



## Hand-made Almost Ready to Fly R/C Model Aircraft

# ASSEMBLY MANUAL



#### Kit features

- Ready-made—minimal assembly & finishing required.
- Ready-covered—including decals, trim & covering.
- Factory-installed pushrods.
- Factory-installed metal engine mount.
- Factory-pinned & glued control surface hinges for ultimate safety.
- Comprehensive hardware pack including wheels, tank, spats, undercarriage& spinner.
- Photo-illustrated step-by-step Assembly Manual.

#### VARNING

•This aicraft has been designed for intermediate level flyers. First time pilot should be a experienced flyer (proficient pilot).

•This aicraft is desgined to be powered a 2 stroke .46 engine or a 4 stroke .53 engine. Installation of engines other it could to lead a seious accident or damage t property.

Made in Vietnam.

#### INTRODUCTION

Thank you for choosing the **EXTRA 300S** ARTF by SEAGULL MODELS. The **EXTRA 300S** was designed with the intermediate/advanced sport flyer in mind. It is a semi scale airplane which is easy to fly and quick to assemble. The airframe is conventionally built using balsa, plywood and veneer to make it stronger than the average ARTF, yet the design allows the aeroplane to be kept light. You will find that most of the work has been done for you already. The pushrods are pre-made to the correct lengths, the motor mount has been fitted and the hinges are pre-installed and pinned for security. Flying the **EXTRA 300S** is simply a joy.

This instruction manual is designed to help you build a great flying aeroplane. Please read this manual thoroughly before starting assembly of your **EXTRA 300S**. Use the parts listing below to identify all parts.

#### WARNING

# Please be aware that this aeroplane is not a toy and if assembled or used incorrectly it is capable of causing injury to people or property. WHEN YOU FLY THIS AEROPLANE YOU ASSUME ALL RISK & RESPONSIBILITY.

If you are inexperienced with basic R/C flight we strongly recommend you contact your R/C supplier and join your local R/C Model Flying Club. R/C Model Flying Clubs offer a variety of training procedures designed to help the new pilot on his way to successful R/C flight. They will also be able to advise on any insurance and safety regulations that may apply.

#### ADDITIONAL ITEMS REQUIRED

- ↔ .46-.61 2-stroke engine.
- $\Rightarrow$  Computer radio with five servos.
- $\Rightarrow$  Glow plug to suit engine.
- Show Propeller to suit engine.
- Protective foam rubber for radio system.
- Silicone fuel line.

#### **TOOLS & SUPPLIES NEEDED**

- $\Rightarrow$  Thick cyanoacrylate glue.
- ⇒ 30 minute epoxy.
- ⇒ 5 minute epoxy.
- Hand or electric drill.
- Assorted drill bits.
- ↔ Modelling knife.
- Straight edge ruler.
- ⇔ 2mm ball driver.
- ⇒ Phillips head screwdriver.
- ⇔ 220 grit sandpaper.
- ∞ 90° square or builder's triangle.
- ↔ Wire cutters.
- ↔ Masking tape & T-pins.
- ⇔ Thread-lock.
- ⇔ Paper towels.

#### PARTS LISTING

#### **FUSELAGE ASSEMBLY**

⇒ (1) Fuselage.

#### WING ASSEMBLY

- (1) Right wing half with pre-installed aileron.
- ↔ (1) Left wing half with pre-installed aileron.
- $\Rightarrow$  (1) Plywood wing dihedral brace.
- (1) Covering strip for centre section joint.

#### Tail section assembly

- (1) Vertical stabilizer with preinstalled rudder.
- (1) Horizontal stabilizer with preinstalled elevator halves.

#### Some more parts.

#### **HARDWARE PACK**

COWLING. Landing gear.....



**NOTE:** To avoid scratching your new aeroplane we suggest that you cover your workbench with an old towel. Keep a couple of jars or bowls handy to hold the small parts after you open the bags.

> Please trial fit all parts. Make sure you have the correct parts and that they fit and are aligned properly before gluing! This will ensure proper assembly as the **EXTRA 300S** is made from natural materials and minor adjustments may have to be made.

> The paint and plastic parts used in this kit are fuel proof. However, they are not tolerant of many harsh chemicals including the following: paint thinner, cyano-acrylate glue accelerator, cyanoacrylate glue de-bonder and acetone. Do not let these chemicals come in contact with the colours on the covering and the plastic parts.

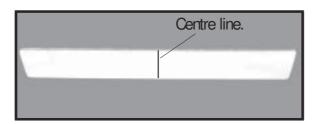




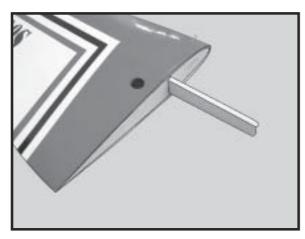


#### WING ASSEMBLY

- **NOTE:** We highly recommend using 30 minute epoxy as it is stronger and provides more working time, allowing the builder to properly align the parts. Using fast cure epoxy when joining the wing halves could result in the glue drying before the wing halves are aligned properly which may result in failure of the wing centre section during flight.
- ! 1. Locate the plywood wing dihedral brace. Using a ruler, locate its centre and draw a vertical line .

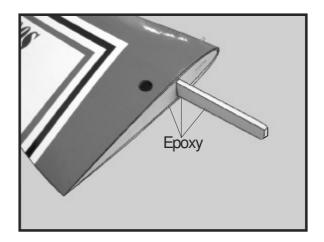


Solution ⇒ 2. Test fit the dihedral brace into each wing half. The brace should slide in easily up to the centreline that you drew. If not, use 220 grit sandpaper with a sanding block and sand down the edges and ends of the brace until it fits properly.

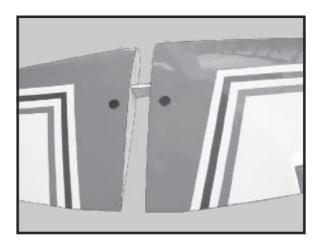


3. Remove the brace when satisfied with its fit in each wing half. Coat both sides of one half of the dihedral brace with 30 minute epoxy. Next, pour some epoxy into the dihedral box in one wing panel. Make sure you cover the top and bottom as well as the sides of the dihedral brace. Use enough epoxy to fill any gaps.

Insert the dihedral brace into the dihedral box up to the centreline. With paper towels and rubbing alcohol, wipe off any excess epoxy that may have squeezed out of the joint. Next pour some epoxy into the dihedral box in the other wing panel. Apply epoxy to the exposed portion the brace and to the wing root of both wings.



Carefully slide the two wing halves together and firmly press them together, allowing the excess epoxy to run out. There should not be any gap in the wing halves. Use rubbing alcohol and a paper tower to clean up any excess epoxy.

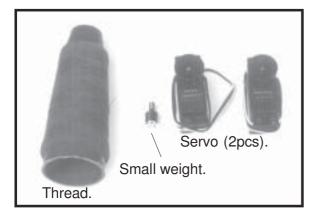


Apply masking tape at the wing join to hold the wing halves together securely. Allow the epoxy to cure before installing the aileron servos.

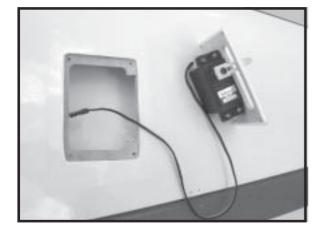








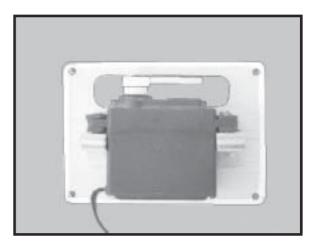
! 1) Remove servo tray from the each panel of wing. Install servo and servo arm. See pictures bellow.



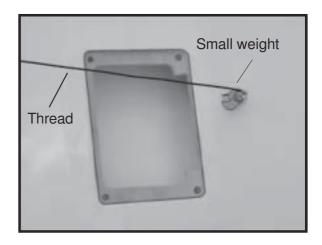
○ 2) Install the rubber grommets and brass collets onto the aileron servo. Test fit the servo into the aileron servo mount.

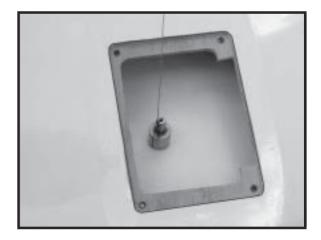
Because the size of servos differ, you may need to adjust the size of the precut opening in the mount. The notch in the sides of the mount allow the servo lead to pass through.



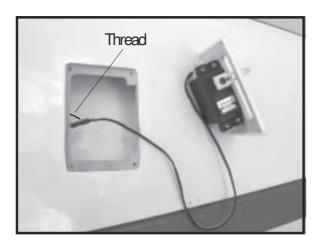


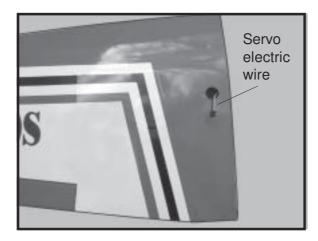
Use a small weight (Weighted fuel pick-up) and thread to feed the servo connector through the wing as shown.





Attach the string to one end of servo lead and carefully thread it though the wing. Once you have thread the lead throught the wing, remove the string and repeat for the other servo lead. Use masking tape to secure the leads to the wing and prevent them from falling back into the wing



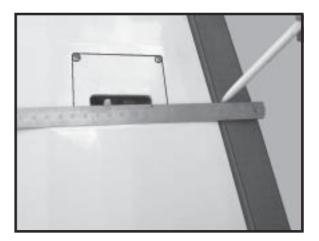


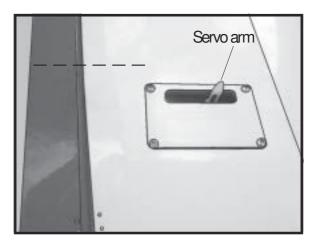
 $\Rightarrow$  3) Install the aileron servo tray into the servo mount.

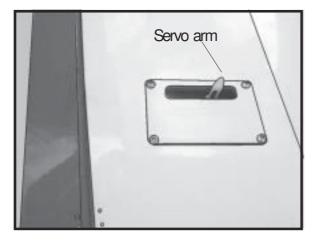
Repeat the procedure for the other wing half.



S 1) Using a ruler & pen to draw a straight line as below picture.

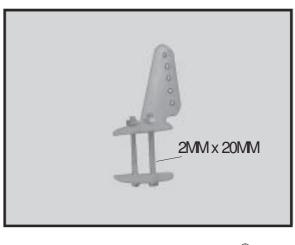






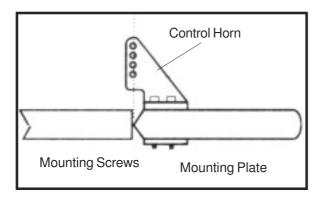
AILERON LINKAGE

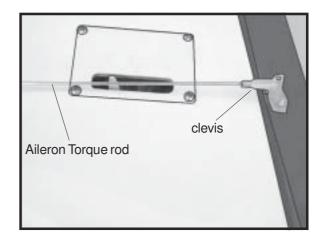
 $\rightsquigarrow$  2) Locate  $\,$  nylon control horns, nylon control horn backplates and 2 machine screws.





 $\Rightarrow$  3) Position the aileron horn on the bottom side of aileron. The clevis attachment holes should be positioned over the hinge line as shown below.

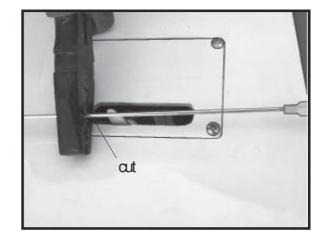


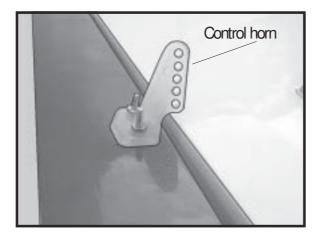


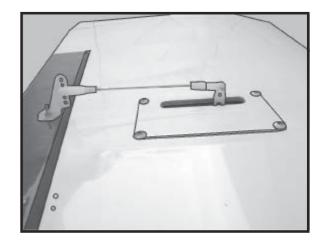
 $\Rightarrow$  4) Using a 1mm drill bit and the control horns as a guide, drill the mounting holes through the aileron halves.

∞ 5) Mount the control horns by inserting the screws through the control horn bases and aileron halves, then into the mounting backplates.

Do not overtighten the screws or the backplates may crush the wood.







 $\Rightarrow$  6) Thread one clevis control horn onto each aileron torque rod. Thread the clevis on until they are flush with the ends of the torque rods.





#### FUEL TANK

#### PARTS REQUIRED

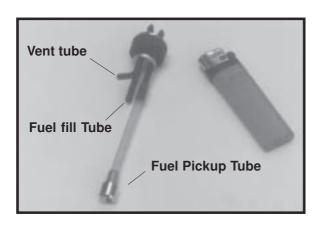
- Solution → \$\{1\}\$ Molded Nylon Fuel Tank
- ↔ {1} Preassembled Stopper Assembly
- Sector Secto

#### INSTALLING THE STOPPER ASSEMBLY

○ 1) Using a modeling knife, carefully cut off the rear portion of **one** of the 3 nylon tubes leaving 1/2" protruding from the rear of the stopper. This will be the fuel pick up tube.

○ 2) Using a modeling knife, cut one length of silicon fuel line. Connect one end of the line to the weighted fuel pickup and the other end to the nylon pickup tube.

 $\Rightarrow$  3) Carefully bend the second nylon tube up at a 45° angle. This tube is the vent tube. To set the angle of the vent tube use a lighter or heat gun to heat the tube (do not melt the tube).



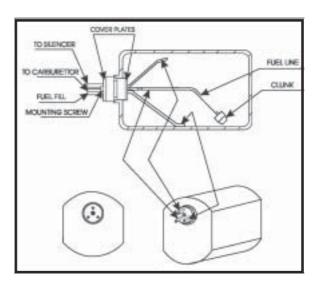
When the stopper assembly is installed in the tank, the top of the vent tube should rest just below the top surface of the tank. It should not touch the top of the tank.

↔ 4) Test fit the stopper assembly into the tank. It may be necessary to remove some of the flashing around the tank opening using a modeling knife. If flashing is present, make sure none falls into the tank.

 $\Rightarrow$  5) With the stopper assembly in place, the weighted pickup should rest away from the rear of the tank and move freely inside the tank. The top of the vent tube should rest just below the top of the tank. It should not touch the top of the tank.

○ 6) When satisfied with the alignment of the stopper assembly tighten the 3mm x 20mm machine screw until the rubber stopper expands and seals the tank opening. Do not overtighten the assembly as this could cause the tank to split.

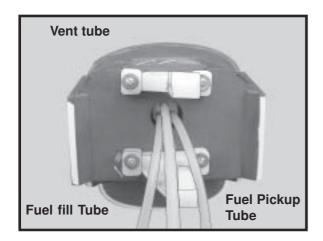
Attach the silicone fuel, feed and pressure pipe to the tank. The lower pipe is the 'feed' and the upper is the 'pressure'. The silicone fuel pipe is the next of feed pipe.



Slide the tank into the fuselage from inside so that the neck is at the top of the fuselage and it locates through the engine bulkhead. Gently secure it to the top horizontal former with the cable tie.

You should mark which tube is the vent and which is the fuel pickup when you attach fuel tubing to the tubes in the stopper. Once the tank is installed inside the fuselage, it may be difficult to determine each of them.





Blow through one of the lines to ensure the fuel lines have not become kinked inside the fuel tank compartment. Air should flow through easily.

#### MOUNTING THE ENGINE

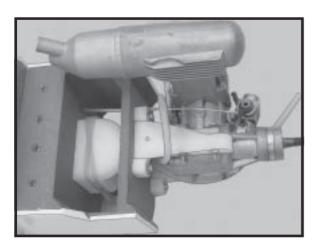
○ 1) Trial fit your engine on the motor mount. The engine should be positioned so there is ample clearance in the cowling for spinner backplate mounted to the prop drive shaft.

 $\Rightarrow$  2) Marking 4 points on the plastic motor mount.

 $\Rightarrow$  3) Screw 4 pilot holes with 5 mm diameter.

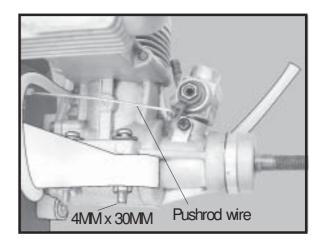
↔ 4) Your engine on the motor mount by mounting with 4 bolts, 8 washers, and 4 nuts provided.

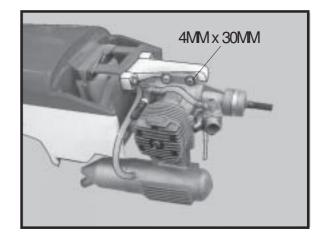
A drop C/A glue on the bolt threads will help prevent loosening in flight.





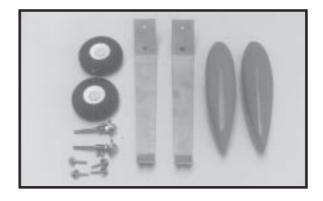
⇒ 5) Attach the Z-Bend in the pushrod wire to the throttle arm on the carburetor. You will need to remove the throttle arm from the carburetor to be able to attach the Z-bend. When complete, reattach the throttle arm to the carburetor.



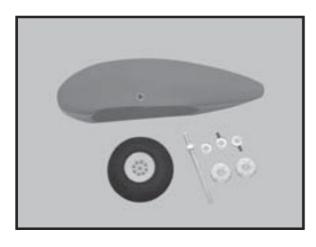


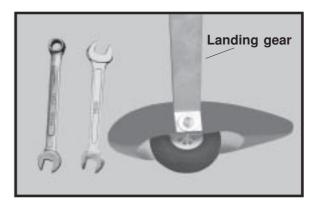
#### WHEEL AND WHEEL PANTS

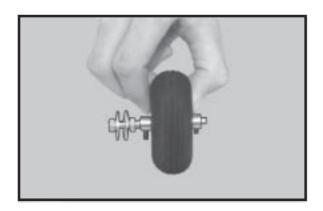
#### PARTS REQUIRED

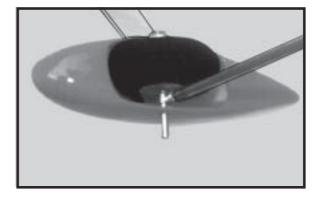


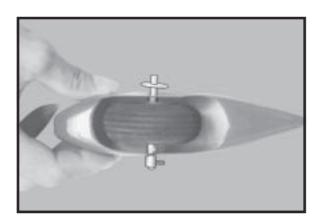
 ↔ 1) Assemble and mounting the wheel pants as shown in the following pictures.

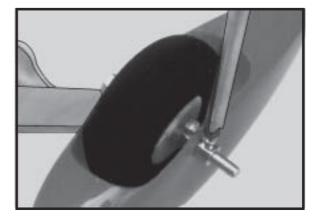






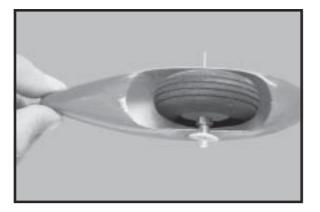






∞ 2) A drop of C/A glue on the wheel collar screws will help keep them from coming lose during operation.

Repeat the process for the other wheel.

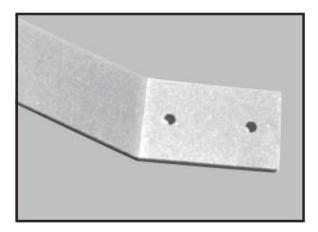


#### INSTALLING THE MAIN LANDING GEAR

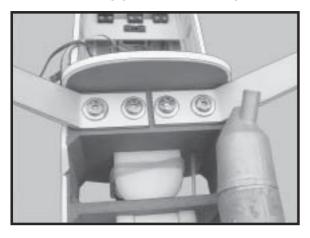
∞ 1) The blind nuts are already mounted inside the fuselage.

2) The holes in the landing gear should be to accept the mounting bolts



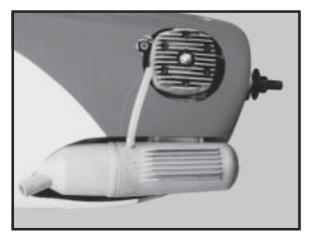


S) Using the hardware provided, mount the main landing gear to the fuselage.



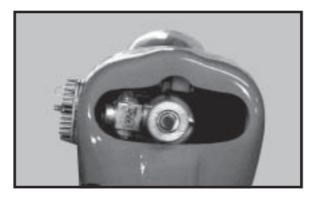
#### COWLING

 $\Rightarrow$  1) Slide the fiberglass cowl over the engine and line up the back edge of the cowl with the marks you made on the fuselage.

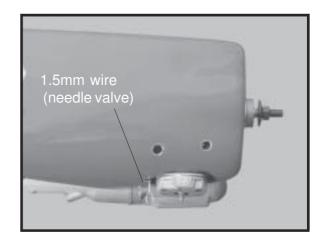


○ 2) While keeping the back edge of the cowl flush with the marks, align the front of the cowl with the crankshaft of the engine. The front of the cowl should be positioned so the crankshaft is in **nearly** the middle of the cowl opening. Hold the cowl firmly in place using pieces of masking tape.



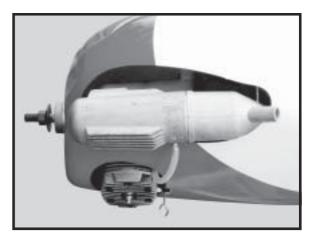


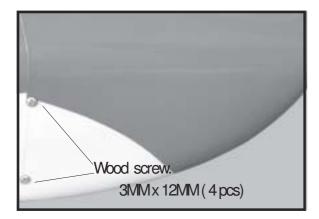
Because of the diameter of the cowl, it may be necessary to use a needle valve extension for the high speed needle valve. Make this out of sufficient length 1.5mm wire and install it into the end of the needle valve. Secure the wire in place by tightening the set screw in the side of the needle valve.



○ 3) Slide the cowl back over the engine and secure it in place using four wood screws.See picture below.

↔ 4) Install the muffler and muffler extension onto the engine and make the cutout in the cowl for muffler clearance. Connect the fuel and pressure lines to the carburetor, muffler and fuel filler valve.

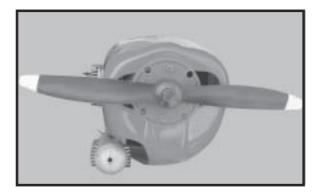


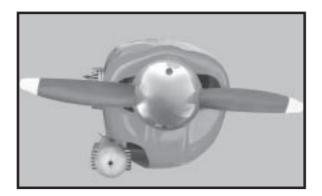


#### **INSTALLING THE SPINNER**

Install the spinner backplate, propeller and spinner cone. The spinner cone is held in place using two 3mm x 12mm wood screws.

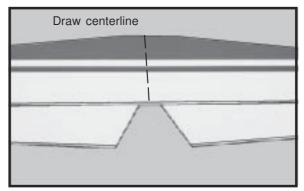
The propeller should not touch any part of the spinner cone. If it does, use a sharp modeling knife and carefully trim away the spinner cone where the propeller comes in contact with it.



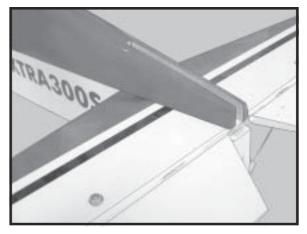


#### ALIGNING THE HORIZONTAL STABILIZER

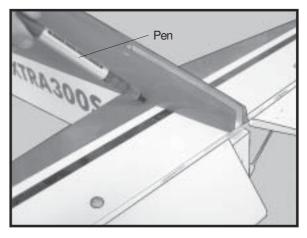
 $\Rightarrow$  1) Using a ruler and a pen, locate the centerline of the horizontal stabilizer, at the trailing edge, and place a mark. Use a triangle and extend this mark, from back to front, across the top of the stabilizer. Also extend this mark down the back of the trailing edge of the stabilizer.



○ 2) Slide the stabilizer into place in the precut slot in the rear of the fuselage. The stabilizer should be pushed firmly against the front of the slot.



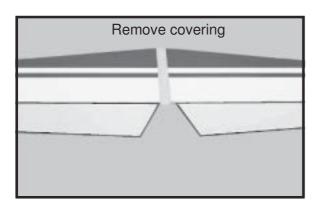
○ 3) With the stabilizer held firmly in place, use a pen and draw lines onto the stabilizer where it and the fuselage sides meet. Do this on both the right and left sides and top and bottom of the stabilizer.







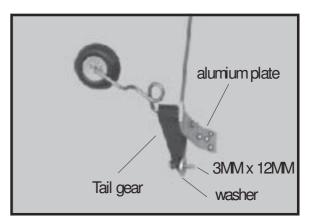
↔ 4) Remove the stabilizer. Using the lines you just drew as a guide, carefully remove the covering from between them using a modeling knife.

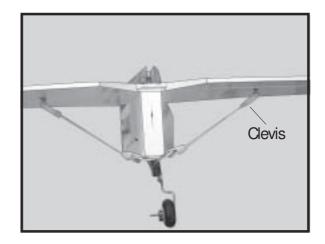


When cutting through the covering to remove it, cut with only enough pressure to only cut through the covering itself. Cutting into the balsa structure may weaken it.

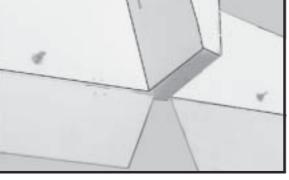
⇒ 5) Using a modeling knife, carefully remove the covering that overlaps the stabilizer mounting platform sides in the fuselage. Remove the covering from both the top and the bottom of the platform sides.

 $\Rightarrow$  6) Installed the horizontal strut ( support system). See pictures bellow.

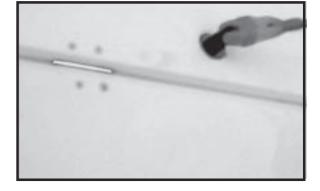


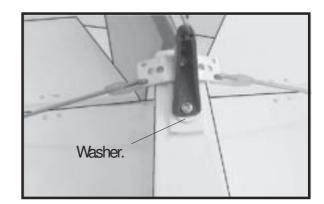


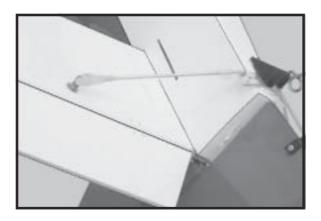




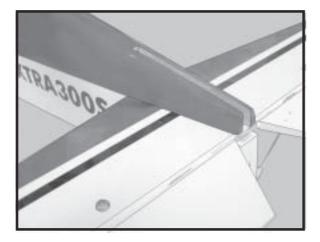






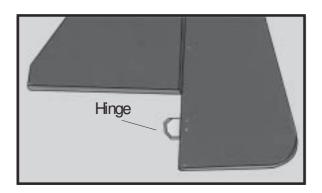


○ 7) When you are sure that everything is aligned correctly, mix up a generous amount of Flash 30 Minute Epoxy. Apply a thin layer to the top and bottom of the stabilizer mounting area and to the stabilizer mounting platform sides in the fuselage. Slide the stabilizer in place and realign. Double check all of your measurements once more before the epoxy cures. Hold the stabilizer in place with Tpins or masking tape and remove any excess epoxy using a paper towel and rubbing alcohol.

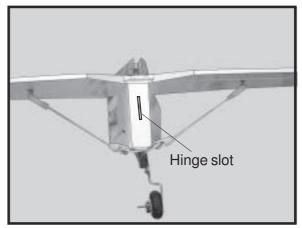


 $\Rightarrow$  8) After the epoxy has fully cured, remove the masking tape or T-pins used to hold the stabilizer in place. Carefully inspect the glue joints. Use more epoxy to fill in any gaps that may exist that were not filled previously and clean up the excess using a paper towel and rubbing alcohol.

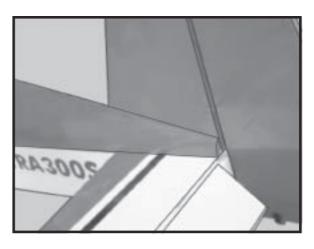
#### VERTICAL STABILIZER INSTALLATION



○ 1) Using a modeling knife, remove the covering from over the precut hinge slot cut into the lower rear portion of the fuselage. This slot accepts the lower rudder hinge.

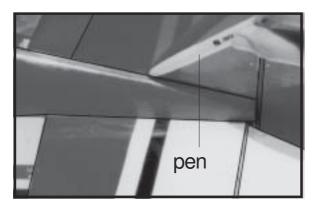


 $\Rightarrow$  2) Slide the vertical stabilizer into the slot in the top of the fuselage. The rear edge of the stabilizer should be flush with the rear edge of the fuselage and the lower rudder hinge should engage the precut hinge slot in the lower fuselage. The bottom edge of the stabilizer should also be firmly pushed against the top of the horizontal stabilizer.

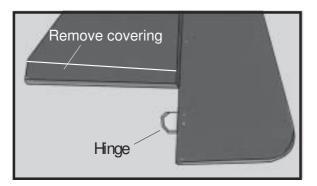




 $\Rightarrow$  3) While holding the vertical stabilizer firmly in place, use a pen and draw a line on each side of the vertical stabilizer where it meets the top of the fuselage.

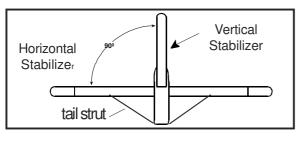


↔ 4) Remove the stabilizer. Using a modeling knife, remove the covering from below the lines you drew. Also remove the covering from the bottom edge of the stabilizer and the bottom and top edges of the filler block. Leave the covering in place on the sides of the filler block.



When cutting through the covering to remove it, cut with only enough pressure to only cut through the covering itself. Cutting into the balsa structure may weaken it.

 $\Rightarrow$  5) Slide the vertical stabilizer back in place. Using a triangle, check to ensure that the vertical stabilizer is aligned 90° to the horizontal stabilizer.





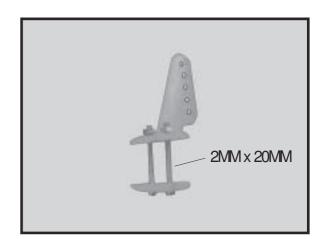
○ 6) When you are sure that everything is aligned correctly, mix up a generous amount of Flash 30 Minute Epoxy. Apply a thin layer to the mounting slot in the top of the fuselage and to the sides and bottom of the vertical stabilizer mounting area. Apply epoxy to the bottom and top edges of the filler block and to the lower hinge also. Set the stabilizer in place and realign. Double check all of your measurements once more before the epoxy cures. Hold the stabilizer in place with T-pins or masking tape and remove any excess epoxy using a paper towel and rubbing alcohol. Allow the epoxy to fully cure before proceeding.

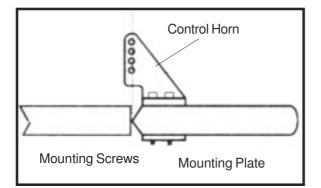


#### **CONTROL HORN INSTALLTION**

⇒ 1) Locate the two nylon control horns, two nylon control horn backplates and four machine screws.

⇒ 2) Position the elevator horn on the right and left side of elevator. The clevis attachment holes should be positioned over the hinge line.





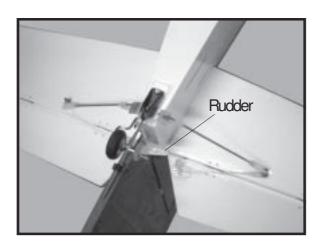
 $\Rightarrow$  3) Using a 1.5mm drill bit and the control horns as a guide, drill the mounting holes through the elevator halves.

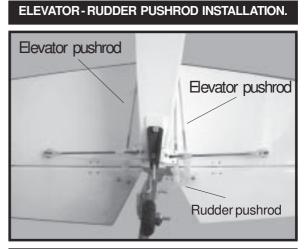
↔ 4) Mount the control horns by inserting the screws through the control horn bases and eleva- tor halves, then into the mounting backplates. Do Not overtighten the screws or the backplates may crush the wood.

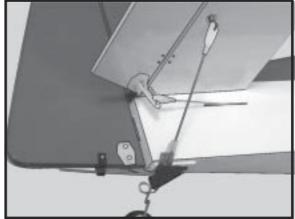
 $\Rightarrow$  5) Position the rudder control horn on the left side of the airplane. Mount the control horn parallel with the horizontal stabilizer, not inline with the rudder hinge line.

∞ 6) Install the rudder control horn using the same method as with the elevator control horns.







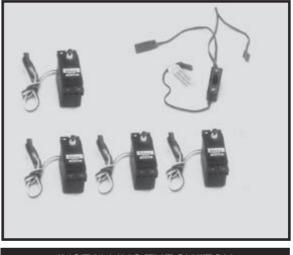


#### INSTALLING THE FUSELAGE SERVOS

#### PARTS REQUIRED

- Standard size servos
- {1} Receiver switch harness

{3}



#### INSTALLING THE SWITCH

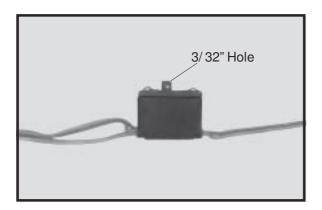
○ 1) Install the switch into the precut hole in the servo tray, in the fuselage, from the bottom. Use the two screws provided with the switch to secure it in place. Drill two 3/32" holes through the tray for the screws to pass through.



 $\Rightarrow$  2) Using a 3/32" drill bit, drill a hole through the side of the fuselage, opposite the muffler, even with the switch.

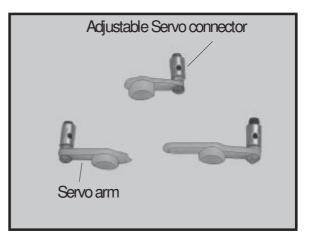
 $\Rightarrow$  3) Make a push-pull lever out of scrap wire. Attach the wire to the switch lever and route the wire out the side of the fuselage, through the hole you drilled.

Some switches come with a hole drilled through the switch tab for this very purpose. If your switch does not, remove the switch and drill a 3/32" hole through the middle of the switch tab.



↔ 4 ) Install the rubber grommets and brass collets onto the elevator, rudder and throttle servos. Test fit the servos into the preinstalled servo tray. Because the size of servos differ, you may need to adjust the size of the precut openings in the tray.

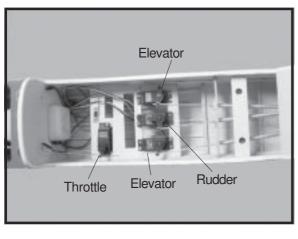
 $\Rightarrow$  5) Position the servos into the servo tray with the output shafts orientated as shown below. Drill 1/16" pilot holes through the tray for each of the mounting screws.  $\Rightarrow$  6) Install adjustable servo connector in the servo arm.



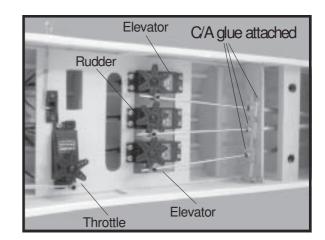
○ 7) Connect the elevator, rudder and throttle servos to your radio's receiver and turn on the system. Set the trim tabs on the transmitter to neutral and center the servo arms. The elevator, rudder and throttle servo arms should be perpendicular to the servos.

∞ 8) One at a time, hold the pushrods in position over the respective servos to check for proper servo direction. If any servo turns in the wrong direction, switch your radio's reversing switches as necessary to achieve the correct direction.

⇒ 9) Install servos arm to servos. Notice the position of the servo arms on the servos. See picture as below.







#### INSTALLING THE RECEIVER AND BATTERY

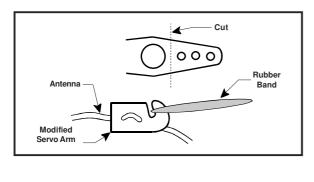
1) Plug the five servo leads and the switch lead into the receiver. Plug the battery pack lead into the switch also.

○ 2) Wrap the receiver and battery pack in the protective foam rubber to protect them from vibration

S)Position the battery pack in the fuel tank compartment and the receiver just behind the fuel tank . Use extra foam pieces to hold them in position.

When balancing the airplane you may need to move the battery or receiver forward or after to achieve proper balance.

↔ 4) Using a 1/16" drill bit, drill a hole through the side of the fuselage, near the receiver, for the antenna to exit. Route the antenna out of the fuselage and secure it to the vertical stabilizer using a rubber band and a modified servo arm. See picture as below.

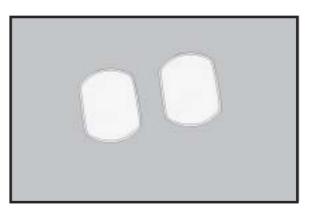


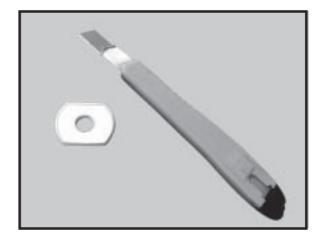
#### **BELLY PAN INSTALLATION**

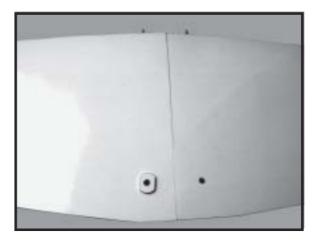
✤ 1) Bolt the wing to fuselage.

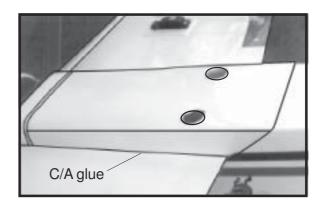
∞ 2) Place the belly pan into its positon under the wing centre section, Trim where necessary, marking sure it aligns with the wing and fuselage.

S) Remove the covering where the belly pan contacts the wing. Do not cut into the wing when removing the covering. Glue into position onto the wing with C/A glue.







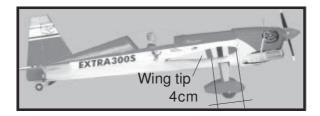




#### BALANCING

○ 1) It is critical that your airplane be balanced correctly. Improper balance will cause your plane to lose control and crash. The center of gravity is located 4cm back from the leading edge of the wing, measured at the wing tip.

∞ 2) If the nose of the plane falls, the plane is nose heavy. To correct this first move the battery pack further back in the fuselage. If this is not possible or does not correct it, stick small amounts of lead weight on the fuselage sides under the horizontal stabilizer. If the tail of the plane falls, the plane is tail heavy. To correct this, move the battery and receiver forward or if this is not possible, stick weight onto the firewall or use a brass heavy hub spinner hub. When balanced correctly, the airplane should sit level or slightly nose down when you lift it up with your fingers.



#### CONTROL THROWS

Solution ⇒ 1) We highly recommend setting up the EXTRA 300S using the control throws listed at right. We have listed control throws for both initial test/sport flying and aerobatic flying.

 $\Rightarrow$  2) Turn on the radio system, and with the trim tabs on the transmitter in neutral, center the control surfaces by making adjustments to the clevises or adjustable servo connectors. The servo arms should be centered also.



S) When the elevator, rudder and aileron control surfaces are centered, use a ruler and check the amount of the control throw in each surface. The control throws should be measured at the widest point of each surface!

INITIAL FLYING/SPORT FLYING	
Ailerons : Elevator : Rudder :	3/16" up 3/16" down 3/8" up 3/8" down 3/4 right 3/4 left
<b>AEROBATIC FLYING</b>	
Ailerons : Elevator : Rudder :	3/8" up 3/8" down 7/8" up 7/8" down 1-1/4" right 1-1/4" left
Do not use the aerobatic settings for initial test flying or sport flying.	

↔ 4) By moving the position of the adjustable control horn out from the control surface, you will decrease the amount of throw of that control surface. Moving the adjustable control horn toward the control surface will increase the amount of throw.

#### FLIGHT PREPARATION

Check the operation and direction of the elevator, rudder, ailerons and throttle.

A) Plug in your radio system per the manufacturer's instructions and turn everything on.

○ B) Check the elevator first. Pull back on the elevator stick. The elevator halves should move up. If it they do not, flip the servo reversing switch on your transmitter to change the direction.

○ C) Check the rudder. Looking from behind the airplane, move the rudder stick to the right. The rudder should move to the right. If it does not, flip the servo reversing switch on your transmitter to change the direction.

∞ D) Check the throttle. Moving the throttle stick forward should open the carburetor barrel. If it does not, flip the servo reversing switch on your transmitter to change the direction.

∞ E) From behind the airplane, look at the aileron on the right wing half. Move the aileron stick to the right. The right aileron should move up and the other aileron should move down. If it does not, flip the servo reversing switch on your transmitter to change the direction.

#### PREFLIGHT CHECK

1) Completely charge your transmitter and receiver batteries before your first day of flying.

2) Check every bolt and every glue joint in the **EXTRA 300S** to ensure that everything is tight and well bonded.

3) Double check the balance of the airplane. Do this with the fuel tank empty.

4) Check the control surfaces. All should move in the correct direction and not bind in any way.

5) If your radio transmitter is equipped with dual rate switches double check that they are on the low rate setting for your first few flights.

6) Check to ensure the control surfaces are moving the proper amount for both low and high rate settings.

7) Check the receiver antenna. It should be fully extended and not coiled up inside the fuselage.

8) Properly balance the propeller. An out of balance propeller will cause excessive vibration which could lead to engine and/or airframe failure.

# We wish you many safe and enjoyable flights with your EXTRA300S.







# Hand-made Almost Ready to Fly R/C Model Aircraft

## ASSEMBLY MANUAL



# FACTORY BUILT MODEL





#### Kit features

- Ready-made—minimal assembly & finishing required.
- Ready-covered—including decals, trim & covering.
- Factory-installed pushrods.
- Factory-installed metal engine mount.
- Factory-pinned & glued control surface hinges for ultimate safety.
- Comprehensive hardware pack including wheels, tank, spats, undercarriage& spinner.
- Photo-illustrated step-by-step Assembly Manual.

#### WARNING

•This aicraft has been designed for intermediate level flyers. First time pilot should be a experienced flyer (proficient pilot).

•This aicraft is desgined to be powered a 2 stroke .46 engine or a 4 stroke .53 engine. Installation of engines other it could to lead a seious accident or damage t property.

Made in Vietnam.

