Front End Setup:

· Polish your kingpins. Chuck the kingpin in a Dremel and use Mother's Mag & Aluminum Polish on a rag. Focus on the part that slides in the lower ball. A light polish on the top ball is a good idea too.
· Add any shims you need for upper arm angle. Set screw out of spindle, push kingpin all the way down and tighten set screw. If using KSG machined spindles, make sure the kingpin pops down into the counterbore.
· Front Geometry Settings –

Left front: KSG front end – space the LF caster block inward usually .040 to .060. This makes the upper arm longer; it's intended to reduce camber change. GFRP front end…inner hole. Same deal. Arm angle - Pretty much all modern setups will call for the middle hole on a KSG front end. This will keep the arm flat or somewhat angled downward toward the center of the car.

Right front: This is a bit of a debate and really has to do with the grip level in the track. On lower grip tracks, bottom hole is what you want. Lots of upper arm angle and keep that arm short. On high bite tracks (well grooved-in tracks) we'll move to the middle hole. This lets the car roll a bit more but actually makes it steer a bit number. 2 things in play here…you're reducing camber gain (less steering) but you're adding a little roll. Running middle hole on RF is not good in lower grip situations. Bottom hole is the safer option most of the time.

· Caster settings – On the left front, we run 0 static caster. On the RF, on KSG front end I run the arm full back. Some lately have been splitting this, one shim in front and one behind. On GFRP I don't think you want to do full back; typically 2 behind, 1 in front. I haven't experimented with less RF caster yet, but it should take out a little roll while losing some stability. Make sure the arms can fall under their own weight on the hinge pins. You may need to lightly sand the caster shims to free them up.
· Insert kingpin and pop ball cup on. Make sure the kingpin can move freely.
· Install spring & spring buckets, add shims as necessary to take up any free space left on the kingpin before inserting the e-clip.
· When attaching the servo horn, center the servo in your radio, then install the servo horn one tooth off, counter clockwise. This makes it so when you set toe the left steering link is shorter than the right. This is to exaggerate the Ackermann effect because we turn the wheels so little in cornering. Try not to let this get too exaggerated…it should really only be one tooth off on the servo. If it doesn't line up right, use sub trim to adjust so it does. Make sure your steering links are free and don't hit each other.
· Steering link positions – bottom holes on servo horn are more aggressive. If you're running this position your dual rate will be in the 16-21 range on a Futaba. If you're running bottom holes make sure the turnbuckles clear the lower arms. Upper holes are less aggressive and will require more dual rate in the radio (20-28). Upper holes also get the steering links to line up with the upper arms better (less bump steer)
· Set toe. I pretty much always run .050-.060 toe out and honestly have never really experimented with anything different

· Set camber. I typically run ½ degree more on the left than the right. After setting camber make sure you straighten out the ball cup on top of the kingpin to eliminate any binds.
· Set car on a flat surface, measure ride height. We usually run the car flat across the front. To level it out, you'll most likely need to add some preload shims to the LF (it'll probably be sagging) If you get much past .040 preload shims and the RF is still higher than the LF, it's ok to use different ride height shims to get it right to avoid having to over-preload the LF. Re-check camber and toe settings afterwards.
· Add kingpin lube. I usually compress the spring and add it to the exposed kingpin above the lower ball. Work it in then wipe off the excess.