

# Building, Setting Up, & Maintaining Your X10 & XRS

[www.the-pred.co.uk](http://www.the-pred.co.uk)



## Predator X10 and XRS building and setup guide.

Welcome to the-pred.co.uk's very own setup guide for the Predator X10.

Although this guide is written based upon experience of the X10 and previous evolutions of the car, many, if not all of the tips found in here can be applied to your XRS.

This guide has taken the very best hints and tips taken posted on the forum and taken from suggestions from Richard Weatherley. This guide is, hopefully, comprehensive and informative. All of the respective "authors" of the hints and tips included in this guide are acknowledged, and you can see the original posts on the-pred.co.uk forum.

This booklet is by no means intended to replace the build instructions provided by T.Tech but it will hopefully provide clarity for certain aspects of the build manual that are known to have caused confusion in the past.

I make no apologies for not covering any of the T.Tech Legends cars, such as the P8 or the ETQ or for not including in this guide the transmission conversions that are readily available for download from the-pred.co.uk's as is a wealth of knowledge for building, setting up and restoring the Legend's cars.

# Build Tips.

The X10 and XRS Manuals are both very thorough publications, but everyone needs a little help sometimes. So this guide will try and cover some of those areas that owners have experienced problems. This area of the guide may well be a little late for some people who have purchased and built their cars already. However, for those of you that have done your research, then this may well save you some time and reduce your stress levels a little!

## Where do we begin then?

The transmission seems as good a place as any, as that is where the build of the car starts, and it is arguably the most difficult part of the build and the most crucial part of the build.

There are a number of different suggestions of which is the best way to assemble the Predator differentials, but the procedures described below are the best, I feel. (and not just because one of them was Richard Weatherley, the cars designer builds the transmission!)

## The Differential.

OK, the differential is a vital part of the car, and it deserves a booklet all for itself!

We all know T.Tech are so confident in the strength of the transmission for the X10 and XRS, that they have actually guaranteed it.

But, unsurprisingly, there are some limitations to that guarantee. So to ensure that you build the perfect differential the first time, follow these directions and you will have the smoothest, most reliable differential in any 1/10th scale off-road model car. I built my differentials 12 months ago, and since setting them up I have never had to adjust them since...

The description in Item 1 below is of the differential assembly, as written by Richard Weatherley, so it's worth following.

- 1) "...When I build a car I don't threadlock the screw, or degrease it. I build the diff and adjust it, as described in the manual, then assemble it in to the car and secure the gearbox tops. Place a drip of thin CA (tyre glue) onto a 1.5mm driver, and with the car on its side, carefully place the glue droplet into the centre of short diff half. Effectively into the M2 hole where the diff screw is, NOT THE THRUST RACE SIDE.

Enough glue gets around the threads of the M2 screw to stop it from rattling loose, but it does not permanently bond it. Be careful with the glue though, and after a few seconds to allow the glue to penetrate the threads, remove any excess glue with tissue, before turning the car the right way up again..."



- 2) It is worth soaking all of the parts, such as the diff balls and diff halves in something like white Spirits or other degreasing agent prior to building the differential. This removes any of the residue left over from the manufacturing process, and ensures that all of the parts are as clean as you can hope for prior to building the differential.

## Shimming the Differential

Once you have built and have carried out the preliminary adjustment of your differential, it is time to install it in your car.

Take care at this point to ensure that you not only installed it in the correct side of the chassis, but you shim it correctly. Put the diff into the chassis with enough shims



on the none drive side to prevent any lateral movement in the gearbox case and spin the prop a few times to settle everything. At this point there **SHOULD BE NO GREASE ON THE TEETH AT ALL.**

Place your first finger behind (smooth side) the crown wheel and gently twist it so the mesh between crown and pinion was slackened. With your other thumb nail rock the pinion and check for the backlash. If there is backlash then swap a shim from the none drive side to crown wheel side to tighten the mesh. Repeat the check / shim movement procedure over and over until there is no slack in the mesh. Then swap one shim back. This should leave no backlash when unloaded and only a very slight backlash when checked as above. It is only necessary to shim the rear differential in your car.

## The Prop Shaft.

Perhaps the most daunting part of the build, as this is where the components are epoxied together, and if this step is messed up, then the whole transmission can be exceptionally problematic.

The best way to build the prop shaft is to **TAKE YOUR TIME**. Do several “dry runs” and carefully ensure you have no more than 1.5-2mm of end float. (“End Float” describes the movement of the propshaft in a forward and back motion away from the crown wheels.) The best practice here is to put a small score mark in the prop shaft, where the one way and the slipper slutch will sit when they are correctly fitted, and the epoxy has dried. If you mark the propshaft during the final dry run, you can be sure that all will be well when you glue the parts together. Don’t forget though, because you are using epoxy, you can purchase a “five minute” drying time resin, which gives you plenty of time to ensure a correct build.

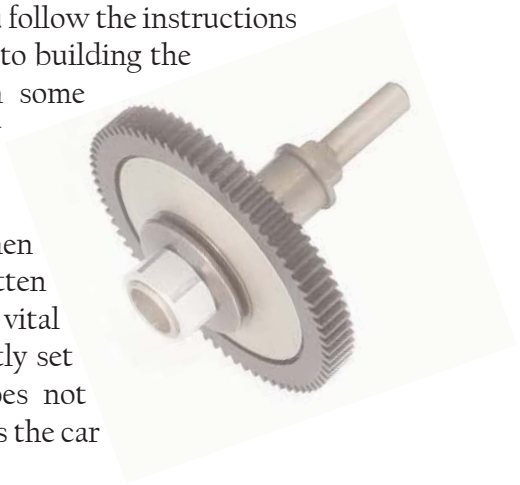
A good tip, when building the propshaft is to “springload” the assembly. Springloading the assembly is **NOT** a fix for having too much endfloat in the drivetrain, but it is a way to seemingly prevent the propshaft leaving the mounting flanges of the pinion, which is possible in certain circumstances. To “springload” the transmission, you need a small spring. One out of a pen is absolutely ideal. You simply insert the spring in the open end of the one-way housing where it slips onto the propshaft, and it has the effect of pushing the propassembly backwards, and the one-way bearing forwards, whilst allowing the propshaft to move within the range of the end-float built into the propshaft.



# The Slipper Clutch

The slipper clutch is very easy to build as long as you follow the instructions in the build manual. Although one thing I do prior to building the slipper clutch is to soak the beville washers in some cleaning agent, such as white spirits to remove any residue left over from the manufacturing process.

The slipper clutch though is often overlooked when setting up your car - once it is set, it is often forgotten as it does its job so well. BUT the slipper clutch is vital to the longevity of your transmission, and a correctly set slipper clutch will ensure that the spur gear does not break, as it absorbs the shocks to the transmission as the car lands from jumps and bumps whilst racing.



## Adjusting The Slipper Clutch

There are a number of ways to do this, but by far the easiest way to adjust your slipper clutch is to simply place the car on the ground (with its wheels and tyres on), hold the slipper adjusting nut with a suitably sized spanner (or my preferred method - a pair of long-nosed pliers). To tighten the slipper, roll the car forwards, and to loosen the slipper roll the car backwards. Easy!

You must remember though - it's a fine line between having your slipper just right, and having it too tight. Too tight and you will strip teeth off your spur gear. If in doubt, it's best to have it a fraction loose than have it too tight.

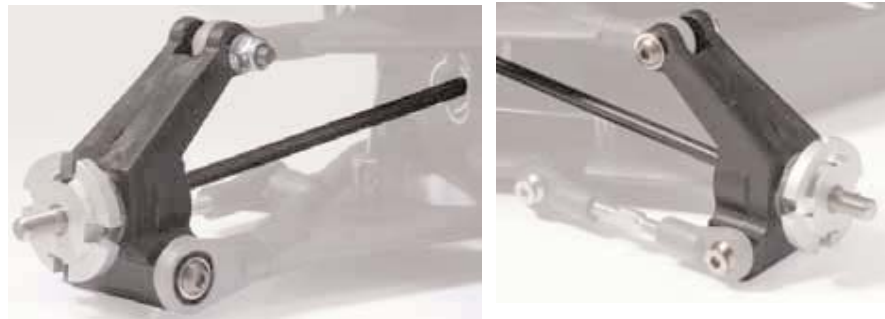


# Rear Hubs.

There have been issues with the rear hub breaking, after clipping a track marker, or another car. In some circumstances, the wishbone is also broken. Obviously if this happens to you it's a little annoying as your race is then run. The hub breaks at the bottom, where the castor links are screwed into place at the back, and where it attaches to the wishbone on the front.

So how do you stop this from happening?

The answer is to get yourself a long nut and bolt, and replace the two screws on the front and rear of the hub with one long bolt. The hubs are drilled all the way through in most cases, so you should not need to drill the hub to carry out this modification. The bolt I used is a 40mm M3 bolt with suitable washers against the head of the bolt, and at the end where the nut goes. It really is a simple fix, and it is worth doing from the start. This modification does not cause any loss of tuning options available on the rear hub.



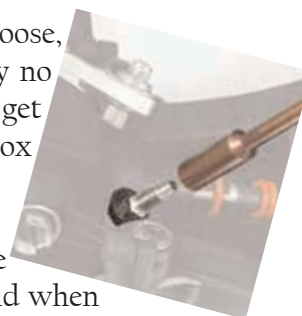
It is this screw that is replaced by the 40mm M3 bolt, washers and nut.

# Front Gearbox Top.

The front gearbox top is not something that needs modification, but there can be problems during the course of a race with the gearbox top, due to the manufacturing process of it.

During a race, the rocker pivots can actually work loose, causing bizarre handling characteristics and ultimately no suspension on one or both sides of the front of the car. To get round this, simply epoxy the rocker pivots into the gearbox top, or use plastic friendly threadlock.

The use of epoxy is fine, as you will only remove the rocker cranks in the event of breaking a gearbox top, and when this has happened, the epoxy simply cracks and falls away from the rocker cranks and you can re-use them in your new gearbox top.



You may notice that when you build the car, the rocker pivots are at slightly different angles. Unless the angle of the rockers forces your suspension to drop at significantly different levels, this difference is not that critical. If the rocker arms are at *vastly different angles*, send the top back to T.Tech and they will replace it FOC for you.



# Front Shock Absorbers.

T.Tech Shock absorbers are probably the best on the market. Although some people may think that the car requires larger volume shock absorbers, the vast majority of drivers will agree that the shock absorbers provided with the X10 & XRS are exceptional. The rear shocks are pretty much “fit and forget”, and don’t often need adjusting, other than maybe the inclusion or removal of spring spacers - the suggested setups on the T.Tech setup sheets are spot on for the rear shocks for the given surfaces.

The setup of the front shocks is much more important, and this step is vital to gaining the best setup for the track you are running on - the change in steering response when adjusting the oil weight in the front shocks is staggering.

## Rebound Valve

When you build the front shock absorbers you will install a “valve” behind the piston. This valve controls the rebound of the shock absorber, and the attitude of the car when accelerating, keeping the front end level. This valve is not always used in off-road racing, as the surface is usually very bumpy and the shock absorber may not recover from the bumps quickly enough.

In other circumstances,(usually indoors with big jumps), where the majority of the track is flat, the valve is placed on top of the piston, slowing down the compression of the shock absorber and eliminating the front end “grounding out” when landing from the jumps.

In any event it is almost impossible to give a blanket statement as to the benefit of this valve, and it is mainly down to personal preference whether it is used or not!

## Shock Oil

Generally, you change the front shock oil because you need to alter the way your car goes round the corners. I have found that running 45 or 50wt oil in the front and rear gives the most neutral handling car, and it allows for good cornering capabilities and good performance through the bumpy sections. Going to lighter oils in the front shock absorbers gives you more aggressive steering whilst retaining the handling characteristics described above. There is no need to go below 25wt oil in the front shock absorbers, and the usual range of shock oils used in the front is between 30 - 50wt.

## Springs

Again, another instance where it is difficult to say how each different spring rate affects the handling of the car, as the oil weight plays an important part as well. The best way to find out what the different springs do to the handling is to try them! Generally speaking, the harder the spring the less aggressive the steering is.



# Rear Shock Absorbers.

## Pre-Compression Spring

This item is not supplied as standard with the XRS, but it is something that you should consider purchasing if you have got an XRS. The pre-compression spring is only used on the rear shocks, and makes a massive difference to the way the car handles - the compression spring is suggested to be used on all but the smoothest tracks in the T.Tech setups.

## Shock Oil

The rear shock oil alters the grip produced by the rear of the car more than the way it handles the bumps. But as with the front shocks, there is little point going above 50wt oil, as the different level of grip achieved is negligible. But using too lighter an oil in the rear shocks make the car vague, decreases grip and makes the car generally unpleasant to drive.

## Springs

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Generally speaking, the harder the spring the more the car bounces over the bumps as opposed to riding through the bumps.





# Random Hints & Tips!

Below are some random hints and build tips taken from [www.the-pred.co.uk](http://www.the-pred.co.uk). Whilst the tips are no doubt useful, the-pred.co.uk cannot be held responsible for any damage you do to yourself or your car in carrying out these suggestions.

**Drill the hole** in the front wishbone for the push rod right through the wishbone and fit a longer screw that just sticks out of the bottom of the wishbone or finishes flush with the bottom. This prevents the raised area on the wishbone breaking away where the screw goes through the wishbone.

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**If your suspension** balls are tight in the plastic ball ends (usually only the M4 "Bullet" joints, but works with both) squeeze the plastic ball end (with the ball in it) with a bit pair of pliers BUT BE CAREFUL that the ball doesn't fly out and hit you in the eye!

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**The rear gearbox** plastic can strip very easily, so this is a modification you can do on the rear gearbox top.

The (upper) screws that you use to secure the back carbon plate, can be turned round so the heads are inside the gearbox. You will need to glue them to the inside of the gearbox top and you can screw the backplate on with nyloc nuts. When you need to remove the back, you can just take gearbox top and plate off in 1 piece, and remove as required.

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**The motor disc** can detach itself from the mount if you hit something hard. You can cure this by making a small latch to pivot on the screw that attaches the tie rod to the motor mount. Make the latch so that it traps the motor mount flange and can be swung out the way to release the disc when you want to access the motor. Alternatively, you can roughen up the facing edges of the motor disc and clamp to help with this a little.

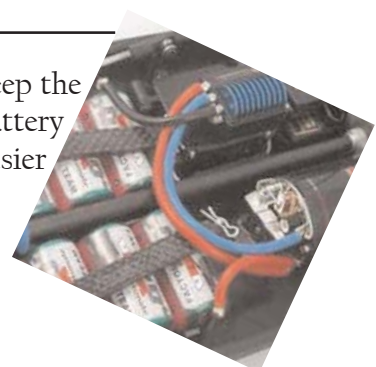
I have also exchanged the motor clamp screw with a "socket-head" allen screw to enable me to get an even tighter clamping force on the motor mount.

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**To stop the** ingress of water and dust into the chassis through the aperture for the steering link, use a suitable sized rubber grommit to seal the hole. If you apply a little grease to the inside of the grommit prior to passing the steering link through there will be no binding in this area.

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**Keep the electrical** installation as neat and tidy as possible - keep the wires as short as possible, and where possible, run the battery positive wire from the motor to the cells. Don't forget, it's easier to work on the car when everything is in it's place!



# Setup Tips.

Setting up your Predator for the very best performance is critical to success at your race track. But what do all of the adjustments do? Because the car is very different to all others on the market its sometimes a little confusing as to how each change will affect the car. But, thanks to Richard Weatherley, all of that confusion is now gone! Below is a description of what each change does to the car, and in which conditions you would make those changes.

**Camber, front** On a Predator this is critical for fast lap times. For extremely high grip (Astroturf, Carpet, fresh grass) you can run as much as 3 deg per side. In reduced grip such as loose clay or very worn grass, the front wheels must be stood upright or even 0.5 deg positive. Mid corner steering and lots of time can be lost if too much front neg camber is set. For medium grip, start with 1 deg per side. Front Camber is adjusted by changing the number of M4 washers between the upper front wishbone and the Ball joint.

**Camber, rear** Not as critical as the front, but can be run between 0 - 2.5 deg. Run more upright for increased traction. Adjusted by loosening slightly the M3 screw & nut at the top of the rear upright, where the upright has a camber adjustment "slot" moulded into it. (Drivers sometimes worry this will adjust itself on the track, but it doesn't)

**Toe-in/out, front** Run parallel most of the time. In slippery conditions, run up to 1.5deg toe out per side, to increase the general steering response and front end grip. Adjustment. Whilst adjusting the track rod turnbuckle, hold the inner ball joint in place with your thumb, to prevent it twisting itself off of the steering arm. (This can be popped on and off easily, but doesn't come off on the track)

**Toe-in/out, rear** This is a really useful adjustment on the X10, because the car is very sensitive to rear toe in angles. Due to the quick and easy nature of adjusting the rear toe in, it can be done mid-run track side if required for fine tuning. You will be able to tell the difference in handling with just 1/4 turn adjustment to the rear toe links. Its setting range is 1 to 2 degs per side. Use more toe-in for more slippery conditions, to gain traction and general rear end grip. If you have too much toe in for the grip available, you may have mid corner understeer and in a straight line over bumps, you may notice the rear end of the car hopping from side to side. If so just reduce it a little (1/4 turn) and you will notice the instant response.

**Shock Oil, front** Use this to adjust the general front end grip (also in combination with the springs). The lighter the front oil, the more general steering you will have. Normal working range is 25-35 wt. The front shocks may have rebound valves fitted. This causes the bump rate to be 30% softer than the rebound rate. This has proven very successful, as it keeps the front of the car more level under acceleration, and also enables softer oils to be used without loss of stability.

**Shock Oil, rear** On the X10, adjust this mainly to suit the jump and bump handling you require. Thickening the rear oil will also promote more steering.

**Springs, front** 90% of the time you will require the Black (1.3 dia wire) 6.0 turn or 6.5 turn springs. Only in very high grip would you need to consider opting for the Black 5.5 turn on the front. The Silver (1.4 dia wire) 6.5 turn are very stiff and only useful on flat track carpet. The softer 6.5 turn spring can be useful in very low grip, for gaining more steering. but for most general running on medium grip, run the 6.0 turn black.

**Springs, rear** Always use the small Gold "Pre- compression" ("P") springs, which give the ultimate control of small holes and bumps in the surface, whilst allowing fantastic stability. In combination with the "P" springs use the 6.5 turn silvers or 5.5 turn blacks. The silvers are a little stiffer and give more stability and more front end grip. Generally for rutted tracks use the softer 5.5 turn black.

**Spring position, rear** Use the middle hole in the rear rocker for most conditions. Occasionally the bottom hole can be used with thick rear shock oil (60wt) for very rutted tracks.

**Upright pick up point, rear** This is where the rear wishbone and toe link connect to the rear upright. Use the upper hole for medium to high grip. This gives a higher roll centre and gives incredible power on stability through fast corners. Use the lower hole for medium to low grip. This lowers the rear roll centre and causes more pivoting action mid corner, and therefore useful extra steering for lower grip.

**Caster, front** This is adjusted by moving the upper front wishbone backwards or forwards using M3 washers. For 95% of tracks use in the maximum (right back) position. Reduce the caster for very high grip tracks, to give more predictable mid corner front end grip.

**Anti Roll Bar (Sway Bar), front** The stiffness of the roll bars can be adjusted by moving the pick up points in the lower wishbones. The shorter positions create a stiffer roll bar and the longer positions a softer one. Use the front roll bar only for exceptionally high grip tracks such as Astroturf in mid summer, or flat track carpet.

**Anti Roll Bar (Sway Bar), rear** The stiffness of the roll bars can be adjusted by moving the pick up points in the lower wishbones. The shorter positions create a stiffer roll bar and the longer positions a softer one. Use the rear roll bar set in the softer (longer) position 90% of the time. The stiffer position is useful particularly for rutted loose surfaces. It creates more consistent grip at the back, by preventing the rear wheels dropping into holes in the track surface and gives extra mid corner steering.

**Wing, front** The front wing makes a useful difference, even at fairly low speeds. To increase front end grip, particularly in high speed corners, you can adjust the front wing angle, by placing a spacer between the gear-box top and the front wing. Use spacing of between 0 - 2.0mm. More than this is counter productive because it would cause air to be tipped over the top of the rear wing and will bring the front wing close to its stalling angle. Your front wing has been carefully developed to create downforce mainly from its outer edges. The central air stream is only minimally effected and is allowed to pass cleanly onto the rear wing.

**Wing, rear** The rear wing's effect can also be subtly adjusted by moving it backwards or forwards. Use the standard marked position for most tracks and conditions. For very high grip tracks, the rear wing may be moved backwards. This places the rear wing into cleaner air at high speed, and moves the centre of effort backwards which gives great high speed stability and progressive steering. Move the rear wing back 6 - 8mm by making two new holes in the wing.

## SUMMARY

**Very high grip** - Reduced front caster, lots of negative camber, stiffer front oil & springs, use upper holes on rear upright, minimal rear toe in, rear wing back.

**Medium grip** - Maximum caster, less negative camber, medium shock oil with 6.0t black front springs medium rear toe in.

**Low grip** - Maximum Caster, soft front oil and springs, no neg camber, slight front toe out, use lower holes on rear upright, increased rear toe in, 6.5t front springs, increased front wing angle.

*Richard Weatherall*

**T.TECH**  
**RACING**

# Maintenance

Along with every other competition spec car, the X10/XRS will give you it's very best performance when everything is clean and free from dirt/grass/whatever. Most of this section is common knowledge, and it may seem stupid to include it at all, but there's no harm in it being here, so here is the check-list for maintaining your Predator trackside!

***The bearings in the rear hubs*** - seem to attract more than their fair share of dust & grime, so when you are racing outdoors, these should be brushed off after every race, unless conditions dictate they should be removed and cleaned completely. The bearings in the front hubs are not as badly affected as the rear, but again they should be checked for dust and dirt. When cleaning the bearings thoroughly, I always soak them in cleaning alcohol (after brushing the dirt off them) for about 20 minutes. I then re-lubricate them with Royal Oil.

***It is always advisable*** to check the shock absorbers for leaky seals - they don't need to be removed from the car for this, as you will soon know if your oil seals are leaking by the mess left behind!

***Check your suspension*** (especially the front) to make sure that the "droop" is the same on both sides - if it isn't it's a sure sign that either one of the rocker cranks are loose or you have bent one of your hinge-pins. If it is your hinge-pin that is bent, you may also be experiencing the car pulling to one side under braking, too.

***Check and double check*** the motor hasn't moved at all during your last race - it is possible, even with the new motor clamp, for the motor to slightly move during one race, and for it to go un-noticed 'til it strips your spur gear in the next race!

***Rocker Cranks*** - they do come loose, and can even fall off the car during a race - if this is happening to you, put some araldite or superglue on the threads before you re-install them in the front gearbox top - don't worry the threads on the cranks don't get damaged by the araldite/superglue, it just "falls off" when you next remove the rockers from your gearbox top.

# X10

## SPRING TUNING PACK

HARDER



S136 - HARD 6.5 TURNS (silver 1.4 dia wire)

S118 - M/HARD 5.5 TURNS (black 1.3 dia wire)

S119 - M/SOFT 6.0 TURNS (black 1.3 dia wire)

S120 - SOFT 6.5 TURNS (black 1.3 dia wire)

SOFTER

How to identify each spring



**S120**  
6.5T / 1.3



**S119**  
6.0T / 1.3



**S118**  
5.5T / 1.3



**S136**  
6.5T / 1.4



SOFTER

HARDER

# PredatorX10

## Chassis Settings

High Grip .....													..... LowGrip	
Track Type	FlatTrack/Carpet		Astroturf		Fresh Grass		Worn Rutted Grass		Clay/Dirt		Clay/Dirt - Bumpy		Polished Floor	
	Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear
Springs	5.5T (Silver)	5.5 (Silver)T	5.5T (Black)	5.5T(Silver)	5.5T (Black)	5.5T(Silver)	6.0T (Black)	5.5T(Silver)	6.5T (Black)	5.5T(Silver)	6.5T (Black)	5.5T(Silver)	6.5T (Black)	5.5T(Silver)
Pre-compression spring	None	None	None	Gold	None	Gold	None	Gold	None	Gold	None	Gold	None	Gold
Piston	Hard/Valve	Soft	Hard/Valve	Soft	Hard/Valve	Soft	Hard/Valve	Soft	Hard/Valve	Hard	Hard/Valve	Soft	Hard/Valve	Hard
Oil weight	45wt	55wt	35wt	55wt	35wt	50wt	30wt	50wt	30wt	40wt	30wt	60wt	20wt	40wt
Toe-in (per side)	Parallel	1 deg	Parallel	1 deg	Parallel	1 deg	Parallel	1.4 deg	Parallel	1.8 deg	Parallel	1.8 deg	1.0 deg (toe out)	2.2 deg
Camber (per side)	3 deg	2 deg	3 deg	2 deg	3 deg	2 deg	0 deg	1 deg	0 deg	1 deg	0 deg	1 deg	0 deg	0 deg
Castor (top wishbone pos)	Forward		Right back		Right back		Right back		Right back		Right back		Right back	
Ground clearance	7mm	10mm	16mm	22mm	16mm	22mm	16mm	22mm	16mm	22mm	16mm	22mm	16mm	22mm
Anti-roll bars/Pick up positions	Hard	Soft	Soft	Soft	Soft	Soft	None	Soft	None	Hard	None	Hard	Soft	Hard
Pick-up points														
Front Upright to upper wishbone	No spacer		Std spacer		Std spacer		Std spacer		Std spacer		Std spacer		Std spacer	
Rear Upright	Upper hole		Upper hole		Upper hole		Lower hole		Lower hole		Lower hole		Lower hole	
Damper pick-up point	Middle		Middle		Middle		Middle		Middle		Middle		Middle	
Powertrain Details														
Motor	10 turn		10 turn		10 turn		11 turn		11 turn		11 turn		19 turn	
Speed Controller Setting	Max		Max		Max		Max		Max		Max		Max	
Front brake balance	3x O-ring in collet		3x O-ring in collet		2x O-ring in collet		0x O-ring in collet		1x O-ring in collet		0x O-ring in collet		3x O-ring in collet	
Pinion	17		19		19		20		21		21		15	
Spur gear	73		73		73		73		73		73		73	
Gearbox internal ratio	2.44 to 1		2.44 to 1		2.44 to 1		2.44 to 1		2.44 to 1		2.44 to 1		2.44 to 1	
Overall Ratio	10.47		9.37		9.37		8.90		8.47		8.47		11.86	





Driver: \_\_\_\_\_

Date: \_\_\_\_\_

Track: \_\_\_\_\_

<input type="checkbox"/> Indoor	<input type="checkbox"/> Slick	<input type="checkbox"/> Smooth
<input type="checkbox"/> Outdoor	<input type="checkbox"/> Loose Dirt	<input type="checkbox"/> Rough
<input type="checkbox"/> Tight / <input type="checkbox"/> Open	<input type="checkbox"/> Blue-Groove	<input type="checkbox"/> Extra-Rough

## FRONT SUSPENSION

☐ In \_\_\_\_\_ °      ☐ Stock \_\_\_\_\_ °  
 Toe ☐ Out \_\_\_\_\_ °      Caster ☐ Other \_\_\_\_\_ °  
    ☐ No  
 Ride Height \_\_\_\_\_      Sway Bar ☐ Yes size \_\_\_\_\_  
    ☐ - \_\_\_\_\_ °  
 Camber Shims \_\_\_\_\_      ☐ + \_\_\_\_\_ °

## Front Shocks

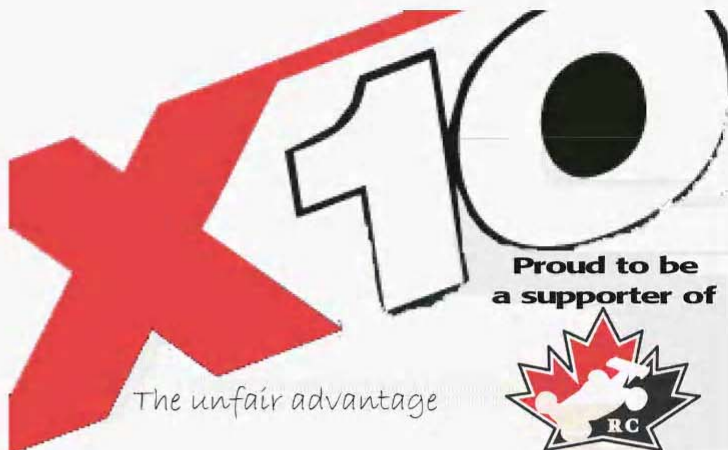
Oil: \_\_\_\_\_ Shock Oil Brand: \_\_\_\_\_

Piston: \_\_\_\_\_ ☐ Standard / ☐ Drilled ☐ 1 Hole

Spring: \_\_\_\_\_ ☐ 2 Hole

Internal Spring: \_\_\_\_\_

Limiters: ☐ Inside- \_\_\_\_\_ ☐ Outside- \_\_\_\_\_



Front Drive:

☐ LOCKED 1 WAY  
☐ DIFF. ONLY  
☐ FRICTION RINGS



Notes:

## REAR SUSPENSION

REAR SUSPENSION

Toe-In ☐ Inside \_\_\_\_\_ ° ☐ Outside \_\_\_\_\_ °

Ride Height \_\_\_\_\_

Camber ☐ - \_\_\_\_\_ ° ☐ + \_\_\_\_\_ °

Sway Bar ☐ No ☐ Yes size \_\_\_\_\_



Rear Shocks  
Oil: \_\_\_\_\_

Piston: \_\_\_\_\_ ☐ Standard / ☐ Drilled

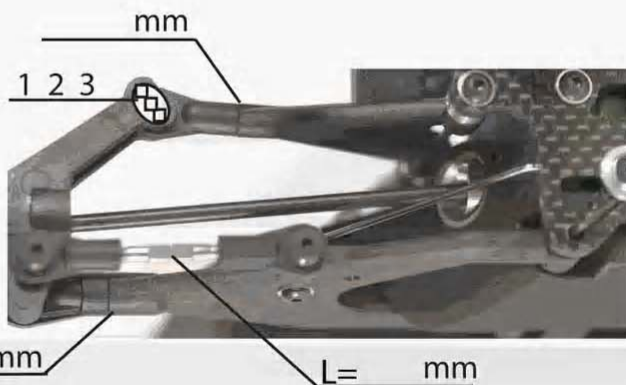
Spring: \_\_\_\_\_

Pre-Compensation Spring: \_\_\_\_\_

Limiters: ☐ Inside \_\_\_\_\_ ☐ Outside- \_\_\_\_\_

## Shoulder Location

☐ UPPER  
☐ MIDDLE  
☐ LOWER



Notes:

Tires:	Compound
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Front:

Rear: \_\_\_\_\_

Wing Setup: \_\_\_\_\_

Transponder Position: \_\_\_\_\_

Motor: \_\_\_\_\_

Pinion: \_\_\_\_\_

Spur: \_\_\_\_\_

Notes:

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	70	71	72	73	74	75
10	17.080	17.324	17.568	17.812	18.056	18.300
11	15.527	15.749	15.971	16.193	16.415	16.636
12	14.233	14.437	14.640	14.843	15.047	15.250
13	13.138	13.326	13.514	13.702	13.889	14.077
14	12.200	12.374	12.549	12.723	12.897	13.071
15	11.387	11.549	11.712	11.875	12.037	12.200
16	10.675	10.828	10.980	11.133	11.285	11.438
17	10.047	10.191	10.334	10.478	10.621	10.765
18	9.489	9.624	9.760	9.896	10.031	10.167
19	8.989	9.118	9.246	9.375	9.503	9.632
20	8.540	8.662	8.784	8.906	9.028	9.150
21	8.133	8.250	8.366	8.482	8.598	8.714
22	7.764	7.875	7.985	8.096	8.207	8.318
23	7.426	7.532	7.638	7.744	7.850	7.957
24	7.117	7.218	7.320	7.422	7.523	7.625
25	6.832	6.930	7.027	7.125	7.222	7.320
26	6.569	6.663	6.757	6.851	6.945	7.038
27	6.326	6.416	6.507	6.597	6.687	6.778
28	6.100	6.187	6.274	6.361	6.449	6.536
29	5.890	5.974	6.058	6.142	6.226	6.310
30	5.693	5.775	5.856	5.937	6.019	6.100
31	5.510	5.588	5.667	5.746	5.825	5.903
32	5.338	5.414	5.490	5.566	5.643	5.719
33	5.176	5.250	5.324	5.398	5.472	5.545
34	5.024	5.095	5.167	5.239	5.311	5.382
35	4.880	4.950	5.019	5.089	5.159	5.229

