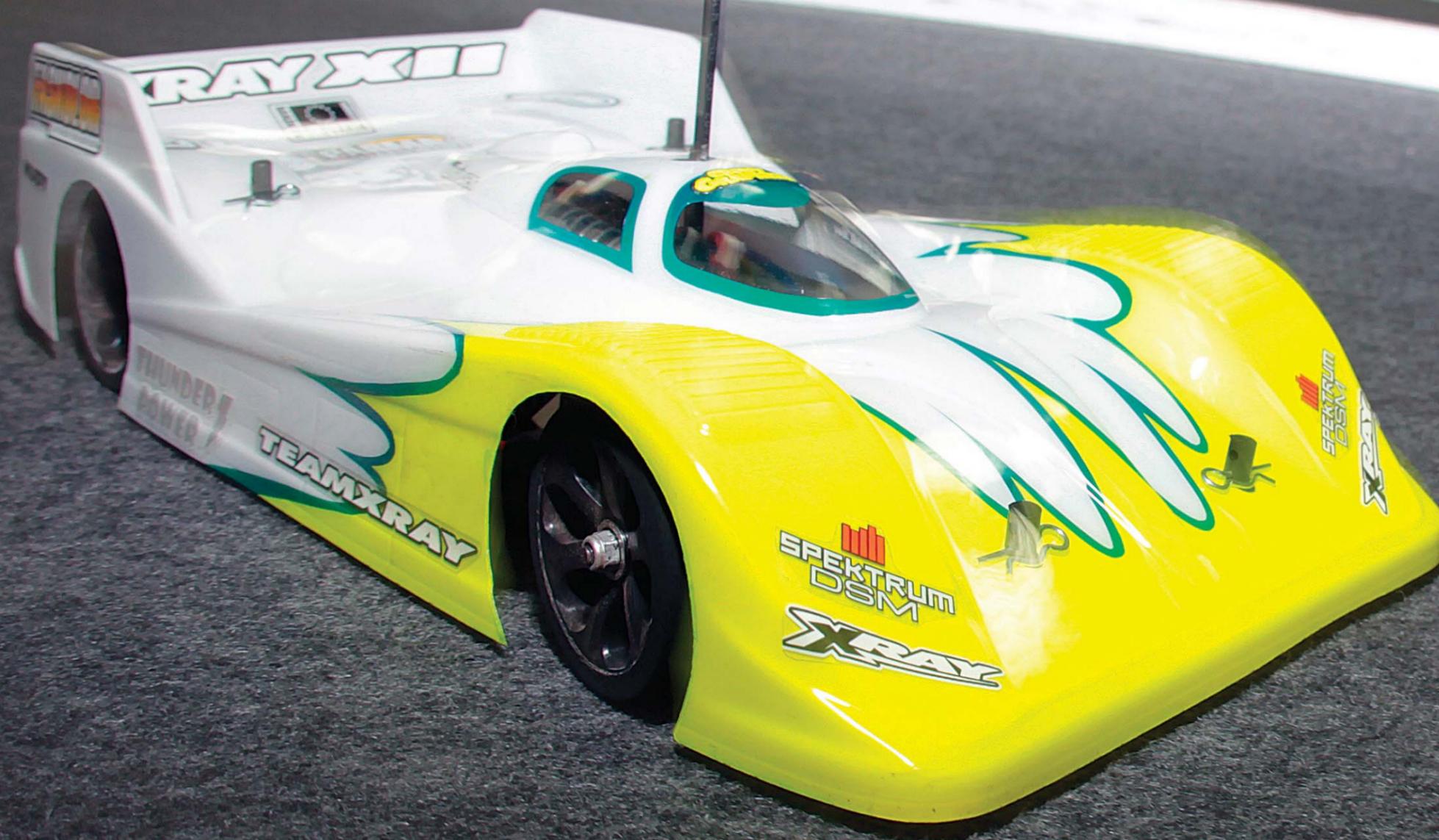


XRAY

XII



AT A GLANCE

WHO MAKES IT
Xray

WHO IT'S FOR
Intermediate to advanced

HOW MUCH \$265

BUILD TYPE Kit

VEHICLE TYPE
1/12-scale 2WD pan car

THE BOTTOM LINE
Xray took their 1/12-scale game to the next level with the redesigned XII.



XRAY has been heavy into the competition level of the 4WD touring car scene. With 1/12-scale racing on the rise once again, XRAY had launched their first 1/12 car, the X. Competitiveness is at an all time high in the 1/12-scale market. Each manufacturer is drastically changing their racing platform just to get the edge on the other. Xray is always on top of their game and they weren't going to be left behind with the new release of the XII Link. Let's take a closer look at this small-sized car that packs a big punch.



- TOOLS INCLUDED**
- + XRAY Premium Silicone Oil 350cst
 - + Hudy Diff Grease
- NEEDED**
- Allen drivers (1.5mm, 2.0mm, 2.5mm)
 - 5.5mm Socket driver
 - 3 & 4mm turnbuckle wrench
 - Xacto knife, pliers, Lexan scissors, side cutters, file and/or sand paper
- HARDWARE TYPE**
- + Metric hex

NEED TO KNOW

- One of the biggest changes on the new XII is the rear suspension. Xray has made the switch from the T-plate suspension to the link suspension on the XII. This style of rear suspension on a 1/12 pan car gives it good suspension movement on bumpy tracks. The link suspension can be easily changed by simply replacing the side springs to a softer or stiffer tension for your particular track conditions. The molded side links are easy to install and durable under tough racing conditions.
- Xray also steered away from using the regular silicone filled damper tube. They utilized a side damper shock. This gives you more adjustments and fine tuning of the side damping by using different shock oil weights. The shock shaft goes through the entire body of the damper. This provides the car with reboundless side-to-side even travel of the damper shock. The new side damper lets the car roll through each corner flat and efficiently.



- The steering servo is now laid flat down on the chassis as opposed to being angled up as it was in the previous edition of the XII. This allows the XII to have a lower center of gravity. Xray has gone a step further and included spacers in the kit to adjust the placement of the servo and change Ackermann or spacing of the different brands of servos.
- A new center shock mount has been added. The shock mount is up higher to allow a more centralized placement of electronics. This will keep the XII well balanced and is key in setting your chassis tweak. It also allows you to fit in the bulkier ESCs or receivers if you don't have micro sized electronics.
- Xray has included two sets of battery placement holders. One set is for NiMH batteries and the other set is for LiPo batteries. This makes the XII user friendly for those who have not converted over to one-cell racing. The battery holders have a forward location and a rear location. The two locations are another component of the car's handling features. The battery may be placed in either location depending on the desired handling effect you are looking for.
- The differential on the XII is different from most other cars. Xray has factored in a thrust assembly similar to a touring car in the XII's differential. Having a thrust assembly in the equation gives the XII smoother differential action. This will give the car better handling under a load while cornering.

PROS & CONS

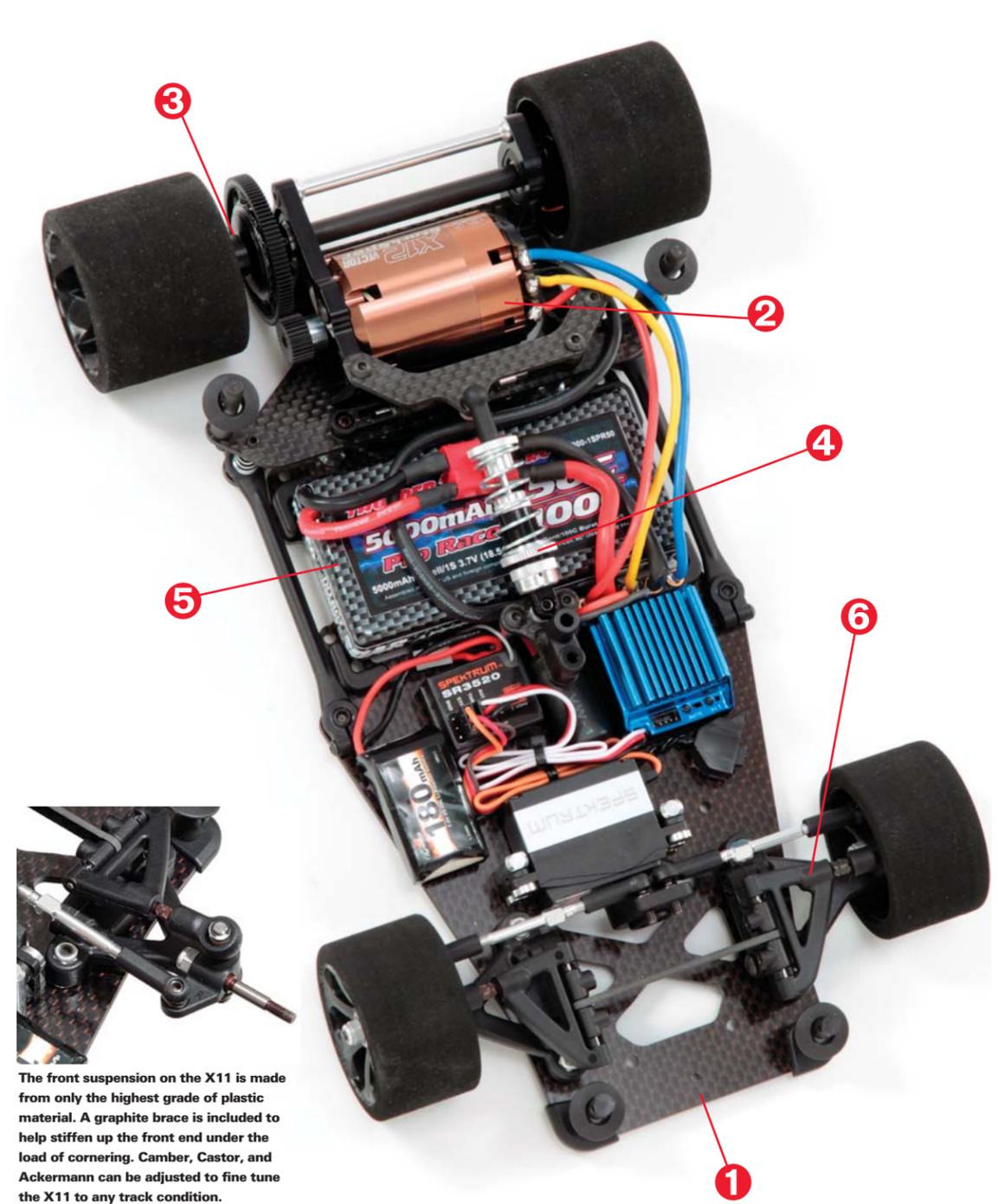
- + Ample room for electronics placement
- + Link suspension is easy to adjust and has superior handling on all track conditions
- + Superior quality parts provide ease of assembly and durability
- + Both LiPo and NiMH battery friendly
- Include a battery hold down instead of making us use tape

ITEMS NEEDED

- Two-channel radio and receiver
- 1/12 -scale steering servo
- ESC and Motor
- 4-cell NiMH or 1-cell LiPo Battery & Charger
- Foam Tires
- 1/12th Body
- 64 Pitch Pinion Gear
- Battery Strapping Tape
- Receiver pack (if using a 10cell LiPo)

USED

- + Spektrum H5000, SPMSH5000 \$54.99
- + Spektrum DX3R, SPM3100 \$319.99
- + Parma, PAR16543 Lilac Front, PAR16554, Orange Rear \$16.99 per pair
- + Parma EE1, PAR10207, \$19.99
- + LRP X12 Vector Stock Spec 13.5T, LRP50842 \$84.99
- + LRP SXX TC Spec ESC, LRP80950 \$229.99
- + Dynamite 180MAH 7.4V DYN 1429, \$19.99



The front suspension on the X11 is made from only the highest grade of plastic material. A graphite brace is included to help stiffen up the front end under the load of cornering. Camber, Castor, and Ackermann can be adjusted to fine tune the X11 to any track condition.

DESIGN ANALYSIS

- Xray uses a high strength carbon fiber for all of the chassis components. The front chassis guards are a nice touch for those hard hits that could possibly wreak havoc on the carbon fiber chassis' layers.
- The motor pod has plenty of room to easily swap out motors. So for those running stock and mod classes with one car should have an easy time switching motors under time constraints.
- Black anodized aluminum hubs are milled down to save as much weight as possible. Be careful when tightening the wheel retaining screws, you can possibly strip the threads... Mr. Staff Photographer!

- The knurled thumb adjust nut on the shock makes an on the track tweak to the rear shock damper a breeze.
- The kit comes with a NiMH or LiPo battery cradle that can move the packs fore and aft in the chassis to adjust weight bias; you have to love Xray's attention to detail.
- Xray's awesome quality plastics were used on the front end suspension components.

PERFORMANCE

Test Venue: R/C Madness **Conditions:** Carpet road course track

STEERING Understeer **Neutral** Oversteer
The high speed of the Spektrum H5000 steering servo had the XII cutting around the corners of the track effortlessly. The box stock setup on the XII gives you a good starting point to fine tune the car to the current track conditions. With the stock speed of the 1/12 pan cars so fast now, body manufacturers like Parma have stepped up their game. The new Speed 8 HD gave the XII great all around traction without sacrificing any steering.

BRAKING Poor Fair Good **Excellent**
The SXX TC Spec ESC is one of the hottest ESC units on the market today. It can be fine-tuned to any driver's racing style. The new push brake feature has been enhanced on the SXX giving the braking a more linear feel and keep the XII inline and ready for the next turn.

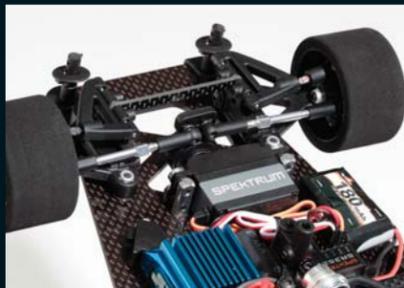
ACCELERATION Poor Fair Good **Excellent**
Xray's II was no slouch in this department either! When we paired the XII with the LRP



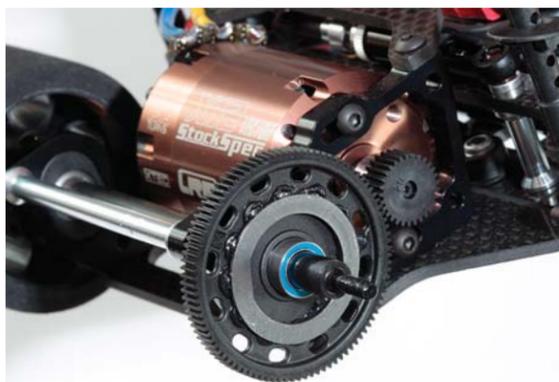
SXX and the LRP X12 13.5T motor, it kept the wheels spinning around the track. A cool feature of the SXX ESC is its launch control. Basically, we held the brake for five seconds at a standstill and then gased it! The SXX then launches the XII without the car even flinching under the sudden burst of power.

SUSPENSION Poor Fair Good **Excellent**
The link suspension is highly versatile and adjustable to any track. Tweaking the XII is fairly simple with a few turns of the tweak springs and we were ready for some track action. The front end was free moving from the build out of the box which makes a huge difference on the track. Such a free moving suspension all around kept the XII tearing off quick and consistent lap times.

DURABILITY Poor Fair Good **Excellent**
No complaints in the durability department with the XII. Xray is well known for their high quality parts and the durability of their plastics. The car handled the track like a dream and even survived a few brunt clashes with the wall with no damage.



The Spektrum steering servo has a cool looking aluminum mid-section that keeps the servo cool during operation. The steering servo is mounted flat to the chassis to give the XII a low CG. Xray does include spacers to adjust the servo location depending on the brand of servo you choose.



Helping the XII go thru the corners effortlessly is a carbide ball differential. Xray includes a 96-tooth 64-pitch spur gear. The 64-pitch, gives drivers more selection in gear ratio in finer increments. The XII is super quiet going around the track so you mostly hear the spooling RPM of the motor.

SPECS & TUNING OPTIONS

Xray XII

DIMENSIONS

LENGTH 10.39in. (264mm)

WIDTH 6.54-6.65in. (166-169mm)

WHEELBASE 7.79in. (198mm)

SUSPENSION

- Castor (via adjustable front blocks)
- Camber (front)
- Toe (frt. turnbuckles)
- Ride height (use of optional front end lower spacers & rear axle bearing carrier)
- Damping left to right with change of oil viscosity in the side shock absorber
- Tweak may be adjusted by the rear tweak springs (optional suspension springs are available) and adjustment of tweak screws
- Front-end suspension may be changed with optional suspension springs
- Adjustable rear droop by using the center shock

DRIVETRAIN

- Direct 2WD drive
- Ball bearings
- D-ring & Carbide Ball differential

TIPS

- Use a smaller gauge wire such as 16 gauge on the ESC. The 16 gauge wire will be more flexible and prevent the suspension from binding. Also, the smaller gauge wire will fit better under the body.
- True down the foam tires to a smaller size on a tire truer. This will improve the handling of the car and prevent the tires from chunking.
- It is easier to mount the body before you paint it. The clear body will let you see if the chassis is centralized in the body.
- Remember to read through the instructions before assembling the kit. This kit has a note to tighten down the front end screws in a particular order. When they are done this way, it squares up the car better.
- Always tighten down any hardware and regularly check for loose hardware when using the car.

THE LAST WORD

Xray is constantly pushing the level of competition up by never resting on one type of design. They are always willing to go above and beyond to be one step ahead of the competition, and the XII Link is a perfect example of Xray's engineering at its best. Xray has put together an excellent user friendly instruction manual and they include a complete setup guide. This guide is great for the racer just beginning in the 1/12 pan car class or even the veteran racer looking to get just another second quicker with the XII. Overall, the XII Link is a highly versatile car that can adapt from the carpet track to racing on the asphalt. The XII is one sure thing. You can count on its durability, quality, and superior handling. ©

Links

Xray, distributed by RC America, www.teamxray.com, (800) 519-7221

Spektrum, distributed by Horizon Hobby, www.spektrumrc.com, (217) 352-1913

Parma/PSE, www.parmapse.com, (440) 237-8650

LRP, distributed by Team Associated, www.teamassociated.com, (714) 850-9342

For more information, please see our source guide on page 145.