

The Lazer ZX-R is the latest, all competition off roader to come from the world famous Kyosho factory. The title, 'Lazer ZX', has again been used, but has been suffixed with an 'R', to clearly identify the new car. The Lazer ZX-R has some significant differences when compared to the original 'Lazer ZX', released some time ago. (Reviewed in RRC April 1990, issue 78).

'R' Stands For....

The ZX-R you can buy over the shop counter is very similar to the car that won the 1991 British Off Road Grand Prix, driven by Mark Pavidis from the USA; so the pedigree and ability of the car is not in question.

The differences between the 'ZX' and the 'ZX-R' have been included to give an already highly competitive car the edge over its nearest rivals, such as the Yokomo Dogfighter, Schumacher Cat, and more recently the Tomy Intruder. Indeed Kyosho are so confident they have got the right formula with this car, they say that it is "The highest performance buggy ever offered by Kyosho! A future championship winner." A bold statement; is the 'ZX-R' really that good?....

KYOSHO

LAZER

ZX-R

RRC reviews and runs Kyosho's best 4WD racer to date.

8. No belt covers for front to rear drive belt.

Some of the changes are obviously purely cosmetic, but others should have a noticeable effect on the performance of the car.

New Body and Wing

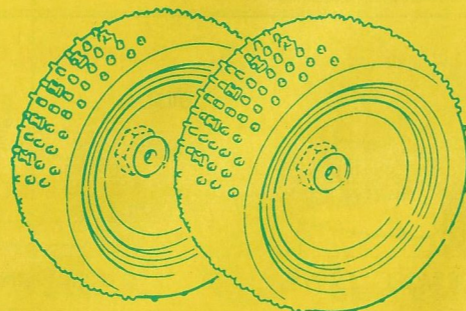
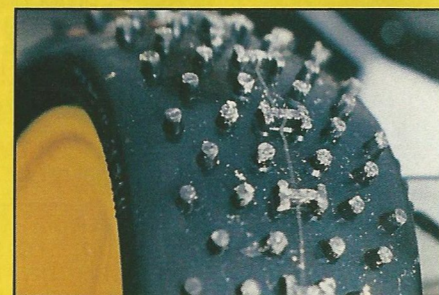
We feel that the body on the ZX-R is a vast improvement on the one found on the ZX, which was rather square and unattractive. Gone is the double deck wing for a smaller single level unit that has large 'ish' side dams. These must be cut out of a separate, square piece of polycarbonate supplied in the same bag as the excellent sticker sheet.

The stickers meet the same high standards set by Kyosho some years ago, and can make even the simplest colour scheme (white!!) look attractive.

2.2" Tyres and Wheels

It seems that if an R/C car kit doesn't have 2.2" tyres and wheels, it has no 'street cred' at all, and who would be seen using a car with no street cred? The advantages offered by 2.2" wheels and tyres seems to be incredibly minimal but if that is what people want, Kyosho are only too pleased to oblige.

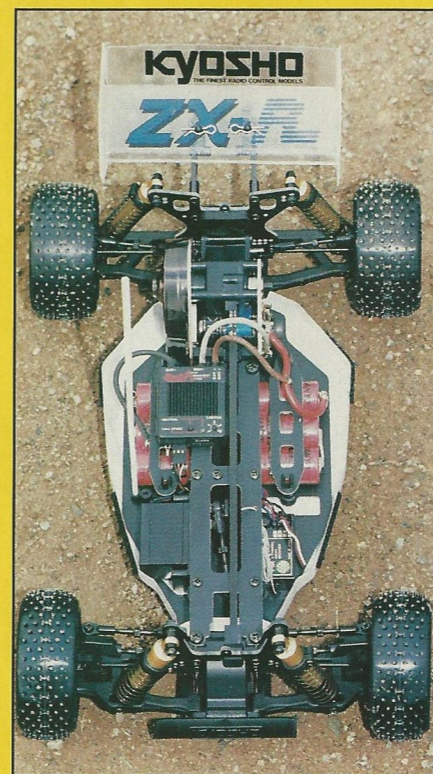
The same type of new 'H' pattern tyres are used at the front and rear of



the car. These tyres come in two compounds with the harder variety being included in the ZX-R kit. Certainly the soft compound versions are the things to have on slippery tracks as they appear to offer even better grip than Losi X patterns!!

The wheels in the kit are made from an attractive bright yellow plastic material, and they certainly seem to be

strong enough, even over the roughest terrain. They are also very light so the unsprung weight on the suspension is very low which should give good handling characteristics.

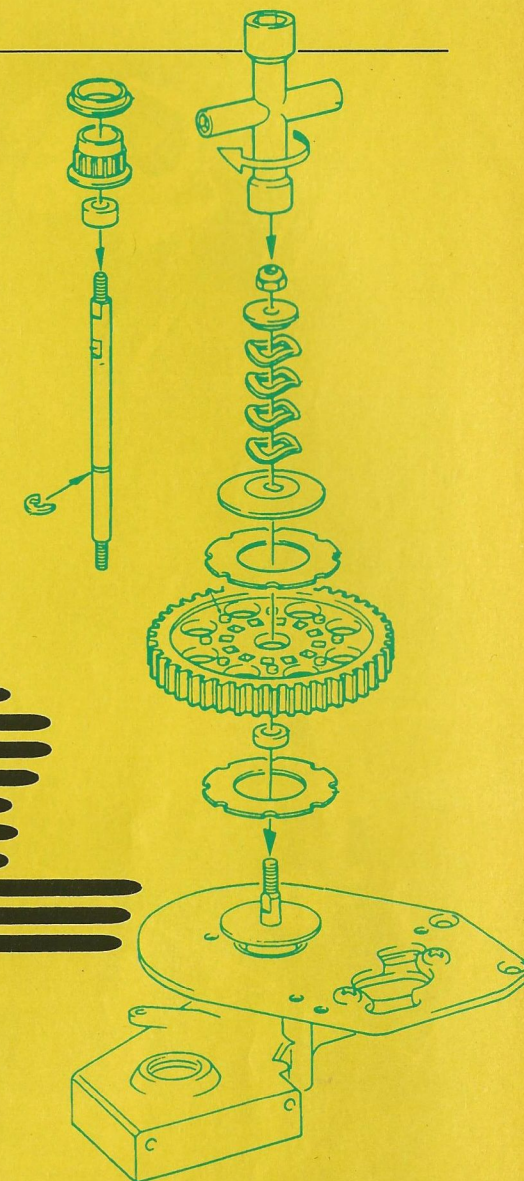


KYOSHO LAZER ZX-R

Slipper/Torque Clutch

The slipper clutch included in the ZX-R kit is the same design as that found on the new Kyosho Triumph 2WD racer (RRC August 91). As mentioned in the Triumph review the slipper clutch is a very simple, lightweight design. It is because of these reasons that this unit is a joy to work with, it is so easy to maintain and adjust. If used to its full effect the slipper will take a lot of strain and stress off the differentials and belts, especially when the car is landing off tall jumps.

Unlike previous Kyosho kits, the main spur gear included in the ZX-R kit is 48DP (as opposed to .6 module). This brings it into line with other British and U.S. kits, and will make buying a motor pinion a lot easier as any 48DP item will fit.

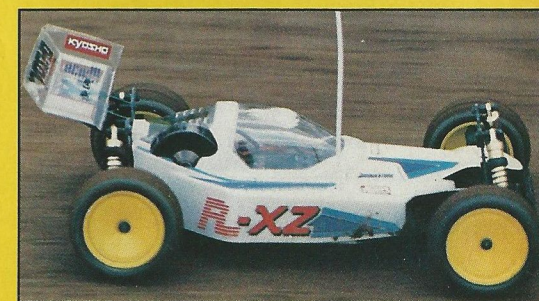
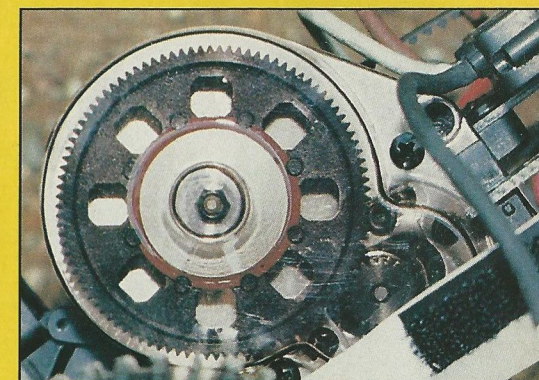


The Lazer ZX-R has a sturdy steering mechanism.

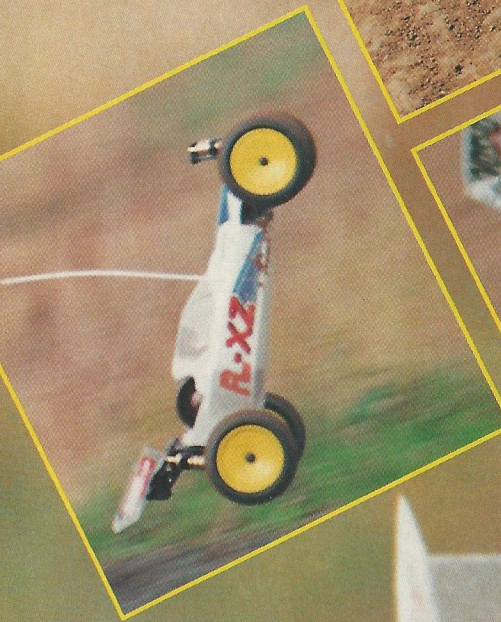
Ball Differentials

Ball diffs replace the standard geared units found on the original 'ZX' and other Kyosho kits. More impressive than this though is the fact that they come assembled from the factory!! Hurrah! If there is one feature of model car kits that is a real pain, it is the construction of ball type differentials. Thank you Kyosho!

Although ball diffs are used by 'Pro' racers and are more efficient and adjustable than geared types, one has to wonder if they are really necessary if a slipper/torque clutch is provided (as in the ZX-R kit). Before slippers became



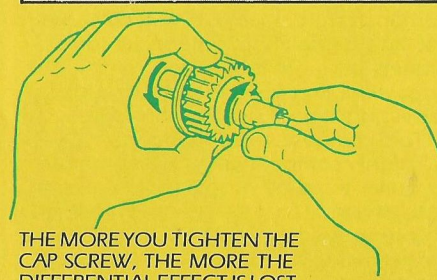
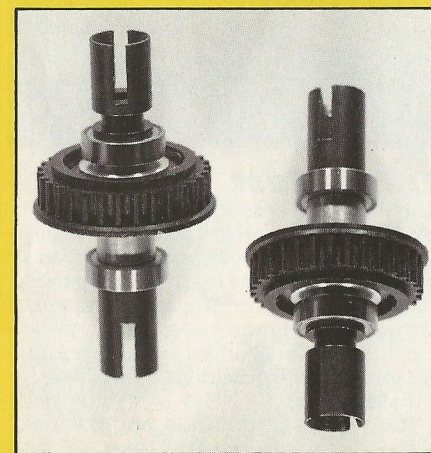
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available, the amount of 'slip' in the transmission under acceleration was controlled by ball differentials. However nearly everyone adjusted the diffs so that they wouldn't slip, to reduce regular, time consuming maintenance. Therefore when racing on slippery tracks fine throttle control was paramount! The introduction and use of slippers has, of course, made life a lot easier and fine throttle control less important.



THE MORE YOU TIGHTEN THE CAP SCREW, THE MORE THE DIFFERENTIAL EFFECT IS LOST.

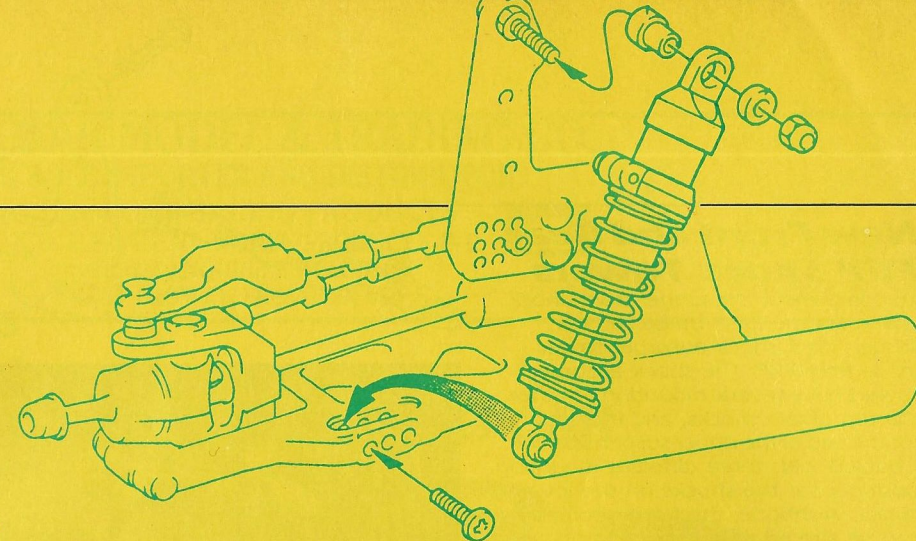
Having said that, the ZX-R is a professional race kit so it is to be expected that the best features are included in the kit 'as standard'. Because the diffs are already assembled it takes at least half an hour off the construction time. Before they are put into the gearboxes the diffs should be checked to see if they are slipping at all. The factory settings are very good though, so adjustment will probably not be needed, but it is always best to check.

Intermediate Length Front Shock Absorbers

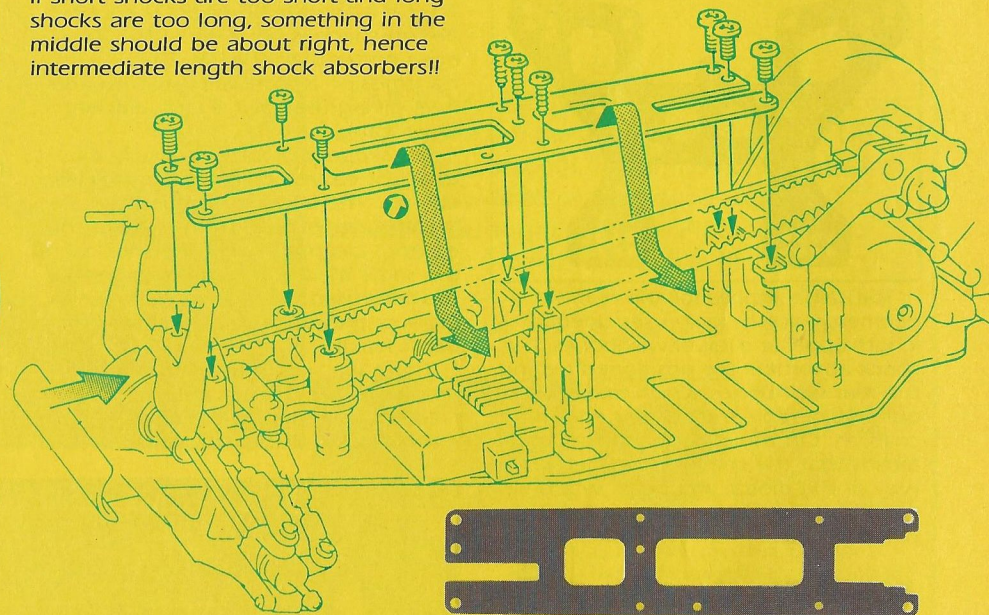
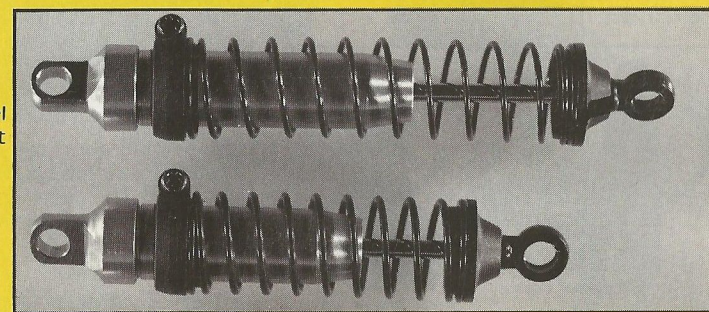
Intermediate length front shock absorbers will soon rate as second only to 2.2" tyres in the 'pose' stakes on R/C model cars. However they do have much more of a dramatic effect on the handling characteristics of a buggy, so their inclusion in the ZX-R is quite welcome.

Intermediate length shocks allow a buggy to soak up much rougher terrain without upsetting the balance of the chassis, because the 'throw' of the shocks is increased, as is the whole of the front suspension movement.

You may ask, "why intermediate



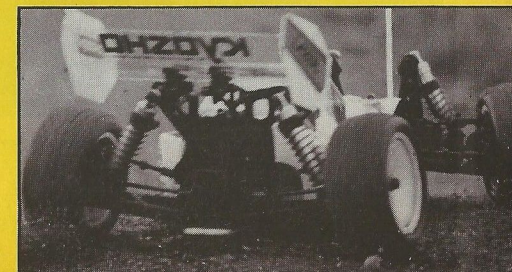
length?". Well, short shocks generally don't give enough suspension travel for the bumpiest of tracks, and long (rear) shocks fitted to the front of a car tend to give too much travel, which can cause the car to roll and dip into corners. So, if short shocks are too short and long shocks are too long, something in the middle should be about right, hence intermediate length shock absorbers!!



One Piece Upper Chassis Deck

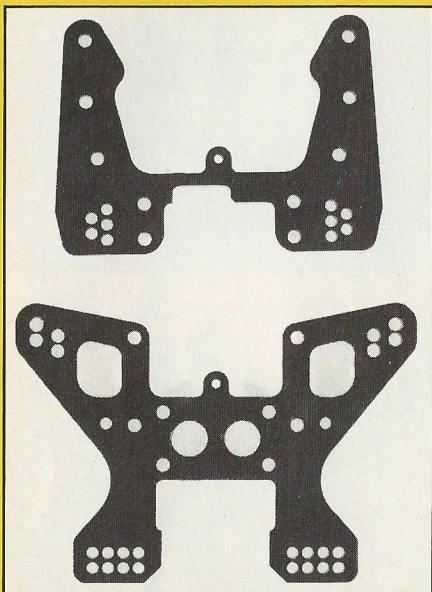
A problem experienced by many owners of the original Lazer ZX was the longitudinal flexibility of the chassis. The problem was blamed somewhat on the fact that the upper chassis brace/deck was made from two separate pieces of FRP. On the ZX-R the upper deck has been constructed from one single piece of FRP. Subsequently there is considerably less 'flex' and 'twist' in the chassis structure which is obviously good for the overall effectiveness of the suspension of the car. Note though that

the problem has not been fully eliminated as the chassis can still be twisted with some effort.



New Front and Rear FRP Shock Towers

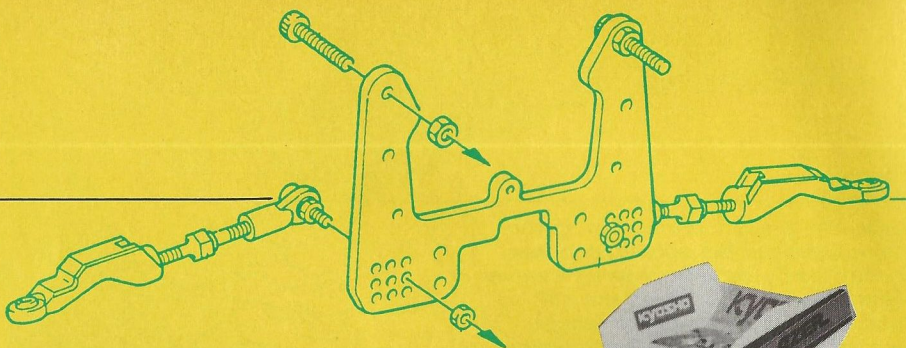
To compliment the longer front shock absorbers the ZX-R utilises a new, longer, front shock absorber tower made from FRP. The shock absorber towers have several mounting holes for the top of the shocks, and even more for the end of the upper suspension link. Coupled with three different mounting positions for the shocks on the lower plastic wishbone, the front geometry can be altered to suit most tracks and conditions.



The same applies for the rear geometry which again uses unequal length upper and lower wishbones. The shock absorbers are positioned behind the rear wishbones which makes them quite vulnerable from a rear end collision. On the other hand though, it means that the shocks don't get in the way of the motor and gears when pinions etc are being changed which was a problem with the 'Mid'.

No Belt Covers

A noticeable difference between the ZX and the ZX-R is the omission of plastic belt covers for the front to rear transmission drive belt. Kyosho must feel that the protective covers served little purpose, indeed many Lazer ZX owners were seen to take them off their cars, possibly in an attempt to save some weight. It was probably the right move by Kyosho, especially when you take



into consideration the excellent dirt protection offered by the bodyshell and undertray. The removal of the belt covers also makes maintenance a lot easier.

Pre-Track Test Thoughts....

The car is good, really good. The subtle design changes have made the ZX-R even better than the ZX. The transmission is incredibly smooth and free, giving the ZX-R a very efficient drive train.

The slipper is great, easy to use, easy to adjust, easy to maintain, easy to clean etc, etc. The body and undertray offer great weather protection to keep the electrics clean and dry. The shocks are the same tried and tested design that has been used for some years, basically because they do their job well (and they don't leak!).

There was just one thing that we didn't like. The chassis could have been made from a slightly less flexible material, after all this is a 'pro racers' kit.

Track Test

One word can describe the Lazer ZX-R; FAST! Our favourite dirt track was again used to test the ZX-R and the car was impressive to say the least. Because the drive train is so free the turn of speed with a 12 turn motor was quite hairy. The suspension worked well, although the shocks were possibly a *little* on the stiff side.

The weight distribution and balance of the car was good. This was demonstrated when the ZX-R flew very flat and landed squarely on all four wheels off large jumps and ramps. The tyres were excellent on the dust surface, providing lots of usable, safe grip.

To summarise, the Kyosho Lazer ZX-R is a highly competitive car that is simple to build, even by a novice. The design of the original Lazer ZX has been refined and improved to produce an off road model racing car that can, and will, beat the best of the Cat's and Dog's in the coming season. ●

Ⓞ Batteries are held in by simple quick release straps.

