

Front Suspension Assembly

Step 1



Locate your lower front suspension arms, flex plates, 4 pivot ball housings with balls installed, and 14 2-56 x 3/16 button head screws. Note that the arms are symmetrical. At this time you must pick which one will become the left and right arms as this will determine how you insert the housings into the arms.

There are 2 types of pivots. 4 of them use 2 screws to mount and 2 use 1 screw to mount. The 1 hole mount pivots go on the steering block end of the arm. Insert into arms as shown and install screws. The flex plates mount to the underside of the arm as do the outer pivots. The other 4 pivots mount from the top of the arm.

Special Note: Do not over tighten the 2-56 screws. Over tightening may pinch the pivot ball.

Step 2



This is how everything mounts to the arms. Please check the direction of the pivots to insure proper mounting. Once mounted, install 1 4-40x5/16 setscrew into each flex plate using the inward hole (stiff position). Also install 1 4-40x5/15 setscrew into each arm. This will be used as a droop screw. It is the hole located middle of the arm by the rear pivot.



Install a 4-40 x 5/8 set screw through the steering spindle so that the same amount is protruding from each end of the spindle

Step 3



Step 4

Mount arms to sub plates using 2 4-40x1/4 inch screws. They screw into the pivot balls. Note the direction of the sub plate. This is with the countersinks in the plate facing down.

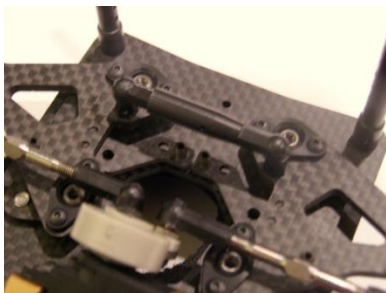
Step 5



Cut ball cups for damper tube to .400-.425 long. After they are cut to size using a sharp exacto knife, screw a 4-40 x 5/16 setscrew into each one. Screw them in until they bottom out but do not over tighten. Now screw 1 into the piston and one into the body until they bottom out but again, do not over tighten. Coat the piston with 15,000 weight differential oil or #4 shurlube and then slowly install piston into body. I like to spin the tube as it is installed.

Step 6

Install 2 black ball studs into lower arms and secure with supplied aluminum lock nuts. Then attach arm assemblies to chassis and snap the damper tube onto the ball studs



Step 8



Locate the titanium front axles, four 4-40 alloy lock nuts, and two alloy pivot balls.

Thread the titanium axles into the steering spindles. Note that the threads on the axles that go into the spindles are left hand. After the axles are fully seated tighten an alloy 4-40 lock nut onto the threaded stub coming out the back of the spindle.

Thread the alloy pivot balls into the holes on the steering arms and secure them with alloy 4-40 lock nuts. Remember these are alloy pivot balls so make the nuts snug. They are strong enough to last a few racing seasons; but if you crank them down, you can snap them.

Step 7



Locate the left and right steering spindles. Trim the steering arms length to the line molded on the part as shown.



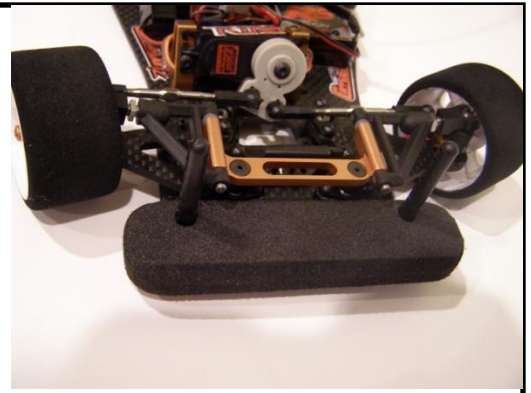
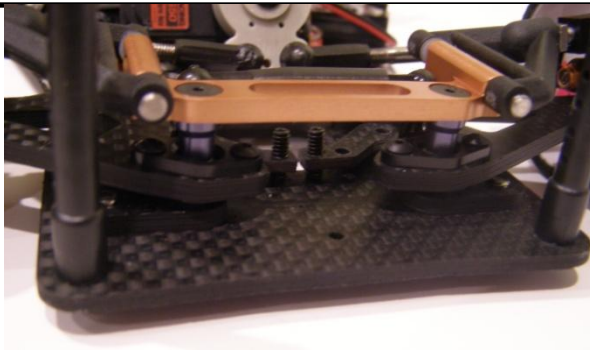
Step 9

Locate 2 steel 1/8" king pins, 10 1/8" shims, 4 e-clips and 2 .020" springs.

Assemble upper arms as shown. Make sure that the turnbuckle threads into the arm and eyelet very straight. If it is not straight, this will mess up your caster settings so be very careful. In testing on carpet, we liked running 2 shims to the rear of the block which will give you 6 degrees of caster.



Step 10



Put the 2 enclosed gray standoffs on top of the inner front pivot balls as shown. Lay the upper hinge pin block on top of them and attach using 2 4-40 x 1/2 inch flathead screws. Then install steering blocks by threading the upper and lower pivot balls onto the set screw running through the steering blocks. The picture in the top right side shows the way it should look when completed.

CONGRATULATIONS!! YOU ARE DONE!!

Go out and race. Check out the setup tips below

Suspension Adjustment

To set your ride height, back the droop screws out so they do not touch the sub plates. Then use the set screws in the flex plates to adjust your ride height. Tightening the set screws in the flex plates will raise your ride height and loosening them will lower it. Once you adjust your ride height, then you want to tighten your droop screws just enough so that you have your desired amount of up travel. Do not use the droop screws to adjust your ride height as this will preload your flex plates and you will lose all of your droop.

Once you have your ride height set and your droop roughly set, You will now want to fine tune and accurately set your droop. I normally run .5-1mm of up travel for droop. When your car is race ready and at ride height, slide the tip of your exacto blade under the center of the front of the car. Slowly lift the front of the car with your exacto blade. What you want is for the wheels to leave the ground at the exact same time. You can adjust the droop screws until this happens. Once complete, recheck your ride height and up travel.

Set Up For Carpet:

- 1.5mm flex plates with set screw in stiff position
- #4 shurlube in damper tube
- 3.25mm ride height
- .75mm up travel for droop
- 1 degree camber
- 6 degrees caster(2 shims to back)
- Angled servo and set for no bumpsteer