

10th Anniversary 51” AJ Slick 540 Assembly Instructions

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Up Your Game! Fly AJ Aircraft



From all of us at AJ Aircraft, we thank you for your business. Our custom designs, combined with top grade materials, are assembled with precision and care to provide you with one of the best airframes in the industry. We have gone the extra mile to make the final assembly of your airplane as simple and painless as possible.

Once your airplane is complete, we know it will provide you with countless hours of thrilling flight. Prepare yourself for a new experience in R/C flight as you *Up Your Game with AJ Aircraft!!*

Building the airplane is very straight forward. The rudder cables are pre-installed, hinges are pre-installed but not glued, and pre-installed blind nuts in the wing tips for the included SFG's make it easy to get this bird in the air in no time flat.

The 51" AJ Slick is the perfect "throw in your car for a few flights at the field" airplane. After flying this baby just once, we think it will be your go-to plane and put a smile on your face every time you fly it!

Safety Precautions and Warning

All of AJ Aircraft's airframes have gone through many stages of extensive testing to ensure a high quality kit which results in a safe and reliable airframe when assembled properly. Poor assembly practices along with substandard equipment will lead to an unsafe model.

The safe operation of this model is your responsibility and yours alone. If you are a beginner or have never flown a model of this caliber, you should solicit the help of an experienced pilot until you have become comfortable with it. This product should not be considered a toy, but rather a sophisticated, working model that functions much like a full scale airplane. Because of its performance capabilities, this product, if not assembled and operated correctly, could cause injury to you or spectators and damage to property.

AMA This aircraft should be flown in accordance to the AMA safety code. It is highly recommended that you join the Academy of Model Aeronautics in order to be properly insured and to operate your model at AMA sanctioned flying fields. If you are not willing to accept all liability for the use of this product please return if to the place of purchase immediately.

AJ Aircraft does not accept responsibility or liability for damages resulting from use of this product.

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Contents

Contents 2
Contents of Kit 3
Recommended Items for Completion 3
Tools Needed 3
Unboxing 4
Optional Configurations 5
Covering 5
Wings 6
Landing Gear 10
Fuselage 12
Elevator 14
Rudder 16
  Pull-Pull Rudder Control 17
  Push-Pull Rudder Control 20
Motor 21
Cowl & Canopy 22
Finishing Notes 22
Radio Installation & Setup 24

Before starting, read through the entire set of instructions to familiarize yourself with the process.

If there's ever a question, contact AJ Aircraft. 734-244-4015

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Contents of Kit

- AJ 51” Slick 540 fuselage reinforced with exclusive Carbon-Kevlar technology.
- Pre-hinged main wings
- Side Force Generators (SFGs)
- Pre-hinged horizontal stabilizer
- Pre-hinged rudder
- Color matched, fastener free plastic canopy
- Color matched fiberglass cowl & wheel pants
- Carbon fiber wing tube
- Carbon fiber main gear
- Lightweight tailwheel
- Lightweight foam wheels and steel axles
- Matching set of side force generators
- Pre-drilled firewall with installed blind nuts
- Individual bags of high quality hardware

Recommended Items for Completion

- Motor – Power by AJ Aircraft:
  - 4S – AJ3910-24P/770KV
  - 5S – AJ3910-24P/660KV
  - 6S – AJ3910-24P/550KVAJ
- Batteries:
  - 4S 2800 mAH LiPo
  - 5s 2200 mAH LiPo
  - 6S 1800 mAH LiPo
  - Hook and loop battery strap.
- ESC - Castle Talon 60A
- Propeller – Falcon 14x7, 15x6 (Electric ONLY)
- 5 Channel Full Range
- Four high torque mini servos (13mm X 35mm X 29mm)
- 2” or 50mm Spinner
- Servo extensions:
- (2) x 6” for ailerons
- (1) x 18” for elevator
- (1) x 18” for rudder (push/pull only)
- Servo Arms:
  - (2) x 1” for ailerons
  - (1) x 1” for elevators
  - (1) x 2.5” for pull/pull rudder
  - (1) x 1” for push/pull rudder

Tools Needed

Blue Painter’s Masking Tape
Thin CA Glue
30 Minute Epoxy
Denatured Alcohol
Paper Towels
Removable Thread Locker (Loctite 242, Blue)
Metric & Imperial Allen Wrenches
Hobby Knife & Fresh Blades
Covering Iron (Trim Iron)
Clamps
Small Flat File
Electric Drill w/ Assorted Small Bits (1/16”, 5/64”)
Small Flat Blade Screwdrivers
Small Phillips Screwdriver
Sandpaper (150-220 Grit)
Needle Nose Pliers
Measuring Tape & Ruler

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Unboxing

Your airplane is packaged in a double box to help protect it during shipping. The best way top open the box is to cut the tape on the end folds of the first box and slide the second box out. The lid on the second box simply lifts off.



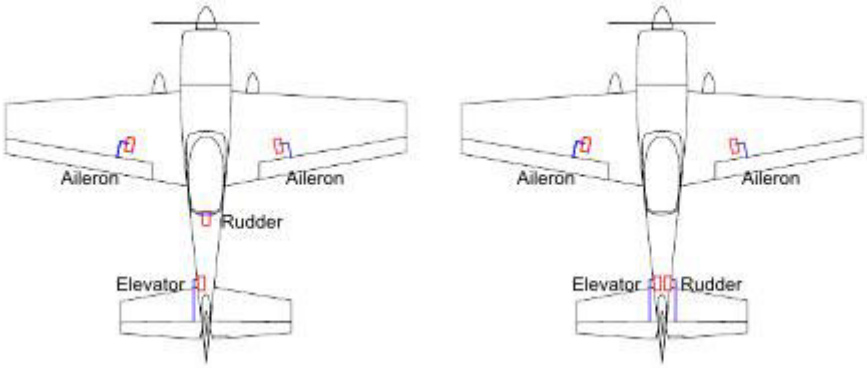




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Optional Configurations

You have the option of using a pull-pull rudder servo or a push-pull rudder servo setup. Fasteners, control horns and servo connecting rods are provided for optional rudder setups.



Covering

The covering on your Slick may have developed loose areas through temperature and humidity changes between manufacturing and shipping. This may also occur during the summer heat. The covering may require retightening a few times during your first summer of flying.

Take a few minutes to go over all of the seams making sure all edges are secure. Then proceed to shrinking any area that may need tightening. (Use an iron on all seams. Use a heat gun on open areas and sheeted areas. An iron can be used in open and sheeted areas but hold the iron slightly above the surface. You don't want press the covering into the wood. Using an iron sock will reduce scratches.

- Genuine Ultracote covering.
- White HANU870, True Red HANU866, Midnight Blue HANU885, Cub Yellow HANU884



At 200-220°F (93-104°C) the adhesive on UltraCote® becomes active allowing the covering to be attached to the model. While 220° will fully bond the covering to the model it is well below the temperature that causes UltraCote® to shrink.

At 300°F (149°C) the initial shrinking of UltraCote® begins.

At 350°F (176°C) UltraCote® reaches its maximum shrinking point. Raising the temperature above this point will not cause further shrinkage.

Use as little heat as needed. Using too much heat may cause reshrinking issues later.

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Wings

Carefully locate the aileron servo pocket. Shining a light through opposite side of the wing will help highlight the pocket location. Use a new hobby knife blade to cut though the covering.



Gently pull off the servo wire installation string and temporarily secure it out of the way. Do not pull it out of the wing. (If there is glue left behind scrape it off so the wood mounting surface is flat.)

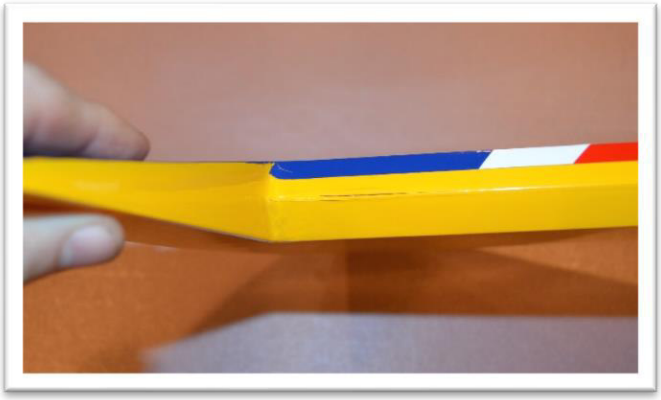
Carefully locate the aileron control horn slots. Use a covering iron to bond the covering in the area the control horn will sit. Trim the covering away to expose the slots. Be sure not to cut through to the top side covering.



The hinges should already be glued into the ailerons. Give each of them a little pull to ensure they are securely attached. It's better to find a loose hinge now rather than during a flight.



The wings are already slotted for the hinges. Use a covering iron to secure the covering along the edge of the wings. Look at the wing hinge slots closely. Make sure the covering will not interfere when gluing the hinges. Cut away any covering that covers the hinge slot.



Slip each of the aileron hinges into the wing. Align the end of the aileron to the wing tip.



Apply a piece of tape next to each hinge. This will help you locate the hinges when you begin gluing them. Check the aileron position at the hinges and wing tip again before gluing.



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Push the aileron tight against the wing closing the gap between the two of them. Move the aileron to its maximum desired deflection. Notice how the hinges pull out slightly. If you close the hinge gap tightly you may have trouble reaching maximum deflection of the aileron. Experiment with the hinge position finding the best fit before gluing.



Start with the hinge near the wing tip. Flex the aileron slightly and apply a few drops of thin CA glue to one side. Flex the aileron to its maximum position and return to center. Then glue the opposite side.



Close the gap between the aileron and wing to the desired position at the fuselage end of the wing half. Flex the aileron slightly and apply a few drops of thin CA glue to both sides of the hinge. Again move the aileron back and forth to its maximum positions. Once the end hinges are securely positioned you can apply a few drops of thin CA to both sides of the remaining hinges.



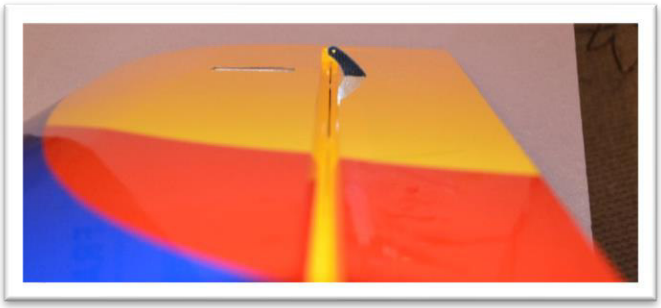
Use sand paper to roughen the lower portion of the control horns on both sides. This will help the epoxy bond to the control horn parts.



Test fit the control horn in the slot. Trim or file the slot as needed to achieve a snug fit. (Be careful you don't poke through the other side of the aileron.)



The control horn should go all the way in until the shoulder contacts the aileron. The linkage hole in the control horn should be aligned with the hinge centerline.



With the control horn in position apply masking tape around it. This will keep excess epoxy off the covering.

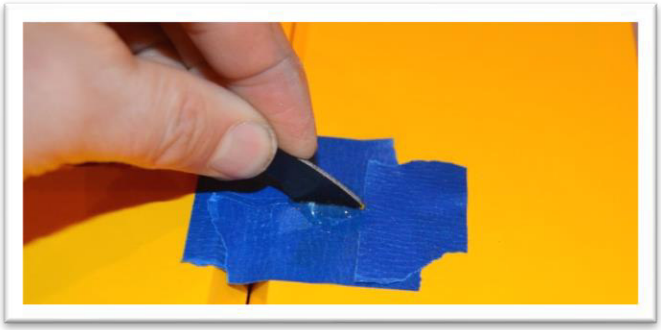


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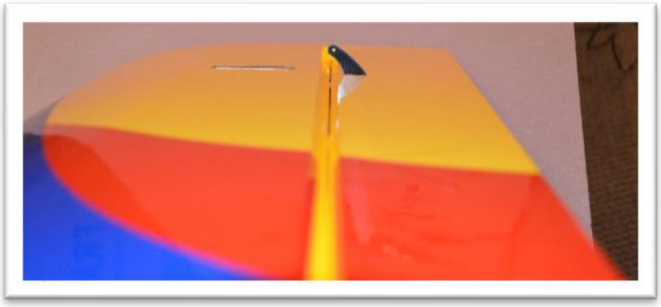
Apply epoxy to the slot in the aileron. Use a pin to help push the epoxy in.



Apply epoxy to the control horn and insert it into the slot. Wipe away excess epoxy using a paper towel and denatured alcohol.



Check the alignment along the hinge line as you did when you test fit the control horn. Reposition as needed.

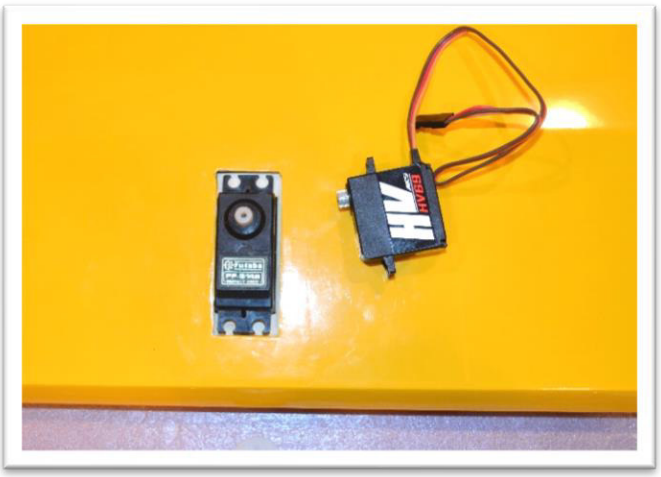


Allow the epoxy to partially cure. Peel away the masking tape after the epoxy is securely holding the control horn in place and still soft enough to easily remove the tape. Set the wing aside and let the epoxy fully cure.

Connect the servo to a receiver and power supply. Turn on your transmitter. Set trim and sub trim to zero. Install a servo arm on the servo about perpendicular to the servo's side. Use the transmitter's sub trim to make it exactly perpendicular to the side of the servo.



You may use a standard size servo or a mico size with an adapter plate shown below.

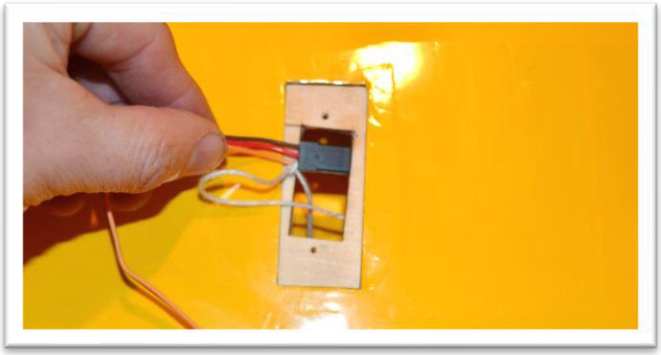


Fit the adapter plate into the servo pocket if you are using the micro size servo. You may need to sand the edges slightly to fit it in. The front corner of the servo pocket should be tilted away from the aileron control horn as shown.



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Attach the servo wire to the installation string and gently pull the wire through the wing as you insert the servo into the wing.



Insert the servo into the pocket with the drive spline towards the front of the wing. Pre-drill for the servo mounting screws using a 1/16” drill. Remove the servo and apply a drop of thin CA glue into each mounting screw hole. This will harden the wood around the screws and provide a more secure installation. Allow the CA glue to dry before reinstalling the servo.



Assemble a ball link to each end of a connecting rod. Use a socket head screw, a flat washer and a nylon lock nut to connect a ball link to the servo control horn. (The brass ball in the link is offset. The larger reveal side should be against the control horn and servo arm shown below.)



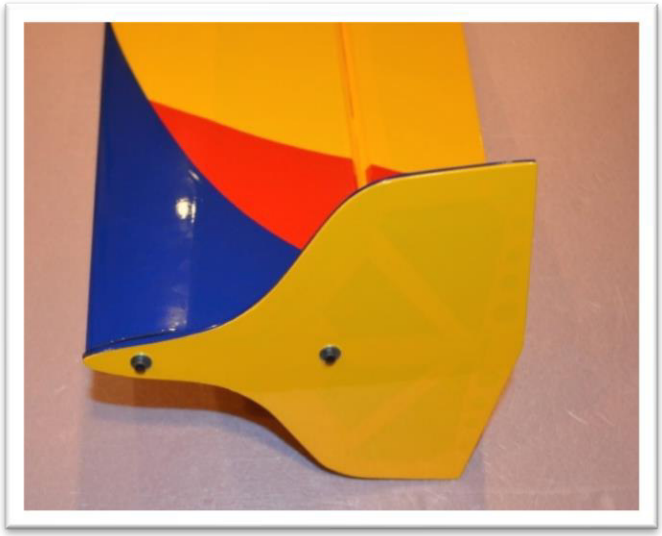
Check the length of the assembly to the servo arm with the aileron level with the wing. When the correct length of the assembly is found, connect the ball link to the servo arm. (Always adjust the connecting rod length with the servo powered up and centered.)



Carefully locate the mounting holes in the side force generators and trim away the covering. The wing tips have a blind nut installed beneath the covering. Use a hobby knife to trim away the covering. (Use the holes in a spacer plate to help locate the holes in the wing tip.)



Assemble the spacer plate and the side force generator to the wing with the supplied 3mm screws and washers.



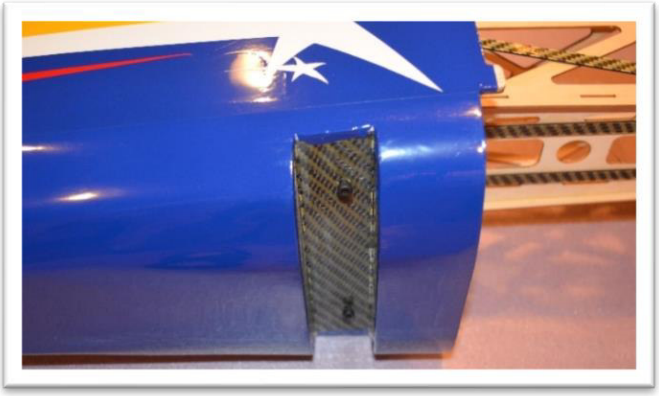
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Landing Gear

Landing gear parts bag contents are shown below.



The landing gear screws (3mm) are supplied installed in the fuselage. Remove these screws.



Install the carbon fiber landing gear using 2 washers from the parts bag and the socket head screws. Apply a drop of thread locker as you install these screws.



The filler block can be held in position with strips of covering material, packing tape, or it can be held in position with hook and loop material as described below.



(If you use packing tape you may need to trim the width of the tape. Roll the tape out with the sticky side up. Lay a straight edge down on the tape and cut with a new blade.)

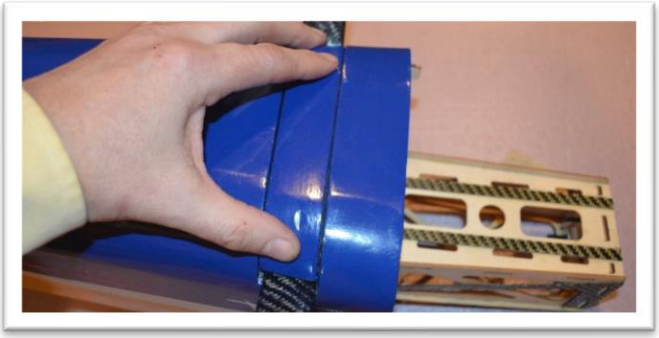


To attach the filler block with hook and loop adhesive tape attach two ¾" pieces on the landing gear next to the screws.



Then cut or sand recesses into the filler block to accommodate the thickness of the hook and loop tape. Start with shallow cuts and test fit it to the landing gear. If the filler block does not sit flush with the bottom of the airplane cut and sand a little more. Continue until you get a nice fit and the hook and loop tape has a firm grasp. It may also be necessary to cut some clearance around the holes for the screws and washers.





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File a flat on the wheel axels perpendicular to the axel wrench flats.



Install a wheel on the axel with a wheel collar. Position the collar set screw over the flat you filed.



Insert the wheel and axel into the wheel pant, then into landing gear. Align the wheel pant indentation with the landing gear. Add a nylon lock nut and tighten.



Install the tailwheel using 2 of the 3 wood screws. Position the joint of the tail wheel assembly directly over the rudder hinge line and mark the position of the screws. Turn the screws into the fuselage and rudder. Remove the screws, add a drop of thin CA glue to each hole to strengthen the wood, and reinstall the screws.





The third screw is used to secure the tiller arm to the rudder after it's installed. Do not fully tighten the tiller arm screw. The slot in the tiller arm allows the rudder to move freely.



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Fuselage

Inspect the fuselage for any interior joints that may have loosened as a result of shipping & handling. Apply thin CA glue around the joints of the fuselage core, firewall, fuselage formers, and rudder servo tray to strengthen.







Locate the mounting holes for the wing. Use an iron to seal the covering around the edges of the pocket before trimming. There will be 2 holes for wing alignment pins, 1 hole for the wing bolt, 1 slot for the servo lead, and 1 large hole for the wing tube. Measuring from the front edge of the firewall the holes can be found at 3", 5 7/8", 7 ¼", 12 ¾". You can also locate the holes by pocking a pin through the covering from the inside out.





Cut open the pocket just after the second small hole. This is where the aileron servo wire will enter the fuselage.



Locate the horizontal stabilizer pocket. Use an iron to seal the covering around the edges of the pocket before trimming. Use a new hobby knife blade to cut though the covering.



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The elevator servo pocket is on the left side of the airplane about 4 ½" from the end of the fusuelage. Use an iron to seal the covering around the edges of the pocket before trimming.



The servo pocket on the right side of the fuselage is used for the rudder servo if you decide to use a push-pull configuration. Do not cut this pocket open if you plan to use the pull-pull cable for the rudder.



Slid the horizontal stabilizer through the fuselage pushing it all the way forward. Center it side to side using a ruler or tape measure.



Install and center the main wing tube. Look at the plane from the back forward to make sure that the horizontal stabilizer is parallel with the wing tube. Notice that the horizontal stabilizer is tapered which may obscure the actual alignment. If the stabilizer is not aligned use shims or sand inside the pocket until it's parallel.



Position the stabilizer perpendicular to the fuselage and parallel to the main wing tube. Measure the distance between the canopy latch and the corners of the horizontal stabilizer. Adjust the stabilizer until the measurements on both sides are equal. Continue checking the stabilizer to ensure it is still centered side to side as described above. Extra time spent here will go a long way to improve the flight characteristics of your airplane.



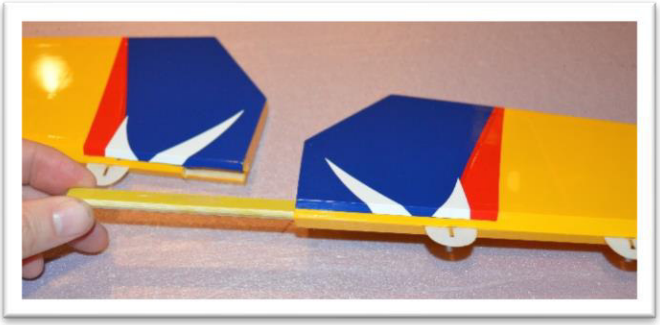
Once the horizontal stabilizer is positioned glue it in place with thin CA glue. Wick glue in on left and right sides, top and bottom. The use of an applicator tip is suggested to control the flow of thin CA glue and get it exactly where you want it.



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Elevator

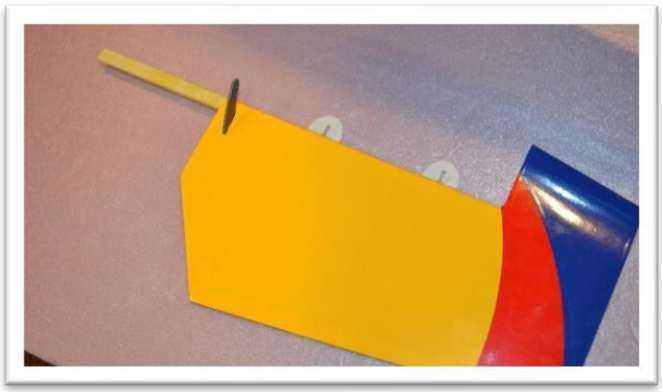
The elevator hinges should already be glued in. Give each of them a little pull to ensure they are securely attached. The jointer plate between the elevator halves is also already glued into one half of the elevator.



Install a control horn in the elevator using the same procedure used when assembling the ailerons. Make sure you are working with the left elevator half.

- Use a covering iron to bond the covering in the area the control horn will sit.
- Trim the covering away to expose the slot.
- Sand the lower portion of the control horn.
- Test fit the control horn. The shoulder contacts the elevator and the linkage hole should be aligned with the hinge centerline.
- Mask around slot.
- Glue with 30 minute epoxy.
- Check the alighment again.
- Let cure.
- Remove masing tape.

Use sandpaper to roughen up the jointer plate where it engages the right elevator half. This will allow the epoxy will adhere better.



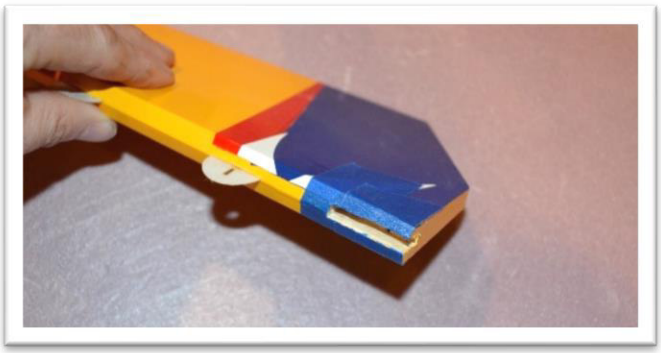
The horizontal stabilizer is already slotted for the hinges. Use a covering iron to secure the covering along the edge of the stabilizer. Look at the stabilizer hinge slots closely. Make sure the covering will not interfere when gluing the hinges. Cut away any covering that covers the hinge slots.



Test fit the elevator joiner plate to the opposite elevator half. Ensure the elevator halves are not twisted. Hold one half of the elevator in position and check the alignment of the other side. Check the gaps at the ends of the stabilizer. Adjust the slot in the elevator or file the edges of the jointer plate as needed to achieve a good fit.



Apply masking tape around the jointer slot in the right elevator half.



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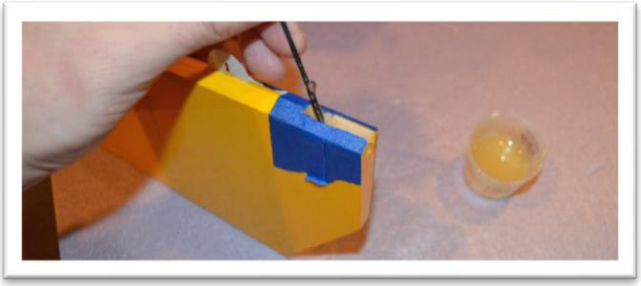
Apply masking tape to the horizontal stabilizer to prevent epoxy from getting where you don't want it.



Put the right elevator half in position on the horizontal stabilizer.

<u>Do not glue hinges yet.</u>

Prepare 30 minute epoxy and apply it to the slot in the elevator and the jointer plate.





Install the right elevator and position it as you did during the test fit.



Use a paper towel and alcohol to wipe away excess epoxy that is pushed out. Remember to check the bottom side.



Remove all masking tape right away and clean again.
Position the elevator as your did during the test fit.
Check it at the ends of the stabilizer.
Tape the elevator tightly in position algined to the stabilizer at each counter balance. Tape across the hinge line to keep the elevator assembly straight.



After the epoxy has had plenty of time to cure remove all the masking tape.

Center the elevator by looking at the ends of the stabilizer. Push the elevator tight against the stabilizer closing the hinge gap. Experiment with the hinge position finding the best fit with a minimum gap and best travel before gluing.

Flex the elevator slightly and apply a few drops of thin CA glue to each hinge. Flex the aileron to its maximum position and back to center. Then glue the opposite side.



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Connect the servo to a receiver and power supply. Turn on your transmitter. Set trim and sub trim to zero. Install a servo arm on the servo about perpendicular to the servo's side. Use the transmitter's sub trim to make it exactly perpendicular to the side of the servo.



Attach an 18" servo extension onto the elevator servo lead and use a safety clip to secure the connection.



Insert a servo into the elevator servo pocket with the drive spline towards the front of the fuselage. Pre-drill for the servo mounting screws using a 1/16" drill. Remove the servo and apply a drop of thin CA glue into each mounting screw hole. This will harden the wood around the screws and provide a more secure installation. Allow the CA glue to dry before reinstalling the servo.

Assemble a ball link to each end of a connecting rod. Use a socket head screw, a flat washer and a nylon lock nut to connect a ball link to the servo control horn.



Adjust the length of the connecting rod to the servo arm with the elevator aligned with the stabilizer. When the correct length of the assembly is found, connect the ball link to the elevator control arm on the inside as shown. (Always adjust the connecting rod length with the servo powered up and centered.)



Rudder

The rudder control can be configured as a push-pull or as a pull-pull cable system.
The pull-pull control horn is located approximately 2 7/8" from the bottom of the rudder.



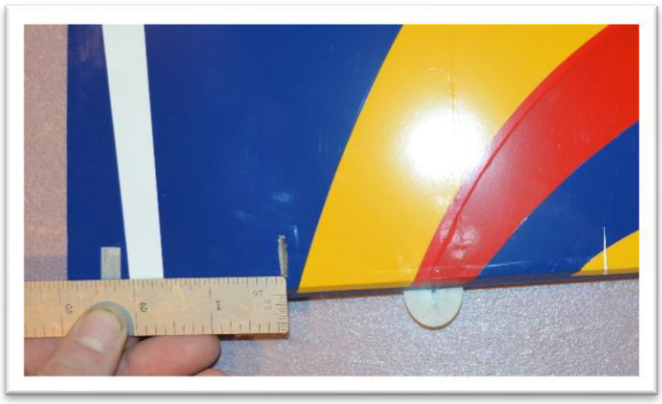
The push-pull control horn is located approximately 9/16" from the bottom of the rudder.



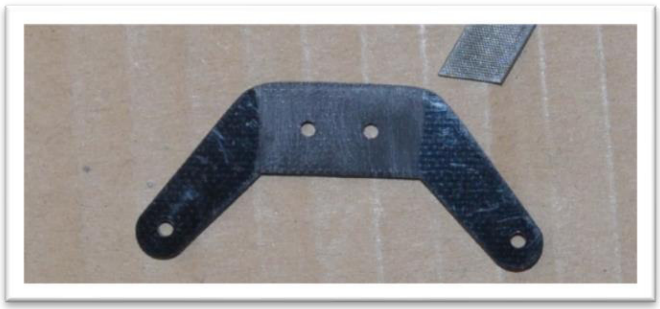
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Pull-Pull Rudder Control

Carefully locate the control horn slot and cut away the covering on both sides of the rudder.



Use sand paper to roughen up the center of the control horn so the epoxy will adhere better. File a radius on the corners so the control horn can be rotated through the rudder slot.



Tests fit the control horn to the slot. Use a file to modify the slot as needed. Center it side to side and align the holes with the hinge line. The control horn should be symmetrical about the hinge line.



Apply masking tape around the control horn slot on both sides of the rudder.

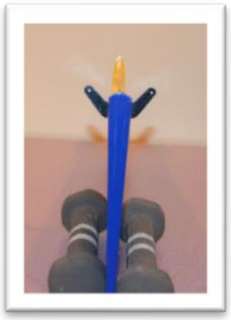


Use 30 minute epoxy to glue the control horns in place. Center the control horn, peal the masking tape away, and clean up with alcohol.





Check the control horn alignment, centering it side to side and align the holes with the hinge line. The control horn should be symmetrical about the hinge line.





Position the rudder and control horn so gravity does not reposition the control horn as the epoxy cures.



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The hinges should already be glued into the rudder. Give each of them a little pull to ensure they are securely attached. The vertical stabilizer is already slotted for the hinges. Use a covering iron to secure the covering along the edge of the vertical stabilizer. Look at the hinge slots closely to make sure the covering will not interfere when gluing the hinges. Cut away any covering that covers the hinge slot.



Slip each rudder hinges into a slot. Check the gap at the top of the vertical stabilizer and the rudder counter balance. Push the rudder tight against the stabilizer closing the gap between the two of them. Move the rudder to its maximum desired deflection. Experiment with the hinge position finding the best fit before gluing.

Start with the top hinge. Flex the rudder slightly and apply a few drops of thin CA glue to one side. Flex the rudder to its maximum desired position. Then glue the opposite side and other hinges.



Connect the servo to a receiver and power supply. Turn on your transmitter. Set trim and sub trim to zero. Install a servo arm on the servo about perpendicular to the servo's side. Use the transmitter's sub trim to make it exactly perpendicular to the side of the servo.

Take 2 ball links out of the "Extra" parts bag. Tread the brass cable eyes about half way into the ball links.



Connect the ball links to the rudder servo arm using a pair of holes that match the rudder control horn holes as close as possible.

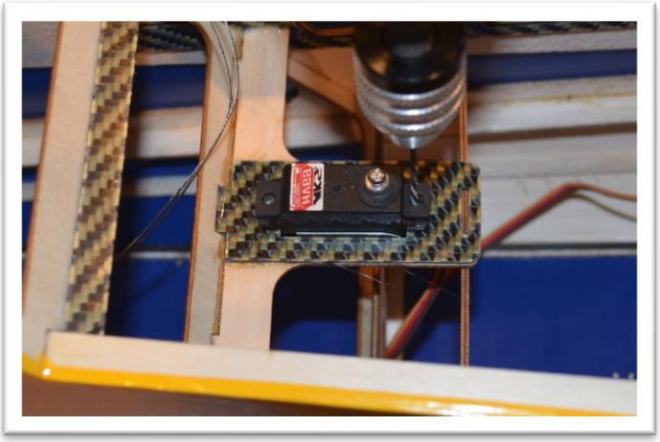


Assemble the ball links to the control arm using the 2mm screws and lock nuts.

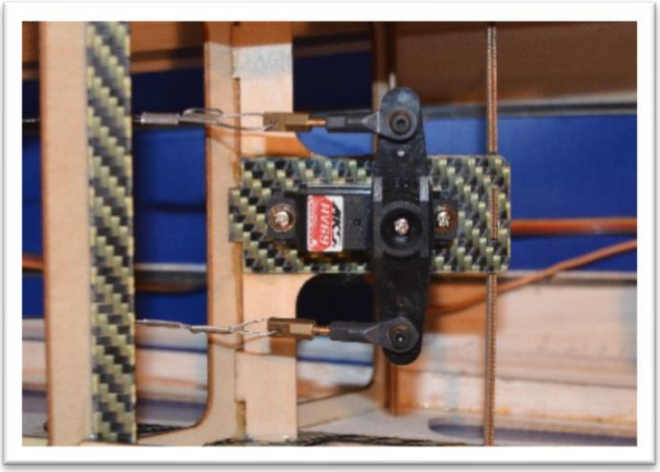


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Install the rudder servo into the fuselage and pre-drill for servo mounting screws using a 1/16” drill. Install the servo with the spline shaft towards the front of the airplane using the wood screws that came with your servos. Remove the screws and servo. Apply a drop of thin CA glue into each mounting screw hole. This will harden the wood around the screws and provide a more secure installation. (Allow the CA glue to dry before reinstalling the servo.)



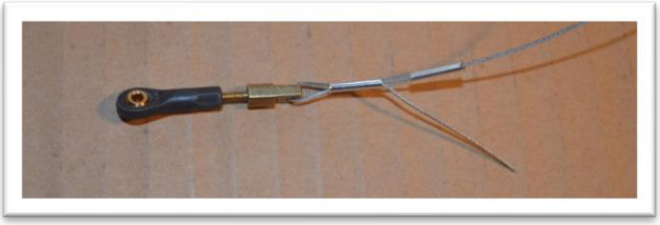
Start the cable assembly at the servo end inside the fuselage. Straighten out the cables and determine which cable is on the left and which cable is on the right. The cables should cross inside the fuselage once. The cable on the left at the rudder should be connected to the servo control horn on the right.



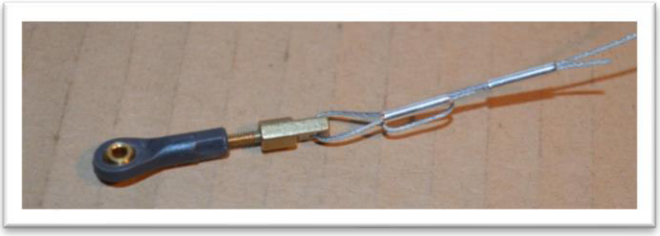
Thread on 2 crush sleeves and the brass cable eye.



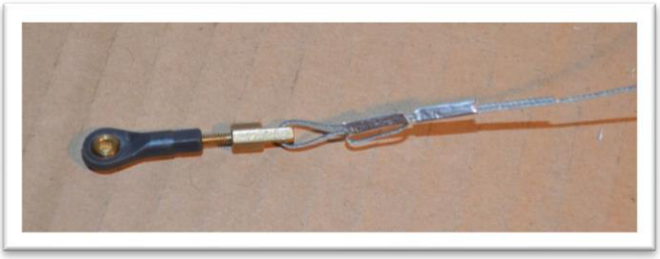
Loop around the cable eye and go back through a crush sleeve.



Loop around the crush sleeve and back through the sleeve again. Slide the second sleeve over the tail.



Adjust the loops and crimp the sleeves with the non-serrated surface of standard plyers.



Assemble 2 ball links and cable eyes to the rudder control horn using 2mm screws, a washer, and lock nut.



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Center the rudder and position it aligned to the vertical stabilizer. Tape the rudder to the vertical stabilizer to hold it centered. Repeat the cable eye installation process on the rudder end of the cables with the servo powered up and centered. Pull the cable snug. You don't need to make the cable guitar string tight.



Remove the tape and adjust the cable lengths to center the rudder by turning the cable eyes into the ball links.

Push-Pull Rudder Control

The rudder is built with control horn slots for the push-pull control system and the pull-pull control system. The push-pull control horn slot is located near the bottom of the rudder.



Cut the covering to expose the lower control horn slot on the right side of the rudder.

Instll the control horn using the same process as used on the alerons and elevator.

The pictures below shows a mockup of the rudder push-pull system. The installation process of the servo and control horn is the same as the ailerons and the elevator. The pull-pull cables can be removed and the covering will need to be patched.



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Motor

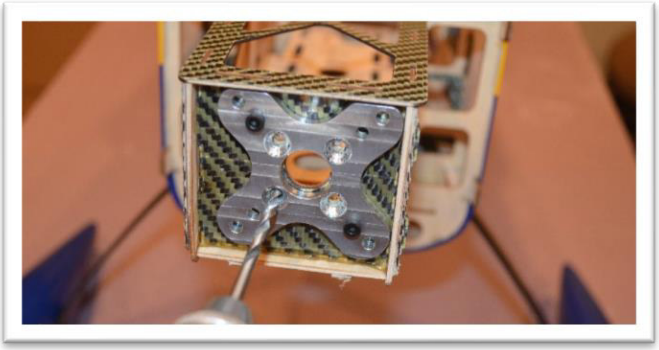
The firewall is pre-assembled with 3mm thread inserts installed on a 43mm diameter bolt circle (30.4mm x 30.4mm sq).

Depending on the motor you choose you may need to make modification to the firewall. Below are 2 examples.

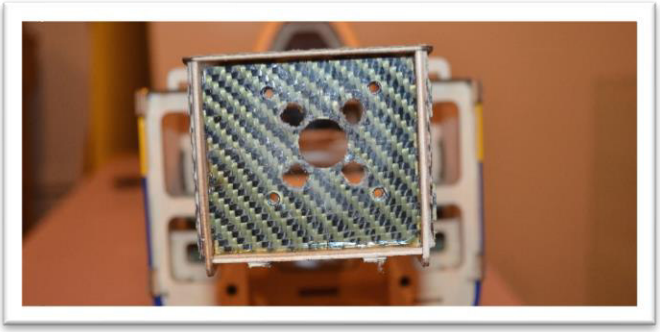
Smaller diameter motors can be mounted directly using the motor's "X" mount. Use removable thread locker with the supplied 3mm screws when installing the motor.



Larger diameter motors like the AJ3910-24p-660KV will require some additional work.
Start by temporarily mounting the "X" mount. Use it as a template to drill 4 holes in the firewall. (9/64" drill)



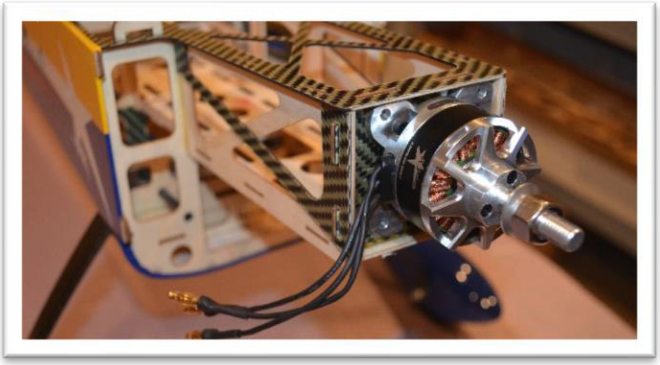
Remove the motor mount and enlarge the holes to 5/16". (A little CA glue and a file will help clean up the carbon fiber strands and hole shape.)



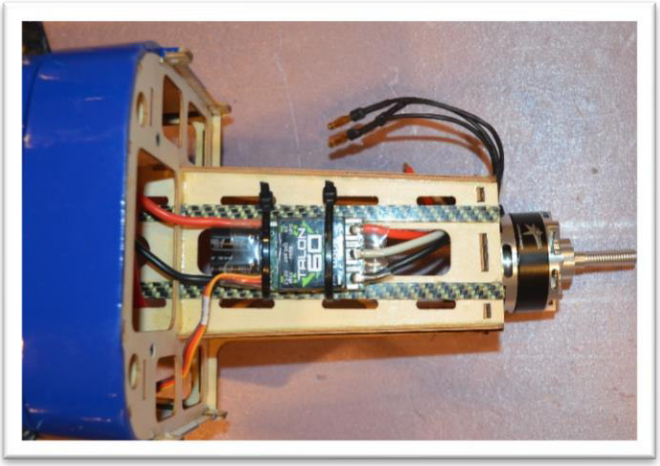
Test fit the "X" mount to the firewall and attach the motor using flat head screws from the back.



After the test fit be reassemble it with removeable thread locker.



Solder battery and motor connections to your ESC before installing it if needed. Use nylon zip ties or a hook & loop strap to secure the ESC to the bottom of the motor box.



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Cowl & Canopy

The cowl will be mounted using 4 wood screws through the tabs at the front of the fuselage.

Lay tape across the tabs and mark a point for the screw hole.



Peel back the tape so you can slide the cowl on. Center it using the spinner backer plate. Leave a .06-.09" (1.5-2mm) space behind the back plate. When you've found the cowl position you like securely tape it into position.



Drill a 1/16" hole through the cowl and the fuselage at the marks you made.



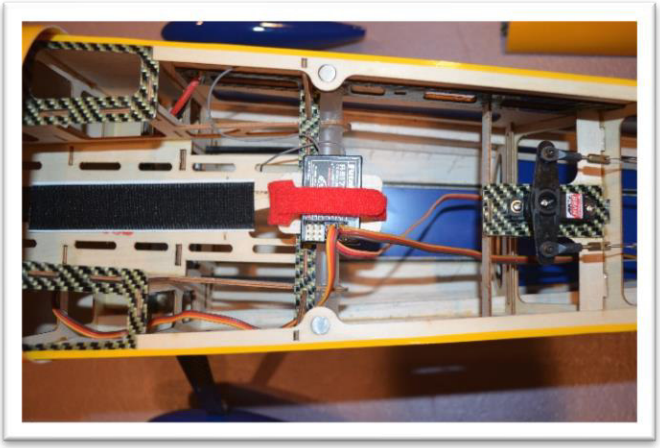
Remove the cowl and thread the screws into the fuselage holes. Remove the screws and add a drop of CA clue to harden the wood around each hole. When the glue is dry reinstall the cowl.



Finishing Notes

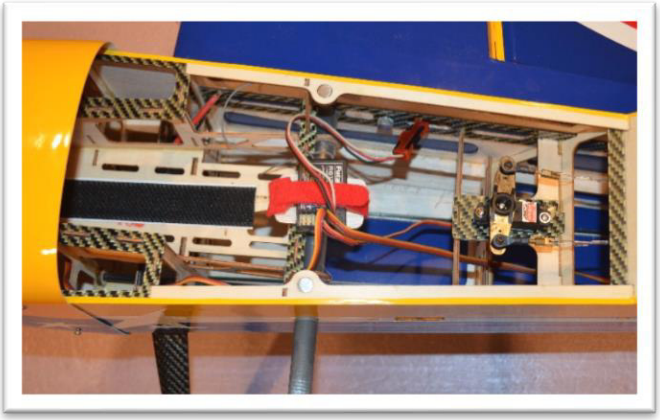
Install your receiver using a piece of hook and loop tape on the receiver tray. Then strap it in place with the supplied hook and loop strap.

The battery can be held in position with the hook and loop tape. But will also need to be strapped with at a heavy hook and loop battery strap.



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Attach the wings by sliding the carbon fiber tube through the fuselage. Then slide the wing on making sure the alignment pins are engaged into the holes. Fasten with the thumb screw. Attach the aileron servo wire to a 6" extension and secure it with a safety clip. Tie the wires back away from the rudder servo. You don't want the wires to get snagged, disconnecting or causing rudder issues.





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Radio Installation & Setup

Take the time to properly balance and trim your aircraft.

Use the suggested throws below as your starting point then fine tune to your flying preferences after your first few flights.

Control Throws		
Low Rates		
Elevator	20 degrees	30% Expo
Aileron	15 degrees	30% Expo
Rudder	15 degrees	30% Expo
Medium Rates		
Elevator	30 degrees	40% Expo
Aileron	30 degrees	40% Expo
Rudder	30 degrees	40% Expo
High Rates		
Elevator	45 degrees	50% Expo
Aileron	45 degrees	50% Expo
Rudder	Max Throw	50% Expo

Center of Gravity

The optimal CG for the 51" AJ Slick 540 is located directly over the wing tube center.

You can adjust your CG depending on your flying style.

If you fly aggressive 3D aerobatics you'll want to find a more of a neutral CG. When its flown level inverted it requires little to no elevator input to maintain altitude.

If you enjoy sport & precision aerobatics you'll want a slightly nose heavy CG.

To test the CG fly left or right at about 3/4 to full throttle and pull to a 45 degree up-line. Roll inverted and let go of the elevator stick. A correct nose heavy CG will slowly arc to the level. A neutral CG should nearly hold the up-line. And a tail heavy CG will steepen the up-line.

While the final setup is of personal preference, these are some general guidelines to make your first flight a success.

Enjoy your new plane!

We at AJ Aircraft sincerely hope you enjoy flying the AJ Slick 540.

Feel free to create a support ticket at aj-aircraft.com if you have any problems, questions, or suggestions.

Once you get a few flights in, we would greatly appreciate your review submitted to our web site! See you at the field!



AJ Aircraft
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Monroe, MI. 48162 USA
Phone: 734-244-4015

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Contents of Kit

- AJ Slick 540 fuselage reinforced with exclusive Carbon-Kevlar technology
- Pre-hinged main wings
- Pre-hinged horizontal stabilizer
- Pre-hinged rudder
- Color matched, fastener free plastic canopy
- Color matched fiberglass cowl & wheel pants
- Carbon fiber wing tube
- Carbon fiber main gear
- Lightweight tailwheel
- Lightweight foam wheels and steel axles
- Matching set of side force generators
- Pre-drilled firewall with installed blind nuts
- Individual bags of high quality hardware

Recommended Equipment

- Motor – Power by AJ Aircraft:
  - 4S – AJ3910-24P/770KV
  - 5S – AJ3910-24P/660KV
  - 6S – AJ3910-24P/550KV
- Batteries:
  - 4S 2800 mAH LiPo
  - 5s 2200 mAH LiPo
  - 6S 1800 mAH LiPo
- ESC - Castle Talon 60A
- Propeller – Falcon 14x7, 15x6 (Electric ONLY)
- 5 Channel Full Range Receiver
- Four high torque mini servos
- 2" or 50mm Spinner
- Servo extensions:
  - (2) x 6" for ailerons
  - (1) x 18" for elevator
  - (1) x 18" for rudder (push/pull only)
- Servo Arms:
  - (2) x 1" for ailerons
  - (1) x 1" for elevators
  - (1) x 2.5" for pull/pull rudder or 1" for push/pull

Recommended Tools Needed for Assembly

- Blue Painters Tape
- Denatured Alcohol & Paper Towels
- Blue Loctite
- Metric & Standard Allen Wrenches
- Hobby Knife & Fresh Blades
- 15 – 30 Minute Epoxy (or Gorilla Glue)
- Thin C/A
- Electric Drill with Assorted Small Bits
- Small Flat Head & Phillips Screwdrivers
- Sanding Block & Sandpaper
- Needle Nose Pliers
- Adjustable Wrench or Socket Set
- Measuring Tape & Ruler
- Fine-tip Sharpie Marker

Recommended CG Range and Control Throws

✓ The optimal center of gravity (CG) for the 51" AJ Slick 540 is located ½" in front of the wing tube (+/- ½").

✓ **Aileron Control Throws**
- Low Rates – 15 deg. (30% Exp)
- Mid Rates – 30 deg. (40% Exp)
- High Rates – 45 deg. (50% Exp)

✓ **Elevator Control Throws**
- Low Rates– 20 deg. (30% Exp)
- Mid Rates– 30 deg. (40% Exp)
- High Rates – 45 deg. (50% Exp)

✓ **Rudder Control Throws**
- Low Rates– 15 deg. (30% Exp)
- Mid Rates – 30 deg. (40% Exp)
- High Rates – Max throw (50% Exp)

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