

Aeroworks

# SPORT CUB S2 ARF-QB

Ready for the ultimate Cub that can do it all and look good doing it... then it's time to order the Aeroworks Sport Cub S2!



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BY JASON BENSON  
PHOTOGRAPHY BY JOHN REID

I AM ALWAYS EXCITED to have the opportunity to review an AeroWorks plane. It seems that every time I do, they just get better and better. The new Sport Cub S2 ARF-QB is not an exception to this rule. AeroWorks is really going out of their way to offer high-quality models from all aspects of aircraft and the Sport Cub S2 is an awesome addition to their lineup.

As with all AeroWorks ARF-QB models, the plane is constructed mostly of balsa and ply in a built-up fashion. Add to this a beautifully finished fiberglass cowl and Lexan canopy as well as aluminum wing struts and landing gear, and you have the overall construction of this model.

AeroWorks takes the term, "all necessary hardware included" to a whole new level. All control horns, screws, ball-links, wheels, wheel collars, screws, washers, mounting foam, Velcro, Zip-ties, rubber grommets, pull-pull fittings, and turn-buckle-style pushrods are included. AeroWorks even includes a balance buddy in the box. This awesome little gadget makes it incredibly easy to balance your new model without needing a second set of hands to do so.

I would say that this model is best suited for the intermediate modeler. Build-wise, a beginner would have no problem creating an impressive model to show off at the field. The only reason I recommend

## SPECIFICATIONS

**Name of plane:** Sport Cub S2 ARF-QB

**Distributor:** AeroWorks (aero-works.net)

**Type:** civilian sport scale

**Length:** 72 in.

**Wingspan:** 110 in.

**Wing area:** 1760 sq. in.

**Weight:** 20 lb., 6 oz.

**Wing loading:** 26.6 oz./sq. ft.

**Motor req'd:** 50cc gas engine

**Radio req'd:** 5 channel with 8 standard servos

**Price:** \$895

## HIGHLIGHTS

- Great scale looks
- Quick assembly
- Perfect-sized aircraft

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THE MARKET THAT IS  
MUCH MORE STABLE  
THAN THIS

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## In the Air

As with the full-scale Sport Cub, the AeroWorks Sport Cub S2 can fly from most any surface. This is mostly due to the large wheels and working landing struts complete with shock absorption. You will want a decent-size runway (probably 400 feet or more) for comfortable operations of your new model. This is due entirely to its landing characteristics. Takeoff took a total of about 15 feet, but with its large amount of wing area, it really floats on landing. Once you get a feel for the plane, I'm sure you could easily handle taking off and landing in as little as 200 feet. For takeoff, all you need to do is point the nose into the wind and slowly advance the throttle. You'll find that the wheels leave the ground within 20 feet even if you advance the throttle slowly. On landing, just line up the runway and watch as the plane slows to a crawl. I was able to hold the plane a few inches off the ground until it bled enough speed to touch down and roll to a stop in about 50 feet.

### GENERAL FLIGHT CHARACTERISTICS

**Stability:** You're not going to find a model on the market that is much more stable than this. Stall speed is almost 0 and once you do stall, the plane simply falls forward and starts flying again. High-speed stability is also good and you'll find that you can have tons of fun buzzing the field at high throttle setting without feeling uncomfortable or out of control.

**Tracking:** Cubs are not known for their incredible tracking. This being said, the AeroWorks Sport Cub S2 does a great job of going where you point it.

**Aerobatics:** Cubs aren't always thought of as aerobatic planes but the Sport Cub S2 by AeroWorks is an exception to this rule. It performed point rolls, slow rolls, hammerhead stalls, and more with ease. I had a ton of fun just flying around trying to find the limits of this plane. It even performs great in knife-edge flight which will make everyone at the field take a second look.

**Glide and stall performance:** As mentioned earlier, the stall is all but nonexistent for this airplane. Glide performance is great and you can almost fly it like a thermal glider.

### PILOT DEBRIEFING:

The AeroWorks Sport Cub S2 is a great all around plane to add to your hangar. Its 50cc-size gas engine makes it easy and economical to operate and its scale appearance will be admired by all. So, if you are looking for a 50cc sport plane, a fun semi-aerobatic Sunday flyer, or a scale project to take out and show off, this is the plane you want. Add in the QB factor and you just can't lose!

### GEAR USED

**Radio:** JR 12X TX ([jrradios.com](http://jrradios.com)) with eight Spektrum ([spektrumrc.com](http://spektrumrc.com)) A6030 servos

**Engine:** DA-50 ([desertaircraft.com](http://desertaircraft.com)) with Slimline ([slimlineproducts.com](http://slimlineproducts.com)) wraparound Pitts muffler

**Fuel:** 87 octane pump gas mixed with 2-stroke oil

**Prop:** Xoar 22x8 ([xoarintl.com](http://xoarintl.com))

### CONTROL THROWS:

**Elevator:**  $\pm 1 \frac{1}{8}$  in., 15% expo (low);  $\pm 2 \frac{1}{2}$  in., 60% expo (high)

**Aileron:**  $\pm \frac{7}{8}$  in., 15% expo (low);  $\pm 1 \frac{1}{4}$  in., 60% expo (high)

**Rudder:**  $\pm 2$  in., 15% expo (low);  $\pm 3 \frac{1}{2}$  in., 60% expo (high)

this for intermediate pilots is the added complexity that comes with moving up into the gas-powered world and its larger size. However, if you have a couple smaller sport planes under your belt and are thinking about taking the step into a 2-cycle gas-powered model there is now way to go wrong with this AeroWorks offering.

### UNIQUE FEATURES

As with the entire lineup of QB models, all control surfaces arrive prehinged and glued in place with the exception of the rudder. The addition of the rudder would increase the box size necessary to ship the models, so this minor step is left to the modeler. This is a huge time saver and something that I really look forward to when I am getting ready to assemble one of the AeroWorks Quick Build models.

The landing gear on the Sport Cub S2 is very scale and extremely well built. The entire assembly is metal and has been painted to match your color scheme. Another really nice feature is the working



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shock absorbers. Not only will these help with those not so perfect landings, they also add another nice scale touch.

Fiberglass parts are a very important part of most ARF models. The only fiberglass part of this model is the cowl. The cowl comes pretrimmed, prepainted, and premounted. All that you have to do is cut the bottom out to match your engine of choice and you are ready to take to the skies. The only other non-wood pieces are the molded canopy and dashboard, which are both equally as impressive.

All hardware included in the kit are SAE threads and very high quality. Most everything uses socket-head cap screws and



### The Photo Pass

**W**e've all seen it. The magazines and web are full of them. Shots of planes making a beautiful pass by the camera, mountains in the background, and the plane tilted toward you are if to say, "Look at me!"

So, how do you perform this pass gracefully so that everyone in the attendance at the field will take notice of your new pride and joy? The maneuver itself is actually quite simple and believe it or not it is all dependent on the set up to the actual pass.

First, let's talk about the setup for the maneuver. We will be making our pass upwind so we will start downwind about 200 feet out. Make a gentle bank toward yourself as if you are setting up for landing but with the power still on. As you turn, you want to let the plane fall slowly to get yourself closer to the ground. If flown correctly you will never have to push forward on the stick at all. You also want to set up the turn to complete as close as you are comfortable (and club rules allow) to the near edge of the runway. You will want to turn past parallel to the runway so that your plane will end up at the far edge of the runway approximately at midfield.

Now that you are set up, you want to bank the wings at about 15 degrees toward yourself and apply the necessary elevator to maintain your altitude. This will cause the plane to make an arc like a rainbow around you as it travels down the field. To lessen the arc and prolong the amount of time you can maintain your "pose" you can add a little "top rudder," or, in our case, right rudder.

With a little practice you will find more and more pictures of your plane popping up in the "presentation" pose. I hope with helps some of you enjoy our great hobby even a little bit more.

everything fits as prescribed. Another great feature is that everything is predrilled, aligned, and cut out for you. Anywhere a screw or bolt is placed has already been drilled and covering has already been cut away. The same is true of all servo bays. This is another one of those areas where AeroWorks really shines.

The wing is two pieces with an aluminum wing tube. As mentioned, the ailerons and flaps come prehinged and glued. Also in the box are very nicely finished and preassembled aluminum wing struts that have been prepainted to match your color scheme. The wings can be final assembled in a couple hours of relaxed assembly.

Engine installation on the Sport Cub S2 is also straightforward. AeroWorks includes drill guides for all major engine options and all you have to do is line the guide up with the firewall and drill your holes. This cuts engine installation down from hours to minutes.

### CONCLUSION

The AeroWorks Sport Cub S2 is a beautifully finished and highly preassembled model. With all of its great features and scale touches, it will definitely be the talk of your field. The overall build time is kept very low with most all of the tedious assembly done for you at the factory. ✈