

Product Review

July 2000 R/C Modeler
Vol. 37 - No. 7

X250
SR BATTERIES, INC.

By
Steve Ciambrone



Name X250

Aircraft Type Electric Aerobatic

Mfg. By SR Batteries, Inc. P.O. Box 287, Bellport, New York 11713, (516) 286-0079

E-mail:

info@srbatteries.com **Web site:**

www.srbattereis.com

Mfg. Sug. Retail Price \$79.95

Available From Direct From Mfg.

Wingspan 36 Inches

Wing Chord 7.75 Inches

Total Wing Area 266 Sq. In.

Fuselage Length 26 Inches

Stabilizer Span 14 Inches

Total Stab Area 52 Sq. In.

Mfg. Rec. Motor Range Speed 400 Geared

Rec. Battery Size 8-10 Cell, 500 mA

Rec. No. of Channels 4

Rec. Control Functions Rud., Elev., Throt., Ail.

Basic Materials Used In Construction

Fuselage Balsa & Ply

Wing Balsa, Ply & Carbon Fiber

Tail Surfaces Balsa

Building Instructions on Plan Sheets No

Instruction Manual Yes (51 Pages)

Construction Photos Yes

RCM PROTOTYPE

Radio Used Futaba TX, RX Hitec 555

Motor Make & Disp. Speed 400 7.2V Geared 2.33:1

Battery Size Used SR 500 Max 10 Cells

Weight, Ready to Fly 24 Oz. (1 Lb. 8 Oz.)

Wing Loading 13 Oz./Sq. Ft.

SUMMARY WE LIKED THE: Excellent laser-cutting, great parts fitting, and excellent flight qualities.

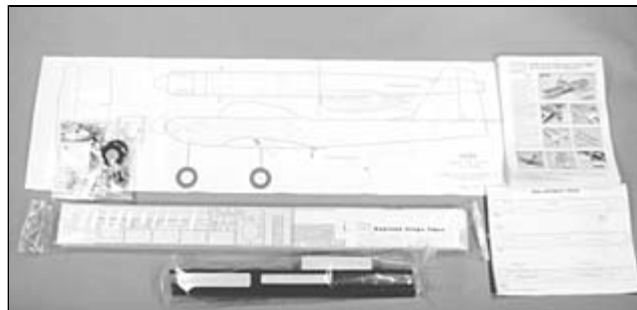
WE DIDN'T LIKE THE: Nothing to dislike.



The SR Battery X250 is a low wing (36" span) Speed 400 powered electric aerobatic model. The X250 has a tricycle landing gear arrangement and the styling reminiscent of the

early R/C pattern "Chaos" design. The X250 reviewed utilized ailerons, rudder, elevator, and motor control, but SR also has available a rudder elevator version at a lower price. A unique design feature of this model is that it incorporates a top hatch in the fuselage for easy access to the motor battery.

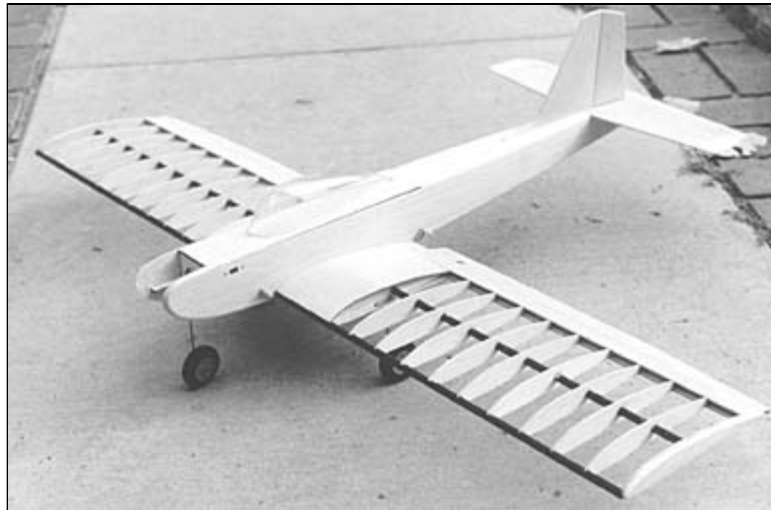
The X250 was not received in a regular kit box but rather in a United States Postal Service triangular Express mail shipping carton measuring 6.5" x 6.5" x 38.5". The accessories needed for the kit were shipped in another box of the same size. All contents of both boxes were received in good condition with no damage noted. My first impression upon opening the shipping box was that the laser-cutting of the balsa and plywood sheets was top quality. The parts were cleanly cut and retained in the sheets with only small notches. Some finer details included screw holes and even a precut radio switch hole. Further examination revealed that the wood quality was exceptional. Included with the kit were the wheels and all of the hardware needed. All hardware was supplied by name brand companies such as Sig, Dave Brown, Du-Bro, and others. The X250 assembly instructions were very complete and well illustrated. The 51 pages of instructions have three photographs on nearly every page and every step is explained in a clear and detailed manner. The plans for the X250 measure 11.5" x 40" and are printed on heavy glossy paper. SR Batteries provide the components recommended to outfit the X250 for our review model. The power system consists of a 7.2V Speed 400 motor with 2.33:1 gearbox, a Jeti 350 speed control with BEC and brake, a CAM 9 x 5 folding prop, 4mm prop adapter, and an SR 500 max 10-cell battery. The entire power package was already tested and assembled with Sermos connectors installed. The radio system consists of a Hitec 555 RX, three Hitec HS-60 servos, and an aileron extension. The covering material provided was the Carl Goldberg Ultracote Lite, a lightweight iron-on film. Special discount prices are available for the accessory package from SR Batteries.



Construction:

The X250 departs slightly from traditional building methods. This is a direct result of the benefit of laser-cut parts which allows kit manufacturers to re-think the way a model can be designed. The fuselage is built starting with the balsa sides which have a balsa doubler from the nose to the trailing edge of the wing saddle. Pacer Technologies ZAP CA glues were used on the review model. The motor mount and firewall are interlocking plywood parts which fit perfectly. Included in the kit is a laser-cut plywood alignment jig used to ensure a

straight assembly. The fuselage goes together quickly and easily and is designed with a top hatch and a battery platform. The top hatch will allow motor battery removal and replacement without the need to remove the wing - a very welcome feature. The tail feathers of the X250 are all sheet balsa surfaces and only require a little sanding and beveling of the rudder and elevator leading edges prior to covering. The wing design and construction is where the X250 is really different. The wing is designed without a traditional spar in its place; it has a carbon fiber tube leading edge and another carbon fiber tube midway in the wing. The trailing edge is built of balsa. The wing was assembled using the carbon rods and balsa blocks forming a wing building jig. When assembly is completed, the rods remain as part of the wing structure. The wing ribs slide onto the two rods in their general locations and then the rods are secured onto the balsa blocks. The fitting of the ribs was excellent and no adjustments were needed to any of the parts, which were all glued in place using CA cement. The main landing gear mounts were installed prior to sheeting the center section with balsa. The ailerons use a torque rod for arrangement for operation. In these small models, space inside the fuselage is always at a premium, and the X250 model helps solve this by having the aileron servo sticking out the bottom of the wing. With the airframe completed, the entire model was given a good sanding prior to covering.



Covering:

The review model was covered with Carl Goldberg Ultracote Lite covering material. The colors chosen were transparent red and yellow. The covering applied just as easy as all the other high quality films this reviewer has used. The covering is very thin but still seemed quite durable. The end result was a nice covering job.

Motor:

The X250 was designed to use the Graupner 7.2V Speed 400 motor with 2.33:1 gearbox and utilizes the gearbox mounting points. Four screws secured the motor to the plane in the precut holes. The Jeti 350 speed control was already soldered to the motor so it only needed to have its radio switch mounted with the supplied hardware. The propeller was mounted to the supplied prop adapter. The battery was secured to the battery platform with Great Planes Velcro Strips.

Radio:

The X250 uses three servos and they must be of the micro or smaller sizes. Three Hitec HS-60 Submicro servos were installed; one in the wing for the ailerons and the other two in the fuselage for the rudder and elevator. The X250 uses unique pushrods for the elevator and rudder. The pushrods are made from thin steel wire and then aluminum tubing is slipped over the wire and glued to provide the needed stiffness. The end result is a very stiff and light pushrod. The very lightweight Hitec 555 micro Receiver was used for the review model, and since the Jeti 350 Speed Control has a BEC circuit, a radio battery was not needed. A Futaba Super 8 Transmitter T8UAFS handled the control functions. The control throws were set up as detailed in the instructions.

Preflight:

The X250 was easily balanced by shifting the SR 500 max battery pack. Since the X250 is a low wing model, it was easier to balance the model upside down. A thorough range check was performed and satisfactory radio range was evident without making any changes to the review model. The motor was checked for proper operation and the results are shown below. The review model weighed in at 24 oz. which is exactly what the recommended model weight should be. All the numbers looked good to this reviewer, so it was time to head to the field.



Flying:

A final control surface check and it was time to taxi out to the runway centerline. Our club field has an asphalt runway and, as the throttle was advanced, the X250 left the ground in a short distance. The ground handling of the X250 is pretty good even with the fixed nose wheel. This is due to the location of the main gear being a little more forward than is usual in a tricycle configuration. This makes the weight on the nose gear light and the rudder effective on the ground. The climb was a little steep so a little down elevator was applied, and a climb to a safe altitude was achieved in short order. Some down elevator and right aileron trim was added and the X250 was not flying straight and level. The X250 could maintain level flight and a safe speed at less than half throttle. Loops could be entered from level flight and rolls could be made axially. The recommended control throws were fine to this reviewer and the model was able to be flown very smoothly. Stall turns were fun to do since the rudder is functional. The model has a surprising amount of vertical performance considering the Speed 400 motor. I experimented with several props: the recommended CAM 9 x 5 folder, APC 9 x 5, and the Graupner Slip prop 9 x 5 and they all worked fine. Flight duration averaged eight minutes while performing aerobatics and general goofing around.

Conclusion:

If you are looking for a small aerobatic electric model with good duration, the X250 fits the bill. The X250 has very detailed instructions, which allows the builder to build at a fast pace without having to figure out any of the details. A novice builder should find the X250 a joy to build. An intermediate pilot should be able to fly the X250 with confidence. A newcomer to electric airplanes may want to take advantage of the package deals that SR has available for the X250 kit. SR provides several options; you can get just what you need or everything required for the plane plus the radio. The X250 is a very nice flying airplane and will provide a lot of fun at the field.

All Contents Copyright © 2000. R/C Modeler Corporation. All Rights Reserved.

[Go to Top of Page](#)