



gentlemen's GTI

In the middle of 1996 Porsche shook the very stable boat of GT racing by the railings. Up to this point McLaren had GT racing by the b...s, winning pretty much as they pleased, then Porsche reached inside their massive parts bin and screwed together the GTI, a masterpiece of carbon fibre, alloy, steel and titanium. Built around the front of the then current 993, the rest of the car was 100% pure racing car, it was so fast it was embarrassing. So fast that for 1997 the GTI has been "hobbled" by power sapping restrictors in the turbo cars induction system.

Is this a Pure Ten?

The Kyosho has a lot to live up to then, and it does. If you are a regular reader you will have read, no doubt, the "Emery's", Big Mac, and Yellow Banana, Pure Ten reviews, if not ring RRC's back edition number. But the Super Ten comes from a totally different "ingredient" list.

In fact, the Super Ten is just that, a slightly larger car, and a totally new set of running gear. No parts being compatible between the two types of car, the "Super Ten" being more hi-tech and sophisticated.

Not a belt to be seen

As the "Porsche" is modelled on a more scale layout the belt drive system on the "Pure Ten" has been dropped in favour of "shaft" drive, but again with permanent four wheel drive, using geared diffs front and rear, with a "solid" centre drive unit, this splits the torque equally between the front and rear wheels. Which will make the car very stable. The other significant change is the up grading of the engine to a .15 cu in. unit, again with a pull-start, and a much better twin needle carb. This alone will make

Kyosho Super Ten R/V

the "911" much nicer to drive, giving a much smoother pick up from slow corners, maximising the grip from the four wheel drive system. So add a full adjustable double wishbone suspension system (very similar in layout to a famous Dutch model car builder - hiss!!!) ball-races and some polymer shocks, you really do have a "Super" car.

It almost builds itself

Kyosho seem very much of late to have taken the mantle of "easy build" away from Tamiya at present, RRC has built and run several of their

Rear View.



products recently and not one has given a problem. If you can read, have the tools that Kyosho recommend, then you will have a fully built car on your lap in a matter of hours. But with a little extra care you really can have a super "super ten".

Build it better

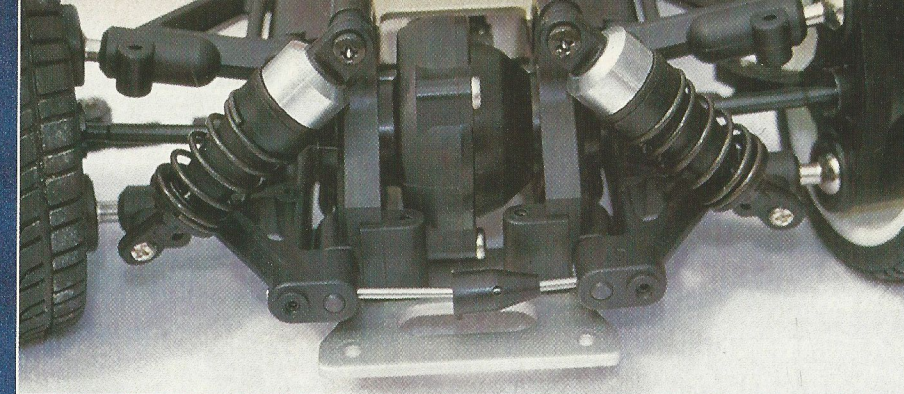
The first tips come with the first two assemblies, the gear diffs. Check all the "cast" gears for any flashes, these can be polished off with some fine emery or with a dremel, this will give a truly smooth action. As with any geared diffs no form of limited slip action is included, so if one wheel starts to spin all the engines power is transmitted to that wheel (path of least resistance). Well Kyosho have given you away of reducing that, even if they didn't

know. As part of the diff build, thin pressure pads shim the back lash between the diff gears, by adding extra shims and a very thick grease, the diffs can almost be "locked up", giving even more grip. As on the whole most 4WD cars with a 50% torque split, tend to understeer, which does make them very user friendly, I built the rear diff much stiffer than the front. This should give a little more "power-on" steering, allowing the throttle and brakes to "steer" the car.

When assembling the diffs in their housings do make sure the ballraces are a loose fit in the housing halves, I had a little flash on the inside track, a sharp blade relieving it.

Next Tweaks

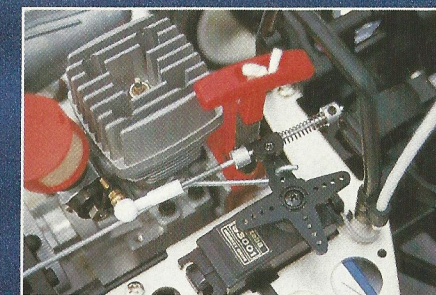
If you follow the instructions you will have come to the assem-



Front suspension complete. Fully adjustable caster and camber.

bly of the front and rear uprights/stub axles. Now the only gripe, although the whole drive train is ballraced, the wheels/axles run in bronze bushing, all right high quality ones, for small increase in cost ballraces could have been supplied, and are on the options list. Anyway after a quick phone call to Chris Wilkinson of Blue Diamond bearings, the required bearings were dispatched and fitted.

The next tweak comes with the pivots for the uprights, because the "Super Ten" has adjustable camber and track width, a ball and



The GT158-CR pull start engine, provides plenty of smooth power with excellent pick-up out of corners.

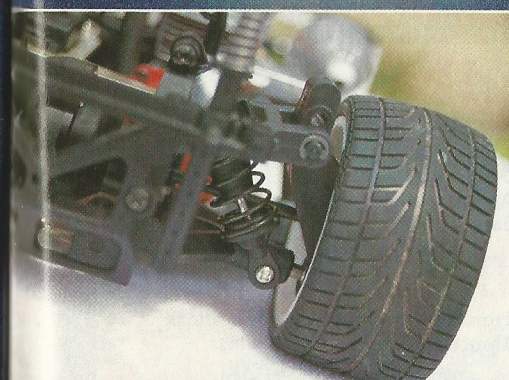
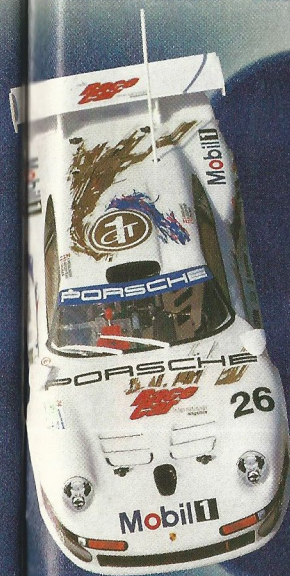
socket is fitted top and bottom on the front wishbones and the bottom of the rear wishbone. The "ball" is chrome-plated, this runs in an alloy socket, which has an external thread, which allows you to adjust out any wear. I spent a little time lapping each ball/cup with a little chrome polish, this will reap dividends when all the suspension is assembled. Also at this point you need to check that you have built the car with the correct track width left and right, I did find the measurement Kyosho gives of 6mm, gave the track a bit too much width, not leaving a lot of driveshaft engagement, I reduced it to 5mm, I also checked the track width from the chassis centre line, this left the right hand ball joint screwed in half a turn more. Do take time over this, you need to be sure the car will "drive" straight.

Also during this part of the build you have to fit the Serpent style front roll bar, don't connect it yet, as it will need adjusting when you set the car up.

Easy as pie

If you follow the rest of the instructions, the rest of the build is easy as pie. I did add a "known" weight of shock oil (Schumacher 80w) when I built the dampers, make sure that you build the shocks the same length overall. No dimension is given in the instructions, so I built them as short as possible.

The rolling chassis should be completed now, the "cassette" style radio tray holds no secrets, due to its compact size you will have to coil up the excess servo leads and tie-wrap them up. I



Left: Close-up of rear suspension, showing standard kit shockers.

Right: The GTI with Dave Designs different but terrific paint job.





In all its glory!

didn't really like the hardware included for the throttle linkage which Kyosho included, so I replaced it with some ball joints I had in my pit box.

What a bod

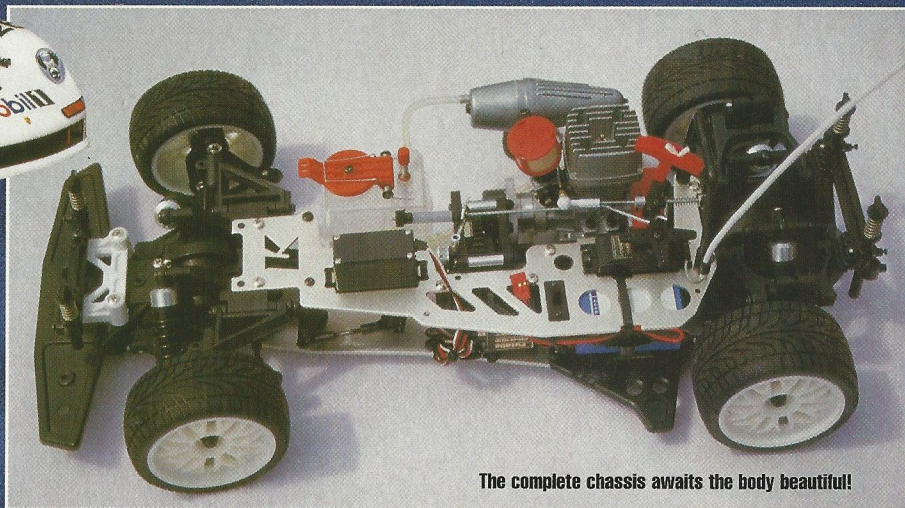
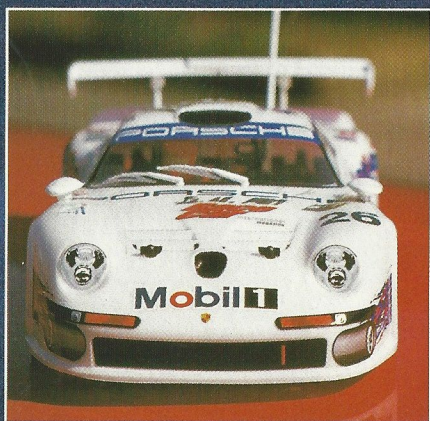
As this is a "Super" car the moulding that Kyosho supplies is really amazing, the quality and realism is second to none, all the detail of the real car being carried over to the model, with the two pages of decals a real replica of the "Works" GTI can be had. Do take time over the decals though. As at present the "Works" livery is the only one which model car manufacturers seem to have picked up on, and as RRC was lucky enough to have two bodyshells, RRC sent one shell for a GT paint job to Dave Appleman of Dave's Design Shells, tasty isn't it, the other shell used the Kyosho kit supplied decals and paint masks, done by me. The only crit being the poor fit of the window outlines.

It's a set-up

If you have followed all the instructions, the wheels should be facing roughly the right way, but I do think because of the quality of the "Super Ten" it deserves better. So here's how I did it.

- You will need a camber gauge, either R.P.M. or Serpent, a straight edge, 6" rule or vernier.
- 1) Remove all wheels and shocks.
 - 2) Sit the chassis on the front wheels on a flat surface.
 - 3) Measure from the front axle centre line to the flat surface. Adjust L/H R/H down stops in lower wishbones till both are equal.
 - 4) Reconnect front roll bar.
 - 5) Re-check front axle dimensions you may find they have changed, if this is the case you may have to bend the bar to re-set this, mine did.
 - 6) Check rear axle centre line measurement again adjust using the wishbones down-stops.
 - 7) Re-fit wheels.
 - 8) Re-fit shocks.
 - 9) Sit car on wheels, adjust front and rear ride heights so you have 6mm under the front 8mm under the rear, use the packers in the shocks to achieve this, you may find you have to use the down stops as well, if you do, adjust them equally.
 - 10) Adjust front camber to 1° negative (wheel

Front View. What a beauty!



The complete chassis awaits the body beautiful!

tilts in at top) using the top wishbone adjuster. Keep wheel straight.

- 11) Adjust track rods so front wheels run parallel to chassis, use the straight edge for this.
- 12) Re-check front track width at bottom of tyre, adjust if needed (remember to adjust top and bottom joints the same).
- 13) Re-check camber and tracking.
- 14) Adjust rear camber using bottom wishbone adjuster 1° negative.
- 15) Re-fit front bumper.
- 16) Fit body - have fun.

Having Fun

Just for a change Bedworth was the choice for the track test. Due to a very tight schedule the engine had not been run in, so that was the first job. Running on 16% Nitro the "from factory" carb settings allowed the engine to start very quickly. This may not always be the case, but Kyosho do include a very comprehensive set of instructions on the engine. Never use a fuel with less than 10% Nitro, the more Nitro the easier it is to set up.

After four tank fulls running a rich mixture (lots of smoke and car will almost stop on full throttle) the main mixture was leaned out till max revs could be attained on the main straight, do this in small adjustments, don't go over lean, always make sure you have some oil smoke. If the pick up from slow corners is poor the bottom end will need adjusting. Follow Kyosho's instructions to the word, they do work.

How's it go??

Once the engine was run in the hammer was put down. Smooth is the word, pick up was almost electric, punchy but not hard to control. Traction was what I had expected, the single brake disc operating on the centre drive unit, was progressive but could lock the wheels if needed.

By playing with the spring packers and ride height adjusters a nice amount of "steering" could be dialled in. Performance, well to be fair, the GTI cries out for the optional 2 speed gearbox or a different drive ratio, as the engine is screaming its nuts off at top speed. This will reduce the engines working life, and Bedworth doesn't have very long straights.

When the GTI was going round several of the current electric scale racers took it on, they lost, the GTI was much quicker and it kept running for more than five minutes at a time.

Born to Race

Shame really.

The "Super Ten" is a great car, stable, quick, simple to build and good value for money. Now the bad news, at present there is not racing available to this car, even Ripmax the cars importer have at present not included the Super Ten cars in their own series. So what do you do with it, it's far too fast and sophisticated to be classed as a "toy", the RRC IC seems to be the only class available to them (Sportsmans Class). But I have no doubt that if enough cars and owners badger Ripmax they will give in and find a class for them, they really are born to race.

Available from all Ripmax Dealers, more details available from Ripmax on 0181 8048272. **RRC**

Quick Spec

4WD IC shaft drive. Ballraced transmission. Twin gear diffs. Solid centre drive. Single vented brake disc. Alloy chassis. Alloy radio plate. .15 pull start engine. Centrifugal clutch. Dog bones. Independent suspension. Double wishbones. Front and rear front anti-roll bar. Coil over oil filled shocks. Treaded tyres. Multi spoke wheels. GTI bodyshell.

Testers Kit

Radio	JRX756
Receiver	Futaba 40meg Mini
Servos	Futaba 3001
Fuel	Penn Models 16% Red Special
Plug	Modeltechnics F3
Tyres	kit
Body	kit 911 GTI

Likes

Quality - easy build
High-Tech - drive system, suspension
Great motor - easy set up, smooth
Amazing body - detail, strong
Fast - speed - handling, brakes

Dislikes

Front/rear bushings - needs bearings
Throttle linkage - no ball joints