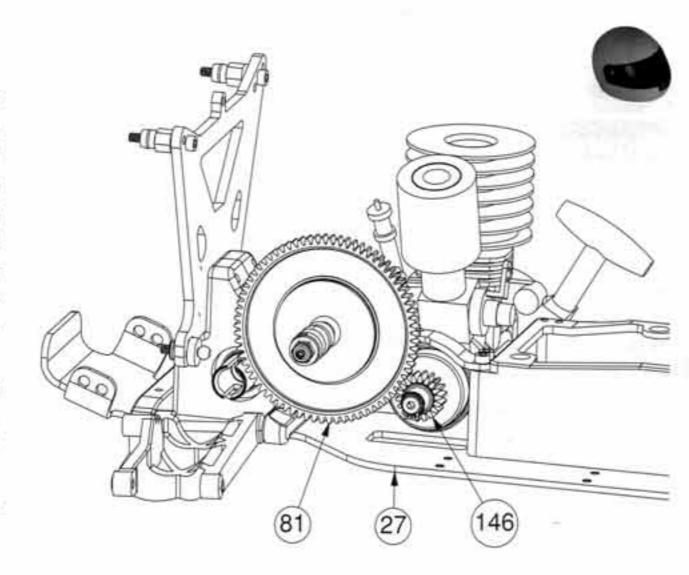


Figure 70

Figure 71



☐ Step 24. Insert a 4-40 x 7/8" cap-head screw (7), from the front, through each of the two holes in the middle of the engine.

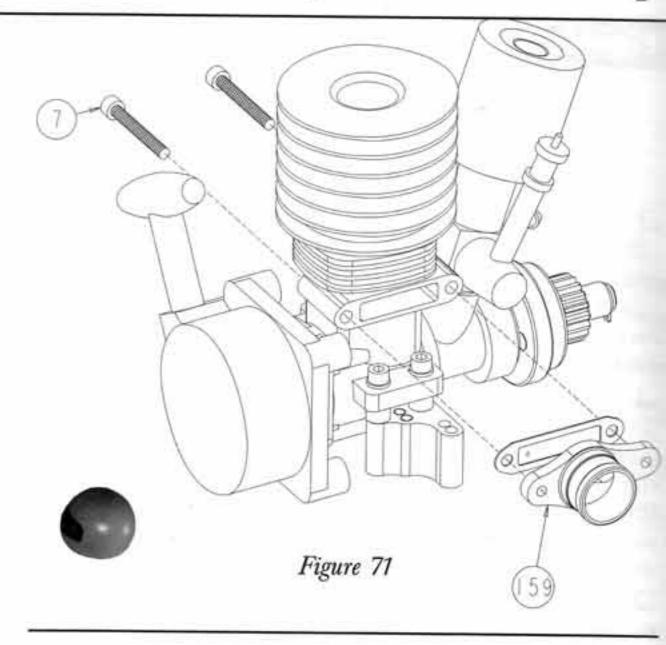
□ Step 25. Wet your finger with water and *lightly* moisten the exhaust manifold gasket (supplied with your engine) and attach it to the exhaust manifold (159) [one-piece, aluminum exhaust manifold (197) if building a Graphite Plus kit - see Figure 71-GP].

IMPORTANT NOTE: Exhaust manifold gaskets are important. If, for some reason, your engine does not have one, it is recommended that you purchase one from your local hobby shop.

If using an aftermarket gasket (one made by a company other than your engine manufacturer) hold the gasket next to the exhaust manifold. If the exhaust hole (large hole) in the gasket is smaller than the hole in the manifold, the hole in the gasket should be enlarged to match the hole in the manifold. Take care not to damage the gasket when cutting it.

Description Step 26. Place the exhaust manifold (159) [(197) for Graphite Plus kit] on the side of the engine to the rear of the truck. The manifold should be installed so that the exhaust port is offset to the left of the truck (or rear of the engine) as shown in Figure 71 and Figure 71-GP. Align the holes in the manifold (159) [(197) for Graphite Plus kit] with the screws (7). Secure the manifold (159) [(197) for Graphite Plus kit] to the engine by tightening the two screws (7).

*NOTE: If using a Thunder Tiger engine, the holes to attach the exhaust manifold may need to be enlarged so that the screws can be installed in the opposite direction. If this is the case, drill the two holes in the manifold out so that they are just large enough for the 4-40 screws to fit through. A #32 drill bit is recommended. Be sure not to allow any shavings to enter the engine!



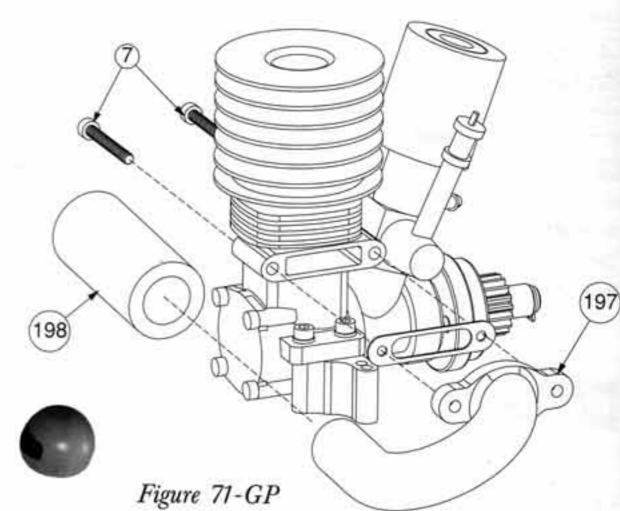


Figure 72

Description Step 27. Place the silicone exhaust header (160) over the tube on the exhaust manifold (159) as shown. If the header (160) can not be installed easily because of the transmission interfering, the exhaust manifold has probably been installed upside down. If this is the case, refer to Figure 71 and install the manifold so that the exhaust port is offset to the left of the truck. If building a Graphite Plus kit, attach the silicone coupler (198) over the end of the aluminum header (197) as shown in Figure 71-GP.

☐ Step 28. Insert the tuned pipe (161) into the opposite end of the exhaust header (160) [silicone coupler (198) for Graphite Plus kits] so that the large hole in the side of the pipe (161) points away from the truck, and the small hole in the side of the pipe points towards the truck.

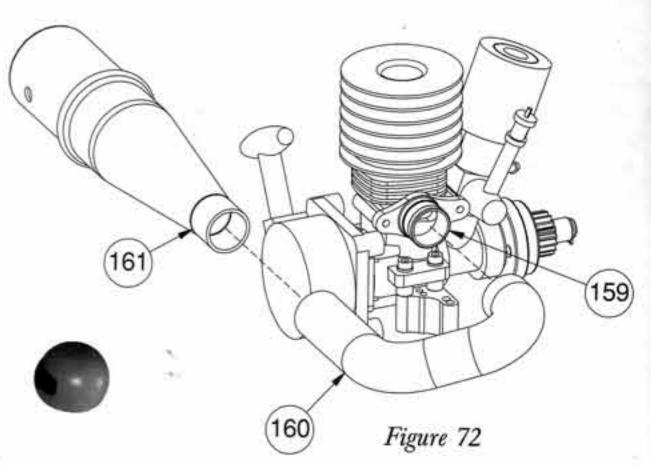
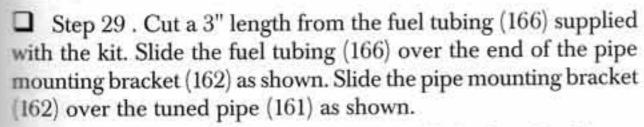


Figure 73



(14) (39)



*NOTE: Some kits may come with two types of fuel tubing. For this step use the opaque (non-transparent) fuel tubing.

☐ Step 30. Place a #4 washer (39) over a 4-40 x 3/8" cap-head screw (14). Thread the screw (14) through the pipe mounting bracket (162), into the hole in the top of the center chassis brace (37), and tighten.

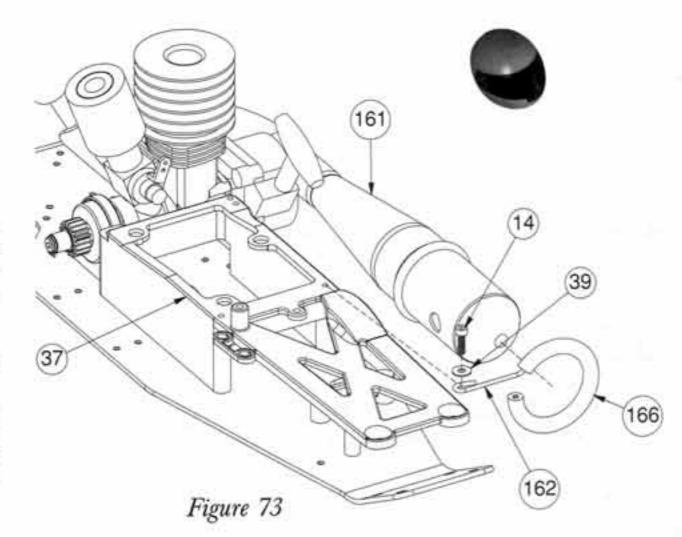
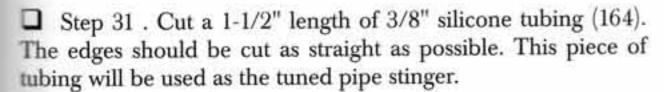


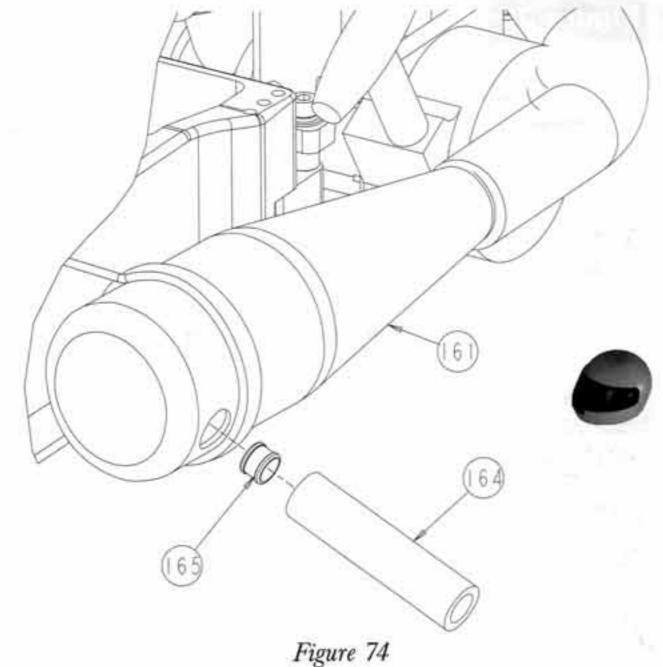
Figure 74







- ☐ Step 32. Moisten the outside edge at one end of the stinger tube. Press the exhaust stinger into the large hole in the tuned pipe (161) about 3/16".
- ☐ Step 33. Insert the aluminum stinger sleeve (165) into the exposed end of the rubber stinger. The sleeve (165) should be pushed through the rubber stinger tube (164) using a pencil, or other small object, until the sleeve (165) is centered in the wall of the pipe (161) as shown in Figure 74A.



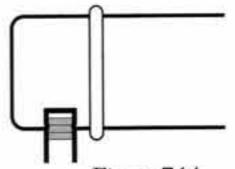


Figure 74A

Figure 75

- ☐ Step 34. Rotate the tuned pipe (161) so that the stinger points down slightly. Secure the tuned pipe (161) to the header (160) [coupler (198) for Graphite Plus kits] by wrapping an 8" tie strap (181) around the header (160)(198), and the pipe (161), and tightening.
- ☐ Step 35. Secure the header (160) to the manifold (159) by wrapping an 8" tie strap (181) around the header (160), and the manifold (159), and tightening. For Graphite Plus kits, wrap a second 8" tie strap (181) around the coupler (198) and aluminum header (197) and tighten. Cut off the extra length from both tie straps (181).

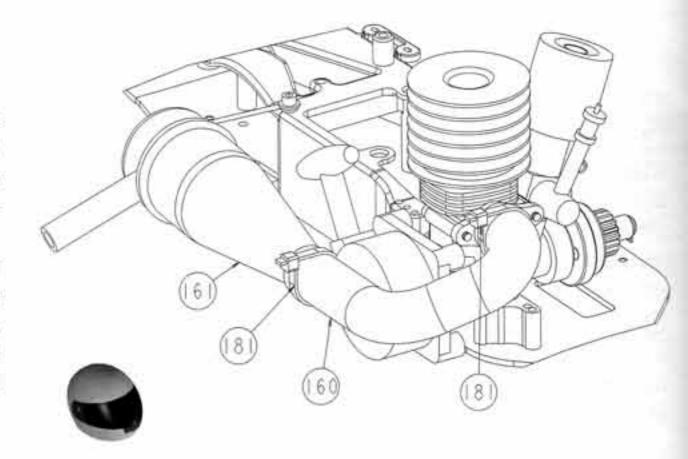
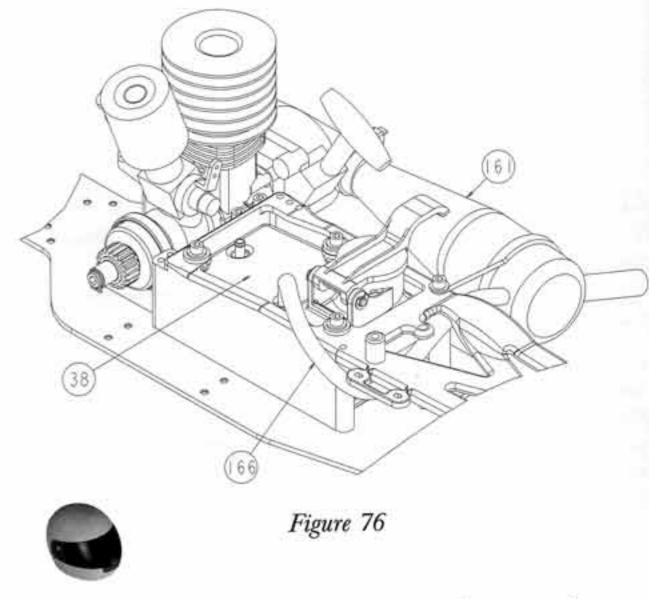


Figure 75

Figure 76

- □ Step 36. Cut a 7" length of fuel tubing (166) from the piece supplied.
- □ Step 37. Cut one end of the 7" piece of tubing at a 45° angle as shown in Figure 76A. Install the uncut side of the tubing to the forward fitting on the top of the fuel tank (38).
- ☐ Step 38. Route the tubing to the right of the center chassis brace (37), under the stiffener, and behind the rear steering servo post (40) as shown. Insert the cut end of the tubing into the inside (small) hole in the tuned pipe (161). This fuel line will serve as the fuel tank pressure line.

IMPORTANT NOTE: Make sure that the cut section of fuel tubing is inserted all the way into the tuned pipe.



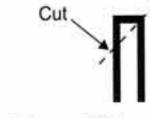


Figure 76A

Figure 77

☐ Step 39. Cut a 3" length of fuel tubing (166) from the remaining length.

*NOTE: If there are two types of fuel tubing supplied with your kit use the transparent piece. This piece should already be cut to 3".

☐ Step 40. Cut two 1/16"-1/8" lengths of 3/8" silicone tubing (164) off of the remaining length. Place these two pieces over the piece of fuel tubing near each end as shown. These will be used later to hold your radio system wires in place.

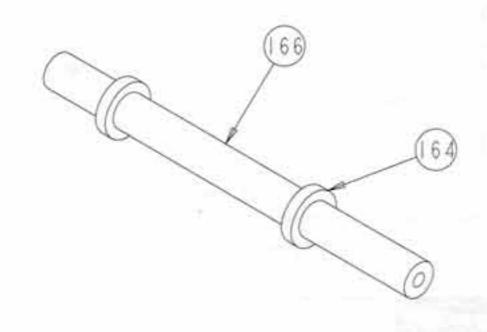


Figure 77

Figure 78

Step 41. Attach one end of the fuel tubing (166) to the rear fitting on the top of the fuel tank (38), and attach the other end to the fitting on the carburetor. This will be your fuel line.

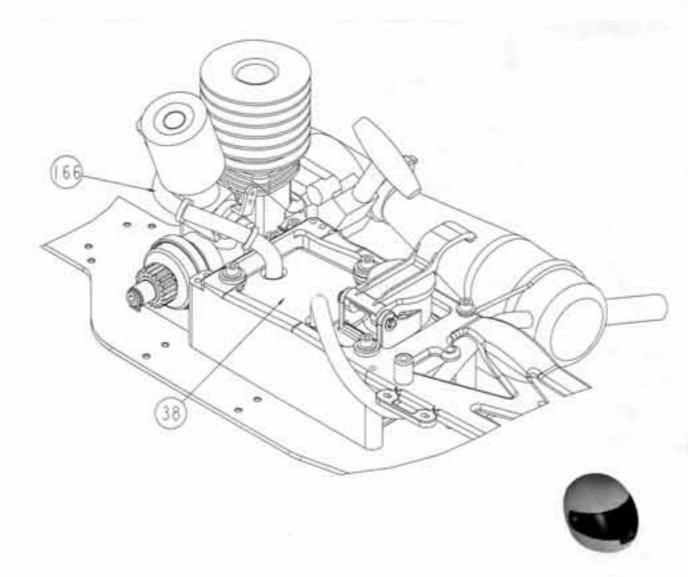


Figure 78

RADIO INSTALLATION

Figure 79

- Step 1. Remove the servo horns from both of the servos supplied with your radio system.
- It is highly recommended that you use the Kimbroughtype servo saver for your steering servo horn. Be sure to use either the large black or white one. <u>Do not</u> use the small graycolored servo saver.
- □ Step 2. If you will be using a standard servo horn (supplied with your radio system), refer to Figure 79 and trim one of the arms accordingly, removing the shaded areas of the arm. This will be used for the steering servo. The wheel type arms should not be used for the steering servo.

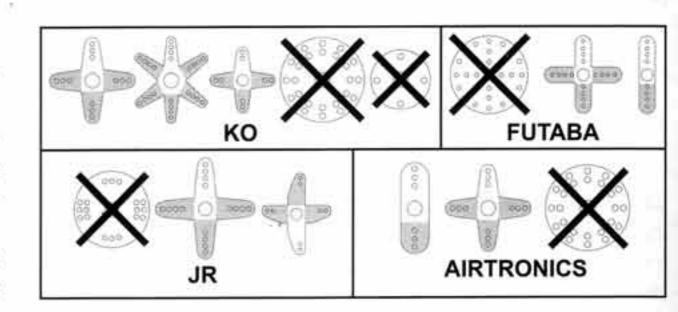


Figure 79

Figure 80









- ☐ Step 3. Thread a 3/16" ball stud (21) through the top hole in the servo horn, or servo saver. The ball stud (21) should be attached to the side of the horn opposite the side that attaches to the output shaft of the servo. The hole in the horn may need to be enlarged slightly in order for the ball stud (21) to thread through it.
- Step 4. Secure the ball stud (21) with a 4-40 nut (167).

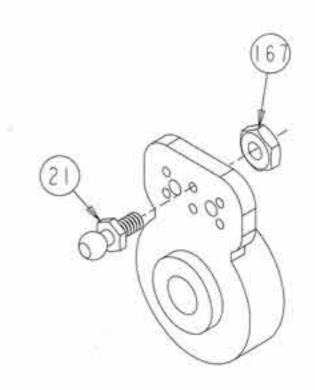


Figure 80

Figure 81









- ☐ Step 4. Determine which throttle servo horn (168) you will use by referring to Table 81.
- ☐ Step 5. Insert the throttle pivot (169) in the outside hole in the servo horn (168). The pivot (169) should be attached to the longer arm of the servo horn (168), and inserted from the side of the horn opposite the side that attaches to the output shaft of the servo.
- ☐ Step 6. Secure the throttle pivot (169) with a 3/32" E-clip (170). Be sure that the throttle pivot (169) rotates freely in the servo horn (168).

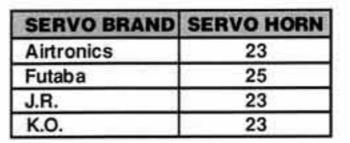


Table 81

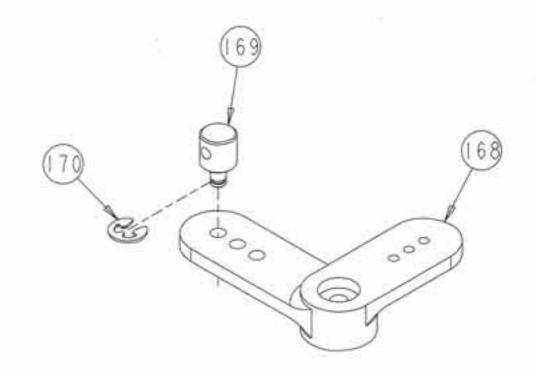


Figure 81

Figure 82

- ☐ Step 7. Plug one of the servos into the slot in the receiver marked "Channel 1" or "Function 1". This will be your steering servo.
- ☐ Step 8. Plug the second servo into the slot in the receiver marked "Channel 2" or "Function 2". This will be your throttle servo.
- Step 9. Install 'AA' batteries into your receiver battery holder, or ensure that the receiver batteries are charged if using a Nicad pack.
- ☐ Step 10. Install batteries in your transmitter. Refer to the manual for your radio system and adjust the trim tabs for both throttle and steering to the center position. Turn the transmitter switch to the "on" position.
- ☐ Step 11. Plug the receiver battery into the slot marked Battery" in the receiver. The servos should now move to their neutral position

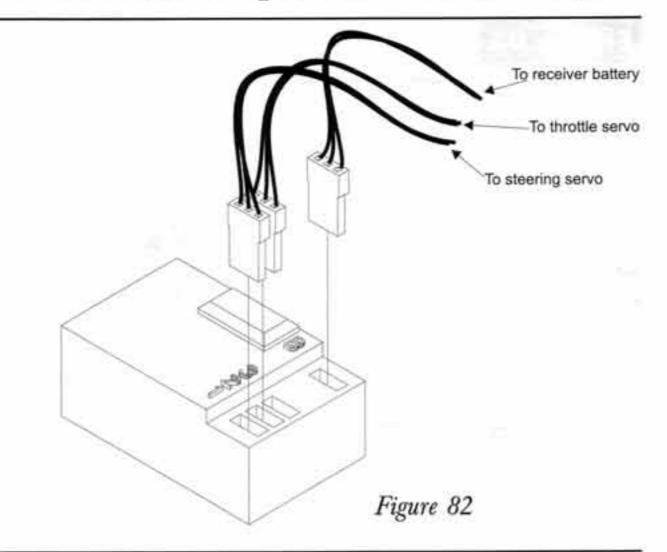


Figure 83

- Step 12. With the radio system still on, attach the steering servo horn to the servo plugged into "Channel 1" in the receiver that it is aligned as shown in Figure 83A. Secure the servo horn with the screw supplied with your servo.
- ☐ Step 13. Attach the throttle servo horn (168) as shown in Figure 83B. Make sure that the throttle pivot (169) is facing the correct direction as shown. Secure the throttle servo horn (168) with the screw supplied with your servo.
- Step 14. Unplug the receiver battery, switch off the transmitter, and unplug both servos from the receiver.

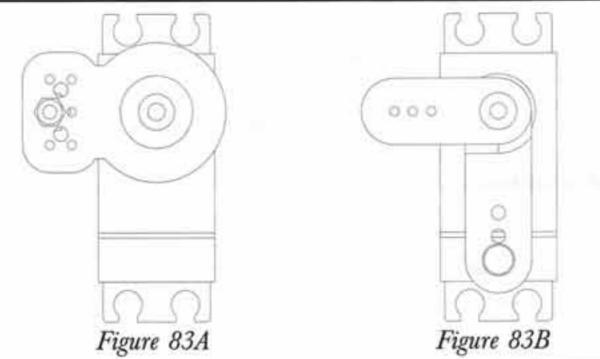
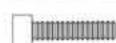


Figure 84









- Step 15. Refer to Figure 16 and check to see that the steering servo posts (40) in the chassis (27) are still oriented correctly for your servo.
- ☐ Step 16. Attach the servo grommets (supplied with your radio system) to the steering servo as per the radio system instructions.
- Step 17. Install the steering servo from the left side of the truck as shown. The servo should be installed with the ball stud 21) to the top. Position the servo against the servo mounting posts (40). Be sure that the pressure line is not interfering with the steering servo.
- ☐ Step 18. Place a #4 washer (39) over each of four 4-40 x 1/2" cap-head screws (124). Thread a screw (124) through each of the four grommets in the servo, and into the four large holes in the servo mounting posts (40).

IMPORTANT NOTE: Do not overtighten the screws! The purpose of having the grommets is to absorb the shock and vibration from the gas engine. Overtightening the screws will prohibit the grommets from working properly.

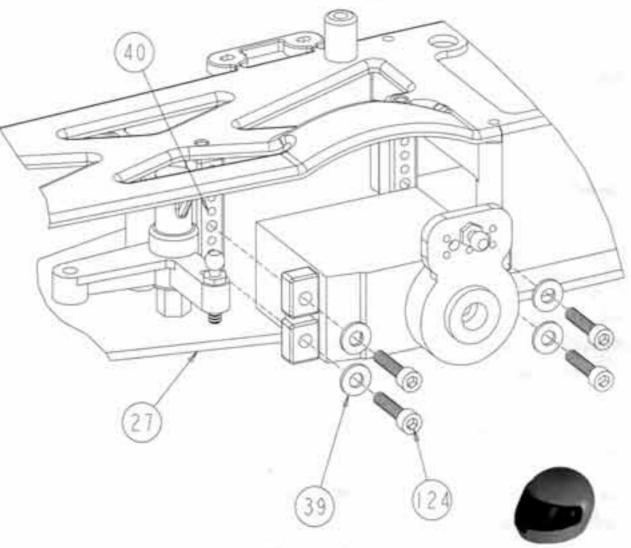
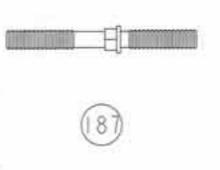
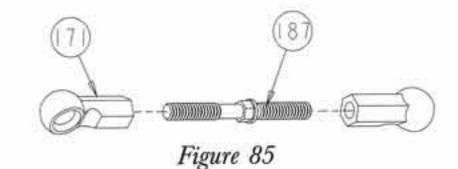


Figure 84

Figure 85





☐ Step 19. Thread a short plastic rod end (171) onto each end of a 1-1/8" turnbuckle (187). Tighten both ends equally until the rod is the same length as the one shown in Figure 85A.

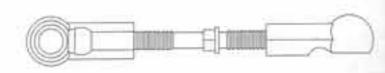


Figure 85A

Figure 86

□ Step 20. Attach one end of the rod from Figure 85 to the ball stud (21) in the steering servo horn. Attach the other end of the rod to the ball stud (4) in the steering bellcrank (32).

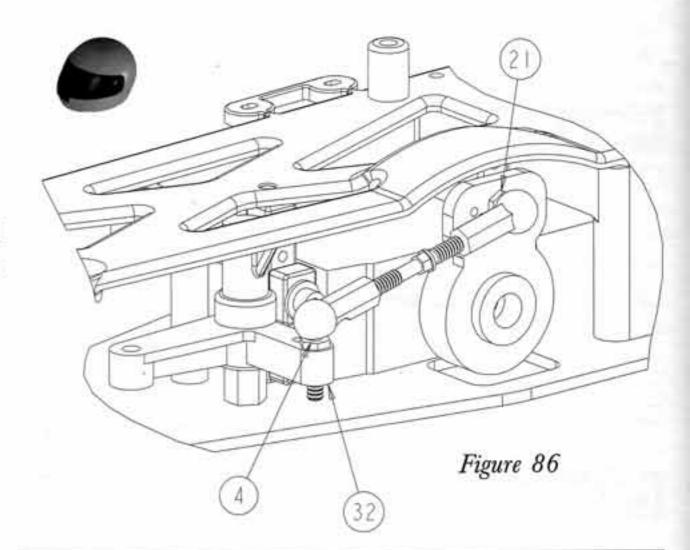


Figure 87

- ☐ Step 21. Cut a piece of two-sided tape (172) to the same size as the bottom of the receiver. Remove the backing from one side of the tape (172) and attach the tape (172) to the bottom of the receiver.
- For best results clean the surfaces that the two-sided tape will be attached to with a mild rubbing alcohol. This will ensure a good, strong bond. Allow the surface to fully dry before attaching the tape.
- ☐ Step 22. Remove the backing from the remaining side of the two-sided tape (172) and attach the receiver to the side of the center chassis brace (37), just in front of the forward throttle servo mount as shown. The receiver should be mounted so that it is at least 1/8" above the chassis (27) and the antenna is to the front of the truck.
- □ Step 23. Plug the steering servo into the slot marked "Channel 1" or "Function 1" on the receiver.

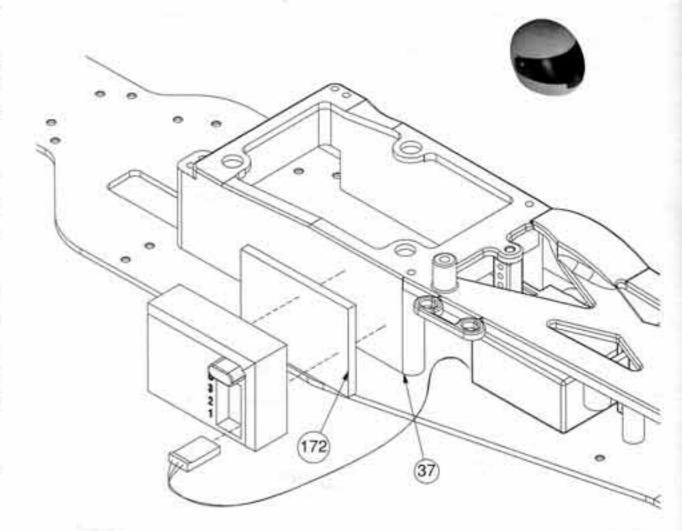
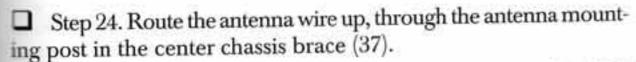


Figure 87

Figure 88



Step 25. Slide the antenna wire through the antenna tube (173) a small drop of oil in the tube will make this easier).

☐ Step 26. While pulling the wire through the antenna tube (173), slide the antenna tube (173) down and push it firmly into the antenna mounting post on the center chassis stiffener (37).

Step 27. Fold the wire over the antenna tube (173) and place the antenna cap (174) over the tube (173) and extra wire.

*NOTE: If the antenna wire is shorter than the tube, remove the tube and cut enough off of the tube so that the wire will extend about 3/4" past the end of the tube.

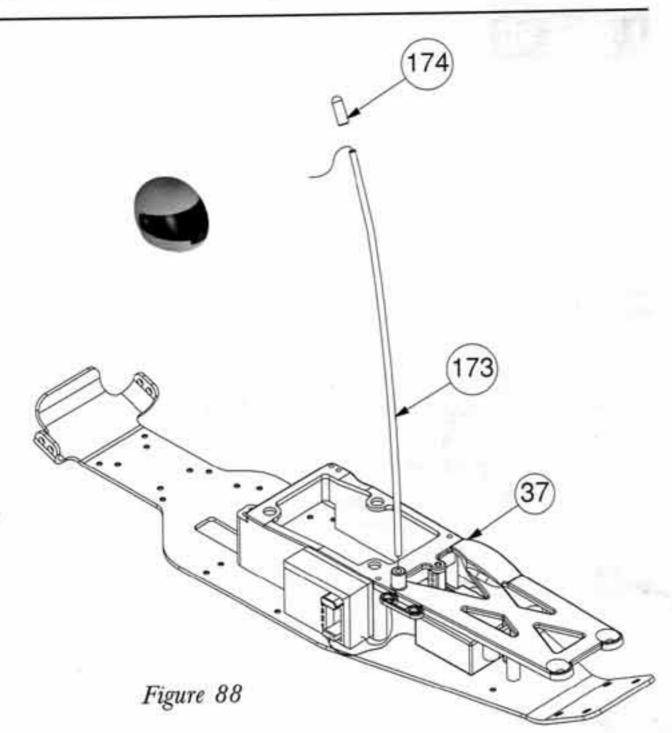


Figure 89









☐ Step 28. Attach the grommets (supplied with your radio system) to the throttle servo per the radio system instructions.

□ Step 29. Route the servo wire and plug through the slot in the bottom of the forward throttle servo mount (41). If the plug does not fit through the slot, loosen the screws (31) in the bottom of the mount (41). Once the wire is through the slot, tighten the two screws (31).

☐ Step 30. Position the throttle servo on top of the servo mounts (41) so that the output shaft is to the front.

☐ Step 31. Place a #4 washer (39) over each of four 4-40 x 1/2" cap-head screws (124). Thread a screw (124) through each of the four grommets in the servo, and into the four holes in the top of the servo mounting posts (41).

☐ Step 32. Plug the throttle servo into the slot in the receiver marked "Channel 2" or "Function 2".

IMPORTANT NOTE: Do not overtighten the screws! The purpose of having the grommets is to absorb the shock and vibration from the gas engine. Overtightening the screws will prohibit the grommets from working properly.

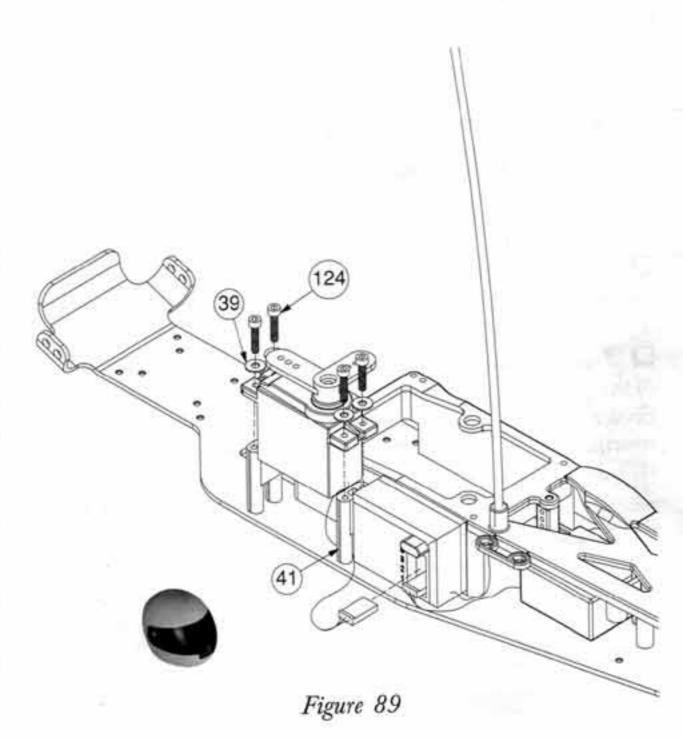


Figure 90



(49) (201)

☐ Step 33. Slightly bend the throttle return spring eyelet (149). Place the eyelet (149) over the 4-40 x 1/4" button-head screw (201). Thread the screw (201) into the hole just behind the antenna tube in the center chassis brace (37). Position the eyelet is to the back of the screw (201) and tighten the screw (201).

☐ Step 34. Attach one end of the throttle return spring (153) to the hole in the eyelet (149). Attach the other end of the spring (153) to the hole toward the edge of the servo arm as shown.

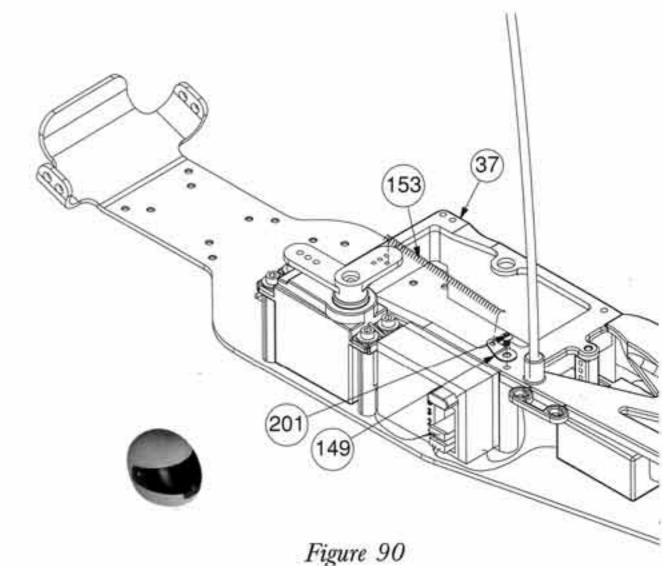


Figure 91



(176) (177

☐ Step 35. Install the short Z-bend wire (175) in the top hole of the carburetor throttle arm so that the wire is positioned on the side of the arm away from the engine.

☐ Step 36. Place a linkage adjustment collar (176) over the end of the wire (175) and position it near the bend in the wire (175). Secure the collar (176) with a 4-40 setscrew (177). Place the throttle override spring (199) (longer of the two springs) over the wire (175) and against the collar (176). Slide the end of the wire (175) through the hole in the throttle pivot (169). Refer to Figure 91.

Step 37. Once the wire (175) is through the pivot (169), place a linkage adjustment collar (176) over the end of the wire (175). Secure the collar (176) to the wire (175) with a 4-40 setscrew (177). The collar (176) should be positioned at the end of the wire (175). Final adjustments will be made later.

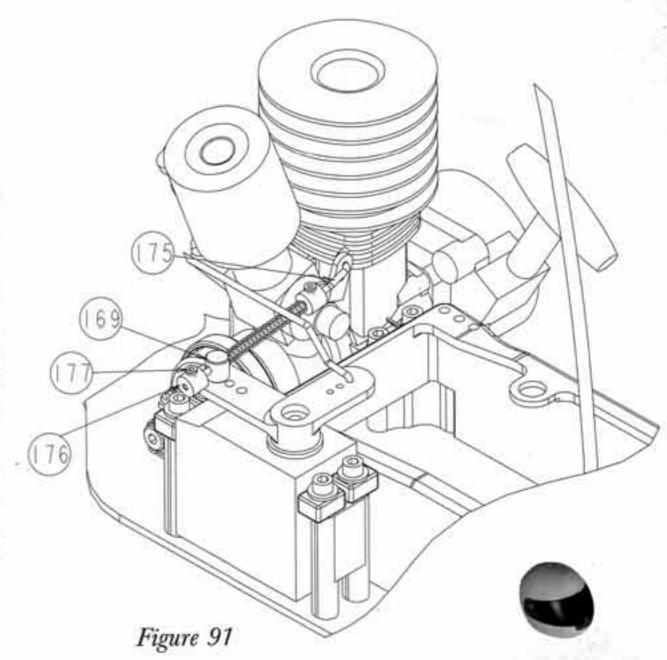


Figure 92



(76) (177

- ☐ Step 38. Install the long Z-bend wire (178) in the outside hole of the throttle servo horn (168) so that the wire is positioned on the top side of the servo horn (168).
- ☐ Step 39. Slide a linkage adjustment collar (176) over the end of the wire (178) and secure it with a 4-40 setscrew (177) 1-1/2" from the end of the wire (178).
- ☐ Step 40. Slide the end of the wire (178) through the hole in the brake arm (79).
- Step 41. Rotate the brake arm (79) forward so that it rests against the brake drum (82). Slide a linkage spring (179) over the end of the wire (178) and position it against the brake arm (79). Place another linkage adjustment collar (176) over the end of the wire (178) and secure it with a 4-40 setscrew (177) near the end of the wire (178). Once again, final linkage adjustment will be made later.

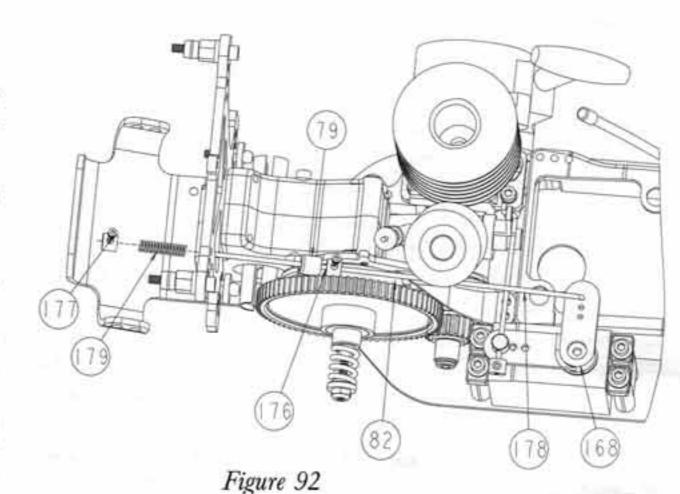




Figure 93

☐ Step 42. Remove the backing from the receiver battery pad (180) and attach the pad to the back of the chassis (27) so that it matches the shape of the chassis (27).

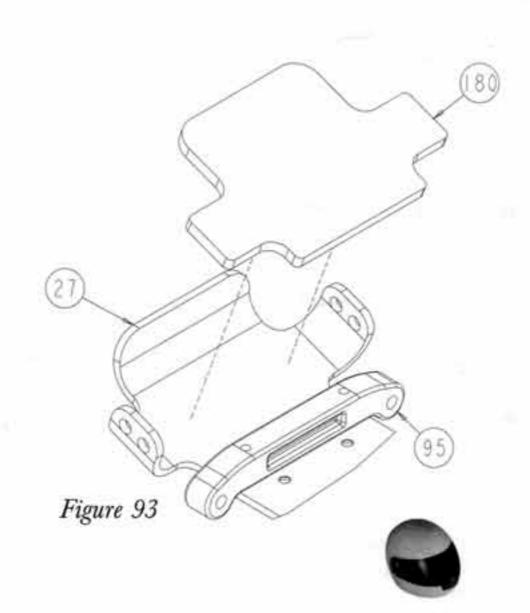


Figure 94

☐ Step 43. Place the receiver battery in the rear portion of the chassis (27), on top of the pad (180), so that the lead wire is to the left side of the chassis (27).

IMPORTANT NOTE: If using the plastic battery holder (supplied with the radio system), wrap tape around the holder after the batteries are installed. This will help keep the batteries in place. The plastic battery holder should be mounted to the chassis so that the plastic surfaces are to the top and bottom.

- ☐ Step 44. Insert an 8" tie-strap (181), from the outside, through the forward hole in the right side of the chassis (27). Run the tie-strap (181) over the battery and through the rear hole in the left side of the chassis (27).
- ☐ Step 45. Insert a second 8" tie-strap (181), from the outside, through the rear hole in the right side of the chassis (27). Run the tie-strap (181) over the battery and through the forward hole in the left side of the chassis (27).
- ☐ Step 46. Cut the square, locking portion off of two more 8" tie-straps (181). Secure the two installed tie-straps (181) with the locking portions of the tie-straps that were just cut off. Pull the tie-straps tight and cut off any excess.

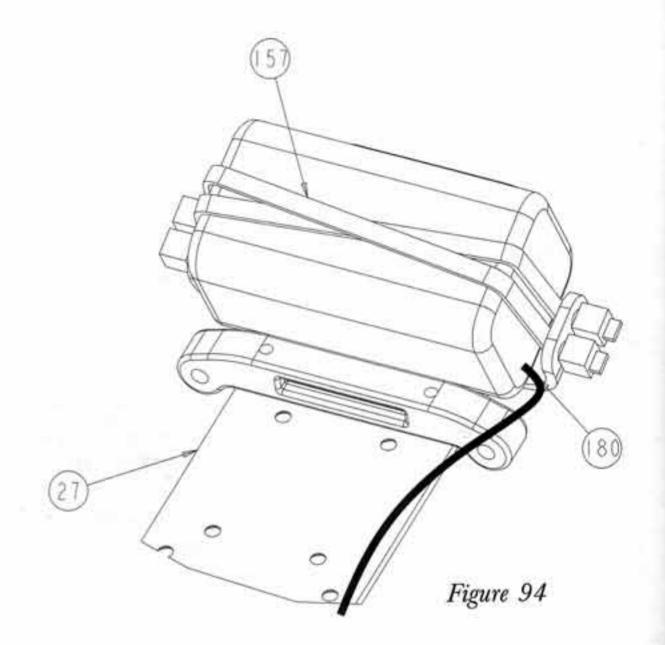


Figure 95

- ☐ Step 47. Remove the two small screws from the switch (supplied with radio system). Place the switch, from the bottom, in the switch mounting area of the center chassis brace (37).
- ☐ Step 48. Place the switch top plate (if applicable) over the switch, on top of the center chassis brace (37). Line up the holes in the switch with the holes in the top plate and secure the switch to the center chassis brace (37) with the two screws from the switch.
- Step 49. Plug one end of the switch into the slot in the receiver marked "Battery".
- Some racers prefer to eliminate the switch and replace it with a servo extension wire. If you wish to replace the switch with an extension wire, plug one end of the wire into the slot marked "Battery" in the receiver.

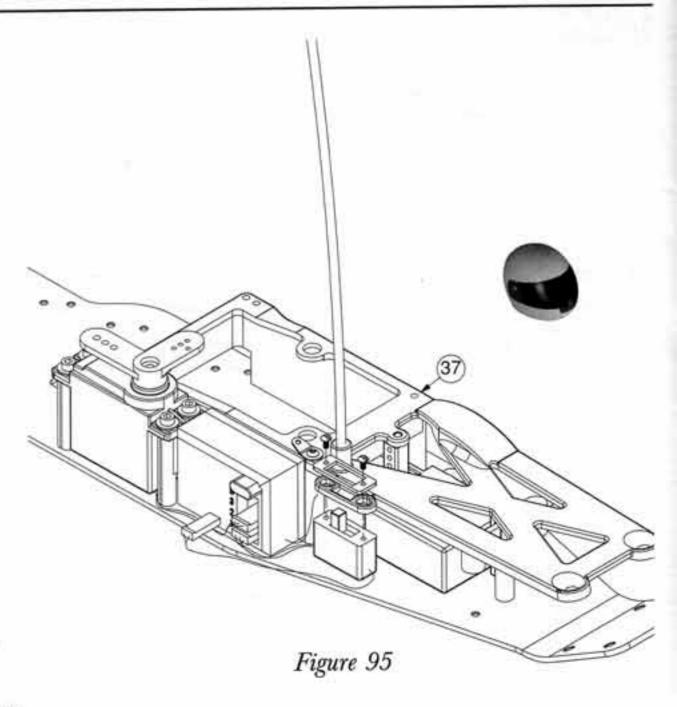


Figure 96

Step 50. Route the free end of the switch wire along the top, right edge of the center chassis brace (37). Run the wire through both pieces of 3/8" tubing that is placed around the fuel line. This will keep the wire out of the way of the linkages. The wire should be routed between the air filter (154) and the high-speed needle valve on the engine. This will keep the wire away from the spur gear.

☐ Step 51. Plug the wire into the battery lead and make sure that the switch is in the "off" position.

*NOTE: If using a servo extension wire in place of the switch, unplug the wire from the receiver before plugging in the battery. The radio will now be switched on and off by plugging and unplugging the wire into the receiver.

□ Step 52. Use a couple of small tie-straps to secure any excess wires from the radio system. Keep the wires away from any moving parts such as the gears, throttle and brake linkages, steering linkages, etc.

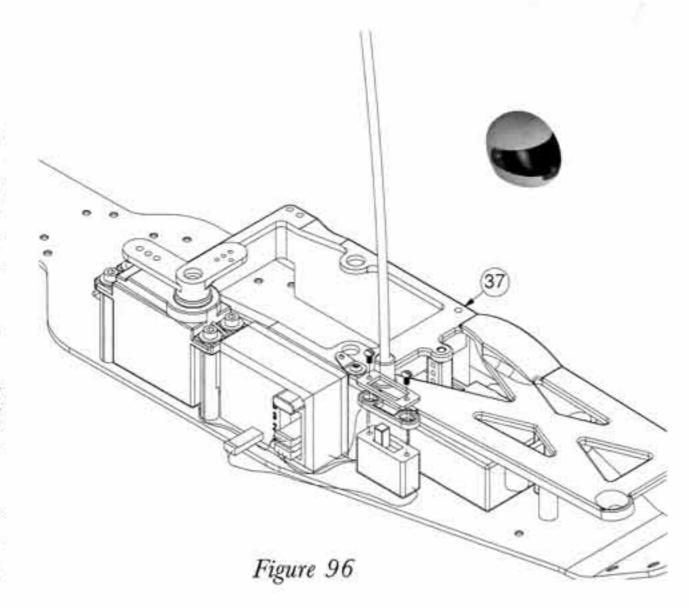


Figure 97

- ☐ Step 53. Remove the air filter (154) from the air filter boot (155). Check to see that the throttle return spring is holding the carburetor closed, and that the linkage is not pulling the carburetor open.
- ☐ Step 54. Looking through the air filter boot (155) into the carburetor, check the opening of the small, half-moon area near the side. This opening should be approximately 1/32". If it is not, refer to your engine instructions and adjust the idle adjustment screw until the opening is 1/32" with the throttle closed.

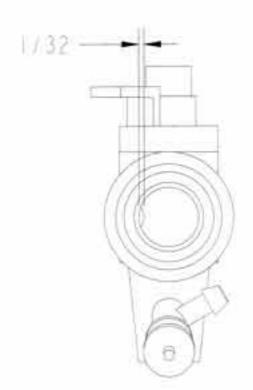


Figure 97

scan courtesy of Vintagelosi.com

- Step 55. Turn your transmitter switch on followed by the receiver switch (or plug in the extension wire if not using a switch).
- Step 56. Move the steering control on the transmitter to the right. The tires on the truck should turn to the right. If not, refer to your radio manufacturer's instructions for reversing the servos and correct the steering servo.
- Step 57. Without touching the transmitter the front tires should be pointing straight. Slight adjustments can be made with the trim adjustments on the transmitter. If the tires are turned without touching the transmitter, refer to Figure 83A to ensure that the servo horn is installed properly.
- Step 58. Move the steering control on the transmitter all the way to the left. The tires should turn all the way to the left. If the tires do not turn all the way, check the end point adjustments on the transmitter. Check the steering throw to the right as well.
- Step 59. Move the transmitter throttle control to full throttle. The throttle servo should rotate counterclockwise. If the servo rotates the wrong direction, refer to your radio manufacturer's instructions for reversing the servos.

Figure 98

□ Step 60. With the radio still turned on, and the throttle control on the transmitter in the neutral position, loosen the setscrew (177) in the linkage adjustment collar (176) on the throttle wire (175) nearest the outside of the truck. Move the collar (176) until it is 1/32" away from the throttle pivot (169). Tighten the setscrew (177) in the collar (176). This will be the final location of the collar (176). Loosen the setscrew (177) in the linkage adjustment collar (176) nearest the carburetor and move the collar towards the throttle pivot (169) until there is a bit of pre-load on the throttle override spring (199). Tighten the setscrew (177) in the collar (176). This will be the final position for this collar as well.

Step 61. Check to see that the collar (176) to the front of the brake arm (79) is not touching the brake arm (79). If it is, loosen the setscrew (177) and move the collar forward so that it does not touch the brake arm (79) while the brake arm (79) rests against the brake drum (82). Loosen the setscrew (177) in the collar (176) at the rear of the brake linkage wire (178) and move the collar (176) until the linkage spring (179) has a slight amount of pre-load on it. Tighten the setscrew (177) in this collar (176).

*NOTE: This collar can be adjusted later to change the amount of "panic", or full brake that the truck has.

☐ Step 62. Loosen the setscrew (177) in the collar (176) at the front side of the brake arm (79) and move the collar (176) until it just touches the brake arm (79). Tighten the setscrew (177) in the collar (176). This will be the final location of this collar (176).

□ Step 63. Move the throttle control on the transmitter to full throttle. Refer to the radio manufacturer's instructions and adjust the end point adjustment so the throttle servo will rotate just far enough to open the carburetor all the way. Now move the throttle control on the transmitter to full brake. Adjust the end point on the transmitter so that the servo doesn't over-rotate when applying full brake. The servo should only have to move 1/4" in the brake direction.

*NOTE: If your radio system does not have end point adjustments, you may need to move the throttle pivot and brake linkage wire to a different hole in the servo horn. The closer the wires are mounted to center on the horn, the less the wires will move. If the wires are moved to a different hole in the servo horn, start the throttle linkage adjustment again at Step 60.

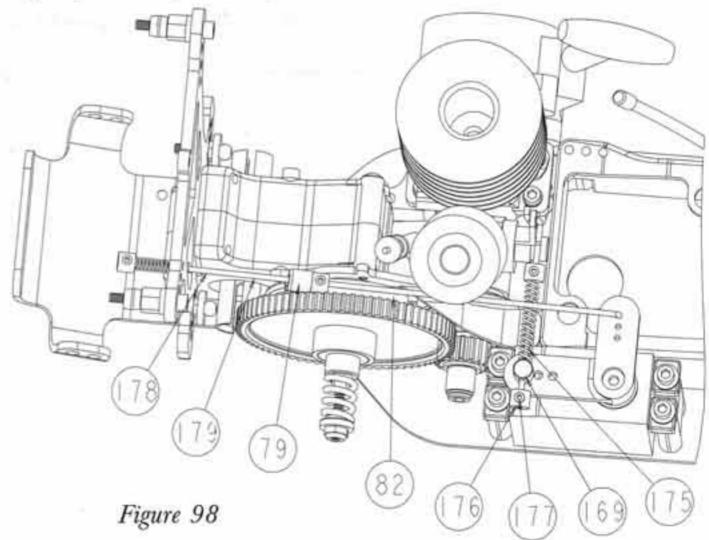


Figure 99

☐ Step 64. Turn the radio switch off (or unplug the extension wire from the receiver), and then turn the transmitter off. Make it a habit to always turn the transmitter on first and off last.

☐ Step 65. Once the throttle and brake linkages are adjusted, replace the air filter (154) in the air filter boot (155).



Figure 99

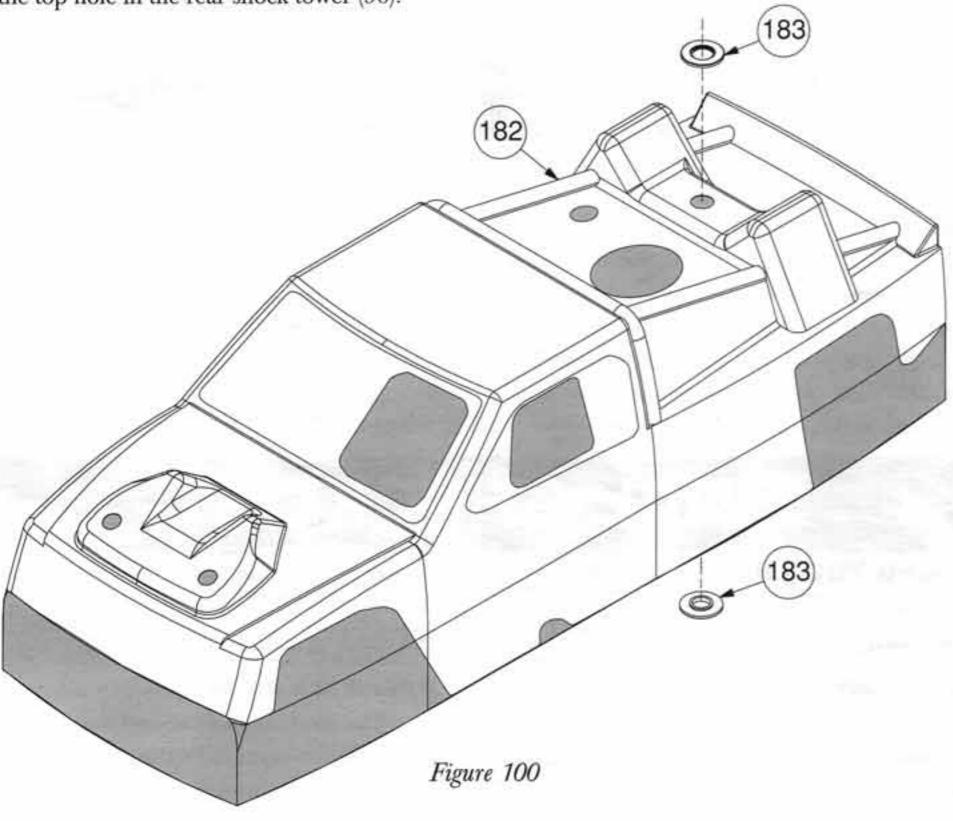
FINAL ASSEMBLY

NOTE: Since there are very few parts required to complete the final assembly portion of the manual, the parts have been packaged in the Radio Installation bag.

Figure 100

- ☐ Step 1. Trim the body (182) along the trim lines as shown. Cut out the areas indicated on the front and side windows to allow easy access to the fuel tank.
- Step 2. Make three 5/16"-diameter holes in the areas on the windshield and hood of the body (182) that are marked with dimples or small circles.
- Step 3. Drill a 3/8"-diameter hole in the rear of the body at the location marked with a small hole or dimple.
- Step 4. Place one half of the body saver (183) on the top side of the body over the 3/8" hole. Insert the other half of the body saver (183) into the hole in the rear of the body, from the bottom side. Snap the two halves of the body saver (183) together.

☐ Step 5. Attach the body (182) to the truck and secure it by placing a body clip (184) through each of the two holes in the front body mount (12), and the top hole in the rear shock tower (96).



Body and Wheel Disk Painting

Prepare the body shell for painting by washing it thoroughly with warm water and a small amount of liquid detergent. Dry the body with a clean, soft cloth. Use the window masks (185), supplied with the kit, to cover the window areas from the inside. A high-grade masking tape should be used on the inside of the body to mask off any stripes, panels, or designs that you wish to paint on the body or wheel disks. Use acrylic lacquer, acrylic enamel, or any other Lexan (Polycarbonate) recommended paints. Apply paint to the inside of the body. Remove the tape for the area that you wish to apply the next color to and continue with the next color. Try to use the darker colors first. If you use a dark color after a light color, apply a thin coat of white over the lighter color before continuing with the darker color.

Stickers

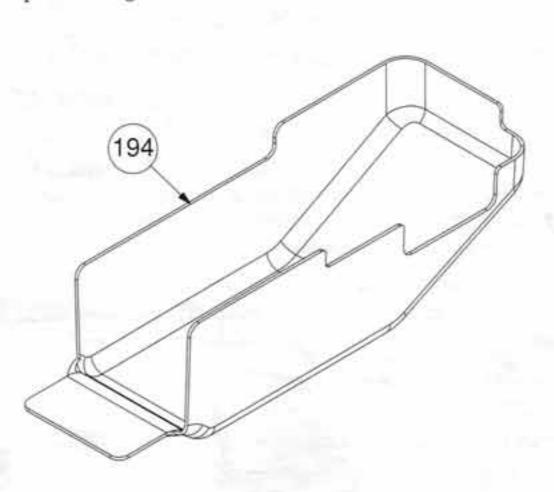
Cut the stickers from the sticker sheet (186) that you wish to use. Before removing the protective backing, find the desired location for the sticker. Remove the backing completely and reattach an edge of the sticker to the shiny side of the backing paper. Using the rest of the backing as a handle, position the sticker above the desired location and press it firmly into place to complete its application.

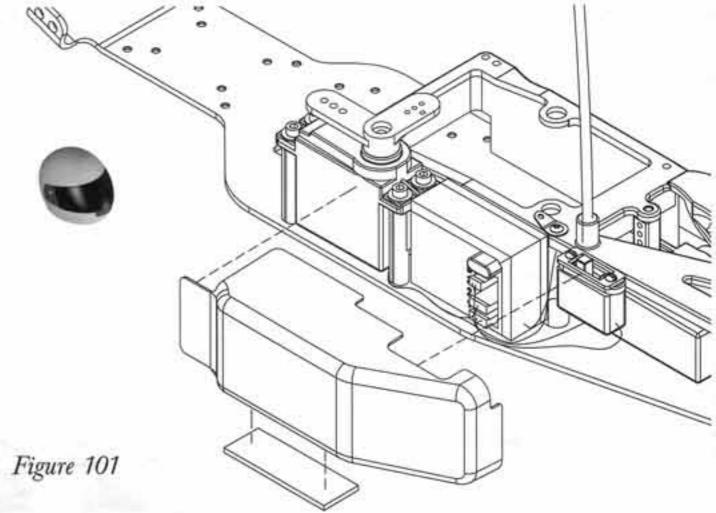
FINAL ASSEMBLY

Figure 101

- Step 6. Trim the Lexan receiver cover (194) along the trim lines as shown.
- ☐ Step 7. Cut a piece of two-sided tape (172) and attach it to the bottom of the receiver cover (194) as shown in Figure 101.
- □ Step 8. Remove the backing from the opposite side of the two-sided tape (172) and attach the receiver cover (194) to the right side of the chassis as shown. The receiver cover (194) should fit between the receiver and the chassis (27). The purpose of the receiver cover (194) is to help keep dirt, fuel, and mud out of the receiver.

For added security, the receiver cover can be cut so that the switch mounting screws can hold the top of the receiver cover in place. Leave enough material on the top of the receiver cover so that small holes can be drilled in it and the screws from the switch can pass through these holes.





FINAL CHECKLIST

BEFORE RUNNING YOUR NXT for the first time, you should run down the following checklist – in order – and complete the listed tasks. Surely you are anxious to get out and run your NXT now that it's built, but following this simple checklist will help to make the first run with your new NXT truck much more enjoyable.

1. Adjust the rear differential

See Adjusting The Differential in the tips section.

2. Check for proper radio linkage adjustments

Refer to the Radio Installation section one last time and ensure that all linkages and collars are properly adjusted.

3. Check for free suspension movement

All suspension arms should be very free. Any binds will cause the truck to handle poorly. The steering should also operate very freely.

4. Set the rear ride height

The rear ride height should be set so that the dogbones are level with the surface. See the *Rear Ride Height* section of the tips.

5. Set the front ride height

The front ride height should be set so that the front suspension arms are level with the surface.

6. Adjust the camber

The front camber should be set to 1-1/2 degrees of negative camber (top of tire points in) at ride height. Adjust the front camber with the tires straight. The rear camber should be set to 1-2 degrees of negative camber at ride height.

7. Adjust toe-in/toe-out

The front tie rods should be adjusted evenly until the front tires have 1-degree of toe-in.

8. Set transmitter trims

The steering trim tab on the transmitter should be adjusted so that the truck rolls straight when you are not touching the steering wheel/stick. The throttle trim tab should be adjusted as per the Radio Installation section of the manual.

9. Check fuel lines

Ensure that all fuel lines are properly connected.

TIPS FROM THE TEAM

TUNING THE ENGINE can be a little tricky at first if you are new to gas-powered vehicles. Follow the instructions supplied with your engine for initial needle valve adjustments. Start by closing both the high speed and low speed needle valve all the way. This is done by rotating them as far as they will turn in the clockwise direction. Typically, the high speed needle will need to be adjusted 2-3 full turns open, and the low speed needle about 2 full turns open.

By turning the needle valve clockwise, the fuel mixture will become leaner—meaning that the engine will draw less fuel. When the needle is turned counterclockwise, the fuel mixture becomes richer—meaning that the engine will draw more fuel. The high speed needle valve affects the fuel mixture at full throttle while, the low speed needle affects the fuel mixture in the mid-range and bottom end of the throttle band.

THE AIR FILTER should be changed when it becomes completely covered with dust or dirt. The cleaner the filter remains, the better the engine can breath, and the better it will run. If the air filter is allowed to become too dirty, some of the dust and dirt can find its way into the carburetor and cause many problems. If the air cleaner should ever come off while operating your truck, stop immediately. Reattach the air filter before continuing!

OILING THE FOAM PRE-FILTER can help to keep dust from entering the paper air filter and eventually finding its way into the carburetor. A good oil to use on the pre-filter is one of the foam filter oils available at any motorcycle shop. These oils are very sticky and will hold the dust on the foam filter. Do not over oil the filter! Squeeze out any excess oil before installing the foam filter over the paper filter. Never oil the paper filter element. There are also foam filter cleaners available through most motorcycle shops. These cleaners can be used on the foam filter for the NXT. Be sure to wash any residual cleaner from the foam filter before reinstalling it on the paper filter.

TO SHUT THE ENGINE OFF, simply squeeze the rubber stinger extending from the tuned pipe. Once the stinger is squeezed, and the exhaust can no longer exit the pipe, the engine will stop running.

THE RECEIVER BATTERY is an important, frequently overlooked part of gas-powered vehicles. It is important that the batteries always have a fair amount of charge remaining in them. A low receiver battery can cause the truck to have a mind of its own. The result can be a runaway truck or a poor responding radio system. If using alkaline batteries, a fresh set should operate the radio system for at least 1-2 hours of running without a problem. The length of time that a receiver battery pack's charge lasts depends on the type of servos that are used. Some of the high performance servos draw more current than standard servos, and will drain the receiver pack faster. Just remember to check the receiver pack from time to time. When the servos start to operate a little slower, or radio response feels sluggish, the batteries probably need to be replaced.

If you will be using a Nicad receiver pack, it is recommended that a minimum battery size of 600 mAh and minimum voltage of 4.8 volts be used. A Nicad battery will not operate the radio system as long as an alkaline battery. The Nicad battery should be charged before every day's outing with your truck, and after about every 45 minutes to 1 hour of operation. If you are planning on racing a long main event, be sure to charge the battery pack before the start of the main.

WHEN CHANGING THE RECEIVER BATTERY keep the two ends that were cut off of the tie straps. These ends can be reused on the new tie straps that are installed after the battery has been changed. By saving the ends, a battery change only requires two new tie straps instead of four.

ATTACHING THE RECEIVER to the center chassis brace with Velcro*-brand fastener can help absorb the shock and vibration that is transmitted through the chassis by the gas engine. This can help prevent some slight glitching in the receiver and can also increase the life of your receiver. Simply attach one side of a piece of Velcro* with a self adhesive backing to the chassis brace. Attach the other side of the Velcro* to the bottom of the receiver and stick the receiver to the piece of Velcro* on the chassis brace. The Velcro* holds the receiver in place just fine. In fact, this is the method used by most of the team drivers to mount their radio gear.

If you will be running in a very wet condition (or if your pit person is messy with the fuel) you may want to seal your receiver. This can be done by simply placing a small plastic bag over the receiver, or by stretching a small balloon over the top of the receiver. The object is to cover all of the slots that the plugs are installed in, as well as the crystal socket. This will help to keep fuel and water out of the receiver. If either fuel or water enters the receiver, the circuit board can short out and cause the radio to stop operating.

THE CLUTCH BEARINGS included in the kits (all except #A-0810) contain a special lubricant. If the clutch bearings need to be replaced it is important to only replace them with the Team Losi clutch bearings #A-6906. If a different bearing is used, or if you oil the standard clutch bearings, the lubricant can migrate into the clutch. If lubricant comes into contact with the clutch it will slip and not function properly. For this reason it is also important that you never add oil to the clutch bearings.

If you should ever clean your truck with Armor-All™, or a similar cleaner, be careful not to allow any cleaner to enter the clutch parts or the fuel tank. If the cleaner enters the clutch parts, the clutch will slip. If the cleaner enters the fuel tank, the engine will run

very poorly.

THE BRAKE PADS on your NXT should be inspected after every 2-3 hours of running. When the large pad wears down to the same height as the alignment tab, the pads should be replaced. To replace the pads, remove the old pads with a sharp hobby knife. Be very careful when handling any sharp hobby knife. Start to cut the pads off of the brake arm from the side near the hinge pin hole. Be careful not to cut the alignment tab off of the brake arm. This tab serves as both an alignment tab as well as a wear indicator. Attach the new pads in accordance with the instructions.

THE GEAR BOX, or transmission, is the heart of every race car. The NXT transmission is no exception. Although the NXT transmission is very efficient, there are certain adjustments that are necessary for top performance. The differential is the most important. Several greases were tested for use in the differential and the one that we found to work the best is included in the kit. This grease protects the moving parts extremely well, while at the same time allowing the diff to operate smoothly. Since this differential is designed to be "self aligning", it is extremely important to take your time while assembling it to make sure that all of the parts are properly seated into the correct locations.

ADJUSTING THE DIFFERENTIAL. This may be a little complicated at first. If you do this as you read this tip, the procedure should be fairly simple. Tighten the slipper nut all the way down. Now, with the wheels installed, and the tires glued in place, hold the right rear tire in your right hand. While holding the tire, place your index finger and thumb over the spur gear. Now try to turn the left rear tire while holding the right rear tire and the spur gear. It should be **VERY** difficult to turn the left rear tire. If it turns easily, the diff is too loose. Tighten it by lining up the slot in the diff screw with the slot in the outdrive and placing the small Allen wrench through both slots. Now **slowly** turn the right rear tire clockwise about 1/8 turn. As long as the diff screw was held in place with the Allen wrench, you have just tightened your diff. Pretty easy, huh? Check the adjustment and continue tightening the diff, a little at a time, until the left rear tire can't be turned easily while holding the spur gear and the right rear tire. Be careful not to tighten the diff too much! Once the diff is adjusted, it should still operate freely and feel smooth. If the diff screw starts to get tight before the diff is close to being adjusted properly, the diff should be disassembled and checked for proper assembly.

Once your diff has been adjusted by hand, start your truck and place it on an asphalt area. Give the truck full throttle from a stop. The diff should not slip. If it does, tighten the diff slightly until it no longer slips.

Remember! The diff was not designed to operate as a slipper. The truck should never be run while the diff is slipping. Doing so can damage the diff balls and drive rings. Always make sure that the slipper will slip before the differential!

If your diff becomes "gritty" feeling, it should be rebuilt. Disassembling, cleaning and re-lubricating the parts in accordance with the instructions will usually be sufficient. The carbide diff balls that come in the kit should rarely need replacing. If, after cleaning, the diff still feels "gritty" the following parts should be replaced in the order listed: Differential washers #A-3070, thrust bearing assembly #A-3071, carbide diff balls #A-6951. When rebuilding your diff it's a good idea to always replace the lock nut. This will help keep the diff from loosening as you continue to drive your NXT.

SLIPPER ADJUSTMENTS should be made after the diff is properly adjusted. The slipper setting that the manual had you assemble your truck with should be reasonably close to correct. If you have just adjusted you diff, and the slipper nut is tightened all the way, adjust your slipper back to its original adjustment by loosening the lock nut three full turns (360° x 3) if using a dual disk slipper, or one full turn (360° x 1) if using a single-disk slipper (kit #A-0810).

CHANGING THE GEARS on your NXT is a very simple process. The NXT has been designed with a stationary engine mount. This helps to strengthen the chassis and reduce flex. The stationary mount also eliminates the need to readjust throttle linkages when changing the gears. There are several different clutch bell/spur gear sets available for the NXT truck. When changing to a different size gear, both the clutch bell and spur gear need to be changed. By changing both gears the gear mesh remains the same, eliminating the need to move the engine.

*NOTE: In the case of some engines, the gear mesh may need to be adjusted slightly when changing gear ratios. This is due to the placement of the mounting holes in the engine case. To adjust the gear mesh, loosen the four screws securing the engine to the engine mounts and reposition the engine. When the desired gear mesh is achieved, tighten all four screws.

There is also a 17-tooth clutch bell available. This clutch bell has no spur gear to go with it. In conditions where more torque (bottom end) is desired, the 18-tooth clutch bell can be replaced with the 17-tooth clutch bell. The gear mesh will need to be readjusted by loosening the four screws that hold the engine in place as mentioned above.

FUEL for the gas engines is available at any full service hobby shop. It is highly recommended that you use only O'Donnell or Dynamite's Blue Thunder fuel. Although there are many other fuels available, these two have been tested extensively and have proven to consistently produce the best results. Another common mistake that newcomers will make is to use a fuel with too high of a nitro content. Many enthusiasts think that the more nitro, the faster the truck will go. This statement is true to a certain extent, but we have found that anything above 20% is really just a waste of time (and money!).

ADDING BALL BEARINGS is the single biggest improvement that you can make to your new NXT truck if you are running

the version that comes with bushings (kit #A-0810). Bearings will increase the life of many of the transmission gears as well as some of the clutch parts.

CAMBER in the front end of the truck is not really adjusted much. In the front, run between one and two degrees of negative camber at ride height. A general rule of thumb is that more negative camber will help the truck go through bumps in turns a little more consistently. Less negative camber can make the truck respond quicker on some tracks with hard packed surfaces.

The rear camber is used to help the truck drive through bumps in corners a little better. Generally, run between one and three degrees of negative camber at ride height. More negative camber will make the truck drive through bumps better, but you will usually lose a little straight line rear traction.

FRONT TOE-IN and TOE-OUT is fully adjustable by changing the length of the tie rods. When adjusting toe-in, be sure to adjust both tie rods equally so that the steering balance from left to right will remain the same. Toe-out will make the truck turn into the corner faster, but can cause oversteer. It can also make the truck feel "wandery" exiting corners and cause the truck to hook.

Toe-in makes the truck a little easier to drive, and will make the truck more neutral feeling and more stable exiting corners. We almost always run about one degree of toe-in on the NXT truck.

FRONT RIDE HEIGHT is an adjustment that can change the way a truck jumps, turns and goes through the bumps. This is an adjustment that can vary from track to track. You should try raising and lowering the front ride height to get a feel for what it does to the handling of the truck. The front ride height should initially be set so that the arms are level at ride height. To set the ride height, drop the front of the truck from about 2-3 inches above the table. Lightly "work" the front suspension up and down. This will "settle" the front suspension at its natural ride height. Working the suspension becomes important as the parts start to get dirty and worn from running.

Once the suspension has settled, the arms should be level. If the front end is either too high, or too low, adjust the spring collars accordingly and check the ride height again as described above. Continue this procedure until the front ride height is adjusted to the desired location.

REAR RIDE HEIGHT can change the way a truck turns, the amount of traction a truck has and the way a truck goes through the bumps. Again, it is a good idea to play with this adjustment and get a feel for it. For most conditions, the rear ride should be set so that the dog bones are level with the ground. Adjust the rear ride height in the same way as described in the front ride height section.

CAMBER LOCATIONS on the NXT are very adjustable. Although there are many holes to choose from, it is suggested that the locations in the manual be used. We have done extensive testing with all of these locations both on the track, and on special computer programs, and have found the locations in the manual to be *very consistent* from track to track. These locations should produce the best all around setup and work under all conditions.

REMOVING THE ENGINE can seem slightly difficult when you look at all of the fuel lines and linkages connected to the engine. This is really a simple thing to do though. The easiest procedure that we have found is the following – remember to leave the engine mounts attached to the engine: First, remove the fuel line from the fuel tank. You want to remove the line that runs to the carburetor. Loosen the screw in the rear of the center chassis brace (the screw that doesn't pass through the engine mount). Loosen the two forward screws in the transmission. Remove the screw that holds the pipe-mounting wire in place. Remove the four screws that hold the engine mounts in place. Slide the engine out of the left side of the chassis while positioning the engine so that the short throttle linkage can be removed from the throttle arm on the carburetor.

To reinstall the engine, simply reverse the steps above.

WORKING ON THE CLUTCH can also seem tough at first. If you only need to work on the clutch, and don't need to remove the engine, follow this procedure: remove the slipper adjustment nut and all of the slipper parts from the top shaft. Remove the spur gear, gear plate, and slipper pad. Remove the clip from the clutch nut. Remove the clutch nut spacer and the outside bearing (or bushing) from the clutch bell. With the outside bearing (bushing) removed you should be able to rotate the clutch bell slightly so that it can slide off, past the throttle servo. When you are finished working on the clutch, install the clutch bell without the outside bearing (bushing). Once the clutch bell is in place, install the outside bearing (bushing), followed by the clutch nut spacer. Attach the clutch nut clip. Assemble the slipper assembly according to the manual.

The suggestions in this section are only general guidelines. There are so many variables in a racing truck that they can't possibly be listed in a simple tip section. Go to the track, try various combinations of setups, and get a feel for what each one does to the handling. Look for setup updates as well as the latest hot tips in "Tech-Talk" each month in R/C Car magazine.

Good luck with your new NXT. We're sure you will be pleased with its superb performance.

KEY #	KIT/PART DESCRIPTION	PART NO.	SPARE PARTS DESCRIPTION
1	4-40 x 3/4" cap-head screw	A-6205	4-40 x 3/4" Cap-Head Screw
2	Front shock tower	A-1020	Front Shock Tower (NXT)
2 3	Top shock mount bushing	A-5008	Upper Shock Mount Bushings
4	3/8" ball stud	A-6000	Ball Studs w/Rod Ends 4-40 x 3/8"
5	4-40 locknut	A-6305	4-40 Locking Nuts Low Profile
6	Front bulkhead	A-1103	Front Bulkhead
7	4-40 x 7/8" cap-head screw	A-6216	4-40 x 7/8" Cap-Head Screw
8	Front suspension arm (left)	A-1016	Front Suspension Arms (LXT, GTX, NXT)
8	Front suspension arm (left) - Graphite	A-1019	Front Suspension Arms (LXT, GTX, NXT)
9	Front suspension arm (right)	A-1016	Front Suspension Arms (LXT, GTX, NXT)
9	Front suspension arm (right) - Graphite	A-1019	Front Suspension Arms (LXT, GTX, NXT)
10	1/8" inner front hinge pin	A-1007	Inner Front Hinge Pins
11	1/8" E-clip	A-6100	E-Clips 1/8"
12	Front body mount slide	A-4055	Adjustable Front Body Mount (LXT, GTX, NXT)
13	Front body mount support	A-4055	Adjustable Front Body Mount (LXT, GTX, NXT)
14	4-40 x 3/8" cap-head screw	A-6206	4-40 x 3/8" Cap-Head Screws
1.5	Front axle	A-1022	NXT Front Axles (for XX-T Wheels)
16	Right spindle	A-1017	Front Spindles & Carriers (LXT, GTX, NXT)
17	Right spindle carrier	A-1017	Front Spindles & Carriers (LXT, GTX, NXT)
18	1/8" hinge pin	A-1008	Front Outer Hinge Pin/King Pin (LXT, GTX, NXT)
19	5-40 setscrew	A-6228	5-40 Hardened Setscrews
20	Studded ball washer	A-6215	#4 Narrow Washers (Gold)
21	3/16" ball stud	A-6001	Ball Studs w/Rod Ends 4-40 x 3/16"
22	Left spindle	A-1017	Front Spindles & Carriers (LXT, GTX, NXT)
23	Left spindle carrier	A-1017	Front Spindles & Carriers (LXT, GTX, NXT)
24	Plastic rod end	A-6005	H.D. 30° Plastic Rod Ends
25	1-7/8" turnbuckle	A-1011	Long L/R Threaded Tie Rod Set 1-7/8"
26	Foam thing	A-6003	Foam Things (Linkage Rings)
27	Main chassis	A-4020	Chassis, Black Anodized (GTX, NXT)
28	8-32 x 3/8" screw	A-6208	8-32 x 3/8 " Aluminum Flat Head Screws
29	Front bumper	A-4045	Front Bottom Mount Bumper (LXT, SE, GTX, NXT)
30	Steering post	A-1514	Steering Post w/Hardware (GTX, NXT)
31	4-40 x 3/8" flat-head screw	A-6210	4-40 x 3/8" Flat-Head Screws
32	Steering bellcrank	A-1507	Rigid Steering Arm Set
33	Steering sector arm	A-1510	Steering Sector Arm w/Screws
34	4-40 x 1/8" cap-head shoulder screw	A-6200	4-40 x 1/8" Cap-Head Shoulder-Screw
35	Steering idler arm	A-1507	Rigid Steering Arm Set
36	Rubber tank-mounting grommet	A-9313	Fuel Tank Mounting Set
37	Center chassis brace	A-4022	Center Chassis Brace (GTX, NXT)
37	Center chassis brace - Graphite	A-4023	Center Chassis Brace (GTX, NXT)
38	Fuel tank	A-9310	Fuel Tank (75 cc)
39	#4 washer	A-6201	3mm x 8mm Screws w/Washers (Motor)
40	Steering servo mounting posts	A-9408	Servo Mounting Set (GTX, NXT)
41	Throttle servo mount	A-9408	Servo Mounting Set (GTX, NXT)
42	4-40 mini locknut	A-6306	4-40 Aluminum Mini Nuts
43	Diff nut carrier	A-3078	'XX' Trans Diff Screw, Hardware, Seal Set
44	Allen wrenches	N/A	N/A
45	Beveled washers	A-3078	'XX' Trans Diff Screw, Hdwe, Seal Set
46	Diff tube	A-3072	'XX' Trans Diff Tube
47	Outdrive/Diff half	A-3073	'XX' Trans Outdrive Cup/Diff Half
48	Clear diff grease	A-3065	Silicone Differential Compound
49	Diff washer	A-3070	'XX' Retro Trans Drive Rings
50	5mm x 8mm bearing	A-6907	5mm x 8mm Ball Bearings (XX Trans)
51	5mm x 8mm bushing	A-6923	'XX' Differential Bushing Set
52	Diff gear	A-3076	'XX' Trans Diff Gear Only (2.61:1)
53	3/32" diff balls	A-6951	3/32" Carbide Diff Balls
54	1/4" x 5/16" shim	A-6230	Shim Assortment - 3/16", 1/4", 1/2"
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scan courtesy of Vintagelosi.com

VEV. #	KIT/DADT DESCRIPTION	PART NO.	SPARE PARTS DESCRIPTION
KEY #	KIT/PART DESCRIPTION		'XX' Trans Diff Screw, Hardware, Seal Set
55	Diff adjusting screw	A-3078 A-3078	'XX' Trans Diff Screw, Hardware, Seal Set
56	Foam thrust bearing seal	A-3098	Diff Thrust Bearing with Carbide Balls (Molded)
57	3mm x 8mm thrust bearing washer	A-3098	Diff Thrust Bearing with Carbide Balls (Molded)
58	3mm x 8mm thrust bearing	A-3060	'XX' Slipper Shaft, Spacer & Hardware
59	4-40 x 1" setscrew	A-3060	'XX' Slipper Shaft, Spacer & Hardware
60	Slipper shaft	A-3060	'XX' Slipper Shaft, Spacer & Hardware
61	1/16" x 5/16" spirol pin	A-3077	'XX' Trans Upper Gear, Idler, Shaft (2.61:1)
62	Top gear	A-6102	C-clips, .1875" (3/16") - Large
63	3/16" C-clip 3/16" x 3/8" bearing	A-6903	3/16" x 3/8" Ball Bearing
64	3/16" x 3/8" bushing	A-6930	Complete Bushing Set (GTX, NXT)
65 66	Left gearbox half	A-3084	Transmission Case Set (GTX, NXT)
66	1/2" x 3/4" bearing	A-6908	1/2" x 3/4" Bearings w/Teflon Seal (XX Trans)
67	1/2" x 3/4" bushing	A-6930	Complete Bushing Set (GTX, NXT)
68	Right gearbox half	A-3084	Transmission Case Set (GTX, NXT)
69	Idler gear shaft	A-3075	'XX' Trans Upper Gear, Idler, Shaft (2.19:1)
70 71		A-1006	1/8" x .690" hinge pin
	Brake arm pin	A-6909	1/8" x 3/8" Bearings (XX Trans)
72	1/8" x 3/8" bearing	A-6930	Complete Bushing Set (GTX, NXT)
73	1/8" x 3/8" bushing	A-3087	Idler Gear (GTX, NXT)
74	Idler gear	A-4026	NXT Machined Transmission Brace (NXT)
75 76	Transmission brace	A-3062	Transmission Screw Set (GTX, NXT)
76	4-40 x 1-1/8" button-head screw	A-3062	Transmission Screw Set (GTX, NXT)
77	4-40 x 1-1/8" cap-head screw	A-9403	Brake Pad
78	Brake pad	A-9401	Brake Arm w/Pad
79	Brake arm	A-9402	Graphite Brake Arm w/Pad
79	Brake arm - Graphite	A-6930	Complete Bushing Set (GTX, NXT)
80	3/16" x 5/16" bushing	A-3916	76-Tooth, 32-Pitch Spur Gear (GTX, NXT)
81	Spur gear 76-tooth	A-3920	76-Tooth, 32-Pitch Spur Gear Dual-Disk Slipper (NXT)
81	Spur gear 76-tooth - Dual-Disk slipper	A-3134	Slipper Back Plate/Brake Drum (GTX, NXT)
82	Slipper back plate/brake drum	A-3123	Slipper Friction Pad
83	Slipper pad	A-3123	Slipper Gear Plate
84	Slipper gear plate	A-3124	Slipper Springs, Cup, Washer
85	Slipper spring cup	A-3124 A-3125	1/4" x 9/16" Thrust Bearing Assy
86	1/4" x 9/16" thrust washer	A-3125	1/4" x 9/16" Thrust Bearing Assy
87	1/4" x 9/16" thrust bearing	A-3124	Slipper Springs, Cup, Washer
88	Slipper spacer	A-3124	Slipper Springs, Cup, Washer
89	Gold slipper spring	A-3124	Slipper Springs, Cup, Washer
90	Spring retaining washer	A-2047	Rear Suspension Mount Set (NXT)
91	Forward rear suspension pivot	A-2031	Inner Rear Hinge Pin (GTX, NXT)
92	Inner rear hinge pin	A-2031 A-2041	Rear Suspension Arms (LXT, GTX, NXT)
93	Right rear suspension arm (Marked "L")	A-2041	Graphite Rear Suspension Arms (LXT, GTX, NXT)
93	Right rear suspension arm - Graphite	A-2042 A-2041	Rear Suspension Arms (LXT, GTX, NXT)
94	Left rear suspension arm (Marked "R")	A-2041 A-2042	Graphite Rear Suspension Arms (LXT, GTX, NXT)
94	Left rear suspension arm - Graphite	A-2042 A-2047	Rear Suspension Mount Set (NXT)
95	Back rear suspension pivot	A-2047	Rear Shock Tower (NXT)
96	Rear shock tower	A-3082	DogBone/Drive Shaft w/Yoke (LXT, GTX, NXT)
97	Dogbone	A-3082 A-3083	Yoke & Screw for Dog Bone/Drive Shaft
98	Universal yoke		Universal Pivots
99	Universal pivot	A-3014	
100	Rear axle	A-3015 A-6400	Rear Axle, Spacer & Pin Pins, U-Joint
101	3/32" x 1/2" spirol pin		
102	Assembly wrench	A-2012	Assembly Wrench
103	Rear hub	A-2126	'CR' Rear Hub Carrier Set with Spacers
103	Rear hub - 1º	A-9806	1º 'CR' Rear Hub Set
104	Rear axle spacer	A-3016	Rear Axle Spacer & Pin
104	Rear axle spacer - Stepped	A-9941	Bearing Spacer/Wheel Washer Set
105	1/16" x 7/16" pin	A-6401	Pins, Wheel & Gear
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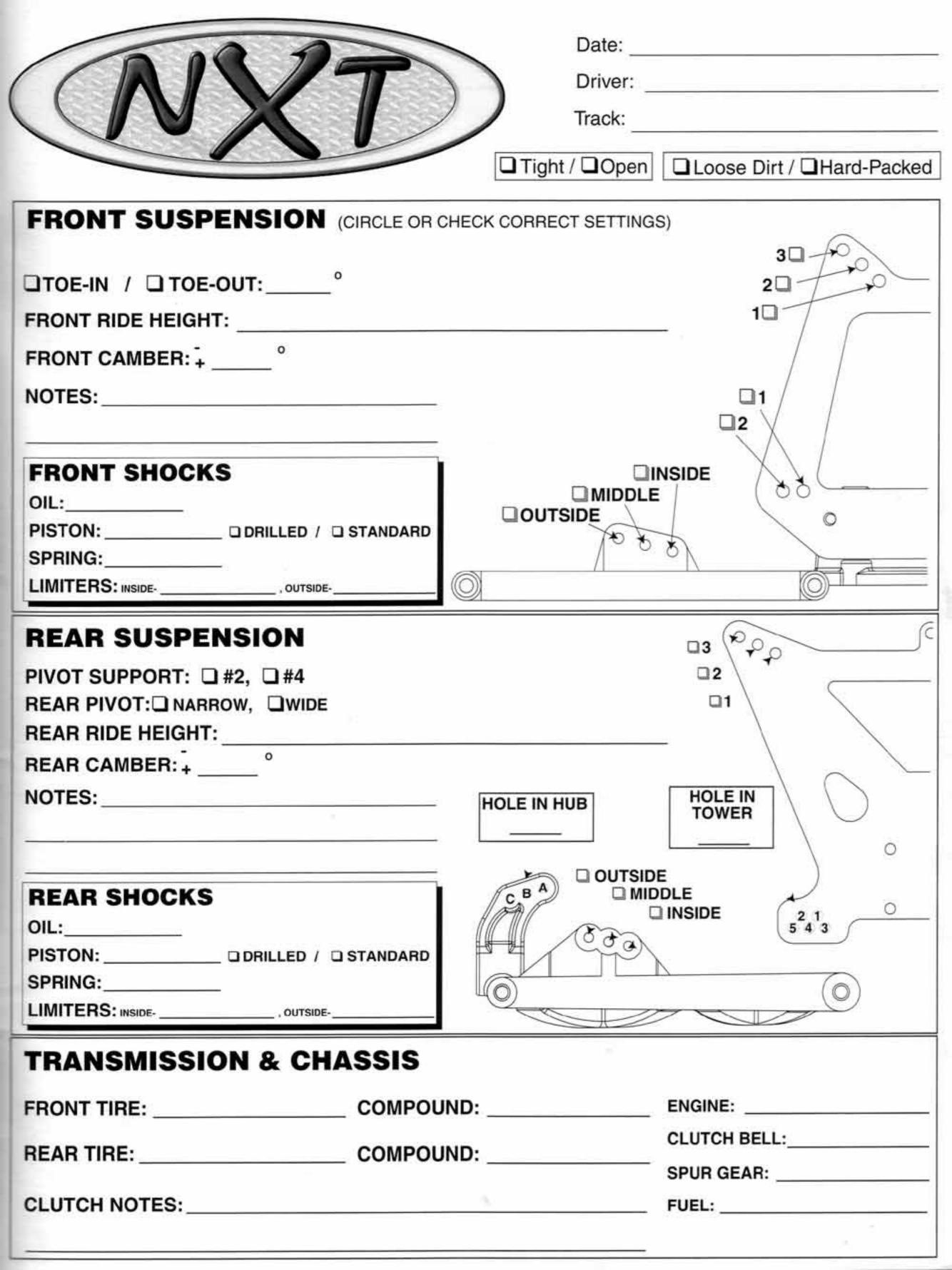
KEY #	KIT/PART DESCRIPTION	PART NO.	SPARE PARTS DESCRIPTION	
106	Outer rear hinge pin	A-2007	Hinge Pin 1.42" (XXT, GTX, NXT)	
107	Outer slipper back plate	A-3132	Slipper Back Plate (XX, XX-T)	
108	Shock O-ring	A-5015	Double O-Ring Shock Cartridge (Front/Rear)	
109	Shock cartridge body	A-5015	Double O-Ring Shock Cartridge (Front/Rear)	
110	Shock cartridge spacer	A-5015	Double O-Ring Shock Cartridge (Front/Rear)	
111	Shock cartridge cap	A-5015	Double O-Ring Shock Cartridge (Front/Rear)	
112	Shock fluid	A-5224	SILATECH Competition Shock Fluid 30wt	
113	Front shock shaft	A-5005	Shock Shaft .9"	
114	Rear shock shaft	A-5022	Shock Shaft 1.2"	
115	Shock end	A-5023	Spring Clamp & Cups	
116	1/4" swivel ball	A-2006	Swivel Suspension Balls .250"	
117	Shock spacers	A-5015	Double O-Ring Shock Cartridge (Front/Rear)	
118	Shock piston	A-5046	Teflon™ Shock Pistons #56, Red	
119	Front shock body	A-5030	.9" Shock Body Hard Anodized	
120	Rear shock body	A-5031	1.2" Shock Body Hard Anodized	
121	Shock spring cup	A-5023	Spring Clamp & Cups	
122	Red shock spring	A-5152	2.5" Spring 2.6 Rate (Red)	
123	Shock collar	A-5023	Spring Clamp & Cups	
124	4-40 x 1/2" cap head screw	A-6204	4-40 x 1/2" Cap Head Screws	
125	Front tire	A-7505S	Front DIRECTIONAL Tires (Silver) w/Foam Liners	
126	Rear tire	A-7636S	Rear STEP-PIN Tires (Silver) w/Foam Liners	
126	Rear tire - Graphite Plus Kit	A-7633S	Rear Reptile Truck Tires (Silver) w/Foam Liners	
127	Front wheel	A-7077	Front Disk Wheels w/Caps - (Yellow) (XXT, NXT)	
128	Rear wheel	A-7174	Rear Disk Wheels w/Caps (Yellow) (LXT, XXT, NXT)	
129	Foam tire liners	A-7699	Truck CLOUDS Foam Liners	
130	Front wheel disk	A-7199	Disk Wheel Cap Set (XX-T, NXT)	
131	2-56 x 5/16" button head screw	A-6225	2-56 x 5/16" Button Head Screws	
132	3/16" x 3/8" plastic bushing	A-6930	Complete Bushing Set (GTX, NXT)	
133	3/16" x 5/16" bearing	A-6905	3/16" x 5/16" Bearings	
134	10-32 locknut	A-6303	10-32 Locking Nuts (4ea Nylon & Steel)	
134	10-32 locknut - Aluminum	A-6304	10-32 Aluminum Locking Nuts Low Profile	
135	Rear wheel disk	A-7199	Truck Disk Wheel Cap Set (XX-T, NXT)	
136	Outdrive shim	A-6230	Shim Assortment - 3/16", 1/4", 1/2"	
137	Clutch pin/screw	A-9375	Flywheel Pins/Screws	
138	Flywheel	A-9372	Flywheel w/Pins (2 Pin, Steel)	
139	Flywheel shim	A-9376	Flywheel Collet w/shims	
140	Flywheel collet	A-9376	Flywheel Collet w/shims	
141	Clutch nut	A-9369	Clutch Nut	
142	Clutch spring	A-9363	Clutch Springs for Machined Clutch Shoes	
143	Clutch shoe	A-9362	Machined Teflon™ Clutch Shoesw/Spring	
144	1/4" x 3/8" clutch bearing	A-6906	1/4" x 3/8" Flanged Ball Bearing	
145	1/4" x 3/8" clutch bushing	A-6930	Complete Bushing Set (GTX, NXT)	
146	Clutch bell 18-tooth	A-9377	18-Tooth Clutch Bell w/76-Tooth Spur Gear (32-Pitch)	
147	Clutch nut spacer	A-9369	Clutch Nut	
148	1/4" clutch nut clip	A-9370	Clutch Nut Clips	
149	Throttle return spring eyelet	A-9409	Throttle Return Spring & Eyelet	
150	Engine mount spacer	A-9335	Engine Mount Set w/Hardware	
151	Engine mount	A-9335	Engine Mount Set w/Hardware	
152	4-40 x 5/8" cap-head screw	A-6221	4-40 x 5/8" Cap-Head Screw	
153	Throttle return spring	A-9405	Brake/Throttle Linkage Set	
154	Paper air filter element	A-9302	Paper Air Dilter Element	
155	Air filter boot	A-9304	Air Filter Boot (Rubber)	
156	Foam pre-filter	A-9303	Foam Pre-Filter	
157	4" tie-strap	N/A	N/A	
158	4-40 x 7/8" flat-head screw	A-6226	4-40 x 7/8" Flat-Head Screw	
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159	Exhaust manifold	A-9320	Aluminum Exhaust Flange/Manifold	

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KEY#	KIT/PART DESCRIPTION	PART NO.	SPARE PARTS DESCRIPTION
161	Tuned pipe	A-9328	NXT Tuned Exhaust Pipe
162	Pipe mounting bracket	A-9330	Pipe Mounting Bracket w/Hardware
163	Slipper shaft spacer	A-3087	Slipper Shaft Spacer (GTX, NXT)
164	3/8" Silicone tubing	A-9327	Exhaust Stinger & Stinger Sleeve
165	Aluminum stinger sleeve	A-9327	Exhaust Stinger & Stinger Sleeve
166	Fuel tubing	A-9315	Fuel Tubing (24")
167	4-40 nut	A-6300	4-40 Hex Nuts
168	Throttle servo horn	A-9406/7	Throttle Servo Horn (A-9406 = 23 spline, A-9407 = 25 spline)
169	Throttle pivot	A-9405	Brake/Throttle Linkage Set
170	3/32" E-clip	A-6103	E-Clips 3/32"
171	Short plastic rod end	A-1615	Short Ball Cups & Threaded Rods
172	Two-sided tape (thick)	A-4004	Servo Tape
173	Antenna tube	A-4002	Antenna Kit
174	Antenna cap	A-4003	Antenna Caps
175	Short Z-bend wire	A-9405	Brake/Throttle Linkage Set
176	Linkage adjustment collar	A-9405	Brake/Throttle Linkage Set
177	4-40 setscrew	A-6227	4-40 x 1/8" Hardened Setscrews
178	Long Z-bend wire	A-9405	Brake/Throttle Linkage Set
179	Linkage spring	A-9405	Brake/Throttle Linkage Set
180	Receiver battery pad	A-4029	Foam Pad for Receiver Battery Mounting
181	8" tie-strap	N/A	N/A
182	NXT body	A-8022	NXT Truck Body w/ Masks
183	Body saver	A-8201	Body Washers, Snap-Fit
184	Body clips	A-8200	Body Clips
185	Window masks	A-8022	NXT Truck Body w/ Masks
186	Sticker sheet	A-8344	NXT Sticker Sheet
187	1-1/8" turnbuckle	A-2005	Adjustable L/R Threaded Rods w/Ends (1.125")
188	8-32 x 1/2" screw	A-6209	8-32 x 1/2" Aluminum Flat-Head Screws
189	White thrust bearing/assembly grease	A-3066	Teflon™ Thrust Bearing/Assembly Grease
190	CVD yoke	A-9922	MIP CVD Driveshafts (XX-T, NXT)
191	CVD rear axle	A-9922	MIP CVD Driveshafts (XX-T, NXT)
192	CVD dogbone	A-9922	MIP CVD Driveshafts (XX-T, NXT)
193	1/16" x 7/16" (solid) pin	A-9922	MIP CVD Driveshafts (XX-T, NXT)
194	Lexan receiver cover	A-8112	NXT Receiver Cover
195	Center bearing spacer	A-9941	Bearing Spacer/Wheel Washer Set
196	Pink shock spring	A-5150	2.5" Spring 2.3 Rate (Pink)
197	One-piece, aluminum exhaust manifold	A-9324	Aluminum 180° Aluminum Header for Non-PS Engines
198	Silicone coupler	A-9325	Silicone Exhaust Coupler Tubing
199	Throttle override spring	A-9405	Brake/Throttle Linkage Set
200	8-32 aluminum locknut	A-9922	MIP CVD Driveshafts (XX-T, NXT)
201	4-40 x 1/4" button-head screw	A-6234	4-40 x 1/4" Button-Head Screws



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