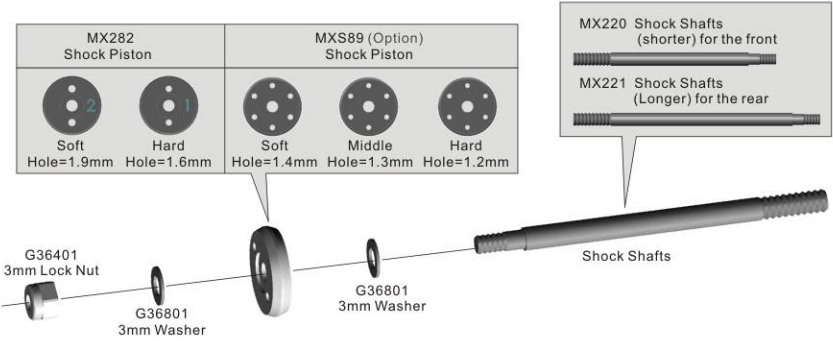
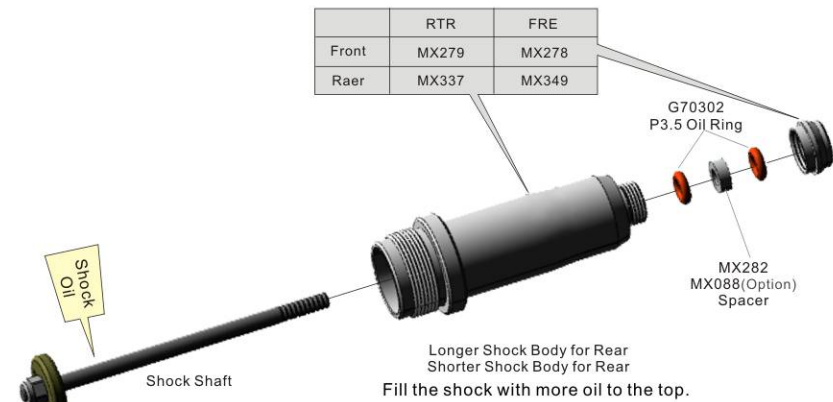


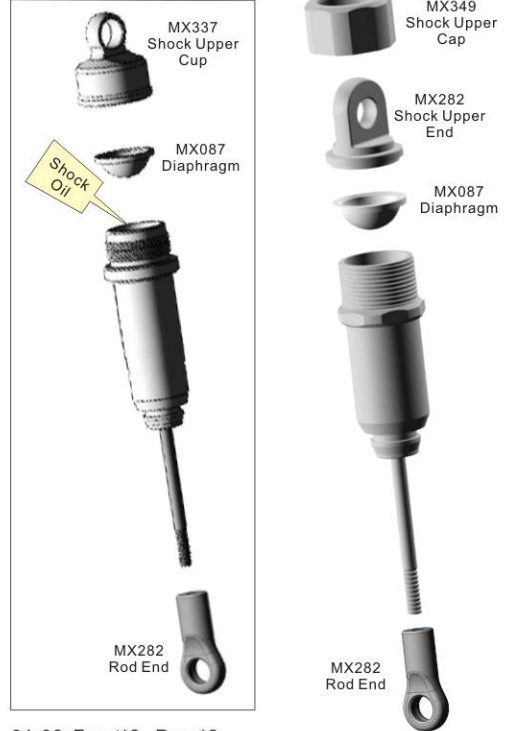
01-01 Shock Shaft (Front*2, Rear*2)



01-02 Shock Body (Front*2, Rear*2)



Option



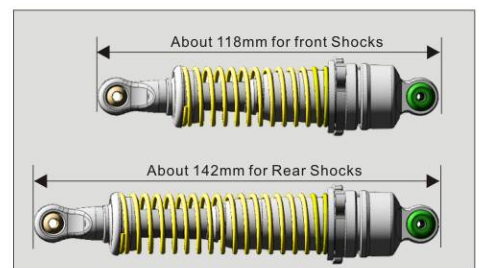
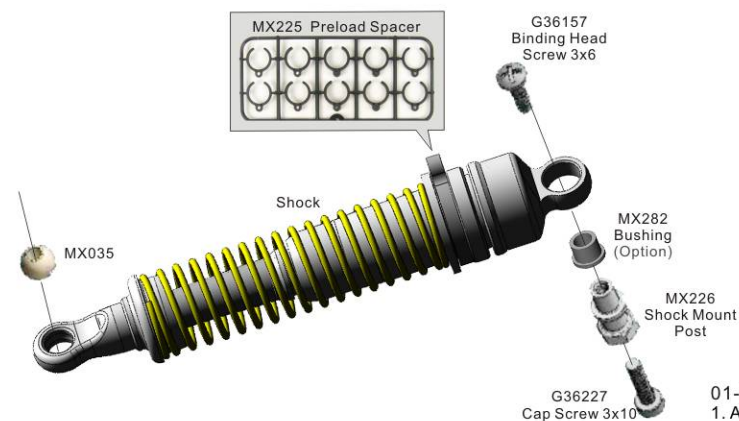
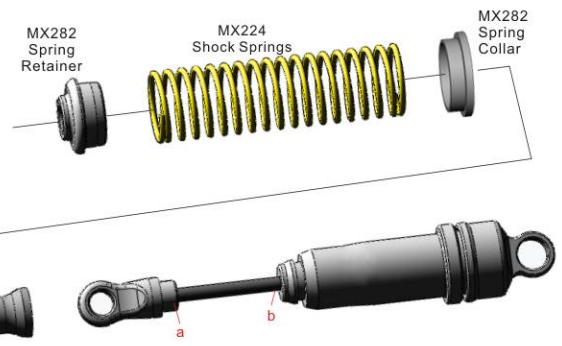
01-03 Front*2, Rear*2

1. Fill the shock body up to the top with oil.
2. Slowly push the shock shaft in and out to remove all air bubbles. If oil level drops do not let the piston come out of the oil.
3. Once you have all the air bubbles worked out.
4. Put the rubber diaphragm on ,then slowly tighten down the shock cap.
5. Loosen the shock cap 1/2-3/4 turn and slowly press the shock shaft all the way in.
6. With the shock shaft pressed all the way in tighten down the shock cap.
7. Shocks should feel smooth. If you feel air bubbles, remove cap and add more oil, then repeat. If shock shafts don't go all the way in you need to bleed a little more oil out.

01-04 Front*2, Rear*2

1. Clip the spring retainer onto the lower shock eyelet carefully securing the bottom of the shock boot at the same time.
- * Use the Preload spacers on the shocks for adjusting the preload of the springs.(If needed)

Option Spring	MXS86 Pink Soft	MXS87 Pink Medium	MXS88 Green Hard
Springs (Longer) for the rear			
Springs (Shorter) for the front			



01-05 Front*2, Rear*2

1. Assemble as shown. The MX226 upper shock mount will be attached to the shock towers in a later step.

02-01 *1

1. Follow the diagram for the front and rear differential assemblies.



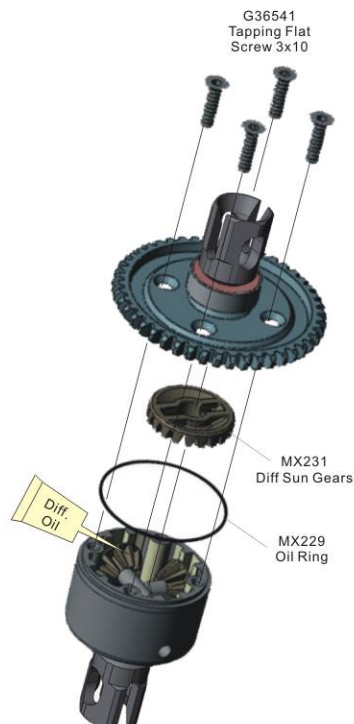
02-02 *1

1. Insert the MX231 differential Planet gears onto the cross pins making sure that they spin freely on the shafts.
 2. Next slide on the washers behind each differential Planet gear.
 3. Slide the cross pins with the differential Planet gears down into the differential case.
- NOTE: the differential case has specific grooves in which the cross pins must slide into.



02-03 *1

1. Follow diagram for Cross Pin and Diff Planet Gear then slide into the diff housing.
2. Rotate the outdrive to check for smooth operation.



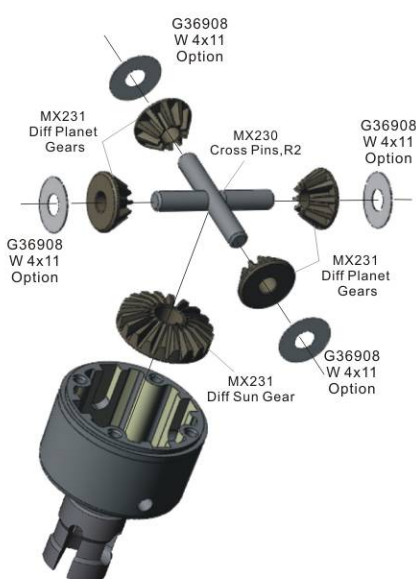
02-04 *2

1. Fill the housing up with oil just slightly below the top of the gears.
2. Secure the diff case cover using four 3x10 screws.
3. Make sure differentials are smooth.



02-05 *2

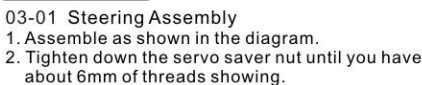
1. Insert the MX231 differential Planet gears onto the cross pins making sure that they spin freely on the shafts.
 2. Next slide on the washers behind each differential Planet gear.
 3. Slide the cross pins with the differential Planet gears down into the differential case.
- NOTE: the differential case has specific grooves in which the cross pins must slide into.



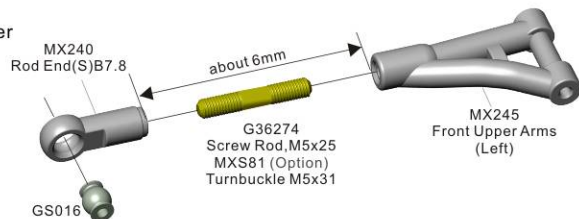
02-06 *2

1. Using four G36541 screws, secure the differential ring gear to the differential case.
- NOTE: Do not over tighten the screws as this may strip the holes and cause leaking.

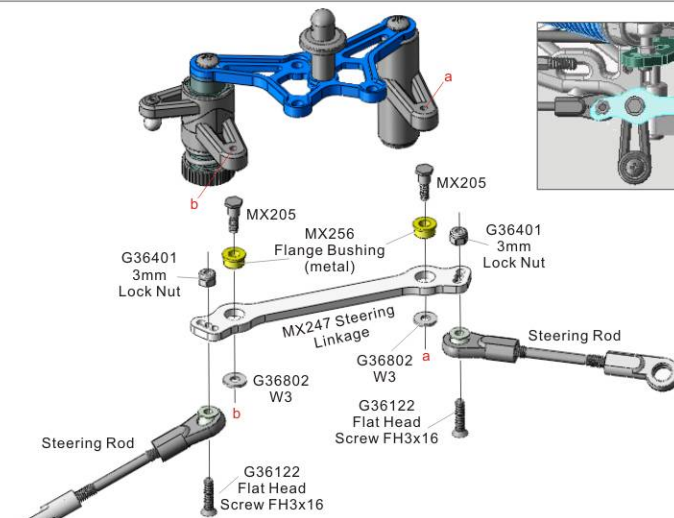
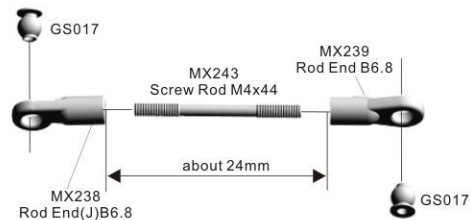
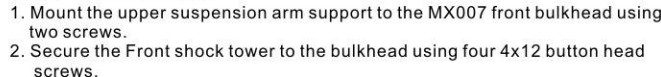
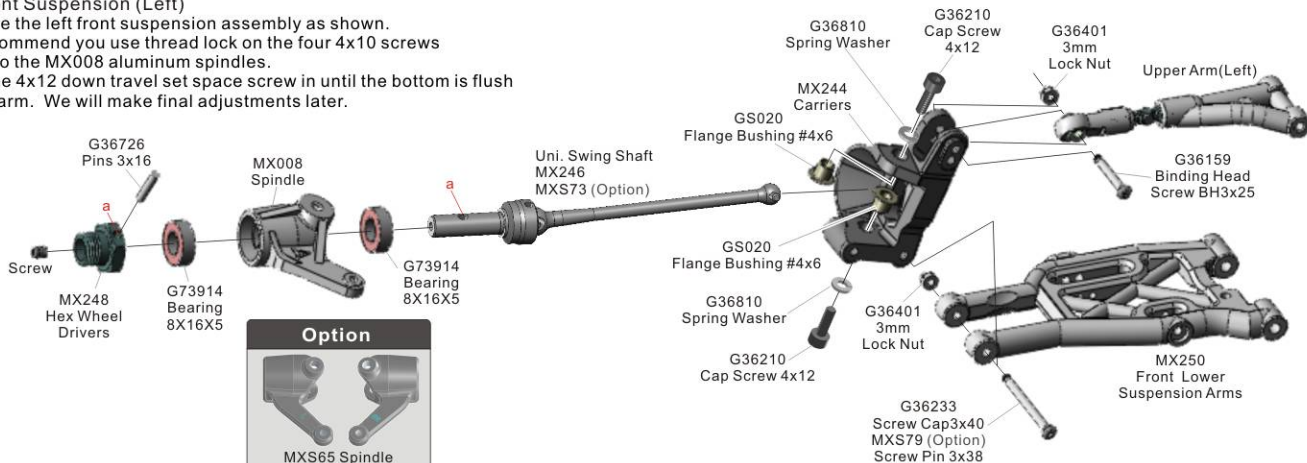




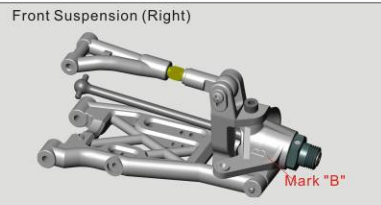
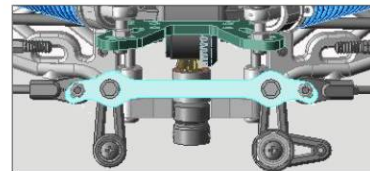
1. Thread the Screw Rod into the upper arm and eyelet.
*We recommend you take a look at the thread pattern and get them to match from left to right.
Be sure do not overtighten
2. Repeat one more time.



1. Assemble the left front suspension assembly as shown.
2. * We recommend you use thread lock on the four 4x10 screws going into the MX008 aluminum spindles.
3. Screw the 4x12 down travel set space screw in until the bottom is flush with the arm. We will make final adjustments later.

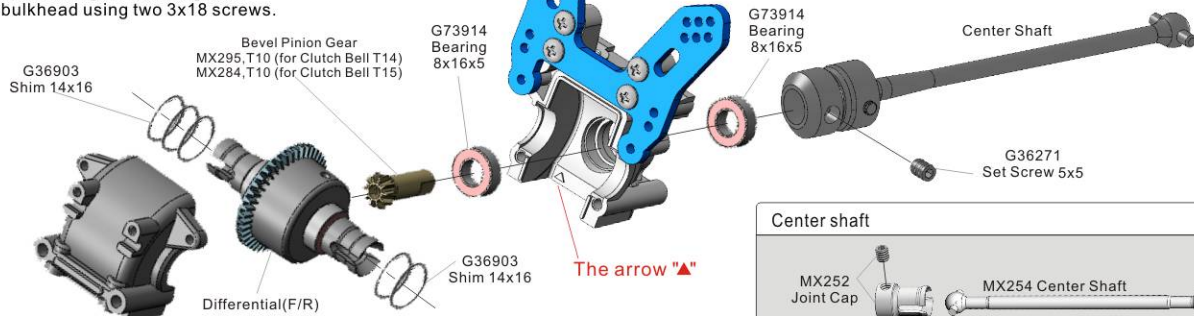


1. Secure the steering rods to the center link using two 3x16 screws and 3mm lock nuts.
2. Next mount the center link assembly to the steering bell cranks as shown.
Make sure the entire steering assembly is totally free.



03-07 Front Bulkhead

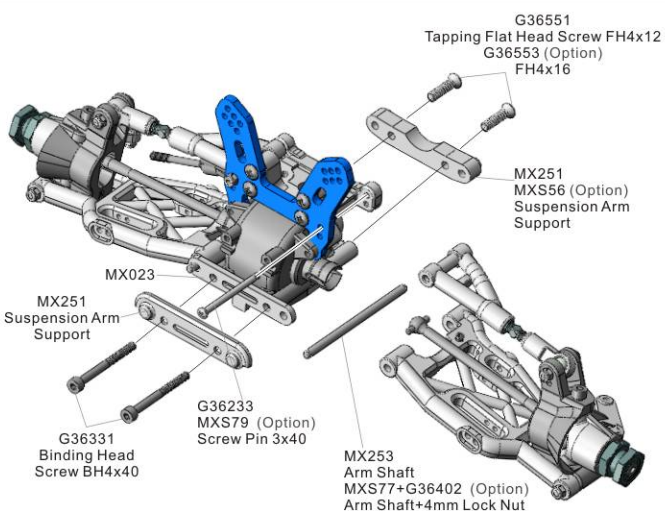
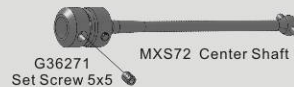
1. Insert two 8x16x5 bearings into the front bulkhead as shown.
2. Insert the MX255 driving gear through both 8x16x5 bearings followed by your differential.
- * Look for a small arrow on the bottom of the bulkhead; this is the side the differential gear should go on.
3. Seal the front bulkhead using two 3x18 screws.



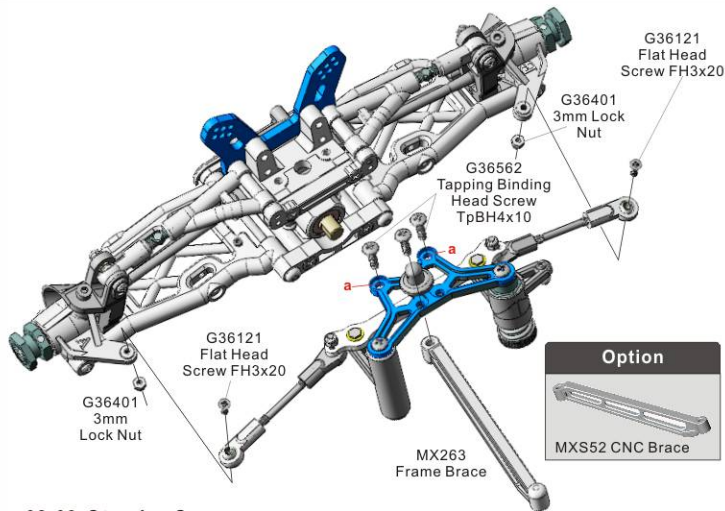
Center shaft



Option

**03-08 Front Suspension**

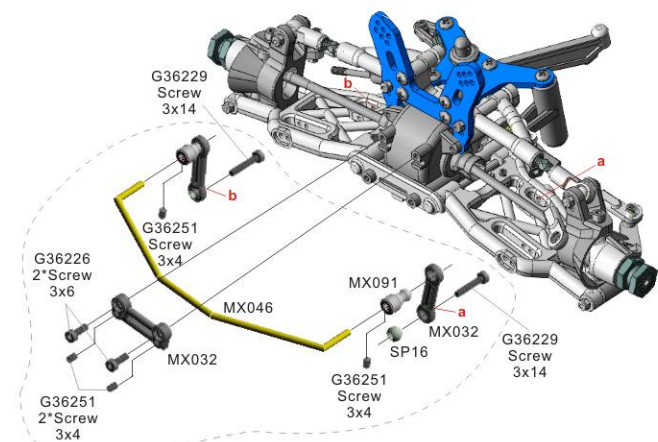
1. Attach the front left suspension arm assembly to the front bulkhead as shown.
- The short pin is used for the upper arm and the longer pin for the lower arm.
2. Repeat for other side.



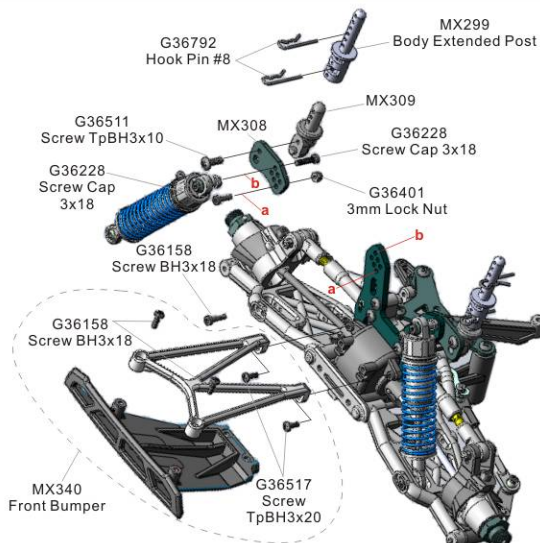
Option

**03-09 Steering Saver**

1. First attach the Frame brace to the front upper plate using one 4x10 button head screw.
2. Attach the steering assembly to the front bulkhead using two 4x10 screws.
3. Finish this step by mounting the steering rods to the spindles using 3x20 screws and lock nuts.

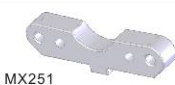
**03-10 Front Sway Bar (Not Included)**

1. Assemble the sway bar as shown.
2. Don't tighten down the setscrews until sway bar is fully installed. Then with everything sitting flat, tighten the setscrews.

**03-11 Front Shock and Front Bumper**

1. Attach the MX308 body post mount to the shock tower as shown while keeping in mind which shock location you will be using. Secure the body post and shock mount correspondingly.
2. Next install the bumper bracket and bumper using the proper screws as shown in the diagram. Be sure to not over tighten the screws as this can strip the bumper and cause it to function improperly.

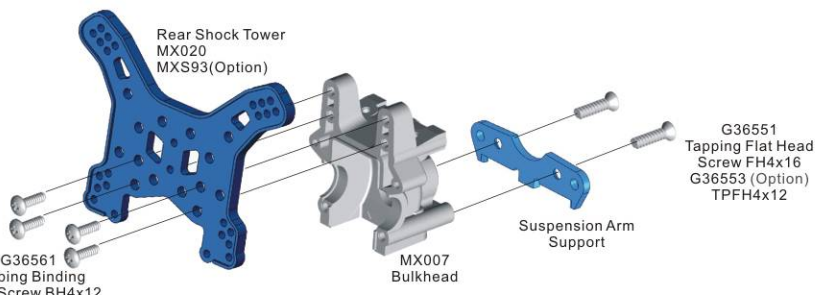
Suspension Arm Support



MX251



MXS62(Optional)

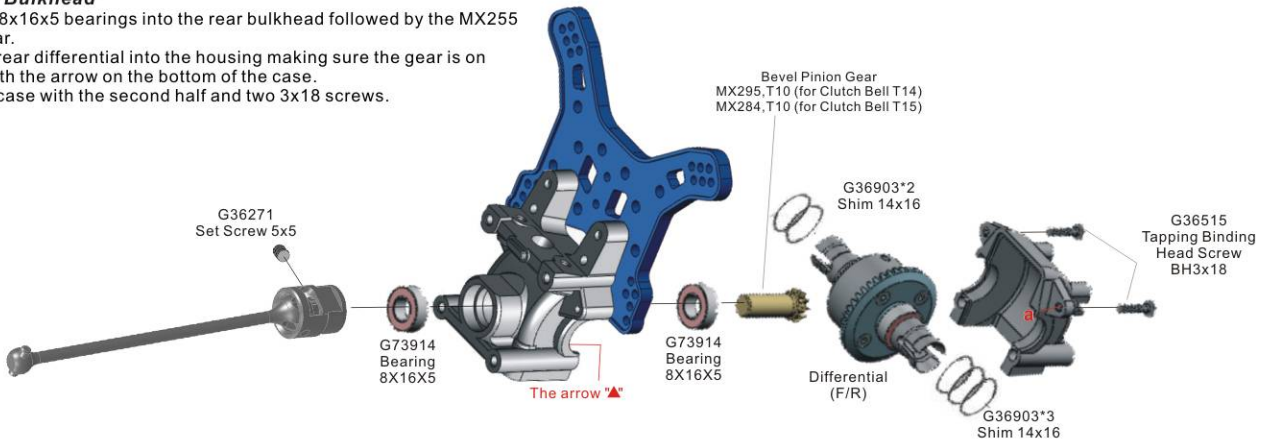


04-01 Rear Bulkhead

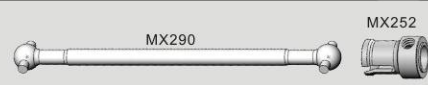
1. Secure the shock tower to the bulkhead using four 4x12 button head screws.
2. Secure the arm support to the bulkhead using two screws.

04-02 Rear Bulkhead

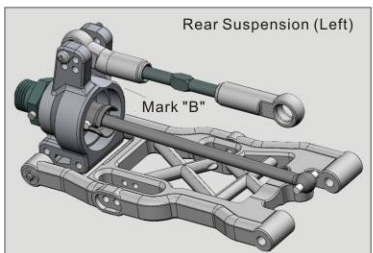
1. Insert two 8x16x5 bearings into the rear bulkhead followed by the MX255 driving gear.
2. Insert the rear differential into the housing making sure the gear is on the side with the arrow on the bottom of the case.
3. Close the case with the second half and two 3x18 screws.



Center Shaft



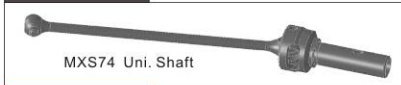
Center Shaft (Option)



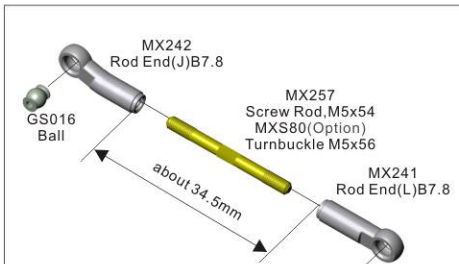
04-04 Rear Suspension (Right)

1. Assemble the driveshaft as shown.
2. Press Two 8x16x5 bearing into each side of the MX260 hub.
3. Insert assembled driveshaft through the bearings and the hub.
4. Align the MX248 wheel hex with axle and press pin in. Secure with set screws.
5. Attach the assembled hub assembly to the lower suspension arm using one hinge pin, spacer and 3mm Lock Nut. Make sure the spacer is towards the back of the car.
6. Secure the upper rod to the hub using one 3x25 screws and 3mm lock nut.
7. Repeat for left side.

Matrix R3 FRE

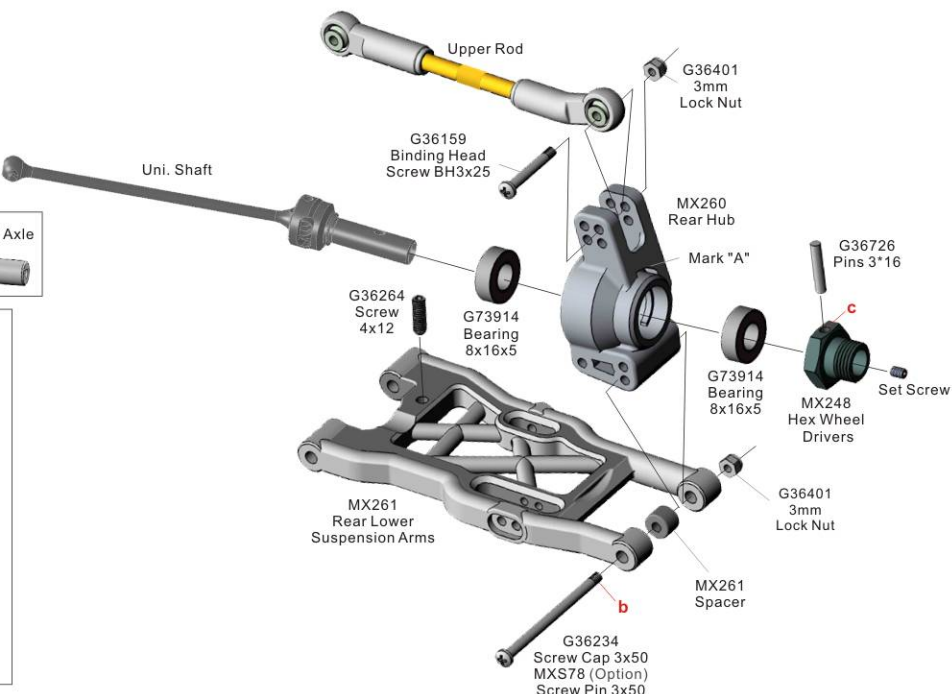


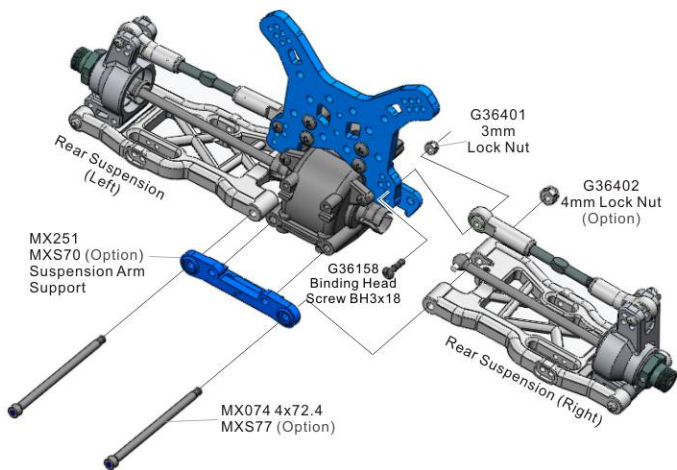
Matrix R3 RTR



04-03 Upper Rods*2

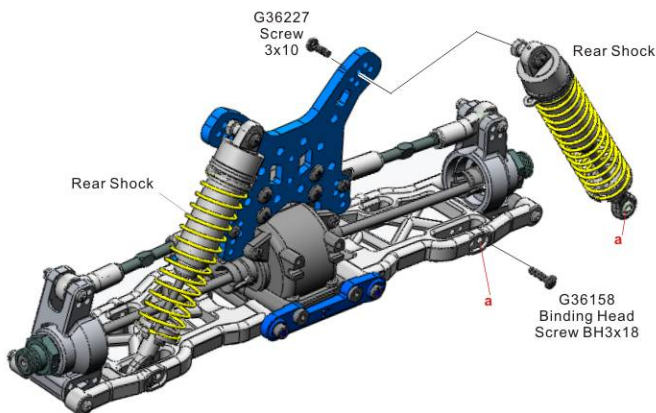
1. Thread one Rod End onto each side of the tie rod.
2. Snap one ball into each eyelet.
3. Repeat on other rod.





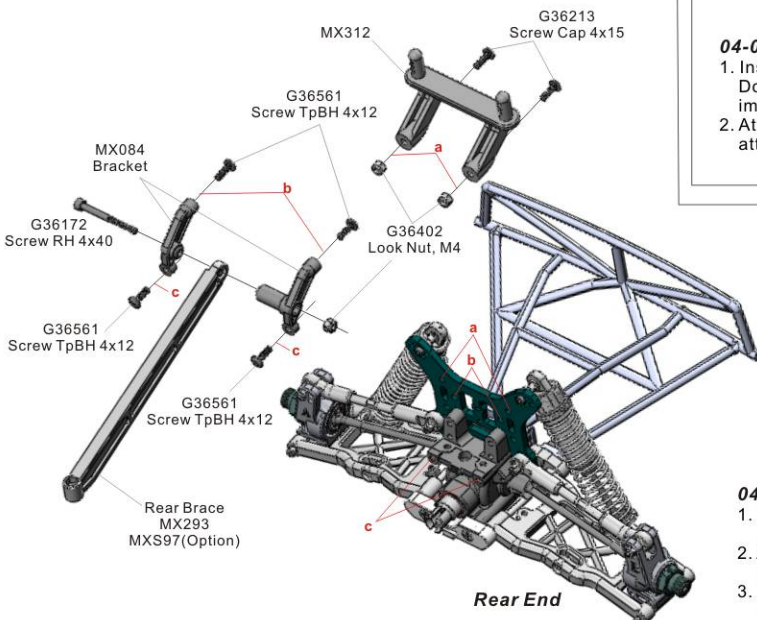
04-05 Rear Suspension

1. Attach the rear suspension arms to the rear bulkhead as shown.
2. Secure assembly using two 4x40 screws.



04-07 Rear Shock

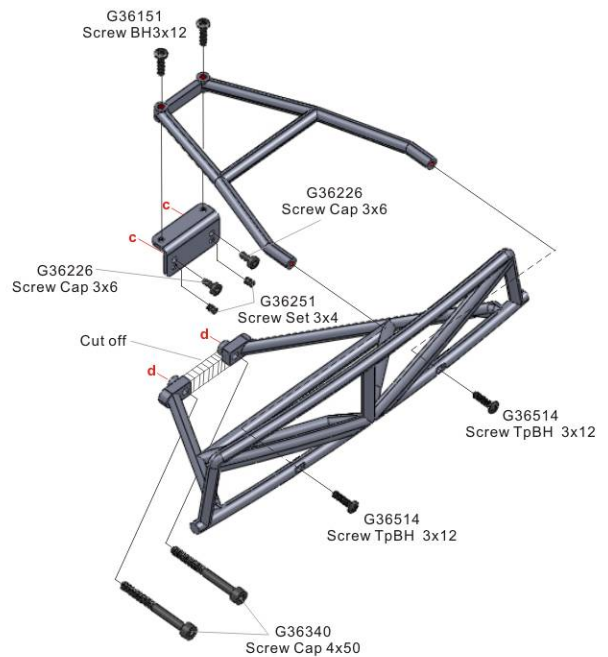
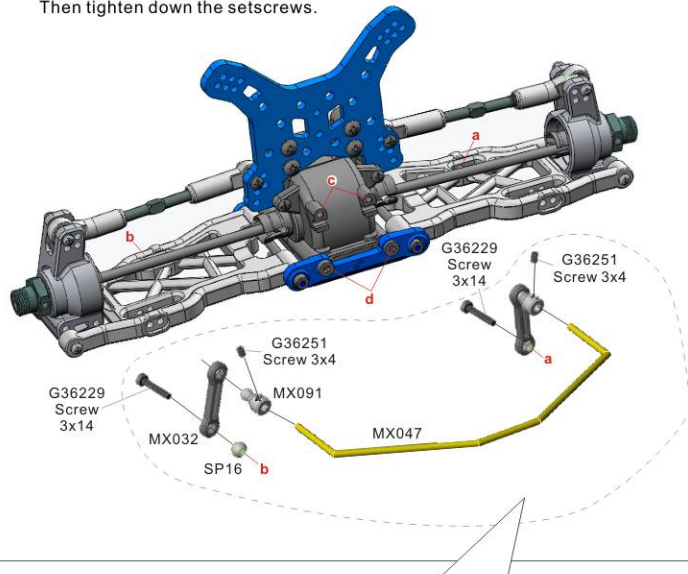
1. Secure the shocks to the shock tower using two 3x10 screws. We suggest using the upper inside hole.
2. Mount the shock to the outer hole on the suspension arm using 3x18 screws.



Rear End

04-06 Rear Sway Bar (Not Included)

1. Assemble the sway bar as shown. Leave the setscrews loose until the sway bar is secure.
2. Once you have all everything correctly secured, lay the car on a flat surface. Then tighten down the setscrews.

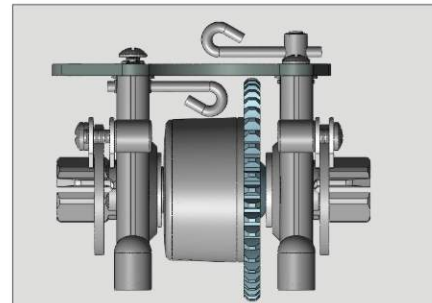
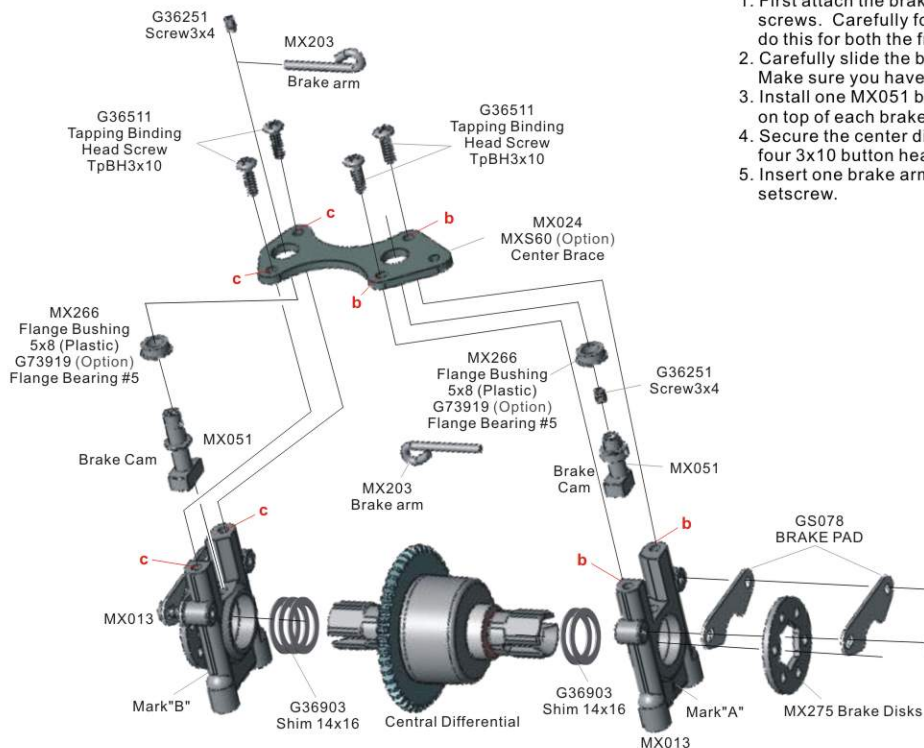


04-08 Rear Bumper (MX339)

1. Install the rear bumper bracket to the rear bumper using two 3x10mm screws. Do not over tighten the screws as this can cause the bumper to function improperly.
2. Attach the rear bumper assembly by using the two large G36211 screws and attaching them to the rear suspension arm block.

04-09 Rear Body Mount and Chassis Brace

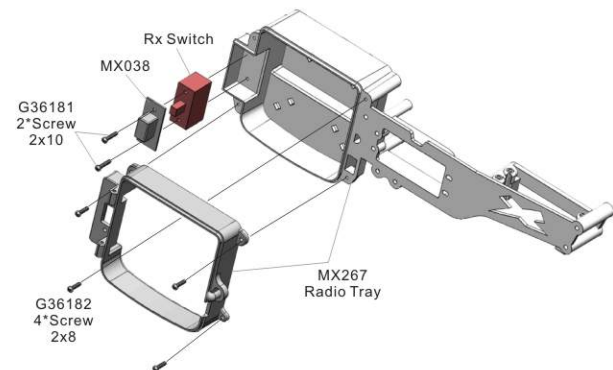
1. The rear body mounts attach to the rear shock tower using two screws and nylon lock nuts as shown in the diagram.
2. Attach the rear chassis brace holder to the rear shock tower and bulkhead by using the 4x10mm screws on both the front and back side as shown.
3. Install the rear chassis brace by using one large G36211 screw and a 4mm locknut.



→ Front

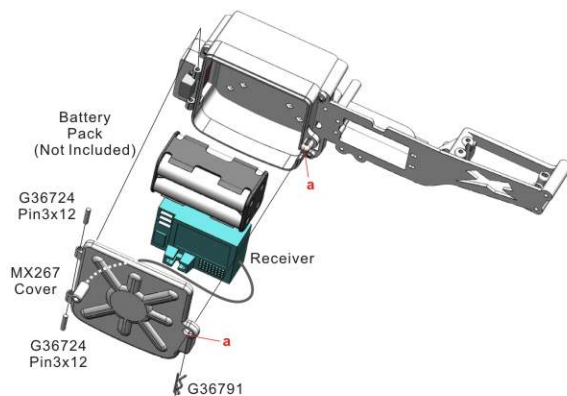
05-01 Center Gear

1. First attach the brake assemblies to the center brake seats using two screws. Carefully follow the order in the picture. You will need to do this for both the front and rear brake seats.
2. Carefully slide the brake seats with disks onto the center differential. Make sure you have the brake seat marked "A" on the side with out the gear.
3. Install one MX051 brake cam into each brake seat. Install one bearing on top of each brake cam.
4. Secure the center differential brace to the brake seat using four 3x10 button head screws.
5. Insert one brake arm into each brake cam and secure with one 3x4 setscrew.



05-02 Radio Tray

1. Mount your on/off switch using two 2x10 screws and MX038 rubber cover into the upper half of the receiver box.
2. Secure the two sides of the receiver box together using four 2x8 screws.

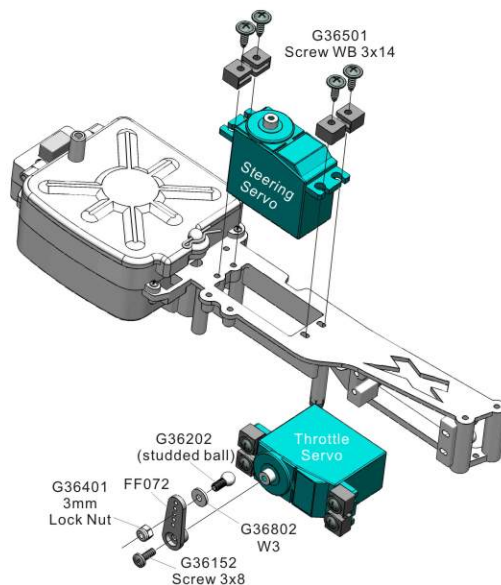


05-03 Radio Tray

1. Align the receiver box lid and box and press the 2x12 pins into each side of the hinge.
2. Install your receiver and battery and secure lid with a single body clip.

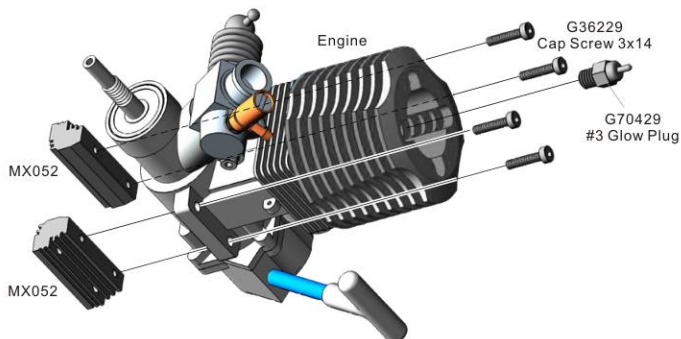
05-04 Radio Tray

1. Secure your steering servo to the servo bracket with four 3x14 screws.
2. Next mount your throttle servo using just Four 3x14 screws.

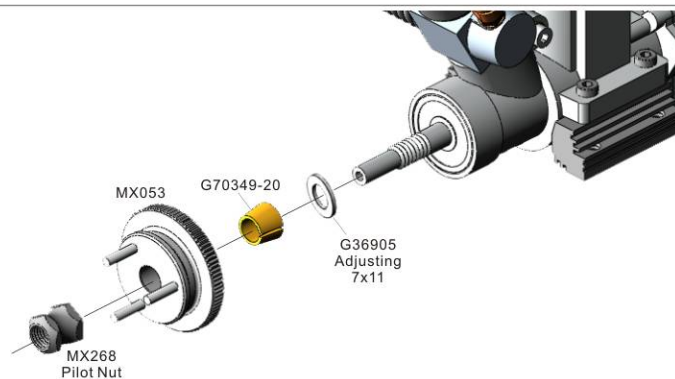
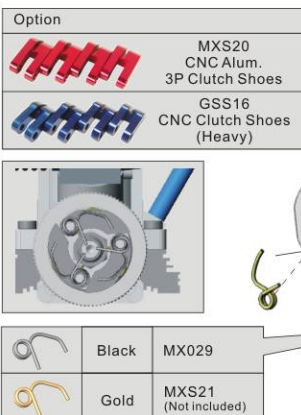


06-01 Engine Mount

1. Secure two engine mounts to your engine using four 3x14 screws.
* Carefully look at each mount and you will see that the distance from the edge to the hole is different on each side. Make sure the edge with the shorter distance to the hole is closest to the rear (pull start side) of the engine.
* Thread lock recommended on these screws.
2. Install your glow plug if it has not been done already for you at this time.

**06-03 Clutch Shoes**

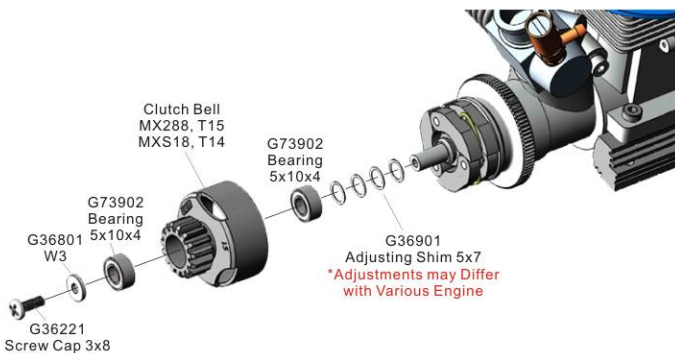
1. Install one clutch spring into each shoe as shown.
2. Put the shoe with the spring onto the pin found on the flywheel.
3. Once it's about 1/2 way down the pin, you will need to pull the small part of the spring back and press the shoe all the way down onto the flywheel. The small part of the spring should sit in the groove on the pilot nut.
*Recommend using a small flathead screwdriver or needle nose pliers.

**06-02 Flywheel**

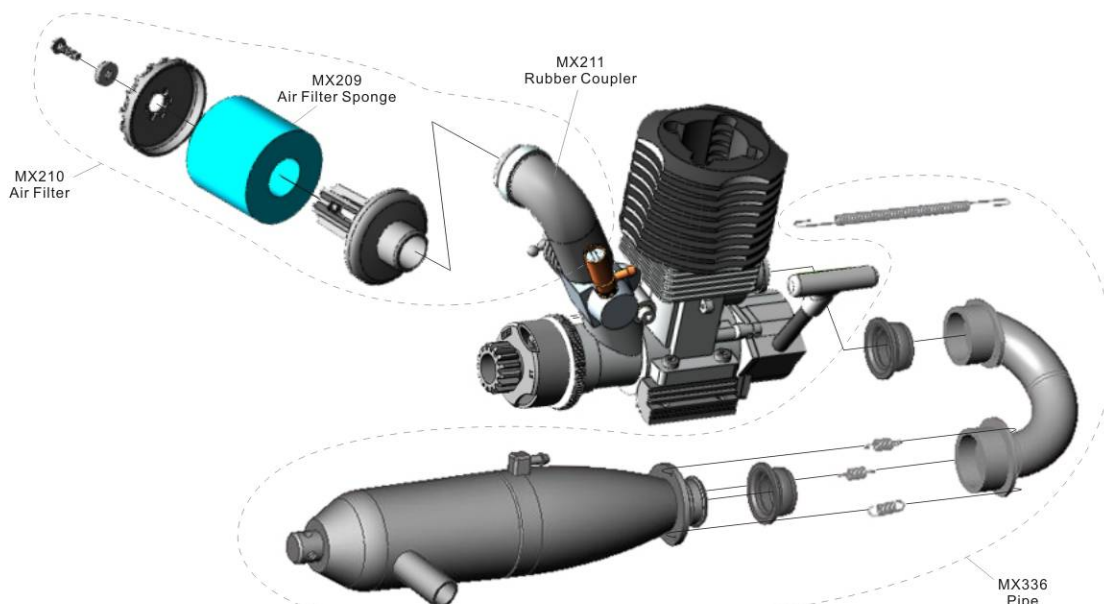
1. Slide one 7x10 shim onto the crankshaft followed by the cone.
2. Slide the flywheel onto the crankshaft centering it on the cone.
3. Grip the flywheel with large pliers and tighten the pilot nut down.
* You want to make sure this is very tight.

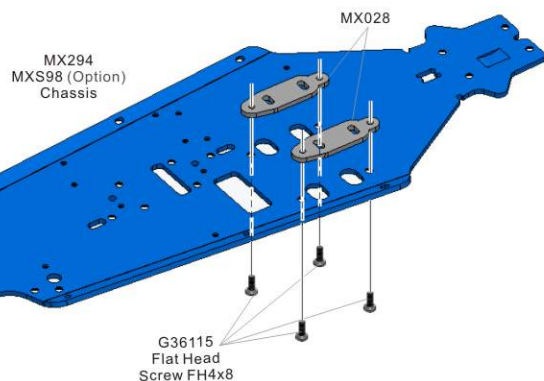
06-04 Clutch Bell

1. Install three 7x10 shims onto the pilot shaft.
2. Press two bearings into the clutchbell then slide onto pilot shaft.
3. Secure with one #3 washer and 3x8 screws.
4. Make sure the clutchbell spins freely. If it's not completely free take apart and remove one of the 5x7 shims. Repeat if needed.

**06-05 Muffler**

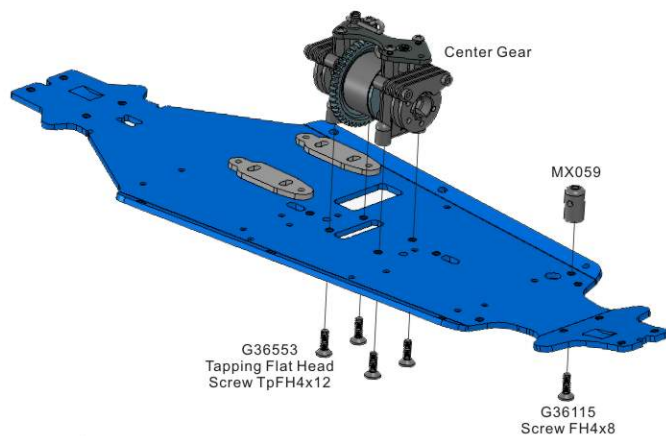
1. Connect the manifold and pipe together using three small springs.
2. Put the exhaust seal onto your engine and then carefully put the manifold and pipe onto your engine.
3. Use the supplied retaining springs to hold the exhaust onto your engine.
4. Secure your air filter to the engine using a zip tie.





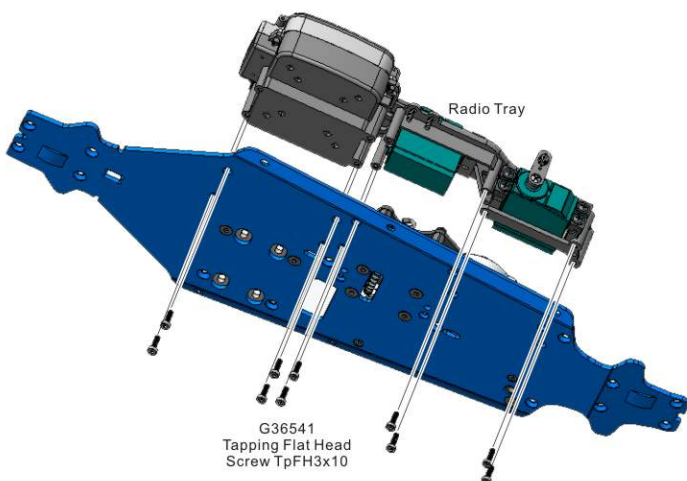
07-01 Chassis

1. Mount the engine mounting plates to the chassis using four 4x8 screws.
* Recommend thread lock on these screws.



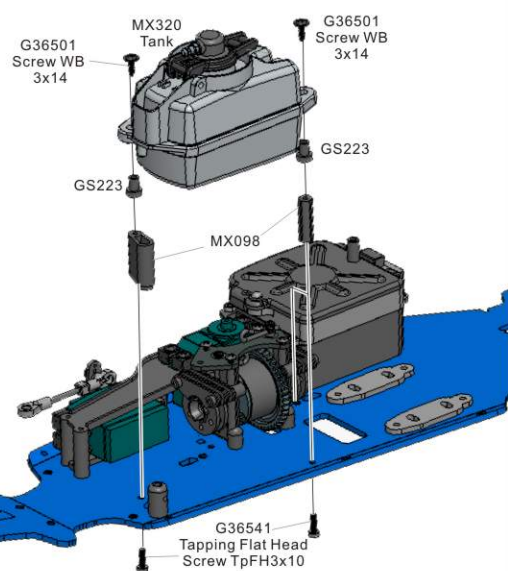
07-02 Chassis

1. Mount the center differential assembly to the chassis using four 4x12 screws. Make sure the brake disks are lined up correctly with the grooves in the diff mounts.



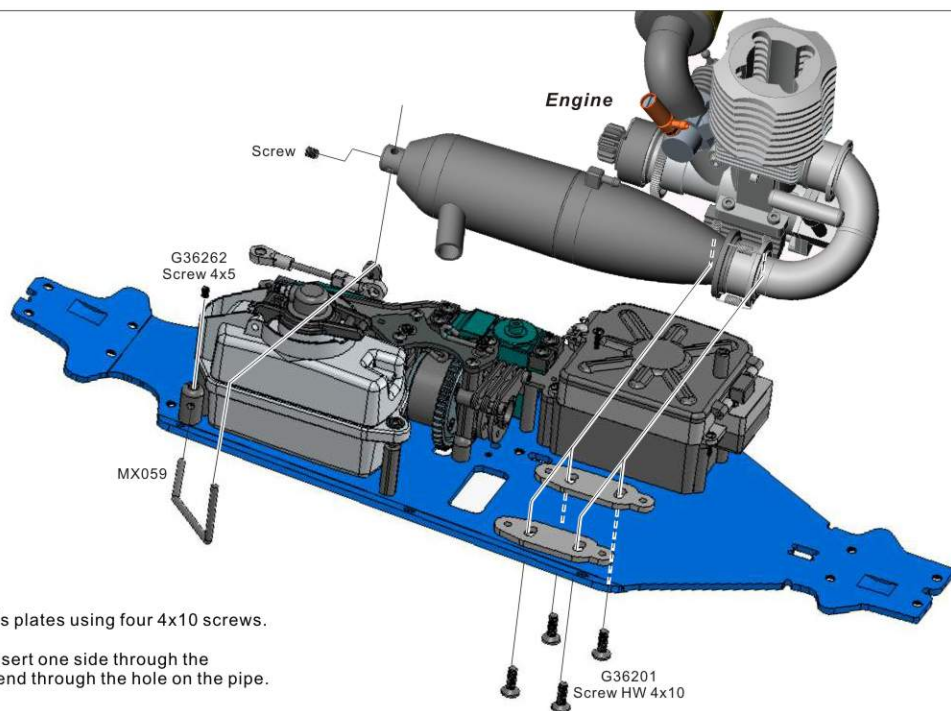
07-03 Chassis

1. Mount the radio tray assembly to the chassis using ten 3x10 screws.



07-04 Chassis

1. Mount the fuel tank brackets to the chassis as shown using two 3x10 screws.
2. Using two rubber mounts and two 3x14 screws secure the tank to the brackets.

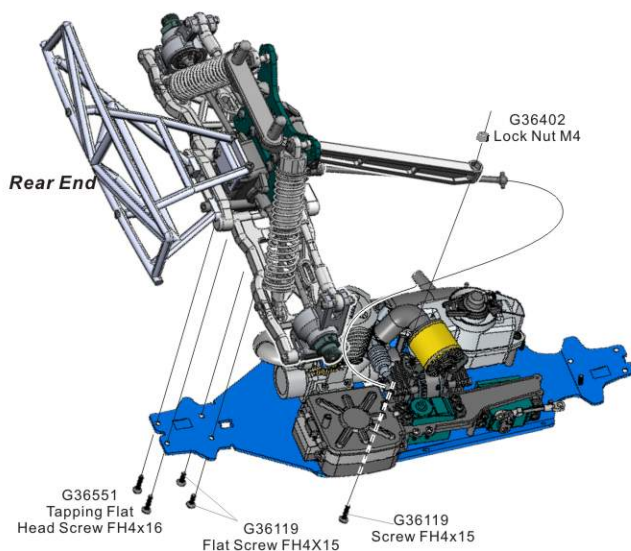


07-05 Engine

1. Mount the engine assembly to the chassis plates using four 4x10 screws.
* Thread lock is recommended.
2. Secure the pipe using the pipe mount. Insert one side through the hole on the chassis mount and the other end through the hole on the pipe.
3. Secure with setscrew.

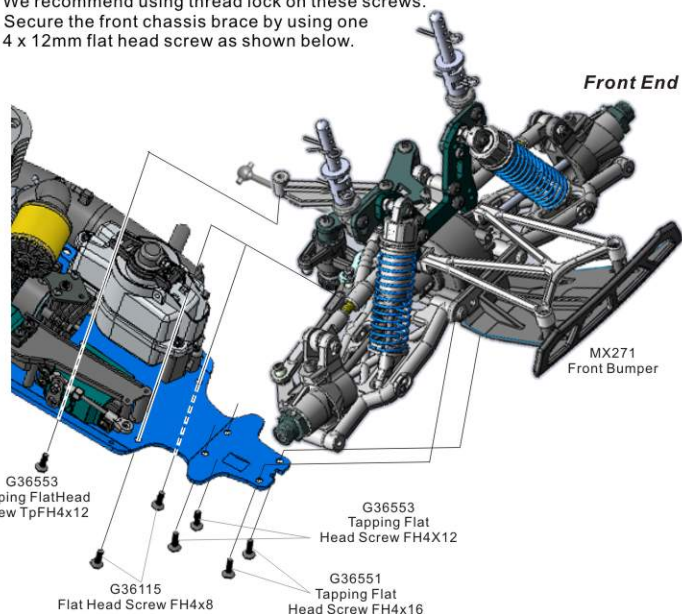
08-01 Rear End Installation

1. Attach the rear end assembly to the chassis by using two 4 x 16mm screws in the rear and two 4 x 15mm screws in the front as shown. Be sure to not over tighten.
2. Secure the chassis brace with one 4 x 15mm flat head screw and one 4mm locknut. We recommend thread lock on this screw.



08-02 Front End Installation

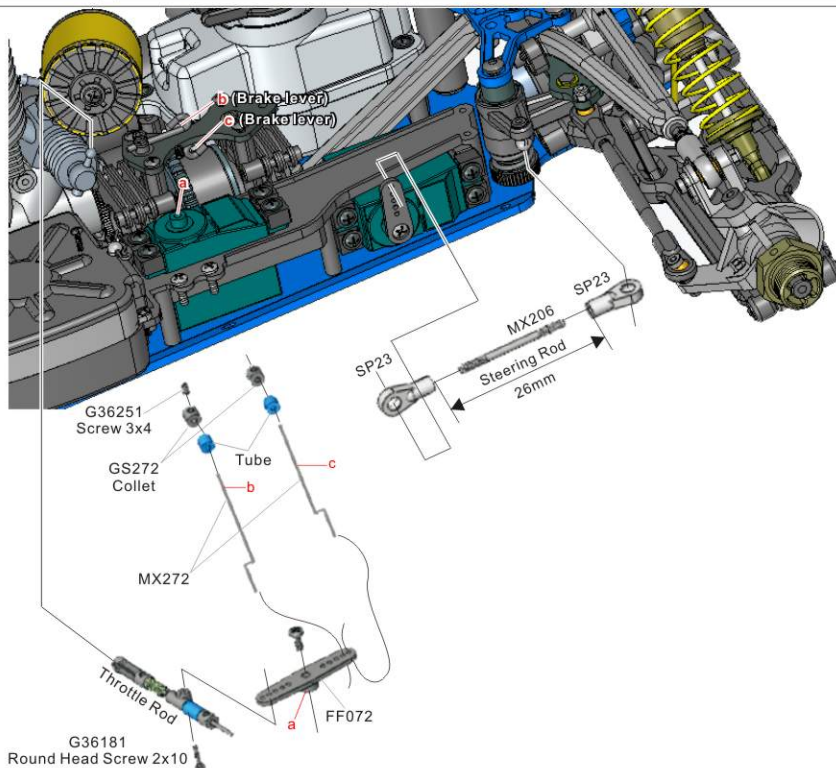
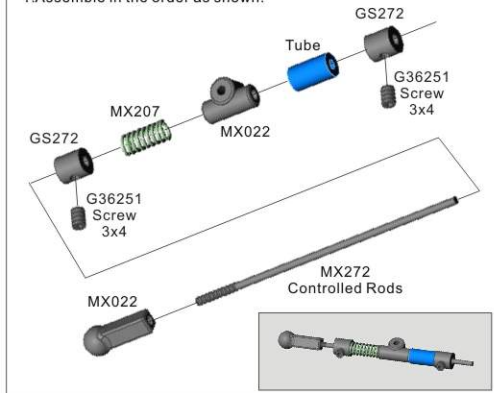
1. Attach the front end assembly to the main chassis by using two 4 x 16mm screws in the front and two 4 x 15mm screws in the rear as shown in the diagram.
2. Use two 4 x 8mm flat head screws to secure the steering posts to the chassis. We recommend using thread lock on these screws.
3. Secure the front chassis brace by using one 4 x 12mm flat head screw as shown below.



08-03 Con-Rod

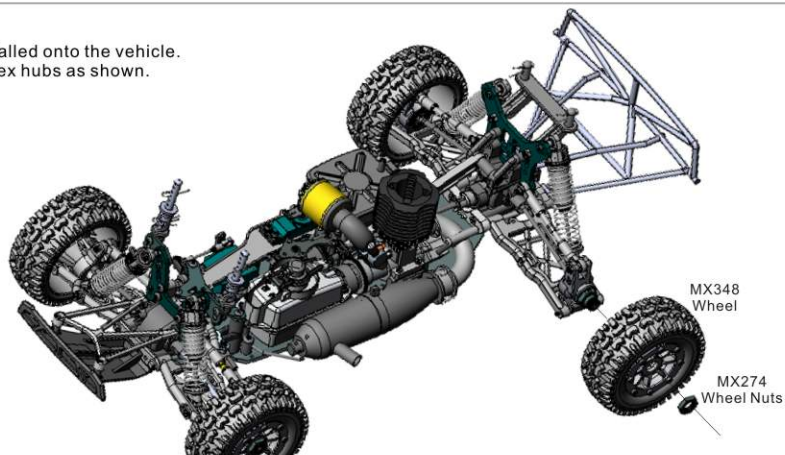
1. Install all the throttle linkage as shown in the diagram.
*First put the brake rods through the brake levers and put the MX022 cone, spring and collet and then tighten down the setscrew. Do this with both brake rods.
2. Secure the throttle rod to the servo arm using one 2x10 screw. Snap the throttle rod onto the ball located on the carburetor.
3. Secure the brake bracket assembly to the servo arm using two 2x8 screws.
4. Mount the servo arm to the throttle servo using the screw supplied with your servo.
5. Snap both sides of the steering rod onto the ball stub on the servo arm and steering bell crank.
6. Adjust the length of the steering rod so the steering bell cranks is 90° to the side and the servo arm is straight up.

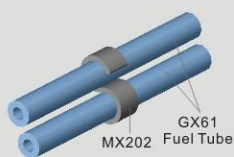
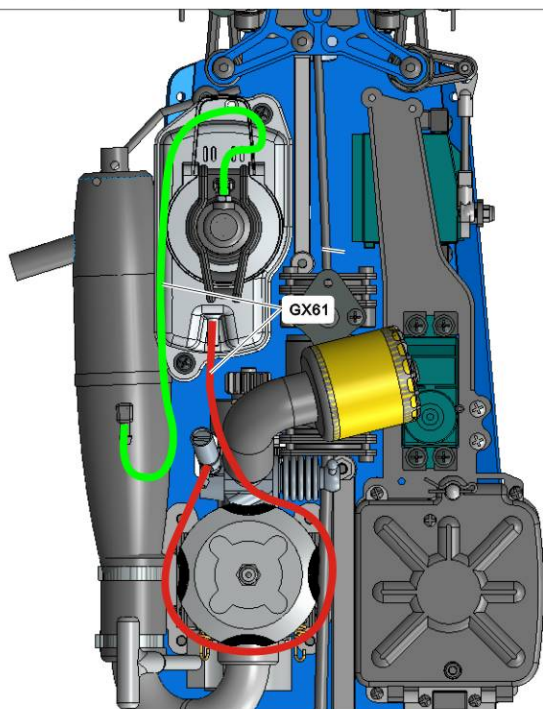
1. Assemble in the order as shown.



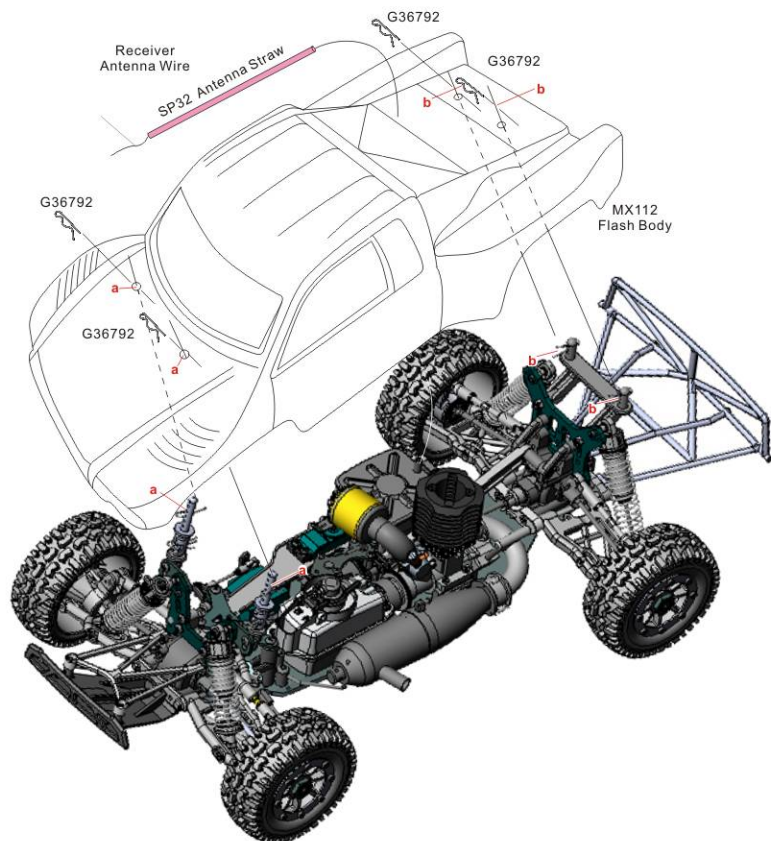
08-04 Wheels

1. After properly mounting the tires to the wheels they are ready to be installed onto the vehicle. Using the MX274 wheel nuts tighten the tires / wheels onto the 17mm hex hubs as shown. Be sure to tighten securely.

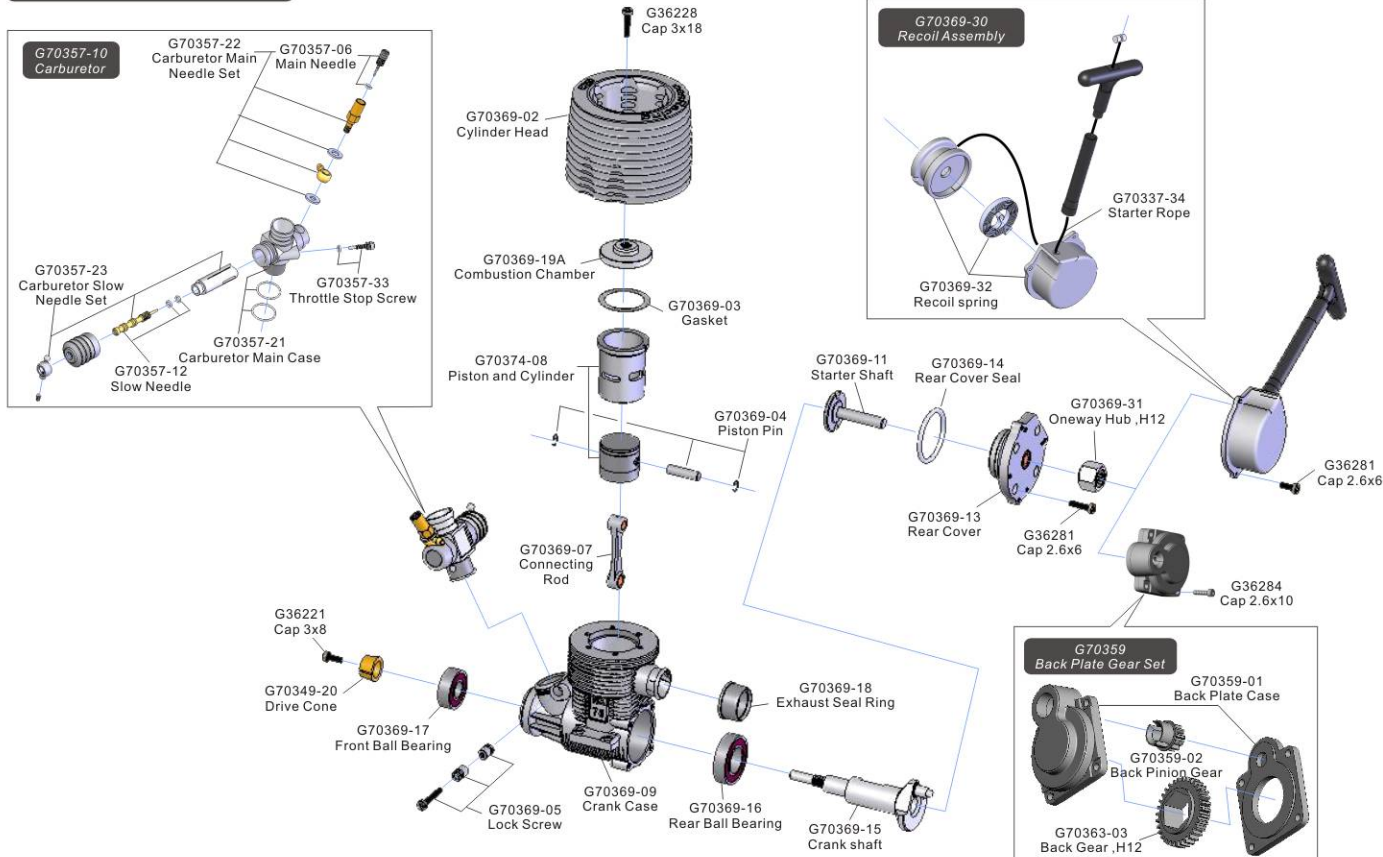


MX061 Fuel Filter
(Not Included)**08-05 Fuel Tube**

1. This is the correct layout for your fuel line. Make sure the fuel line coming from the pipe goes into the lid of the tank.

**08-06 Flash Body**

1. After you have painted the body, mount it to the car by drilling out the holes for the body mounts.
2. Cut a hole large enough to clear the engine head and a hole in the windshield to be able to fully open the fuel tank. This hole will also provide additional airflow to your engine.
3. Secure the body with 4 large body clips.

G70374 Engine 28 (for RTR Only)

Frame

Spare Parts	
MX007	Gear Box
MX008	Spindle
MX013	Center Diff. Mount
MX019	Shock Tower (Front)
MX020	Shock Tower (Rear)
MX022	Controlled Linkage Plastic Set
MX023	Front Aluminum Suspension Plate
MX024	Center Brace
MX025	Upper Plate
MX028	Engine Plate
MX029	Clutch Spring Imm
MX032	Anti-Roll Plastic Parts
MX035	Ball B6.8
MX038	Power Switch Cover
MX042	Servo Saver Plastic Parts
MX046	Anti-Roll Bar (Front)
MX047	Anti-Roll Bar (Rear)
MX051	Brake Cam Shaft
MX052	Engin Mount
MX053	Flywheel
MX054	Clutch Shoes
MX059	Exhaust Mount
MX061	Aluminum Fuel Filter
MX074	Rear Suspension Arm Hinge Pin4x74
MX084	Chassis Rear Bracket
MX087	Shock Diaphragm
MX089	Steering Spring
MX090	Body Mount
MX091	Anti-roll Pivot
MX098	Fuel Tank Mount
MX112	Matrix SC Flash Body
MX202	Tube Clamp
MX203	Brake Lever
MX205	Bolt
MX206	Threaded Rod M3x40
MX207	Throttle Spring
MX208	Fuel Filter
MX209	Air Filter Sponge
MX210	Air Filter
MX211	Rubber Coupler
MX220	Shock Rod(Front)55.5mm
MX221	Shock Rod(Rear)67.5mm
MX225	Preload Spacer
MX226	Shock Mount Post
MX227	Brake Outdrivers
MX228	Steel Spur Gear T46
MX229	Diff Case
MX230	Cross Pins
MX231	Diff Gears
MX232	Outdriver
MX234	Body Mount
MX236	Alum. Steering Tube
MX237	Alum. Steering Post
MX238	Rod End(J)B6.8
MX239	Rod End B6.8
MX240	Rod End(S)B7.8
MX241	Rod End(L)B7.8
MX242	Rod End(J)B7.8
MX243	Screw Rod M4*44
MX244	Carriers
MX245	Front Upper Arms
MX246	Uni. Swing Shaft (Front)
MX247	Steering Linkage
MX248	Hex Wheel Drivers
MX250	Front Lower Suspension Arms
MX251	Suspension Arm Support
MX252	Joint Cup
MX253	Arm Shaft
MX254	Center Shaft (Front)
MX256	Flange Bushing (metal)

MX257	Screw Rod,M5x54
MX258	Dogbone,R2-91.5
MX259	Wheel Axle
MX260	Rear Hub
MX261	Rear Lower Suspension Arms
MX263	Frame Brace
MX266	Flange Bushing 5x8 (Plastic)
MX267	Radio Tray
MX268	Pilot Nut
MX272	Controlled Rods
MX274	Wheel Nuts
MX275	Fiber BrakeDisks
MX279	Shock Alumium Parts (Front)
MX280	Metal Bushing 6x10x3
MX282	Shock Plastic Parts
MX284	Ring Gear (T43) and Pinion Gear (T10)
MX288	Clutch Bell, T15
MX290	Center Shaft (Rear)
MX293	Rear Brace
MX294	Main Chassis
MX295	Ring Gear (T38) and Pinion Gear (T10)
MX299	Body Extended Post
MX308	Front Body Mount Plate
MX309	Front Body Post
MX312	Rear Body Mount
MX320	Fuel Tank
MX329	Center Shaft, 97mm
MX336	Pipe
MX337	Shock Alumium Parts (Rear)
MX338	Spur Gear T46
MX339	Rear Bumper
MX340	Front Bumper
MXS92	Wheels (Yellow)
GS016	Ball B7.8
GS017	Ball B6.8
GS020	Flange Bushing#4x6
GS078	Brake Pads
GS223	Rubber Damper
GS261	Adjusting Nut
GS272	Rod Stopper
G36115	Flat Head Screw FH4x8
G36121	Flat Head Screw FH3x20
G36122	Flat Head Screw FH3x16
G36151	Binding Head Screw BH3x12
G36152	Binding Head Screw BH3x8
G36155	Binding Head Screw BH3x20
G36157	Binding Head Screw BH3x6
G36158	Binding Head Screw BH3x18
G36159	Binding Head Screw BH3x25
G36172	Round Head Screw RH4x40
G36181	Round Head Screw RH2x10
G36182	Round Head Screw RH2x8
G36201	Flange Hex Head Screw FH4x10
G36202	Ball Studs B5.8xM3x14
G36210	Cap Screw 4x12
G36211	Cap Screw 4x40
G36212	Cap Screw 4x10
G36221	Cap Screw 3x8
G36226	Cap Screw 3x6
G36227	Cap Screw 3x10
G36229	Cap Screw 3x14
G36233	Screw Cap3x40
G36234	Screw Cap3x50
G36251	Set Screw 3x4
G36261	Set Screw 4x4
G36262	Set Screw 4x5
G36264	Set Screw 4x12
G36271	Set Screw 5x5
G36274	Screw Rod,M5x25
G36331	Binding Head Screw BH4x40
G36332	Binding Head Screw BH4x10

[illegible]

Upgrade Parts

MXS57 CNC Front Upper Plate

MXS55 CNC Steering Linkage



MXS69 CNC Toe-in Plate 2.5degrees
MXS70 CNC Toe-in Plate 3degrees



MXS07 CF Factory Race Upper Plate-F



MXS20 CNC Alum. 3P Clutch Shoes
GSS16 CNC Clutch Shoes (Heavy)



MXS56 CNC Front Lower Arm Brace-Rear



MXS54 CNC Front Shock Tower



MXS67 CNC Bell Crank Upper



MXS17 Steel Vented Clutch Bell (13T)



MXS75 Diff. Outdrivers



MXS60 CNC Center Diff Brace



MXS03 CF Factory Race Shock Tower-F



MXS97 CNC Rear Chassis Brace
MXS52 CNC Front Chassis Brace



MXS08 CF Factory Race Steering Brace



MXS59 CNC Center Diff Frame



MXS76 Diff. Brake Outdrivers



MXS68 CNC Carrier-19 degrees
MXS71 CNC Carrier-22 degrees



MXS85 Front Shocks
MXS90 Rear Shocks



MXS06 CF Factory Race Center Diff Brace



MXS05 CF Factory Race Shock Tower-R



MXS61 CNC Anti-squat Plate 1 degrees
MXS62 CNC Anti-squat Plate 2 degrees
MXS63 CNC Anti-squat Plate 3 degrees



MXS58 CNC Rear Wheel Hub



MXS94 Uni. Swing Shaft-Front
MXS95 Uni. Swing Shaft-Rear
MXS96 Uni. Driven Shaft-Front