

INSTRUCTION MANUAL



Technical Data

- Length/520mm
- Width/310mm
- Height/220mm
- Ground Clearance/75mm
- Wheelbase/325-330mm
- Track/F:306mm/R308mm
- Gear Ratio/C:44/13T, F/R:38/11T
- Weight/3500g



1/8 Scale Radio Controlled Gas Powered Off Road 4WD Racing Buggy

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This radio controlled racing car is not a toy!
This high-performance R/C model is recommended for ages 14 and older.

Contents



Congratulations on your purchase of the new GS Racing Storm CL-1 RTR 1/8 scale off-road buggy.

Please read this manual thoroughly, before you attempt to start or drive your Storm CL-1 RTR, Storm CL-1 RTR for short. This manual contains step-by-step instructions to help you complete, prepare for startup, and fine-tune your buggy. Updates, setups, and product news will be posted on our website, so check often.

As always, if you should ever have any questions or need help with your Storm CL-1 RTR, please feel free to contact our official GS Racing dealers and distributors, as they will be glad to help you. You may also contact us at any time for the most up to date information and support.

Good luck and good racing!

- GS RACING -



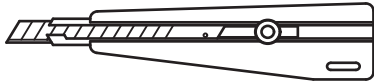
Required Equipment for Operation

1. Tools Required for Building and Maintenance:

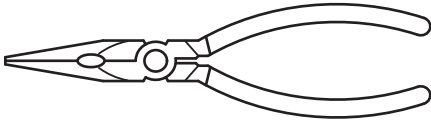
- Precision Ruler or Caliper



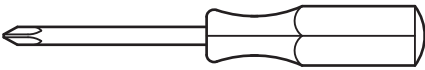
- Hobby Knife



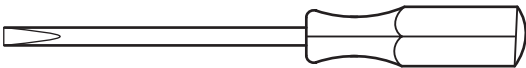
- Needle Nose Pliers



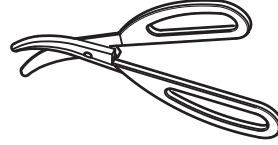
- Phillips Screwdriver (#0,#1,#2)



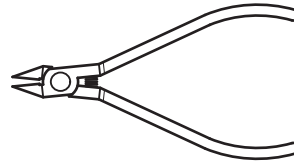
- Flathead Screwdriver



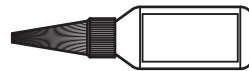
- Hobby Scissors



- Wire Cutters



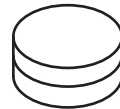
- Thread Locking Compound



- CA Glue and Rubber Cement

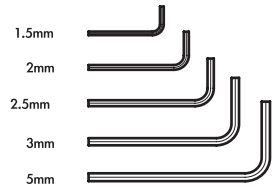


- Silicone Type of Grease

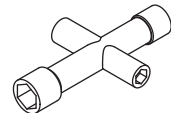
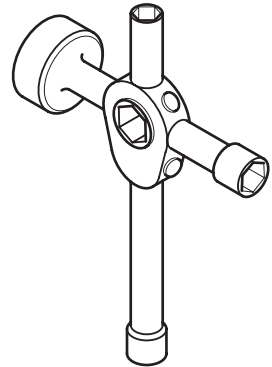


Tools Included:

- Hex Wrench



- Cross Wrench



WARNING!

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

2. Additional Items Required:

- 8 AA size Batteries (For Transmitter)
- 4 AA size Batteries (For Receiver)
- 1AA size Battery (For Igniter)
- One 6-Cell 7.2-Volt Battery Packs for Drill Starter Unit (Drill Starter Kits only)
- Glow Fuel (20-30%)

3. Suggested Items:

- Ni-Cd/Ni-MH Battery Pack (5-Cell Hump Type)
- High Speed/High Torque Servos
- Differential, Shock, Air Filter Oils and Model Grease

Before You Start

Introduction

We have taken the time to build your buggy with our best racing setup, so take the time to follow our instructions to ensure winning results with your Storm CL-1 RTR.

We have outlined an A to Z checklist to help guide you from the final preparation to break-in to advanced setup changes. Continue reading the next several pages before you attempt to operate your CL-1, or use any of the components included.

Your Storm CL-1 RTR is based on the evolution of the original Storm CL-1 buggy used to win numerous regional, national, and international titles all over the world. We believe the Storm CL-1 RTR is the finest RTR buggy available. Improvements over the original Storm RTR series include redesigned chassis, race ready setup, reinforced and redesigned suspension mounts, improved operation guide, and drill start engine.

1. If you find any problems regarding parts or packaging, please contact your local dealer or your GS Racing Distributor. If you ever have any questions, please feel free to contact your GS Racing distributor.
2. The following are symbols used throughout this instruction manual:



Apply CA glue



Attention



Apply air filter oil



Assemble front and rear



Assemble both left and right sides



Grease



Assemble in the specified order



Pure Silicone Oil



Thread Locking Compound

3. We are constantly updating parts to improve our products. These changes, if any, will be noted in supplementary sheets.
4. The circled numbers in the drawings are key numbers. These numbers are to be used to quickly find the part name and item (part) number in the back of the manual.
5. When we refer to left and right sides, we are referring to the driver's point of view from inside the buggy.
6. The engine mounts supplied with the Storm CL-1 RTR may not fit some of the newer type racing engines.

Operation Guide

Safety Precautions

This is a high performance radio controlled model which needs to be operated with caution and common sense. Failure to operate your model in a safe and responsible manner could result in personal injury and/or property damage. It is your responsibility to read and follow all safety precautions. The Storm CL-1 RTR is not intended for children under the age of 14 without adult supervision. GS Racing shall not be held liable for any loss or damages, whether direct, indirect, act of nature, arising from the abuse or misuse of this product or any other product required while operating this model.

- Fuel can be dangerous if improperly handled. Follow all of the manufacturer's suggestions.
- Always keep fuel in a cool area and never use near flame, sparks, or while smoking.
- Keep fuel, and all other flammables, out of the reach of children.
- Always run your model in a well ventilated area outdoors. Never run your model indoors.
- All parts of the engine and exhaust can become extremely hot during, and after use. Be careful not to touch these parts especially when refueling, or making repairs.
- This model creates high levels of noise. Use ear protection if you find noise objectionable.
- This model is controlled by a radio frequency that is vulnerable to interference from many outside sources. This interference can cause a loss of control so it is necessary to operate this model in an open area to avoid personal, or property damage. Always ensure no one is using your frequency before turning on your radio or model.
- Keep all the product included in the package out of reach of children.
- This model contains many fast rotating parts. Never touch them during operation.
- Read, understand, and follow the instruction included with your radio gear.
- Never operate your model near people or property. The speed of this model has the potential for injury and or damage to people and or property.
- Always use original GS Racing and GS approved spare and option parts.
- Never point the radio antenna at a person's face.
- Always ensure the buggy is in proper working condition before use.
- Always exercise caution when using any and all tools.

Never use anything other than model car fuel.

Never operate the model with a low battery. If the response becomes slow, stop immediately and replace batteries. Always use correct batteries and never reverse polarity. Follow manufacturer's instructions for proper battery disposal.

Never run the model without a clean and properly installed air cleaner.

Never run the model lean or allow the engine to overheat.



Step By Step from A to Z

Follow these steps to finish, prepare, break in, and run your Storm CL-1 RTR. Performing the following steps will ensure your Storm CL-1 RTR operates properly. If you are new to R/C or have limited Nitro experience, these instructions should help you get running quickly and with minimal problems.

A: Remove the Storm CL-1 RTR and all other contents from the box. Identify and familiarize yourself with the following items:

- 1) Storm CL-1 RTR with body (body and wheels included in your kit may differ from those shown in photos). Remove the buggy from the packaging board.



- 2) Antenna Tube. This tube houses the receiver antenna wire. You will install this antenna tube shortly.



- 3) Shock Spring Spacers. These spacers fit onto the shocks and are used to raise (or lower) the height of the car (ride height). You may need to install these onto the shock shortly.



Step By Step from A to Z

- 5) Tools. Your Storm CL-1 RTR includes a set of hex wrenches and a 4 way cross wrench. You will use these tools for the various adjustments and maintenance of your Storm CL-1 RTR.



- 6) Fuel Bottle. The fuel bottle is used to transfer fuel from your fuel container to the fuel tank in your buggy.



- 7) Window Sticker Sheet. These stickers will be applied shortly. Storm CL-1 RTR Sticker Sheet. You may apply these to the body shortly.



- 8) Glow Igniter. The glow igniter attaches to the glow plug during engine start up. Inside the igniter is a gold spring. Unscrew the end cap of the igniter, locate the spring now and set aside along with igniter.



Step By Step from A to Z

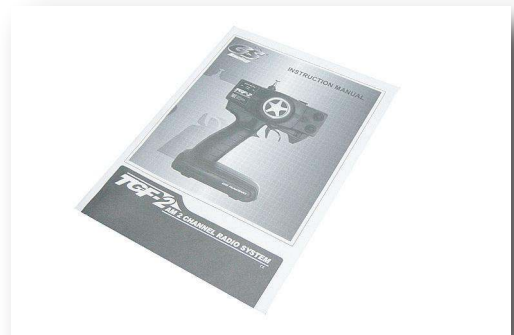
- 10) Radio Control with antenna (control included in your kit may differ from that shown in photo). The radio control is used to drive the buggy and control the various functions (brake, etc.). The radio control unit also contains several knobs and switches, which are used to adjust the servo units in the buggy.



- 11) Power Start Unit with driveshaft (drill start kits only). The Power Start is a hand held unit which is used to start the engine. The shaft is inserted into the coupler in the rear of the engine and when powered, turns the engine over until it starts (much like the starters in F1 or Indy cars).



- 12) Radio Instruction Manual. This manual contains the detailed info for the various functions of the radio.



- B: Remove the body from the Storm CL-1 RTR by removing the 2 body clips and gently pulling the body away from the buggy. Check the buggy over for loose screws and linkages. Also check the wheel nuts to ensure they are tight. Nitro vehicles produce a high amount of vibration, and even through shipping, screws can come loose. If you find any loose screws, tighten them now. Due to pressure variances during shipping, some oil may leak out of the diffs and shocks. This is normal, and in no way harmful to the performance of the buggy. If you find any leaks, simply wipe them clean with a rag.



Step By Step from A to Z

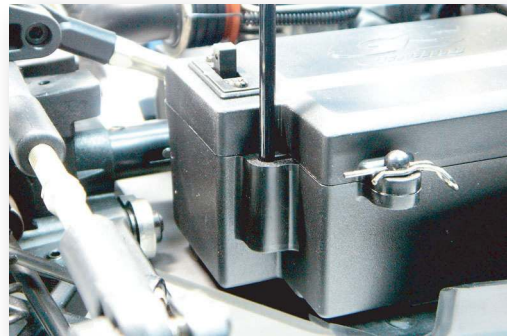
C: Check the tires to make sure they are fully glued to the wheels. Gently peel the tire away from the wheel, and if you find any spots where there is a gap between the tire and wheel, apply a small amount of CA glue.



D: Remove the bottom cover of the radio control and install eight AA size batteries. Always use fresh, fully charged batteries. Read all the 'Safety Precautions' in the radio manual before operating your buggy. Replace the cover.



E: Remove the plastic cap from the antenna tube, unwrap the receiver antenna wire and feed it through the antenna tube. Allow about 1" of the wire to stick out of the tube and place the cap over the tube and wire. Feed the extra receiver wire back through the hole back into the radio box.



Step By Step from A to Z

F: Remove the radio box cover by removing the small clip and lifting the cover out. Remove the battery tray from the box and install four AA size batteries. Again, always use fresh, fully charged batteries. Place the battery tray back in the box and replace the cover and clip.



G: Check and adjust the ride height. Ride height is the height of the buggy at rest. Your Storm CL-1 RTR is factory built to the correct ride height. However, through shipping the shock springs settle and the ride height can change. The proper ride height is front and rear arms parallel (level) with flat ground. For very smooth surfaces (i.e. paved track) you can run the buggy lower, and for very rough surfaces (i.e. rutted track) you can run the buggy a little higher. To check the ride height, place the buggy on a flat surface and press the front and rear of the buggy down several times in rapid succession. Allow the buggy to rise and rest. Look at the front and rear of the buggy at ground level. If the lower suspension arms are parallel with the ground, do nothing (as shown). If the arms are lower (inside of the arms lower than the outside), then add spacers (as shown) to raise the buggy so that the arms are level. Make sure you install the same amount of spacers to the left and right shocks, and adjust the front and rear independently.

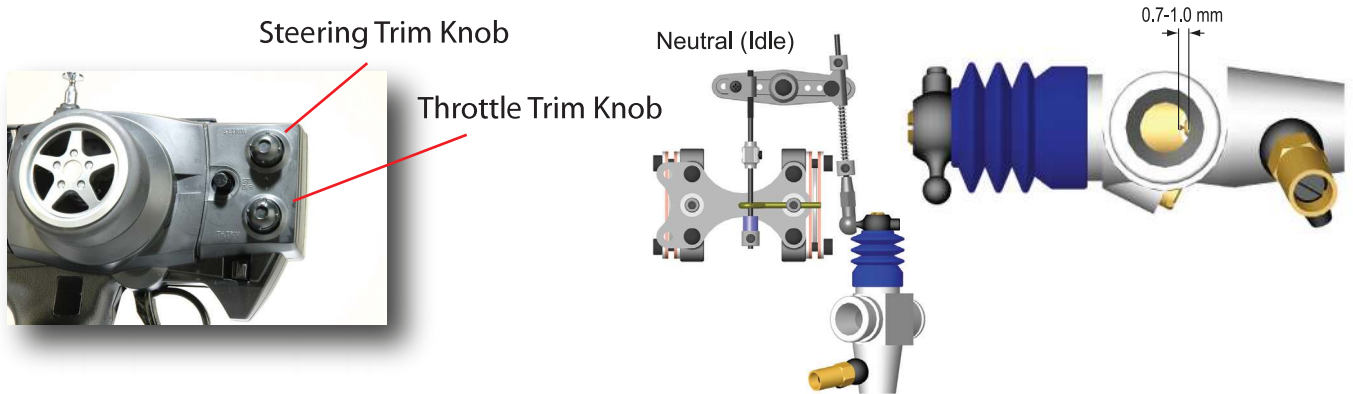


H: Now it's time to check the radio and servo settings. Install the radio antenna in the radio control unit. Turn on the radio control followed by the receiver switch in the buggy. Pull the trigger on the radio. The throttle servo (the servo closer to the rear of the buggy) should turn counter-clockwise. If the servo rotates in the opposite direction, slide the 'TH' servo reverse switch to the opposite setting. Repeat this process for the steering, by rotating the steering wheel left and right and adjusting the 'ST' switch accordingly.

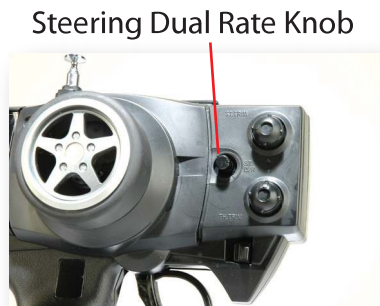


Step By Step from A to Z

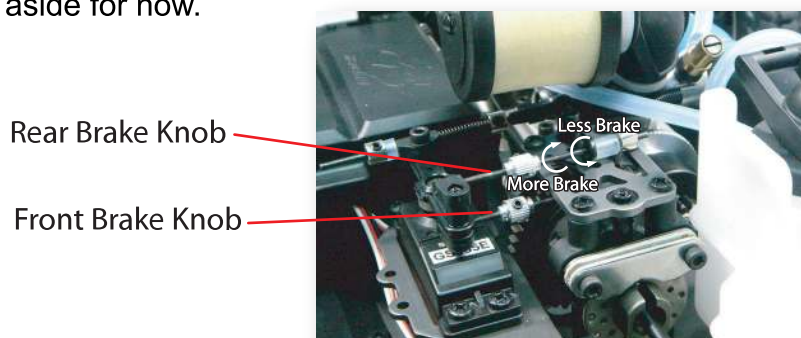
I: Now check the neutral 'trim' settings. With the steering wheel and trigger in the neutral position (hands off), the wheels should be pointing straight ahead, and the throttle servo horn should be pointing straight back and forth with the carburetor in the neutral (closed) position. If either servo is not centered, rotate the steering and throttle trim knobs accordingly to place both servos in the correct neutral position.



Set the steering dual rate. Dual rate is the amount of maximum steering, left and right. It is controlled by the thumb activated knob directly below the steering wheel. Rotate the knob so that the white mark is centered. Rotating the knob to the right will increase the amount of steering (smaller turning radius), and turning the knob to the left will decrease the amount of steering (bigger turning radius). We suggest keeping the white mark in the center position.



Now check the brake bias. The front and rear brakes are activated by the brake cams located in the center diff mount and can be adjusted independently. We suggest an equal brake bias front and rear. Push the trigger to activate the brakes. On a smooth paved surface, pick the rear of the buggy off the ground and push the buggy forward, with the brakes engaged. The front wheels should barely rotate as you apply pressure. Now pick up the front of the buggy and push the buggy backwards. The rear tires should have the same amount of resistance. If one end has more brake bias than the other, adjust accordingly by rotating the brake rods as shown below. You can also increase or decrease the total amount of front and rear brake using these knobs. Turn off the receiver switch and the radio switch and set aside for now.



Step By Step from A to Z

J: The air filter is pre-oiled at the factory. However, it is a good idea to make sure it is well oiled before each and every run. Gently squeeze the foam of the filter. If it does not leave a residue on your fingers, apply a light coat of model air filter oil to the entire surface of the filter foam and remove excess oil with a clean rag.



K: Fill your fuel bottle with brand name 20% model car glow fuel. Lift the lid of the fuel tank, place the tube of the fuel bottle over the opening, and full with fuel. Be careful not to spill fuel on the buggy.



L: Install a fully charged 6 cell 7.2V battery into the Power Start Unit (drill start kits only). Install the battery plug into the unit. If you have not done so yet, insert the driveshaft into the unit now.

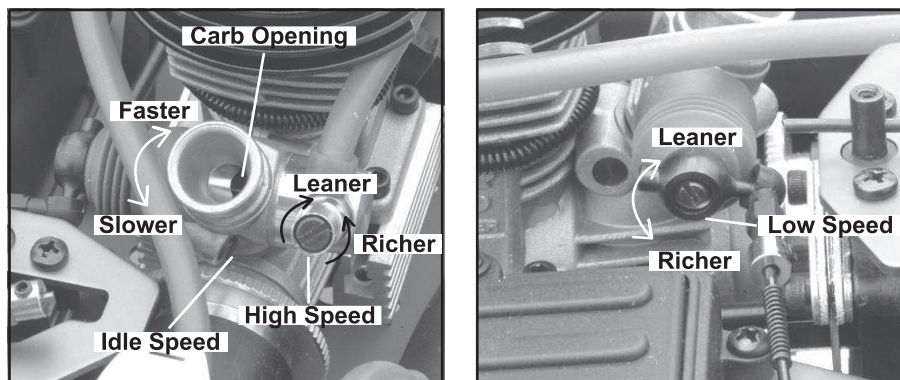


M: Install an AA size battery into the glow igniter as shown. Replace the spring and end cap and tighten fully. After usage, always remove the battery from the igniter. More powerful aftermarket rechargeable igniters are available at your local hobby shop.

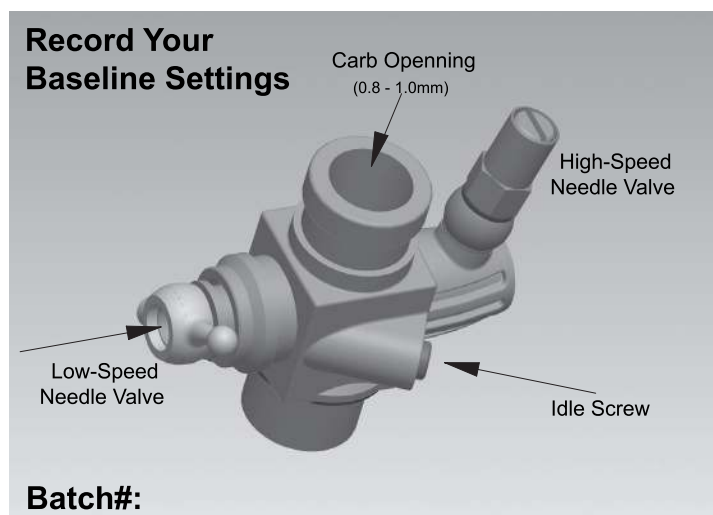


Step By Step from A to Z

N: The adjustment needles (adjustment screws) on the engine carburetor are preset at the factory for engine break-in. These needles control the fuel/air mixture of the engine, and are used to tune the engine during and after break-in, and during the use of the engine. These needle settings may need minor tuning as ambient temperature, brand and nitro content of fuel, atmospheric pressure, type of surface driven on, and other factors, all have an effect on the engine idle, tune, and temperature. Tightening the needles will 'lean' the engine, making the speed faster. Loosening the needles will 'richen' the engine, making the speed slower. The factory presets, along with the information in this manual should help you properly and easily start, break-in, and tune the engine. If you are unsure about your ability to properly break-in and tune the engine, or encounter difficulty, please seek help from your local hobby shop or GS distributor. Nearly all engine problems are directly related to poor break-in procedure and improper adjustments. The following guidelines are for the GS-B03 engine only, follow them carefully!

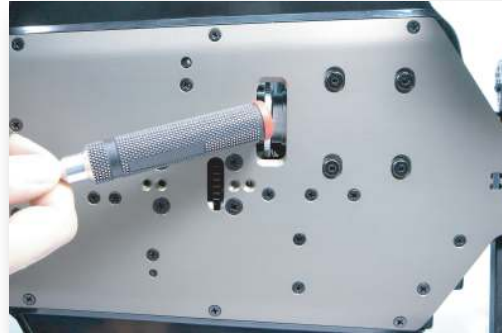


The High-Speed (also known as the Main or Top end) needle controls the high end rpm's of the engine. This needle is located in the brass tube directly next to the air filter. The Low-Speed (also known as the bottom end) needle control the low end rpm's of the engine. This needle is located inside the rubber boot, directly next to the ball linkage. Should you lose the baseline settings, you can easily re-tune the motor to the proper starting point by tightening (turn clockwise) the needle slowly until you begin to feel resistance. Stop, and loosen (turn counterclockwise) the needle the said number of turns. The idle screw, located just above the flywheel, does not control the fuel mixture, but instead is used to raise or lower the idle rpm by physically limiting the carburetor opening while the throttle is in the neutral or brake position. The gap in the carburetor (remove the air filter assembly to view) should be 0.8~1mm.



Step By Step from A to Z

N: Before starting the engine, familiarize yourself with a few ways to safely shut off the engine. The easiest way is to allow the fuel to run out. To expedite the process, you can draw the fuel out of the fuel tank with your fuel bottle. A second method is to pinch the fuel line as shown. Carefully pinch the fuel line (the tubing from the fuel tank to the engine) until the engine stops. Be careful not to cut or damage the tubing. A third way is to press the tip of a screwdriver or other tool against the flywheel, as shown. A fourth method is to cover the exhaust outlet. Do not use your bare fingers, as the exhaust gets extremely hot during use. Instead, use a thick rag and cover the outlet until the engine stops.

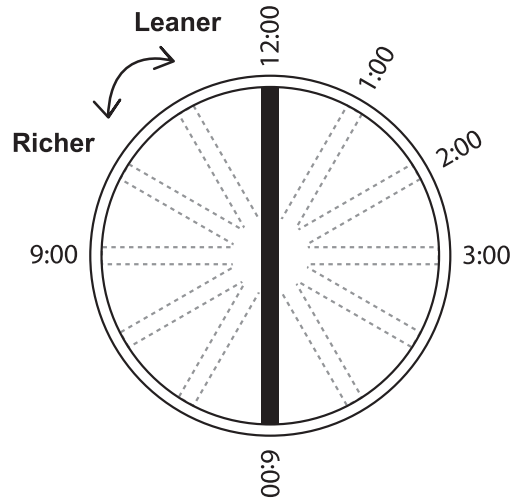


O: Now it's time to start the engine and begin the break in process. Turn on the radio followed by the receiver switch. Make sure the throttle servo is in the neutral position and the carburetor is in the closed position. Place the car on a block, so that the wheels are off the ground. Place a rag over the exhaust pipe outlet, pull the engine starter 3-4 times. This will force fuel into the carburetor. Remove the rag, and attach the glow igniter to the glow plug in the engine, and press the button until the engine starts. If the engine does not start within 5 seconds, stop, wait, and try again. To help aid the engine start up, you may apply a small amount of throttle during the first few seconds after it fires. If the engine does not start at all, refer to the engine troubleshooting page. If the engine starts, but shuts off due to a low idle speed, tighten (clockwise) the idle screw $\frac{1}{2}$ turn. If the engine runs for 10-30 seconds and shuts off, tighten (lean/clockwise) the low speed needle $\frac{1}{4}$ turn, and/or leave the igniter on the glow plug to keep the plug 'lit'. Since the engine runs 'rich' during break-in, keeping the glow plug 'lit' helps keep the engine from flooding and shutting off. If the engine starts but the idle is very high, loosen the idle screw $\frac{1}{2}$ turn and/or make sure the throttle is in neutral/brake and the carburetor is in the closed position.



Step By Step from A to Z

Q: After the engine has broken in and tuned for proper speeds and performance, you will likely need to fine tune between race weekends or even on the same day. Adjust only one needle at a time, and in one hour increments.



The optimum high speed needle setting will allow the engine to accelerate to top speed with no hesitation, and maintain that speed with a thin stream of white smoke from the exhaust. If the high speed needle is too lean, the engine will hesitate during acceleration and will lose power at high speeds. The engine will also overheat. After setting the high speed needle, you can set the low speed needle. Apply full throttle for 2 seconds, followed by full brakes. Wait 5 seconds, and apply full throttle again for 2 seconds. The engine should accelerate smoothly with a large puff of smoke, and only a slight sluggishness or 'blubbering'. If the low speed needle is too rich, the engine will 'blubber' heavily during the above mentioned process. If the low speed needle is too lean, the engine will hesitate or 'starve' for fuel during acceleration.

R: It's time to finish your Storm CL-1 RTR. Shut the engine off and allow it to cool. Wipe the buggy clean with a dry rag, and inspect for loose screws. Remove the clear coating from the body, and apply the window decals as well as the Storm CL-1 RTR decals, to your liking. Reinstall the body on the car and secure with the body clips. Fill up the tank with fuel, and you are off to the races!



Step By Step from A to Z

W: Your Storm CL-1 RTR is built and setup to our Factory Team Specs. The stock setup will work well on most tracks. The only major setup change you might make is tires. The stock tires will work on a variety of surfaces and tracks, but ask the locals for the best tire for your specific track. We suggest Panther tires, as they are available in a wide variety of patterns and compounds. Otherwise, refer to the setup sheet in the back of the manual should you need to replace the shock or diff oils, or replace broken parts, for the correct settings. Your CL-1 RTR does offer a wide variety of adjustments, so experiment to fine tune to your track needs, or contact us for setup tips. We have won many races with our Storm series buggies over the years, and your CL-1 RTR is a capable race buggy.

X: A full line of GS option parts is available; contact us for details and/or check the back of this manual for parts listing. Fioroni also offers a full line of Storm option parts, as do several other companies.

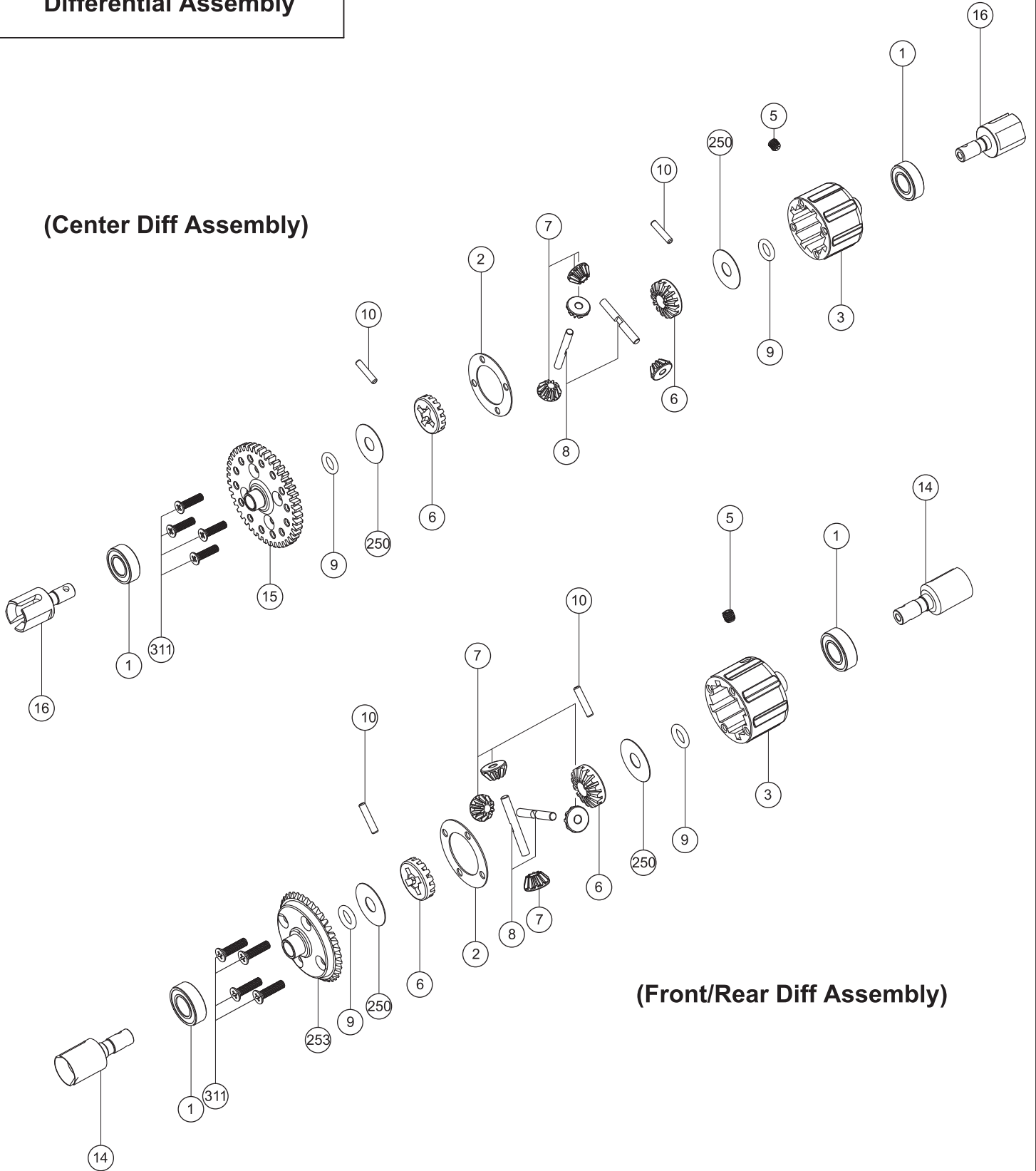
Y: Maintenance is important on any RC model. Even though your CL-1 is an RTR, it still requires basic cleaning and maintenance. Always check for loose screws before each run. After each race weekend, disassemble the buggy (use this manual for reference) and check for bent or broken parts. Worn out or bent parts will cause other parts to bend or break. Shock and differential oils need to be replaced regularly. Clutch shoes and springs have a limited life span, so replace when performance drops. The servos in your kit also have a limited life span. Even the most expensive servos do not last forever. Your engine, if properly tuned and cared for, can last through several gallons of fuel. Always draw out all the fuel out of the tank, apply after-run oil to the engine, and remove batteries before storing the kit away.

Z: Warranty: Your CL-1 RTR warranty covers workmanship and manufacturing defects of the original and unmodified parts. Warranty claims resulting from crashes, abuse, improper operation, improper mounting, improper adjustment or lack of maintenance will not be honored. Ready to run does not mean maintenance free, nor does it imply that the buggy or any parts of it are impervious to wear and tear or even unexpected breakage. The GS-B03 engine and supplied Power Start unit are only warranted against factory defects in material and/or workmanship. Under no circumstances will the engines be considered under warranty if they have been disassembled, operated on anything other than r/c car model glow fuel, run with lean needle settings, without a proper functioning air filter, or used for any purpose other than that which the engine was designed and manufactured for. In other words, if you redline the engine, or run it with a dirty air filter, or tighten the needles too far, it's not covered.



Differential Assembly

(Center Diff Assembly)



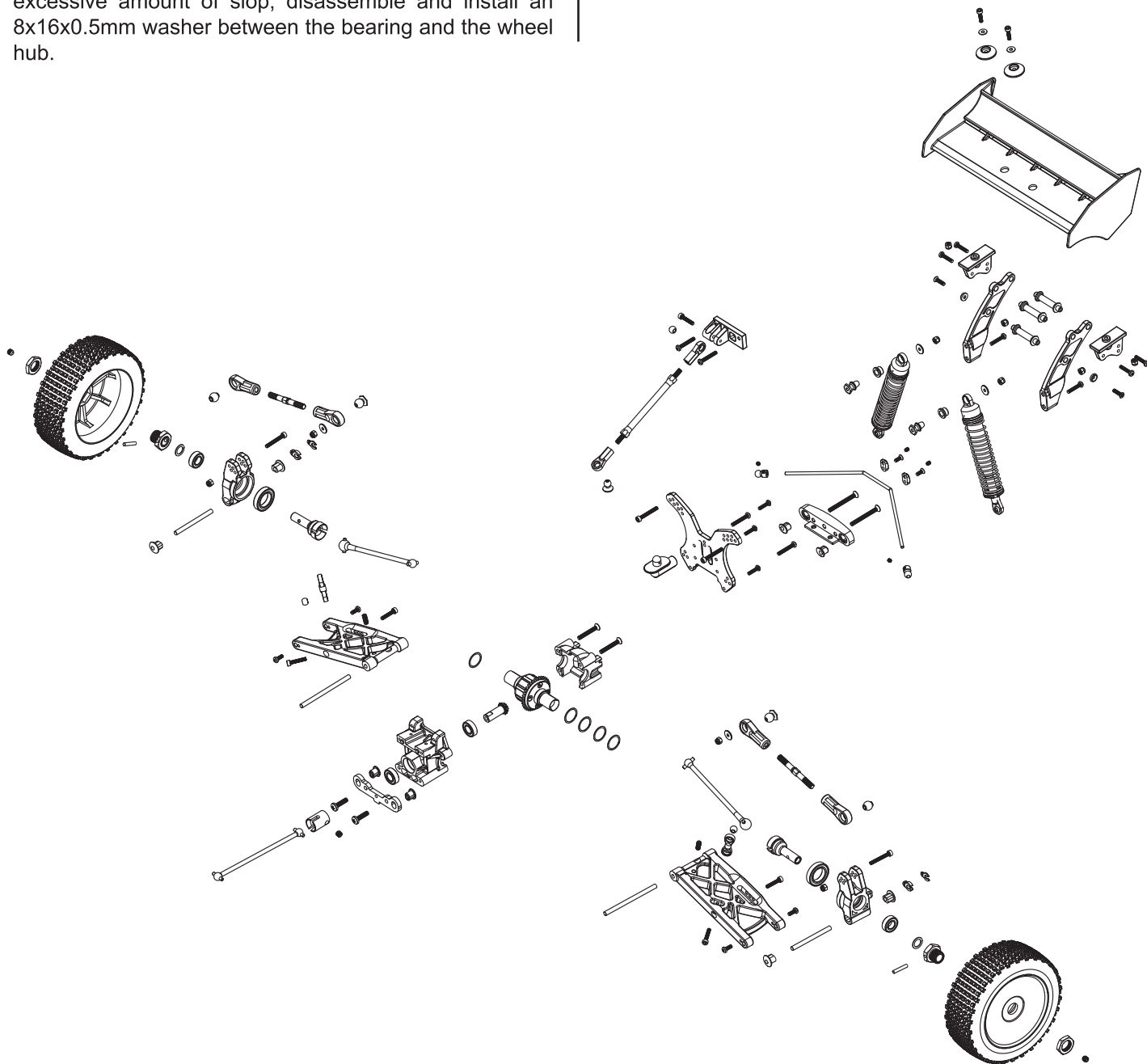
(Front/Rear Diff Assembly)

Differential Assembly: In this step you will assemble the diff cases for the 3 differentials. Slide the bearing onto the output shaft of the diff case. Apply a light coat of grease to the male portion of the diff out drive and insert it through the diff case. Apply a very light coat of grease to the o-ring, then slide it over the shaft of the out drive and seat it in the diff case. Slide the shim on the shaft and over the o-ring. Insert the pin through the hole in the diff case and through the hole in the shaft of the out drive. Check to make sure the out drive rotates freely. Install the set screw in the hole in the diff case and tighten until just under flush with the outside of the diff case. Slide the large bevel gear over the pin. Slide one of the small bevel gear assemblies into the grooves of the diff case and over the large bevel gear. You may need to rotate the out drive to allow the small bevel gear assembly to seat properly. Check to make sure all parts rotate smooth and are properly seated. Repeat for second diff case.

Rear Suspension Assembly

Rear Hub Carrier Assembly: The rear hubs on the CL-1 RTR are not the same left and right. Push a 24x15x5 bearing into the inside of the hub and an 8x16x5 bearing into the outside of the hub. Slide a rear wheel axle through the bearings. Slide a wheel hub over the axle, lining up the holes in the axle and wheel hub. Push the 3mm pin through the hub and axle. Fasten the pin in place with a 5x5mm set screw. Repeat for other hub. Check to ensure wheel axle spins free. If the axle has an excessive amount of slop, disassemble and install an 8x16x0.5mm washer between the bearing and the wheel hub.

Wing Stay: Insert the wing posts into one of the wing supports followed by the other wing support. Attach the wing mounts to the assembly using four 3x15 OH/ST screws. Use the upper hole on the wing mounts as shown. Fasten the third (lower) wing post using two 3x12 FH screws and 3mm washers. Attach the wing mount assembly to the rear bulkhead using two 3x16 Cap screws. Attach the rear chassis brace using the brace insert and cap screw as shown.

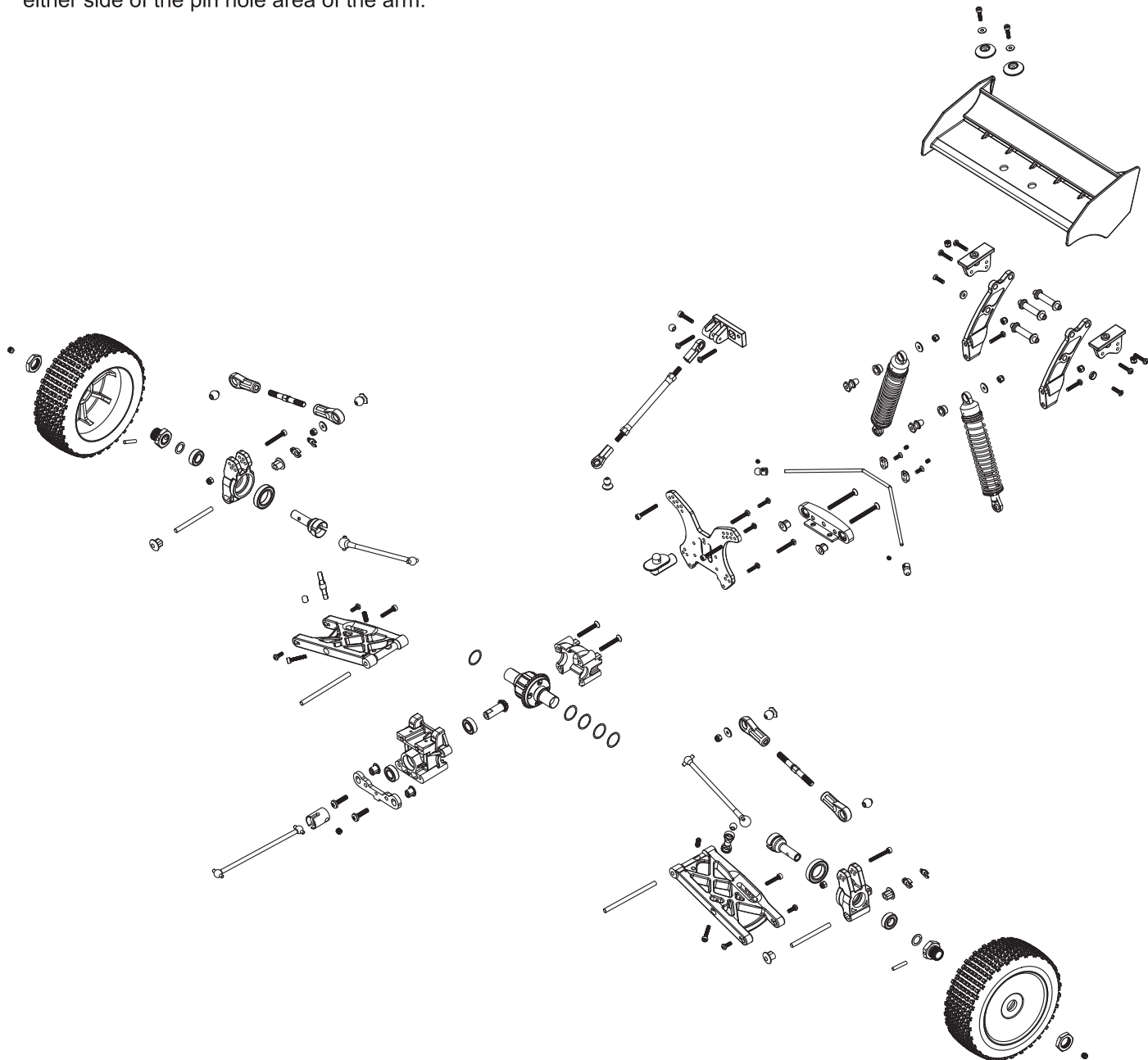


Rear Lower Arms: Thread a 4x10mm set screw through the hole on the tab of the inside of the right and left arms until it sticks out 1.5mm. You will recheck this down stop setting later.

Rear Suspension: Install a #31 insert circle side up, into the anti squat mount. Attach the mount to the bulkhead. Slide pins into mount followed by arms. Install a #31 insert circle side out or a #32 insert into suspension mount. Slide mount over pins and attach to bulkhead. Make sure inserts are fully seated. Check fit and rotation of arms. Should there be binding in the movement of the arms, disassemble and remove a small amount of material from either side of the pin hole area of arm.

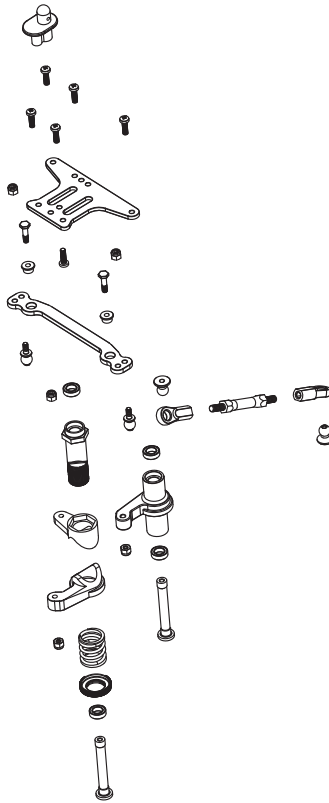
Front Suspension Assembly

Front Lower Arms: The front lower arms are not identical left and right. Thread a 4x10mm set screw through the hole on the tab of the inside of the arm until it sticks out 2.5mm below the arm. You will recheck this downstop setting later. Install a #31 insert circle side down or #32 insert into the front suspension mount. Attach the mount to the bulkhead using 4x16 FH screws. Slide the pins, followed by the arms (note direction of left and right arms), round insert and front suspension plate into the mount. Make sure inserts are fully seated. Check fit and rotation of arms. Should there be binding in the movement of the arms, disassemble and remove a small amount of material from either side of the pin hole area of the arm.



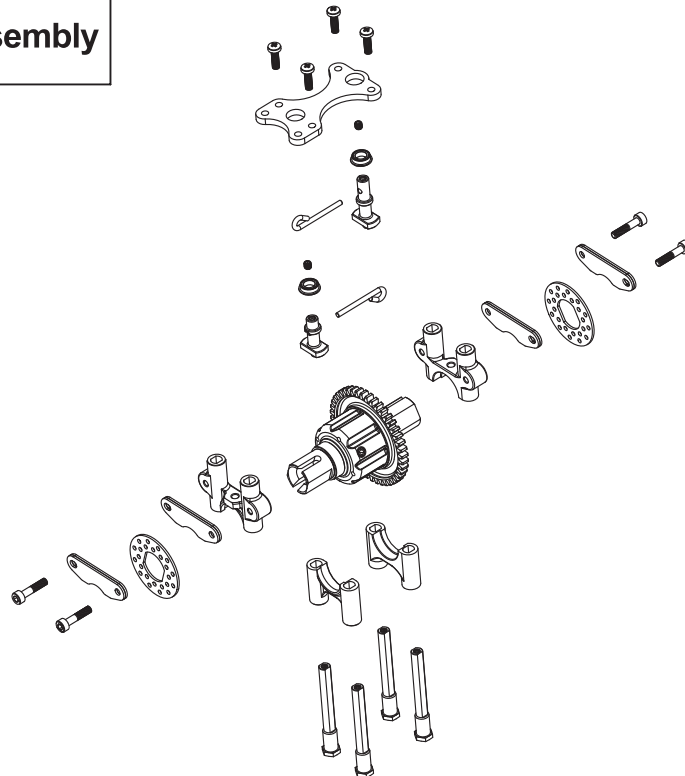
Steering Knuckles: First assemble the pivot balls by threading the ball onto the turnbuckle, open side first (insert). Slide the 14mm pivot balls into the knuckles, and pull them through until they are properly seated. Place the 14mm pivot ball cups, cup side first, over the pivot balls. Place the pivot ball nuts into the knuckles and carefully tighten. As you tighten the nuts, check to make sure the pivot ball cups do not slide out of place. Continue to tighten until snug. Check the play of the pivot ball against the pivot ball cup and nut. If the pivot balls have too much play/slop, continue to tighten the pivot ball nut. Repeat this until the pivot balls bind slightly then back off the nut about 1/8 turn. Slide the small and large bearings into the knuckles. Slide the front universal drive shafts through the bearings and attach wheel hubs with pin and set screw. If the drive shaft has an excessive amount of slop, disassemble and install an 8x16x0.5mm washer between the bearing and the wheel hub. Install 6.8mm ball studs in hole. Install ball stud into knuckle and fasten in place with 3mm locknut. Slide the knuckle pivot ball washers over the threads of the pivot ball turnbuckles. Repeat for left side.

Steering System Assembly



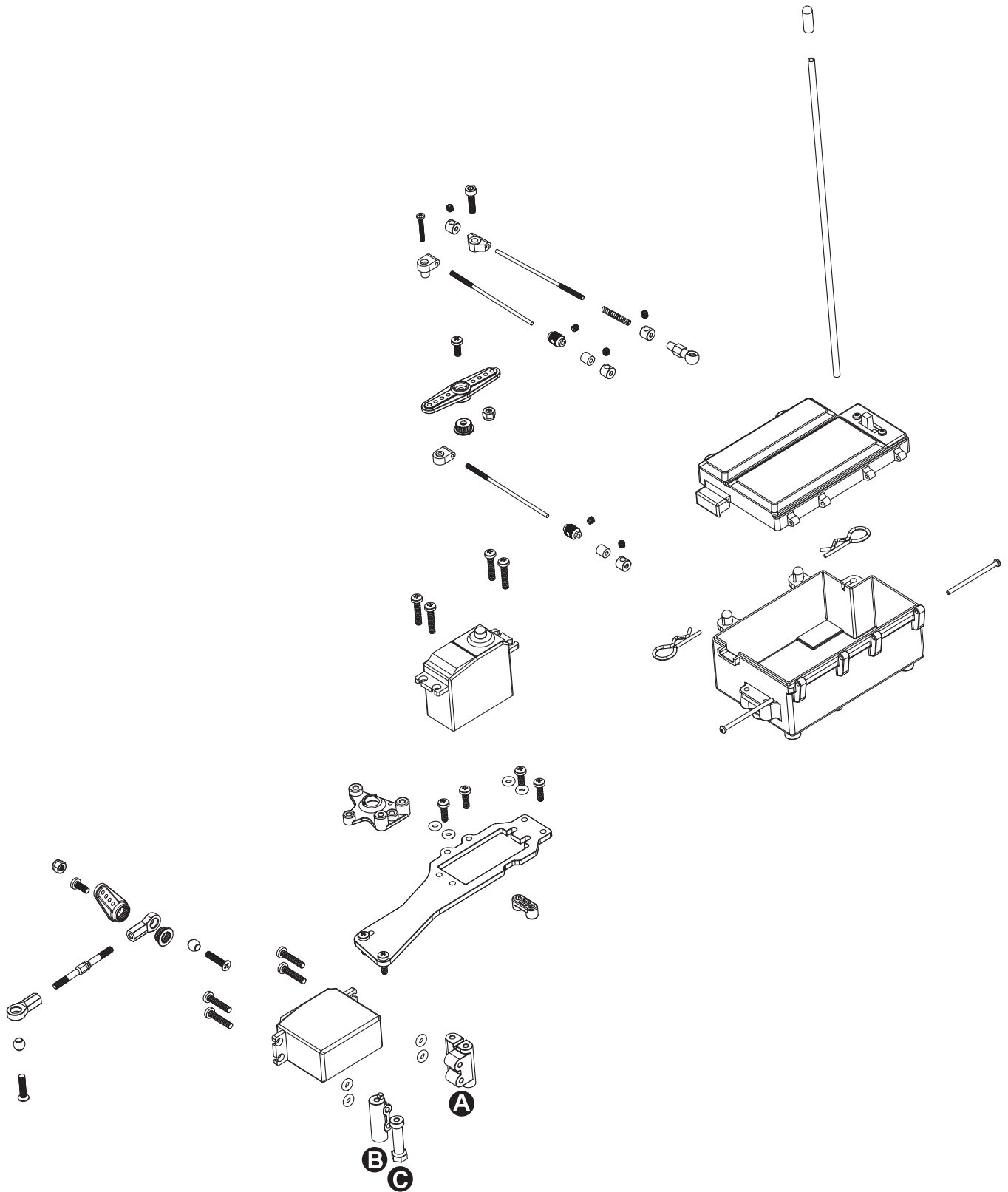
Servo Saver Assembly: Attach the steering plate as shown to the bellcranks using 3mm locknuts, bushings, and plate screws. Next, insert the bearings into the bellcranks and slide the shafts in the direction shown.

Center Diff & Brake Assembly



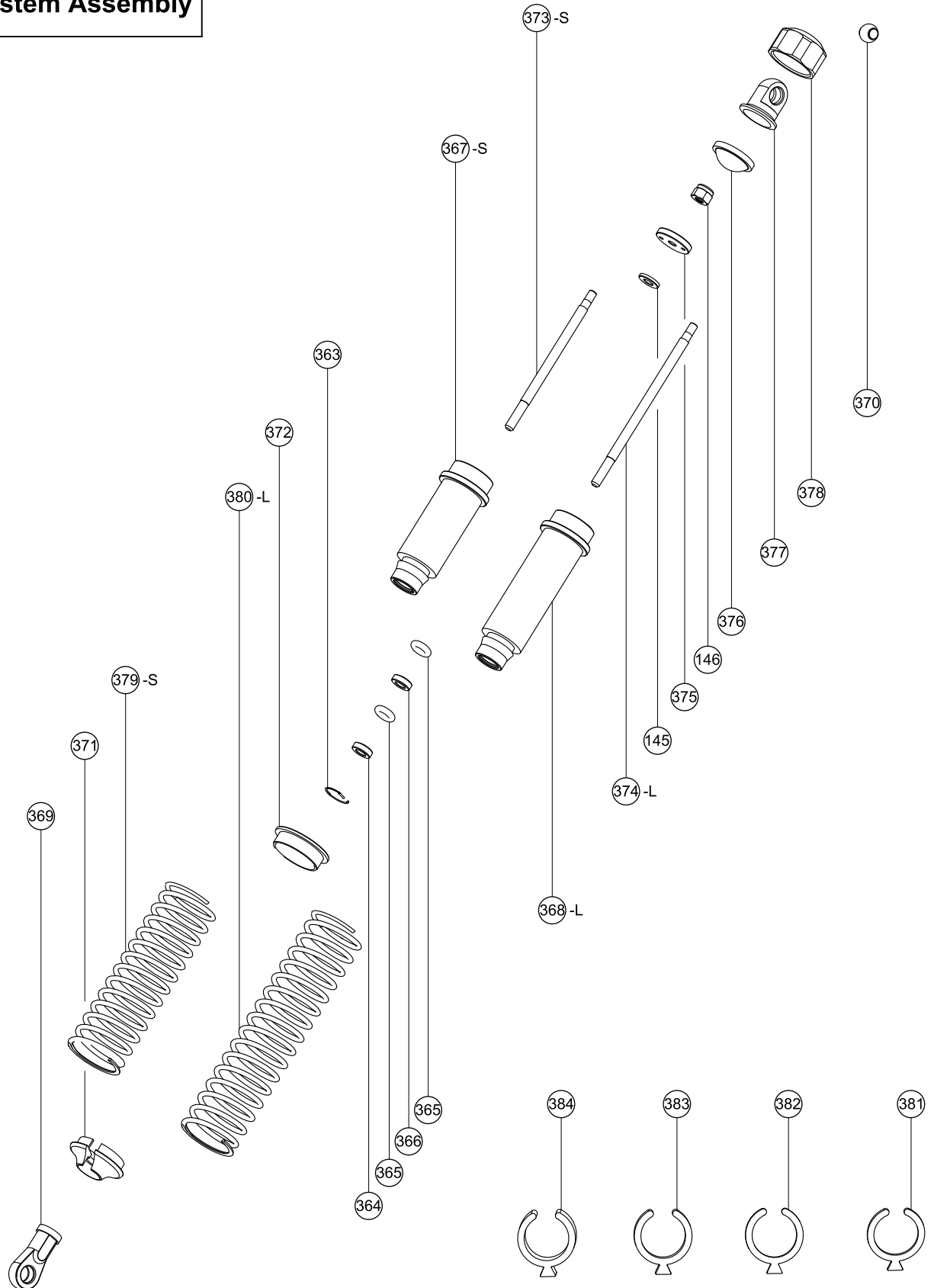
Center Diff and Brakes: The assembly method shown in the diagrams can be difficult to follow. To facilitate the assembly: Slide the diff mount 'B' pieces over the diff mount posts, as shown on the left. Attach the mount/post assemblies to the chassis as shown below using 4x10 FH screws. Place the center diff onto the mounts on the chassis, making sure the diff is properly seated in the grooves of the diff mount and the dogbones seat into the outdrives. Slide the upper diff mounts without the brake cams and levers onto the diff posts. Line up the brake discs between the brake pads and push the upper mounts down until snug. Place the short and long brake cams with bearings into the diff assembly, noting location and direction for each (see diagram at the top of the page). Slide the upper plate over the brake cams and fasten with 3x10 Screws. Slide the brake lever into the long brake cam, and after centering both brake levers, fasten with set screw (see diagram at the top of the page). Check to make sure all parts spin free. Check brake tolerances.

Steering System Assembly



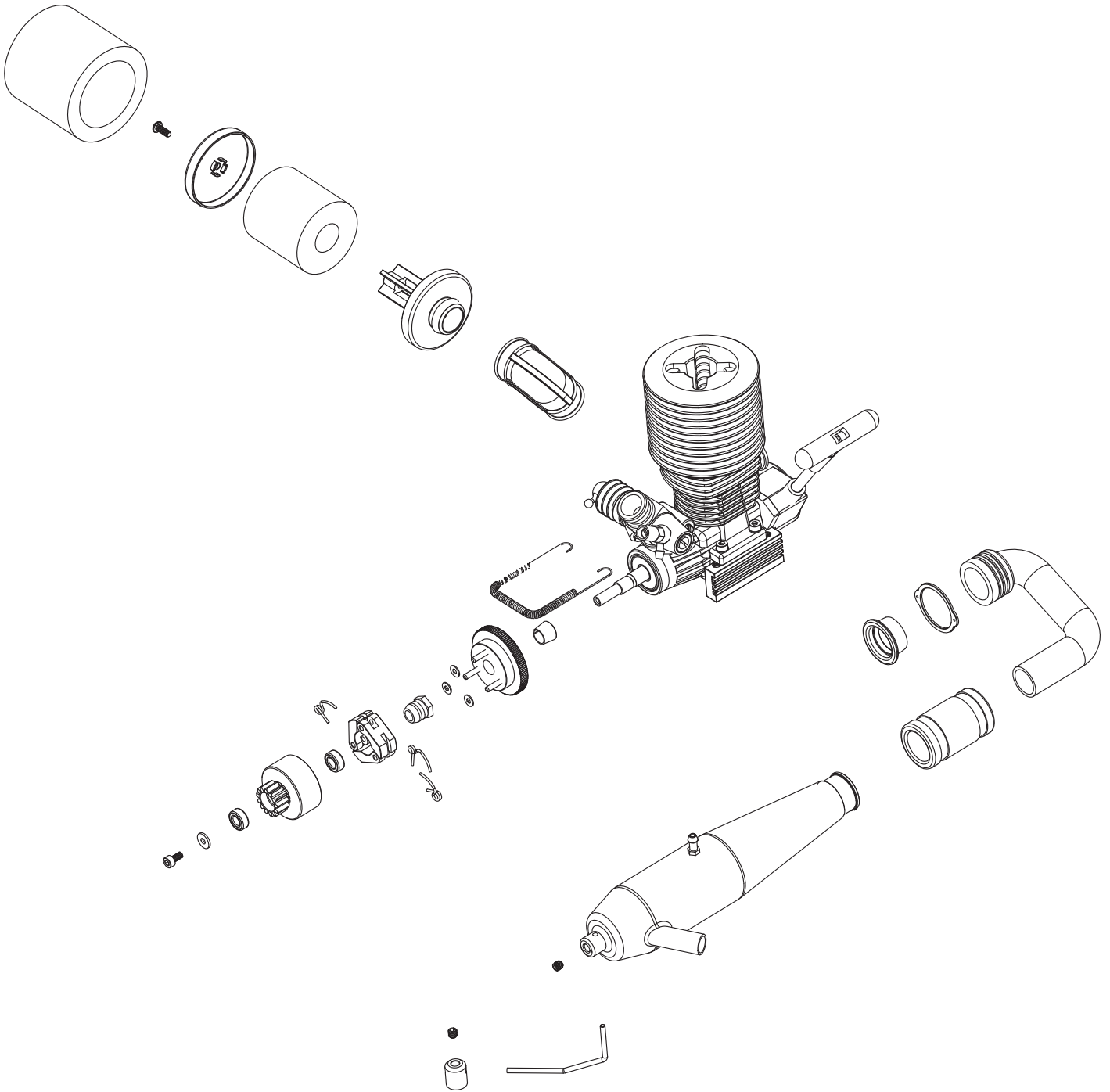
Servos: Install the rubber grommets included with your servos to the servos. Attach post C to the radio tray, hex side down. Attach throttle servo to tray with servo mount (shown on left). Attach post A to tray and servo (note direction). Attach steering servo (shown on right) to posts A and B. Do not overtighten any of the screws. Route steering servo wire around the outside, away from the center of the car. Attach transponder mount and linkage. If you have a personal transponder, install it now.

Shock System Assembly

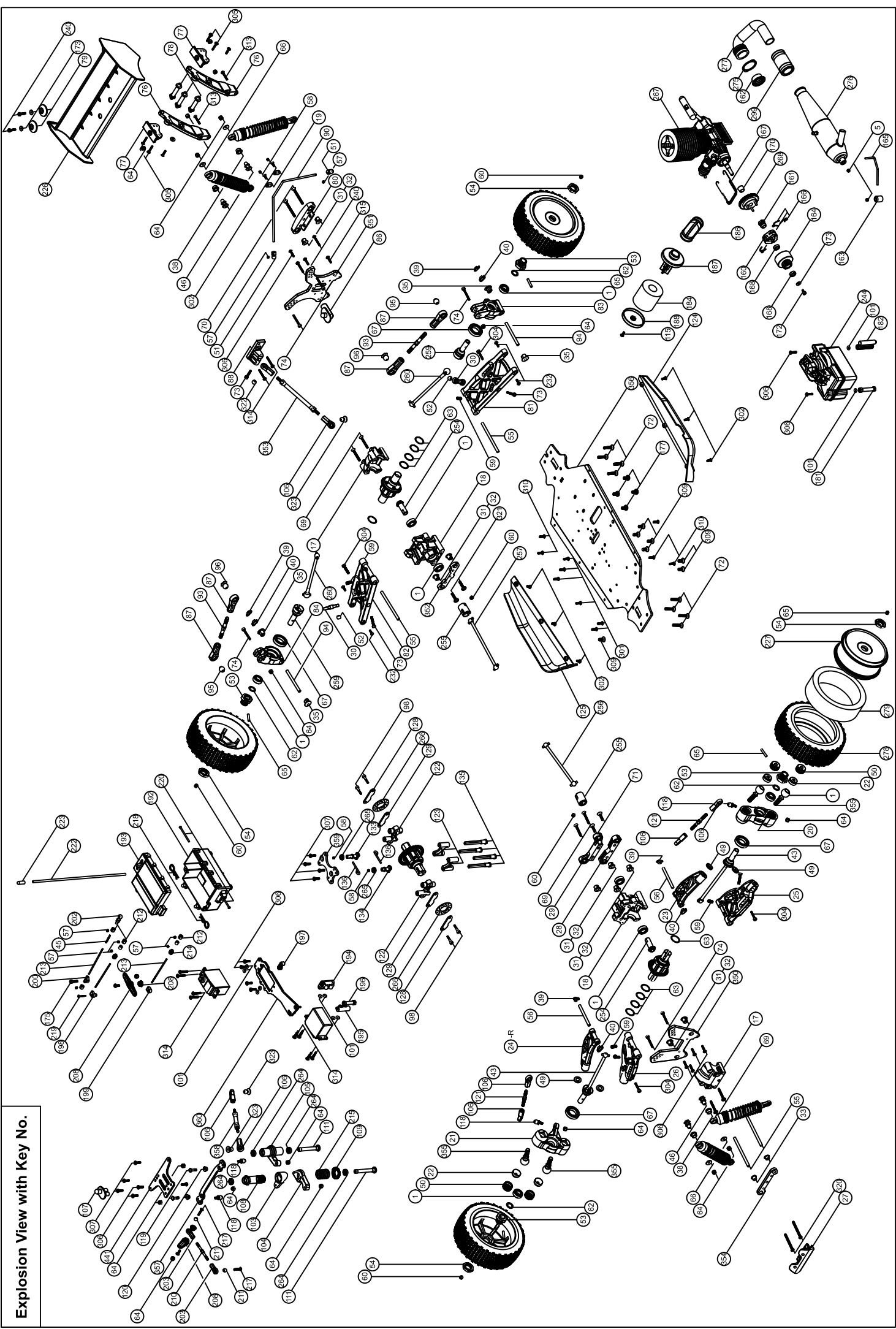


Shock Body/Piston: You will build 2 front (short) and 2 rear (long) shocks. Slide a 2.6mm washer over the stepped end of a shock shaft. Place a piston over the shaft and secure with 2.5mm locknut. You may hold the shaft with pliers, holding the pliers just above the threads at the opposite end of the shaft. Apply a drop of shock oil to the o-rings. Place an o-ring, followed by a 2mm plastic washer, a second o-ring, and 1mm plastic washer into the bottom of the shock body. Gently press the 1mm washer to seat the parts and expose the small groove in the body. Carefully place the G-ring in the shock body and snap into the groove. Apply a drop of oil to the threads of the shock shaft and carefully insert through the shock body. Tighten ball ends onto shafts until the threads of the shafts are covered. Install ball studs in ball ends, making sure they rotate freely. Keep any extra hardware as spares.

Engine Clutch System Assembly



Clutch: Rotate carb, ball link, and fuel nipple to direction shown. Install engine mounts using 3x12 Cap screws and spring washers. Slide kit collet and flywheel over crankshaft and secure with pilot nut. Slide three 2.6mm washers onto flywheel posts. Place springs into the grooves of the clutch shoes. Align and slide shoe and spring assembly onto a post. Use caution and push down on the shoe and snap the tip of the spring into the groove on the nut. The shoe should be flush with the washer. Work in a counter clockwise direction until all 3 shoes are installed. Next, slide a bearing, clutchbell, bearing over the crankshaft and secure with a 3x8 washer and 3x6 Cap screw. Your kit includes 5x7x0.2mm washers. Use these washers to reduce the play of the bell. If the bell has too much play, remove the bell and bearings, and place shims over the shaft. Reinstall the bell and check for play. You can also place shims between the outer bearing and shim. The bell should have 1mm of play. The bell should be flush with the inside edge of the shoes.



Explosion View with Key No.



SET-UP SHEET

Race time / Lap: _____

Best lap: _____

Name: _____
Date: _____
Track: _____

Track Conditions

Size: Open Med. Tight
Traction: High Med. Low
Surface: Smooth Med. Bumpy

Diff. Oil

Front: # _____
Center: # _____
Rear: # _____

Engine

Type: _____
Gasket: _____ mm Muffler: _____
Plug: _____ Fuel: _____

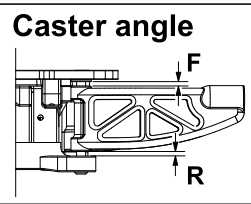
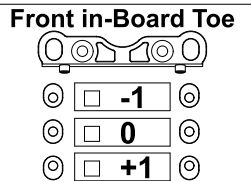
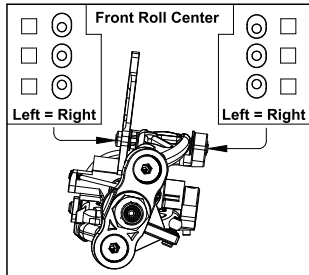
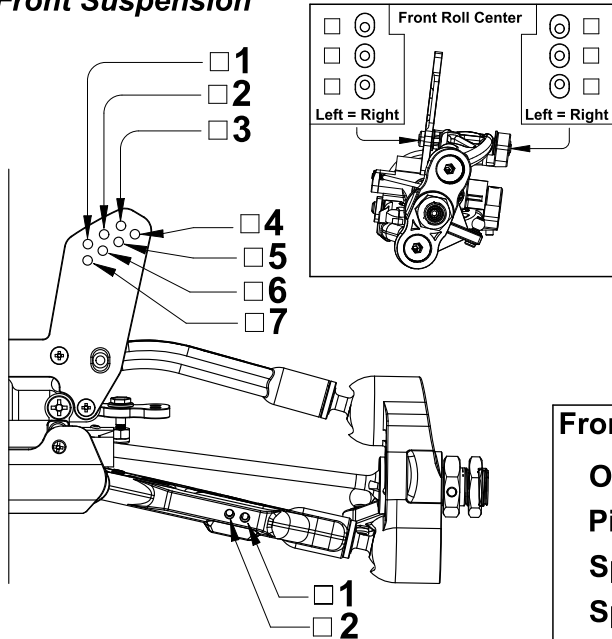
Tire

Front Type: _____ Rear Type: _____
Foam: _____ Foam: _____

Clutch

Clutch shoes: _____
Spring: _____ mm
Clutch bell / Spur gear: _____

Front Suspension

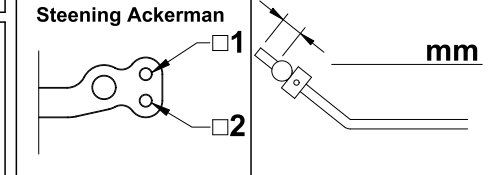


Front Shocks

Oil: _____
Pistons: _____
Spring: _____
Spacer: _____ mm

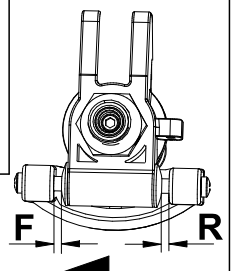
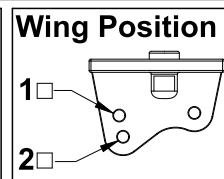
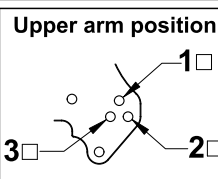
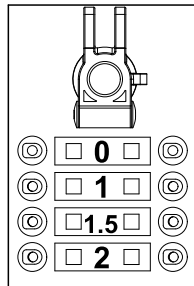
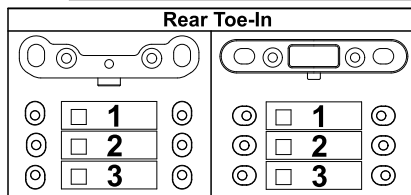
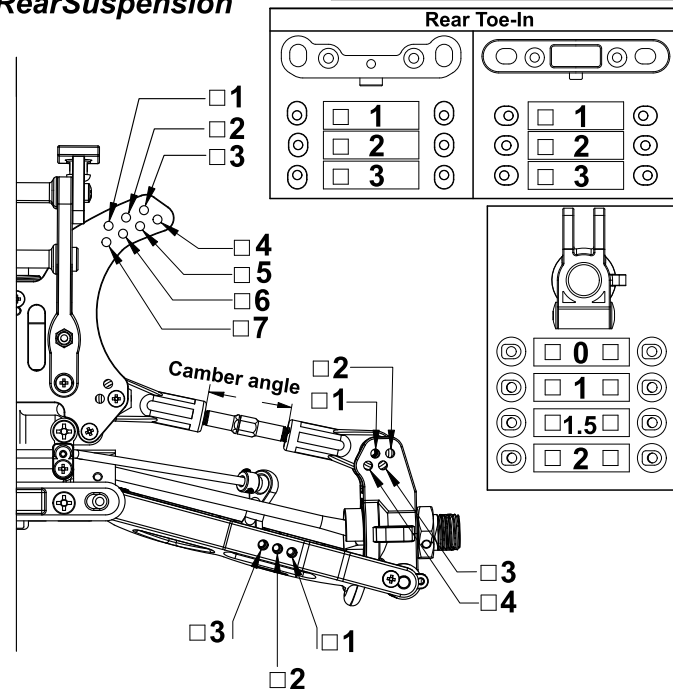
Track width _____ mm
Camber angle Upper _____ mm
Lower _____ mm
Caster angle F _____ mm
R _____ mm

Toe angle _____
Rebound stop _____ mm
Sway bar Use _____ mm
 None



Notes: _____

Rear Suspension



Camber angle _____ mm
Rebound stop _____ mm
Wheelbase adjustment F _____ mm Front
R _____ mm
Sway bar Use _____ mm
 None

Rear Shocks

Oil: _____
Pistons: _____
Spring: _____
Spacer: _____ mm

Notes: _____



SET-UP SHEET

Race time / Lap: _____

Best lap: _____

Name: STORM CL-1 RTR
Date: Baseline Setup
Track: _____

Track Conditions

Size: Open Med. Tight
Traction: High Med. Low
Surface: Smooth Med. Bumpy

Diff. Oil

Front: # GS Grease
Center: # GS Grease
Rear: # GS Grease

Engine

Type: GS B03 .21 High Torque Engine
Gasket: 0.2 mm Muffler: GSC-ST081
Plug: GS No.4 Fuel: 20%

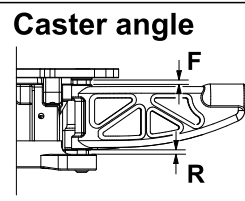
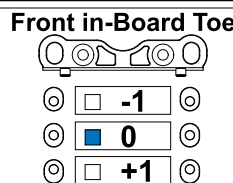
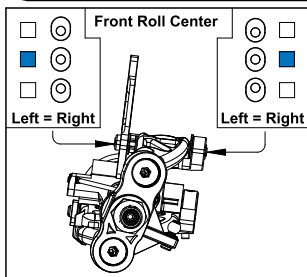
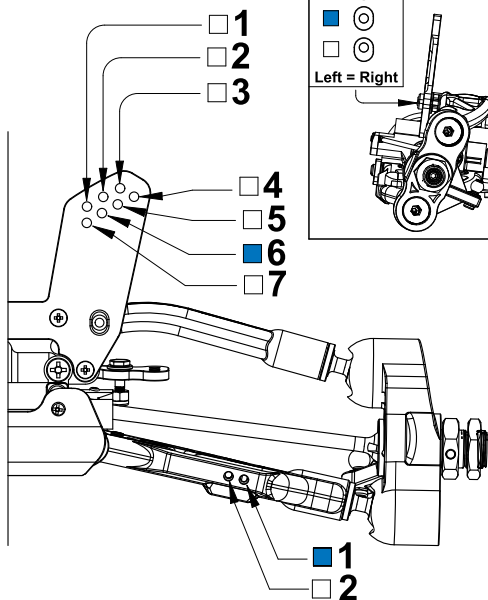
Tire

Front Rear
Type: GS Spider Type: GS Spider
Foam: GS Foam: GS

Clutch

Clutch shoes: GS-ST004
Spring: 1.0 mm
Clutch bell / Spur gear: 13/44T

Front Suspension

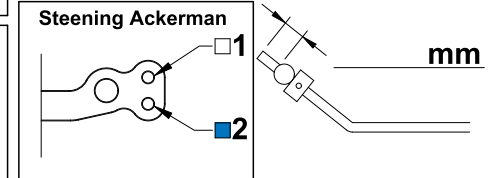


Front Shocks

Oil: GS 300cps
Pistons: 1.2mmX2
Spring: D1.5mmBK
Spacer: 2.0 mm

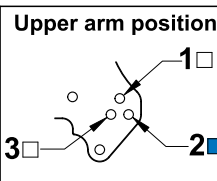
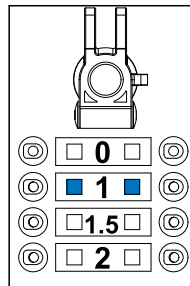
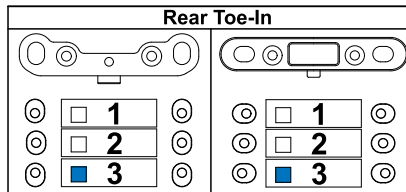
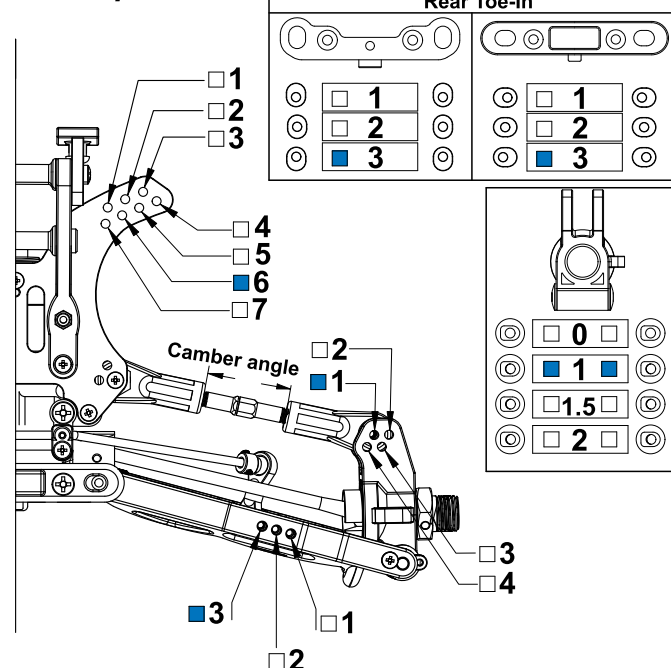
Track width 308 mm
Camber angle Upper 0 mm
Lower 0 mm
Caster angle F 0 mm
R 4 mm

Toe angle -0.5
Rebound stop _____ mm
Sway bar Use _____ mm
 None

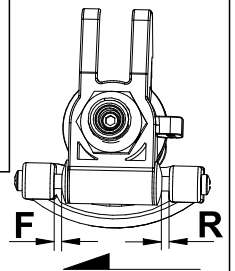
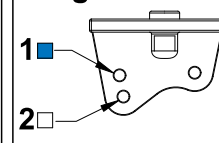


Notes: _____

Rear Suspension



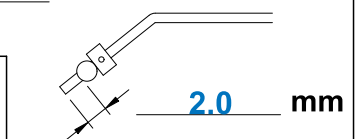
Wing Position



Camber angle 27.5 mm
Rebound stop _____ mm
Wheelbase adjustment F 0 mm Front
R 4 mm
Sway bar Use 2.8 mm
 None

Rear Shocks

Oil: GS 300cps
Pistons: 1.2mmX2
Spring: D1.5mmBK
Spacer: 5.0 mm



Notes: _____

TROUBLESHOOTING GUIDE

Problem	Things To Check	Solution
Engine won't start	<ol style="list-style-type: none"> 1. Fuel tank is empty. 2. Bad glowplug or dead igniter battery. 3. Fuel lines, fuel filter, air cleaner, or muffler is clogged. 4. Engine is flooded due to over-priming. 5. Carburetor is not adjusted properly. 	<ol style="list-style-type: none"> 1. Fill fuel tank with fuel. 2. Replace glowplug or recharge/replace igniter battery. 3. Clean or replace clogged parts. 4. Remove glowplug, turn car over to discharge fuel from cylinder. Test glowplug and replace if defective. 5. Set idle and full/slow needle adjusting screw to standard starting position.
Engine won't turn over	<ol style="list-style-type: none"> 1. Fuel tank is empty. 2. Fuel lines, fuel filter, air cleaner, or muffler is clogged. 3. Carburetor is not adjusted properly. 4. Engine has overheated. 	<ol style="list-style-type: none"> 1. Fill fuel tank with fuel. 2. Clean or replace clogged parts. 3. Re-adjust idle and full/slow needle adjusting screw. 4. Allow engine to thoroughly cool down and open main needle adjusting screw turn richer (CCW).
Bad reaction and response from engine	<ol style="list-style-type: none"> 1. Carburetor is not adjusted properly. 2. Fuel lines, fuel filter, air cleaner, or muffler is clogged 3. Low fuel pressure from muffler. 	<ol style="list-style-type: none"> 1. Re-adjust full/slow needle adjusting screw. 2. Clean or replace clogged parts. 3. Properly install pressure line between muffler and fuel tank.
Car isn't easy to control	<ol style="list-style-type: none"> 1. Weak transmitter and /or receiver batteries. 2. Low reception from radio antennas. 3. Servo linkages not adjusted properly. 	<ol style="list-style-type: none"> 1. Recharge or replace batteries 2. Fully extend transmitter and receiver antennas 3. Move servo to neutral then re-adjust linkage(s).

Set-Up/Handling Tips

Car under steers in corner	<ol style="list-style-type: none"> 1. Reduce caster in front upper arms 2. Reduce kickup in front lower arms 3. Add front toe out 4. Soften front sway bar
Car is loose	<ol style="list-style-type: none"> 1. Add rear toe in 2. Decrease rear anti-squat 3. Lengthen rear camber link position 4. Lighten rear diff oil 5. Move rear hubs forward
Car is unstable on bumpy tracks	<ol style="list-style-type: none"> 1. Raise ride height 2. Soften sway bars 3. Move rear hubs forward 4. Increase down travel
Car over steers on high grip surfaces	<ol style="list-style-type: none"> 1. Reduce down travel 2. Stiffen sway bars 3. Lower ride height 4. Move shock positions to outer locations 5. Stiffen shock oils and/or springs

STORM CL-1 RTR Key No. List

RTR Key No.	Part Name	Q'ty in Use	Item No.
1	Ball Bearing 8X16X5	14	GSC-690003A
2	Diff. Gasket	3	GSC-AV006
3	Diff. Case Set	3	GSC-CL004
5	4x4mm SET Screw	5	GSC-610020
6	Diff. Large Bevel Gear	6	GSC-AV004
7	Diff. Small Bevel Gear	12	GSC-AV004
8	Pin 2.5x10.8mm	6	GSC-AV094
9	O-ring (1.75x9mm) AS009	6	GSC-ST067
10	Bevel Gear Shaft	6	GSC-AV095
14	Front/Rear Diff. Outdrive	4	GSC-CL008
15	44T Spur Gear	1	GSC-CL001
16	Center Diff. Outdrives	2	GSC-CL009
17	Differential Bulkhead Set (F)	2	GSC-CL005
18	Differential Bulkhead Set (R)	2	GSC-CL005
19	Sway Bar Plate	2	GSC-CL006
20	Steering Knuckle (L)	1	GSC-CL010
21	Steering Knuckle (R)	1	GSC-CL011
22	14mm Pivot Ball Cup	4	GSC-AV026
23	Front Upper Suspension Arms (L)	1	GSC-CL012
24	Front Upper Suspension Arms (R)	1	GSC-CL012
25	Front Lower Suspension Arms (L)	1	GSC-CL013
26	Front Lower Suspension Arms (R)	1	GSC-CL013
27	Front Bumper	1	GSC-CL007
28	Front Lower Arm Holder	1	GSC-CL014
29	Front Upper Arm Holder	1	GSC-CL014
30	Sway Bar Linkage Set	2	GSC-CL027
31	CL-1 Caster Insert Set 1°	10	GSC-CL015
32	CL-1 Caster Insert Set 0°	10	GSC-CL015
33	CL-1 Camber, Caster Insert Set	4	GSC-CL015
34	CL-1 Camber Insert Set 0°	4	GSC-CL015
35	CL-1 Camber Insert Set 1°	4	GSC-CL015
36	CL-1 Camber Insert Set 1.5°	4	GSC-CL015
37	CL-1 Camber Insert Set 2°	4	GSC-CL015
39	Caster Insert Set 1mm	4	GSC-CL028
40	Caster Insert Set 3mm	4	GSC-CL028
43	Universal Drive Shaft (F/R)	2	GSC-AV042
46	Shock Cap Stud	4	GSC-CL045
49	Knuckle Pivot Ball Washer	4	GSC-AV024
50	Knuckle Pivot Ball Nut	4	GSC-AV025
51	6.8x11.8mm Bar Stud Mount	2	GSC-AV084
52	Ball 6.8x5.2	2	GSC-AV085
53	Wheel Hub	4	GSC-STP20
54	Wheel Hub Nut	4	GSC-STP042
55	Front/Rear Lower Arm Hinge Pin	4	GSC-CL016

RTR Key No.	Part Name	Q'ty in Use	Item No.
56	Front Upper Arm Hinge Pin	2	GSC-CL017
57	3x3mm SET Screw	10	GSC-610000
58	3x4mm SET Screw	6	GSC-610001
59	4x10mm SET Screw	4	GSC-610025
60	5x4 mm SET Screw	6	GSC-610039
61	3x8x0.5 mm Washer	4	GSC-AV099
62	12x8.2x t0.5 mm Washer	4	GSC-AV098
63	13.4x16xt0.2mm Washer	8	GSC-ST082
64	M3 Lock Nut	22	GSC-603007
65	Pin 3x16.8mm	4	GSC-602008
66	3x10xt0.8mm Washer	4	GSC-601023
67	Ball Bearing 24x15x5mm	4	GSC-AV088
69	3.5x25mm FH/ST Screw	6	GSC-650065
70	3.5x35mm FH/ST Screw	2	GSC-650069
73	3x16mm CAP Screw	3	GSC-611026
74	3x23mm CAP Screw	6	GSC-611030
76	Wing support	2	GSC-CL020
77	Wing Mount	2	GSC-CL020
78	Wing joint	3	GSC-CL020
79	Washer	2	GSC-CL020
80	Rear Suspension Mount	1	GSC-CL021
81	Rear Lower Suspension Arms (L)	1	GSC-CL022
82	Rear Lower Suspension Arms (R)	1	GSC-CL022
83	Rear Hub Carriers (L)	1	GSC-CL023
84	Rear Hub Carriers (R)	1	GSC-CL023
86	Body Mount	1	GSC-CL025
87	Rear Upper Sus. Arm Ball Ends Set	4	GSC-CL024
88	Rear Chassis Brace Mount	1	GSC-CL026
90	Rear Sway Bar 2.8mm	1	GSC-CL032
93	Rear Upper Suspension Arm	2	GSC-CL029
94	Rear Hub Carriers Hinge Pin	2	GSC-CL031
95	Rear Upper Sus. Arm Ball Stud (8.8xL9mm)	2	GSC-CL030
96	Rear Upper Sus. Arm Ball Stud (8.8xL10mm)	2	GSC-CL030
98	M3x14 Cap Screw (Half tooth)	4	GSC-611024A
101	O-ring 2.8x6.6mm TBL	2	GSC-SH-8TBL
103	Steering Bellcranks (A)	1	GSC-CL036
104	Steering Bellcranks (B)	1	GSC-CL036
105	Steering Bellcranks (C)	1	GSC-CL036
106	6.8mm Steering Linkage Ball End	8	GSC-CL041
107	Body Mount	1	GSC-CL025
108	Servo Saver Adjustable Pipe	1	GSC-CL038
109	Servo Saver Nut	1	GSC-CL038
110	Servo Saver Spring	1	GSC-CL038
111	Servo Saver Shafts	2	GSC-CL037

STORM CL-1 RTR Key No. List

RTR Key No.	Part Name	Q'ty in Use	Item No.	RTR Key No.	Part Name	Q'ty in Use	Item No.
112	Servo Saver Steering Plate	1	GSC-CL039	195	Radio Tray Post (B)	1	GSC-CL047
115	3x8mm OH/ST HEX Screw	1	GSC-613202	196	Radio Tray Post (C)	1	GSC-CL047
118	6.8mm Steering Linkage Ball Stud	5	GSC-CL042	197	Servo Mount	1	GSC-AV072
119	Servo Saver Steering Plate Screws	2	GSC-CL039A	198	Brake Rod Support - Up	1	GSC-AV072
120	Servo Saver Steering Plate bushings	2	GSC-CL039A	199	Brake Rod Support - Lower	1	GSC-AV072
121	CL-1 Steering Linkage Turnbuckles	2	GSC-CL046	200	Throttle Rod Support	1	GSC-AV072
122	Center Diff . Mount Set A	2	GSC-AV008	202	Throttle Ball End	1	GSC-AV072
123	Center Diff . Mount Set B	2	GSC-AV008	203	Steering Servo Linkage Ball End	2	GSC-CL049
124	Side Guard (L)	1	GSC-ST059	204	Servo Horn Adapter, Black (KO, Sanwa, Air)	2	GSC-900007BK
125	Side Guard (R)	1	GSC-ST059	205	Servo Horn Adapter,Black (J)	2	GSC-900007BK
128	Brake Calipers A	2	GSC-CL035	206	Servo Horn Adapter,Black (F)	2	GSC-900007BK
129	Brake Calipers C	2	GSC-CL035	207	Servo Horn Adapter,Black (H)	2	GSC-900007BK
133	Brake Cam Long	1	GSC-CL034	208	Servo Horn (BK)	2	GSC-900007BK
134	Brake Cam Short	1	GSC-CL033	210	Turnbuckle 3x40mm	1	GSC-250147C
135	Center Diff. Mount Posts	4	GSC-AV009	211	5.8mm ball stud	2	GSC-CL049
136	Brake Lever	2	GSC-CL033	212	Stoper (CU2)	4	GSC-AV072
145	2.6x6x t0.5mm Washer	4	GSC-ST105	213	Linkage Rod 2x55mm	3	GSC-AV072
146	M2.5 Lock Nut	4	GSC-ST105	214	Adjuster Knob #137	2	GSC-AV072
161	Pilot Nut #117	1	GSC-ST032	215	Servo Saver Spring	1	GSC-CL038
162	Exhaust Gasket For .21 Engine	1	GSC-E21TBL	217	FH3x14mm	2	GSC-620028
163	Manifold stay #144	1	GSC-ST071	218	Body Pin (R4)	2	GSC-60004A
164	Clutch Bell 13T (N1-CHB13B)	1	GSC-ST001	219	M2X15 RH	2	GSC-AV072
165	Muffler Stay Wire	1	GSC-ST071	220	M2X33 BH	2	GSC-AV069
166	Clutch Spring (B11-001)	3	GSC-ST003	222	Antenna (BK)	1	GSC-AV091
167	Manifold Holder Spring	2	GSC-ST078	223	Tube Cap	1	GSC-AV091
168	Ball Bearing 5x10x4mm	2	GSC-581814	225	Body Pin (R8)	2	GSC-80006
170	Cone Collar	1	GSC-ST002A	226	CL-1 Wing (WH)	1	GSC-CL050WH
172	3X6mm CAP Screw	1	GSC-611020	227	Dish Wheel (WH)	4	GSC-100075WH
173	3x8x1mm Washer	9	GSC-601008	231	Cross Wrench-7/8/10/17mm	1	GSC-706051
174	5x7x0.2mm Washer	8	GSC-ST065	232	BH3x8mm	4	GSC-640022
175	M3X12 CAP	5	GSC-611023	233	Cross Wrench-4/5/5.5/7mm	1	GSC-706006
176	M3 Spring Washer	4	GSC-601005	234	HEX Wrench (5mm)	1	GSC-706009
177	4x8mm I-Head Screw	4	GSC-615001	240	M3x14mm CAP SCREW	4	GSC-611024
181	Fuel Tank Posts-A (ST2-126)	1	GSC-AV092	244	Fuel Tank 125CC	1	GSC-AV090
182	Fuel Tank Posts-B (ST2-127)	1	GSC-AV092	245	Linkage spring	1	GSC-AV072
183	Silicone Fuel Tubing 2.4x5.5mm/3ft. (BL)	2	GSC-24553TBL	250	M6.1x17.5xT0.3mm Steel Shim for Diff	6	GSC-CLP033
184	Air Filter Foam	1	GSC-701017-1	253	RTR Crown Gear 38T	2	GSC-CLR001
186	Air Filter Adapter	1	GSC-701017	254	RTR Pinion Gear 11T	2	GSC-CLR002
187	Air Filter base	1	GSC-701017	255	Drive Joint	2	GSC-ST029
188	Air Filter End Cap	1	GSC-701017	256	CL-1 Center Drive Shaft 92mm	1	GSC-CLR003
189	Zip tide 5X120	2	GSC-701017	257	CL-1 Center Drive Shaft 104mm	1	GSC-CLR004
192	Radio Box-A	1	GSC-AV069	259	Rear Wheel Axle	2	GSC-AV044
193	Radio Box-B	1	GSC-AV069	260	Rear Drive Shaft	2	GSC-CLR005
194	Radio Tray Post (A)	1	GSC-CL047	264	Servo Saver Bushing, Pastic, 6x10mm	4	GSC-CLR006

STORM CL-1 RTR Spare Part List

Item No.	Part Name
GSC-CL001	44T Spur Gear
GSC-CL004	Diff. Case Set
GSC-CL005	Differential Bulkhead Set
GSC-CL006	Sway Bar Plate
GSC-CL007	Front Bumper
GSC-CL008	Front/Rear Diff. Outdrive
GSC-CL009	Center Diff. Outdrives
GSC-CL010	Steering Knuckle (L)
GSC-CL011	Steering Knuckle (R)
GSC-CL012	Front Upper Suspension Arms (L/R)
GSC-CL013	Front Lower Suspension Arms (L/R)
GSC-CL014	Front Lower Arm Holder
GSC-CL015	CL-1 Camber, Caster Insert Set (2 Set)
GSC-CL016	Front/Rear Lower Hinge Pin (4)
GSC-CL017	Front Upper Arm Hinge Pin (2)
GSC-CL020	Washer
GSC-CL021	Rear Suspension Mount
GSC-CL022	Rear Lower Suspension Arms (L/R)
GSC-CL023	Rear Hub Carriers (L/R)
GSC-CL024	Rear Upper Sus. Arm Ball Ends Set
GSC-CL025	Body Mount Set (F/R)
GSC-CL026	Rear Chassis Brace Mount
GSC-CL027	Sway Bar Linkage Set (4)
GSC-CL028	Caster Insert Set
GSC-CL029	Rear Upper Suspension Arm Set
GSC-CL030	Rear Upper Sus. Arm Ball Stud Set
GSC-CL031	Rear Hub Carriers Hinge Pin (2)
GSC-CL032	Rear Sway Bar 2.8mm
GSC-CL033	Brake Cam Short
GSC-CL034	Brake Cam Long
GSC-CL035	Brake Calipers
GSC-CL036	Steering Bellcranks (A/B/C)
GSC-CL037	Servo Saver Shafts
GSC-CL038	Servo Saver Nut/Spring
GSC-CL039	Servo Saver Steering Plate (w/bushings)
GSC-CL039A	Servo Saver Steering Plate bushings
GSC-CL041	6.8mm Steering Linkage Ball End (5)
GSC-CL042	6.8mm Steering Linkage Ball Stud (5)
GSC-CL045	Shock Cap Stud (4)
GSC-CL046	CL-1 Steering Linkage Turnbuckles
GSC-CL047	Radio Tray Post Set (A/B/C)
GSC-CL049	CL-1 Steering Servo Linkage Set
GSC-CL050WH	CL-1 Eagle Wing Set (WH) (w/Sticker)
GSC-CLP033	M6.1x17.5xT0.3mm Steel Shim for Diff
GSC-CLR001	RTR Crown Gear 38T

Item No.	Part Name
GSC-CLR002	RTR Pinion Gear 11T
GSC-CLR003	CL-1 Center Drive Shaft 92mm
GSC-CLR004	CL-1 Center Drive Shaft 104mm
GSC-CLR005	Rear Drive Shaft
GSC-CLR006	Servo Saver Bushing, Pastic, 6x10mm
GSC-CLR008	CL-1 RTR Engine Mount
GSC-CLR009	CL-1 RTR Decal
GSC-CLR010	1/8 Spacer For TH-Servo/Break Holder
GSC-CLR011	CL-1 RTR FRONT SHOCK TOWER
GSC-CLR012	CL-1 RTR REAR SHOCK TOWER
GSC-CLR013	CL/XUT RTR Rear Anti Square
GSC-CLR014	CL-1 RTR Front Chassis Brace Set
GSC-CLR015	CL/XUT RTR Front Lower Suspension Plate
GSC-CLR016	14mm Pivot Set For CL-1 RTR
GSC-CLR017	CL-1 RTR Chassis
GSC-CLR018	CL-1 RTR Series Servo Saver Steering Plate
GSC-CLR019	XUT Rear Chassis Brace
GSC-CLR020	CL-1 RTR Center Diff. Support Plate
GSC-CLR021	CL-1 RTR Radio Tray
GSC-CLR022	CL-1 RTR Manual
GSC-XT022	CL Series Front Support Plate
GSC-AV004	Diff. Bevel Gear Set
GSC-AV006	Diff. Gasket (3)
GSC-AV008	Center Diff. Mount Set
GSC-AV009	Center Diff. Mount Shaft Set (4)
GSC-AV024	Knuckle Pivot Ball Washer (5)
GSC-AV025	Knuckle Pivot Ball Nut (5)
GSC-AV026	14mm Pivot Ball Cup (5)
GSC-AV042	Front Universal Drive Shaft (2)
GSC-AV044	Rear Wheel Axle (2)
GSC-AV061	Brake Disc
GSC-AV069	Radio Box Set
GSC-AV072	Throttle Linkage Set
GSC-AV084	Sway Bar Collar 6.8x11.8mm (4)
GSC-AV085	Ball 6.8x5.2mm (4)
GSC-AV088	Ball Bearing 15x24x5mm (4)
GSC-AV090	Transponder Mount
GSC-AV091	Pro Antenna (Black) (2)
GSC-AV092	Fuel Tank Post Set (A/B)
GSC-AV094	Pin 2.5x10.8mm
GSC-AV095	Bevel Gear Shaft
GSC-AV098	Washer 12x8.2x0.5mm
GSC-AV099	Washer 3x8x0.5mm
GSC-AV104	Brake Cam Bushing, Flanged (Plastic)
GSC-ST001	Cluth Bell ,13T

STORM CL-1 RTR Spare Part List

Item No.	Part Name
GSC-ST002	Flywheel & Collet
GSC-ST002A	Cone Collar
GSC-ST003	Clutch Spring
GSC-ST004	Clutch Shoes
GSC-ST029	Drive Joint (2)
GSC-ST032	Pilot Nut
GSC-ST059	Side Guard Set (for STORM / CL-1)
GSC-ST062	Foam Tire Insert (2)
GSC-ST063	GS Spired Tire (2)
GSC-ST065	Clutch Shim, 5X7X0.3mm (10)
GSC-ST067	O-Ring, AS009 (6)
GSC-ST071	Muffler Holder Set
GSC-ST072A	Shock Body, Front
GSC-ST072B	Shock Shaft, 52 mm
GSC-ST073A	Shock Body, Rear
GSC-ST078	Manifold Spring Holder Set
GSC-ST078A	Manifold Holder Spring (2)
GSC-ST079	Manifold Set
GSC-ST081	Muffler
GSC-ST082	13.4x16x0.2mm Shim (10)
GSC-ST083	Shock Preload Spacers
GSC-ST084	Shock Spring Retainers & RTR Pistons
GSC-ST086	Shock Spring Set
GSC-ST105	Storm/ SUT 2.5mm Shock Locknut kit (10 pcs)
GSC-STP042	Hard Anodized Wheel Nut (4)
GSC-STP20	Hard Anodized Wheel Hub & Nut Set (2)
GSC-100075WH	1/8 Off road Competition Wheel
GSC-150033A	CL-1 RTR Painted Body (BK)
GSC-24553TBL	Silicone Fuel Tubing 2.4x5.5mm/3ft (BL)
GSC-250033	Shock Sealed End Cup
GSC-250106	5.8mm Pivot Ball for Storm Shocks
GSC-250147C	Turnbuckle Rod-3x40mm (2)
GSC-25072	Shock Shaft, 61 mm
GSC-30005	Silicone O-ring, P3
GSC-581814	Ball Bearing 5x10x4mm
GSC-600026	C-ring
GSC-60004A	Body Pin (R4)
GSC-601005	M3 Spring Washer (10)
GSC-601008	Washer, 3x8x1mm (10)
GSC-601023	3x10xt0.8mm Shim (10)
GSC-602008	Pin, 3x16.8mm (5)
GSC-603007	M3 Nylon Nut (10)
GSC-610000	M3x3 set screw (10)
GSC-610001	M3x4 set screw (10)

Item No.	Part Name
GSC-610020	M4x4 set screw (10)
GSC-610025	M4x10mm Set Screw (10)
GSC-610039	M5x4 set screw (10)
GSC-611020	3X6 Cap (10)
GSC-611023	M3X12 Cap Screw (10)
GSC-611024	M3x14mm Cap Screw (10)
GSC-611024A	M3x14 Cap Screw (Half Thread) (10)
GSC-611026	M3x16 Cap Screw (10)
GSC-611030	M3x23 Cap Screw (10)
GSC-613202	3x8mm OH/ST HEX Screw
GSC-615001	M4x8 B/H Hex Screw (10Pcs)
GSC-620028	M3x14mm FH Screw (10)
GSC-620034	M3X20 FH Screw (10)
GSC-620079	M4X10 FH Screw (10)
GSC-640022	BH M3x8mm (10)
GSC-640023	BH M3x10mm (10)
GSC-640024	BH M3x12mm (10)
GSC-650023	M3x8mm FH/ST Screw (10)
GSC-650024	M3x10mm FH/ST Screw (10)
GSC-650025	M3x12mm FH/ST Screw (10)
GSC-650065	3.5x25mm FH/ST Screw (10)
GSC-650069	3.5x35mm FH/ST Screw (10)
GSC-670024	M3X12 BH/ST Screws (10)
GSC-670027	M3X15 BH/ST Screws (10)
GSC-670080	M4X15 BH/ST Screws (10)
GSC-670086	M3.5X32 BH/TP Screws (10)
GSC-690003A	Ball Bearing 8x16x5mm (6)
GSC-701017	1/8 High Performance Air Filter Set
GSC-701017-1	1/8 High Performance Air Filter Foam
GSC-706006	Cross Wrench-4/5/5.5/7mm
GSC-706009	HEX Wrench (5mm)
GSC-706051	Cross Wrench-7/8/10/17mm
GSC-80006	Body Pin (R8)
GSC-80007	Shock O-ring Retainer Kit (Storm RTR)
GSC-900007BK	Super Horn (Black)
GSC-CMS-8TBL	Silicone Coupler
GSC-E21TBL	Exhaust Gasket For .21 Engine
GSC-SH-8TBL	1/8 Silicone Shock Rebuild Kit/TBL



STORM CL-1



Scale Off Road Racing Buggy

Standard equipment includes high quality professional T6 7075 hard-coated 3mm chassis; front and rear 7075 CNC shock towers. Racing style Aluminum CNC front and rear chassis stiffener and carbon fiber radio tray. And standard front CVD and with GS dish wheels glue with the GS spider tires. This popular buggy comes fully assembled and includes a GS High Torque B03 series Engine with Pull Starter or Drill Starter.

Dimensions:

Overall Length: 520mm
 Overall Width: 110mm
 Overall Height: 220mm
 Ground Clearance: 75mm
 Wheelbase: 325-330mm
 Track Width: 306mm/R:308mm
 Gear Ratio: C:44/13T,
 F/R:38/11T
 Weight: 3480g

Features include:

- 100% Factory Assembled 1/8th Scale Race Buggy
- Over 75% Compatible with the Storm CL-1 Series Buggies
- Full Line of Options Available
- Full Precision Ball Bearings
- Tuned .21 Exhaust System
- Powerful Big Block .21 Rear Exhaust Drill Start (or Pull Start) Engine
- Pre-glued GS Road Spider Tires on GS Dish Wheels
- Front Universal Driveshafts
- Korn Design Pre-Painted and Trimmed Body with Decals Applied

XUT

1/8 Off Road Racing Truggy



1/8 Scale Off Road Buggy

- 100% Factory Assembled 1/8th Scale Race Buggy
- Over 75% Compatible with the Storm Series Buggies
- Full Line of Options Available
- Full Precision Ball Bearings
- Tuned .21 Exhaust System
- Powerful Big Block .21 Rear Exhaust Drill Start (or Pull Start) Engine
- Pre-glued GS Road Spider Tires on GS Star Wheels
- Front Universal Driveshafts
- Aluminum Oil-Filled Shocks
- Korn Design Pre-Painted and Trimmed Body with Decals Applied

STORM EVOLUTION

1/8 Scale Off Road Buggy

1/8 Scale Off Road Racing Truggy

- 100% Factory Assembled 1/8th Scale Race Truggy
- Over 50% Compatible with Storm CL-1 Series Buggies
- Full Line of Options Parts Available
- Full Precision Ball Bearings
- Tuned .25 Exhaust System
- Powerful Big Block .25 Rear Exhaust Drill Start Engine (Pull Start)
- GS Dish Truggy Wheels with Pre-glue GS Cubic Truggy Tires.
- Full Universal Driveshafts
- Aluminum 13mm Big Bore Oil-Filled Shocks
- Pre-Painted and Trimmed Korn Designs Body with Decals





XUT

1/8 Off Road Racing Truggy

The GS XUT Pro RTR comes with loads of GS Factory Team optional parts that add strength and enhanced performance to meet the hardest competition head-on. The chassis offers the lowest centre of gravity in a 1/8th truggy, with the centre of weight mass concentrated as close to the centre line as possible. The XUT Pro RTR features a professional aluminium hard-coated 3mm chassis, 3mm 7075 front and rear shock towers. The standard RTR Kit with full CVD driver shafts and GS Truggy dish wheels glue with the GS Cubic tires.

This popular Truggy comes fully assembled and includes a GS R25MT engine series, tuned pipe, and with the Kone Design pre painted and decaled body, and more.

Specification:

- Length : 530mm
- Width : 450mm
- Height : 215mm
- Ground Clearance : 75mm
- Wheelbase : 370-375mm
- Track : F/R:330-360mm
- Gear Ratio : C:58/13T, F/R:38/11T
- Weight : 4150g



Front and Rear Arm Adjustable Sway Bar System



Super Size Front and Rear Suspension Arm System



Oversized Bearings in Front and Rear Hub System



GS Truggy Dish wheels glue with the GS Cubic tires



Professional 3mm Aluminium Hard-coated Chassis



3mm T6 7075 Front and Rear Shock Towers



145cc Big Full Tank

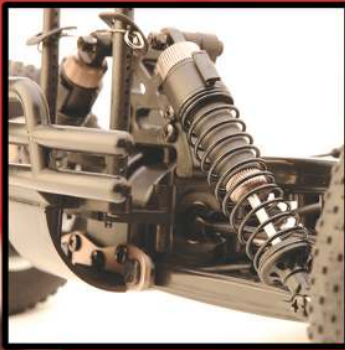


Lightened Outdrive Rear Diff.

www.GSRACING.com

SHADOW ST1

1/10 Scale Stadium Truck



Long travel, coil over, impact absorbing oil filled shocks for unbeatable rough terrain handling.



4wd transmission w/dual disk center slipper clutch and f/r sealed gear diffs for ultimate traction and adjustability.



GS R18ST rear exhaust drillstart engine with slide carb & tuned pipe for maximum punch and top speeds.



GS TG3 FM radio system with low profile radio tray and sealed radio box for maximum performance and protection.



GS[®]
Racing

Introducing the all new Shadow ST1 1:10 RTR 4wd nitro racing truck, designed and built ground up for unmatched performance and fun. The Shadow ST1 is the only truck in its class equipped with an FM radio, powerful .18 engine, and center slipper clutch. Combined with a durable aluminum chassis, racing pattern tires, and ultra plush suspension ride all topped off with a Korn Designs painted body, the Shadow ST1 is all about satisfying your need for fun and speed in the dirt and on the street!

VISION RTR

The Vision RTR is based on the race winning high-performance design of the Vision Pro, GS Racing makes the Vision RTR a great choice for a first nitro R/C car. With the ease of an RTR in a high-performance platform, the Vision RTR has the best of both worlds, all at a good value. Features like an adjustable 2-speed automatic transmission, sealed radio box, oil-filled threaded shocks with adjustable pistons, sealed gear diffs, aluminum chassis, full precision ball bearings, then topped off with a professionally painted body and per-mounted rubber tires makes the Visions RTR a worthy contender at any club race.



POWERS UP

Power Up, 3 cc race tuned engine, 1/10 ultimate racing machine !!!

Vision RTR Features:

- 3mm T6 aluminum countersunk chassis
- .18 rear exhaust engine
- Fully adjustable pivot-ball suspension
- Finished pre-mounted body
- GS Racing's camber clip system
- GS radio system include
- 2 speed transmission
- 75cc fuel tank with splash guard
- Threaded shock bodies with adjustable dampening
- Sealed radio box with transponder mount
- Adjustable 2 speed system

Vision RTR Plus Technical Data:

- Length/380 mm
- Width/198 mm
- Height/104 mm
- Ground Clearance/Front~Rear : 4.5~5.5 mm
- Wheelbase/260mm
- Gear Ratio/Low 7.55 : 1/High 5.82 : 1
- Track/172 mm
- Weight/1700 g
- Tank/75 cc



Available at your specialised GS dealer !!

MEMO

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Warranty



Warranty

Your Storm CL-1 RTR warranty covers workmanship and manufacturing defects of the original and unmodified parts. Warranty claims resulting from crashes, abuse, improper operation, improper mounting, improper adjustment or lack of maintenance will not be honored.

Contact your local hobby shop or GS distributor for all claims and questions. Claims must be well documented. All Claims are subject to expert examination approval by **GS RACING**

- GS RACING -





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