



# New Power Modelisme EXTRA 330S

EXCLUSIVE!

A light, compact, **well-engineered freestyle aerobat** with unlimited big-plane performance for glow or electric power

THE NEW POWER MODELISME Extra 330S is designed by world-renowned Benoit Paysant Le-Roux. About a year ago, I flew what became my favorite electric aircraft, the EP Madness designed by Benoit's brother, Christophe. The model flew so beautifully, and I actually improved my hovering skills greatly due to the ease of entering and exiting the maneuver, and the power was incredible. Hobby Lobby now distributes this beautifully crafted Extra extreme 3D aerobat ARF. As you can imagine, I jumped on the opportunity to review this plane. New Power's Extra 330S can be powered by either a glow or electric system, and I opted for the electric because of the ease of use and setup time (not to mention cleanup). While the Madness is a joy to fly, it is quite large, and the batteries take a while to charge. It's a 40-size model, which means I can throw it in the trunk of my compact car and not have to bug my par-



I used aluminum standoffs from Hobby Lobby to mount the Axi Gold motor solidly.

ents to borrow the minivan. The Extra is a fully 3D-capable aircraft with oversize control surfaces and a very light construction. Because of this, I'd only recommend this model to those who have aerobatic experience. Even if you are interested in pattern flying, a change in propeller and smaller control throws can provide you with faster,

## SPECIFICATIONS

- MODEL** Extra 330S
- MANUFACTURER** New Power Modelisme
- DISTRIBUTOR** Hobby Lobby
- TYPE** 3D Aerobat
- WINGSPAN** 53 in.
- WING AREA** 604 sq. in.
- LENGTH** 46.5 in.
- WEIGHT** 4 lb. 6 oz.
- WING LOADING** 16.7 oz./sq. ft.
- POWER REQ'D** .32 to .45 2-stroke, .40 to .60 4-stroke, 600 to 900W electric system
- RADIO REQ'D** 4-channel w/4 servos (electric), or 5 servos (glow)
- PRICE** \$189

## HIGHLIGHTS

- Unique multi-colored covering
- Fast build even for an ARF
- Extra-light construction
- All-out 3D performer

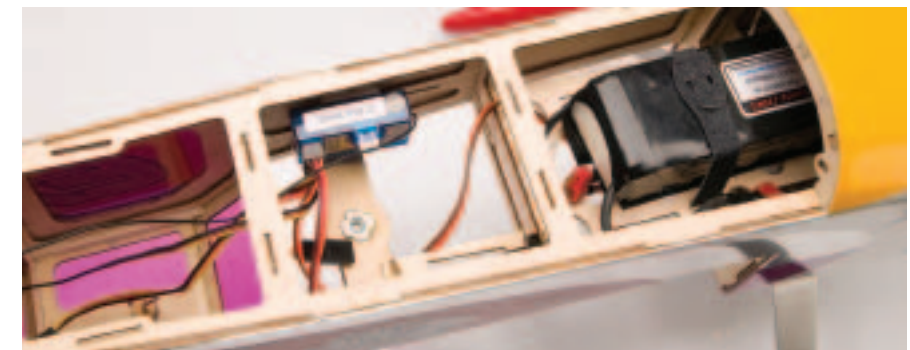
more precise maneuvers. New Power Modelisme is a French company that has made the construction of this ARF very easy on the user's end; many components come assembled, which means more flying time and less construction!

## UNIQUE FEATURES

The very first thing I noticed when I opened the box was the one-piece wing. I particularly enjoy ARFs that have a prebuilt wing because that makes for a stronger component because there isn't a joint (also less messy, since you don't have to use epoxy). Next, the covering scheme caught my eye. The attention-getting purple, red, yellow and clear design really stands out from other Extra models. I like how you can see

the inner balsa wood in select sections of the wing. The pictures explain themselves. Once I started unpacking the box, I was stunned by how light the model felt. I have never felt a 40-size model this light, whether it is 3D or not. It feels as light as a park flyer! I was intrigued to see how much thrust this model would produce with the brushless setup.

The wing is a one-piece design, and all I had to do was to epoxy the belly pan on the underside. Many small things help speed up the construction, e.g., CA hinges that have been glued halfway into the control surfaces. This eliminated the need to pin each one. The canopy is already assembled on the hatch and is removable to allow nice access to the battery and radio gear. The fiberglass cowl has an inlet duct that is large enough to cool a brushless motor. There is an exhaust cutout right behind the cowl to



The removable canopy/upper hatch allows easy access to the battery pack.

help the airflow to keep the temperatures down. Not having to Dremel out the cowl was another benefit. If you use glow power, you'll have to trim the cowl to fit the cylinder head and muffler. A complete hardware package is included along with a fuel tank for the glow version.

Construction was very straightforward,

but the manual only has pictures that can be somewhat confusing at times. Any experienced builder will have no problem finishing the model because it goes together as any ARF does. The only problem I ran across was that the bolt that connects the control rod to move the rudder was too long and interfered with the elevator. I had to

INTERMEDIATE PILOTS WILL FIND IT EASY TO HANDLE BECAUSE IT DOESN'T HAVE ANY BAD HABITS



trim it down significantly so that I could maintain the proper throws for 3D flight.

Four micros servos control the elevator, rudder and ailerons. I suggest you use better-quality servos with more torque (I used Hitec HS-225BBs) because this is still a 40-size plane. I needed to modify the servo openings slightly by trimming the width and adding a plywood spacer for lengthwise spacing. The servos all have short direct linkages for solid control response. I used a large Jeti outrunner brushless system and a Jazz ESC that had plenty of punch. The Extra comes with an engine-mount box already installed for use in the glow version. Laser-cut plywood pieces are provided to make a mount for an outrunner electric motor; bolt it to the existing mount. The stock motor mount was a bit too long for the Axi motor, so I used an aluminum



The Jeti "Spin Box" is a powerful tool that's used to program the Spin ESC and retrieve flight data.

spacer set from Hobby Lobby to bolt the motor directly to the glow mount. I used a 3300mAh battery; 3- and 4-cells are possibilities, and both provided enough power. The 4-cell really wakes the plane up and provides abundant thrust for every 3D maneuver you can think of, and I recommend this setup.

#### CONCLUSION

I was able to put the Extra together in a weekend—much faster than the other ARFs I've built. Some of this was due to the electric setup, but New Power does an excellent job of completing many of the steps for you, and that made it an easy build. Because the Extra is an all-out aerobatic performer, it will be appreciated by experienced modelers and pilots, and I highly recommend the brushless setup for a no-mess trip to the flying field. ✈

See the Source Guide for manufacturers' contact information.



## In the Air

I flew the Extra 330S with a 4-cell LiPo pack and an APC 12x6E prop; they provided plenty of power and flight time. Even with its small wheels and wheel pants, after a short, 20-foot, takeoff run, the Extra left the grass runway. Because it needed some downtrim, the first takeoff was nearly vertical, but it was always under control. With this setup, the plane flies nicely at about 1/2 throttle, and full power is needed only for the vertical segments. The smooth, powerful Axi brushless motor doesn't have any problems pulling the plane vertically.

#### General flight characteristics

**STABILITY** The Extra is very stable at all speeds and very docile on low rates.

**TRACKING** It tracks solidly throughout the flight envelope. Like most Extras, it goes exactly where you point it.

**AEROBATICS.** I set the CG to the aft end of the recommended range and found that it was just right for my flying style. Inverted flight required just a slight push on the elevator stick. The suggested control throws were also right-on. The Extra did all of the 3D maneuvers I could think of: inverted and upright harriers, flat spins and blenders were easy and fun. The instructions show 4mm (about 1/8 inch) of rudder-to-elevator mixing, and that's nearly perfect for effortless knife-edge flight. Snap-rolls were crisp and clean, and the roll rate was extremely fast. The Extra also flies precision aerobatic maneuvers extremely well. Loops and rolls require hardly any correction.

**GLIDE & STALL PERFORMANCE** The Extra glides well and slows down for easy landings. Its stall behavior is very predictable.

#### Pilot debriefing

The low wing loading and high-power electric propulsion system make the Extra a joy to fly. It can slow to a crawl while still feeling solid, and it flies fast and precisely on low rates. It isn't a beginner's plane, but intermediate pilots will find it easy to handle because it doesn't have any bad habits. It's also just the right size—easy to transport, yet big enough to have a nice presence in the air and to handle a significant wind. This one's definitely a keeper!

#### CONTROL THROWS

**AILERON:** ±1 in. (low), ±2 in. (high); expo 20% low, 60% high

**ELEVATOR:** ±1 in. (low), ±2 in. (high); expo 20% low, 60% high

**RUDDER:** ±1 1/2 in. (low), +3 in. (high); expo 20% low, 60% high

#### GEAR USED

**RADIO:** Hitec Eclipse 7 transmitter, Hitec Electron 6 receiver, 4 Hitec HS225BB servos, Jeti Spin 44A ESC

**MOTOR:** Axi 128 26/12 Gold brushless brushless

**BATTERY:** Poly-Quest "Twenty" 4-cell 3300mAh LiPo

**PROP:** APC 12x6E