

# ASSEMBLY MANUAL



## SIG

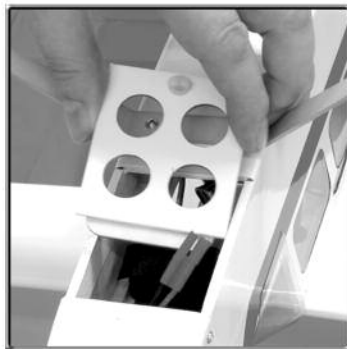
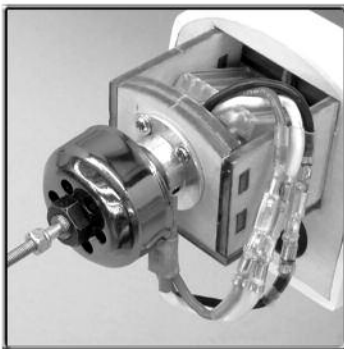
# KADET EP-42B

## ***ALMOST READY TO FLY***

### ***Brushless Electric Power R/C Trainer***



**KIT NO. SIGRC104ARF**



**Wingspan:** 42 in. (1067 mm)  
**Wing Area:** 330 sq.in. (21.3 dm<sup>2</sup>)  
**Length:** 34 in. (864 mm)  
**Flying Weight:** 24 - 26 oz. (680 - 737 g)  
**Wing Loading:** 11.7 - 12.7 oz./sq.ft. (36 - 39 g/dm<sup>2</sup>)  
**Radio Req.:** 4 Channel, Micro Receiver,  
4 Micro Servos

# SIG MFG. CO., INC.

PO Box 520 Montezuma, IA 50171-0520

[www.sigmfg.com](http://www.sigmfg.com)

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using the directions in this assembly manual.

**ESC ELECTRONIC SPEED CONTROL (supplied):** An 18 amp Brushless type Electronic Speed Control is included. This ESC is completely factory wired with exception of the battery connector leads.

**PROPELLER (supplied):** A SIG 8-1/2 x 8 EP propeller is furnished with this model. This propeller provides excellent flight performance throughout the model's flight envelope.

**BATTERY PACK (not supplied):** The included motor/ESC combination is designed to use 3-cell Lithium Polymer (LiPo) battery packs in the 900 - 1400 mAh capacities. Properly charged, these packs deliver excellent power and duration for the KADET EP-42B.

**NOTE:** *Be aware that as battery pack sizes go up in capacity, so does their weight. In turn, this can effect the recommended Center of Gravity location for this model. Use the pack size and capacity that best suits the model in terms of the C.G. location. See the "Balance Your Airplane" section of this manual for more details.*

**BATTERY CHARGER (not supplied): FOR MAXIMUM SAFETY AND PERFORMANCE, YOU MUST ONLY USE A BATTERY CHARGER DESIGNED SPECIFICALLY FOR CHARGING LITHIUM POLYMER BATTERIES!**

Most modern Lithium Polymer battery chargers additionally include the capability of "balancing" the available voltage from the cells, ensuring that the battery pack is at peak capacity at the end of the charge cycle. This translates to better flight times and a longer life from the battery pack.

**RADIO EQUIPMENT:**

The KADET EP-42B gets its great flight performance from many factors, but two of the most important factors are its lightweight and generous wing area. The lighter the final weight is, the better this airplane will fly! Since this model is factory built and covered, you can only realistically control the finished, ready-to-fly weight by choosing the most appropriate radio equipment for a model of this size. In short, the flight performance of your KADET EP-42B will be directly controlled by the weight of the radio equipment you choose to put in it. Maximum performance can only be achieved with lightweight components.

**RECEIVER:** A small or "micro" size receiver should be used in this model due to weight and size constraints. In our flight tests of the KADET EP-42B, we have used the following dual conversion receivers:

<u>Receiver</u>	<u>Weight</u>
FMA M5	11 grams
Hitec Electron 6	19 grams

**NOTE:** *Single conversion receivers can also be used as long as you are aware of the potential for interference from other transmitters.*

**SERVOS:** Standard servos, the ones that come with most sport radio systems, are too big and too heavy for the KADET EP-42B. You will need smaller servos. In our flight tests of the KADET EP-42B, we have used the following servos:

<u>Servo</u>	<u>Weight</u>	<u>Torque</u>
Hitec HS-55	7.9 grams	15 in/oz
Airtronics 94091	9.0 grams	18 in/oz

**NOTE:** *Any other brand of servo that is in the same size and torque range will also work just fine.*

**INTRODUCTION:**

Congratulations on your purchase of the SIG KADET EP-42B. The KADET EP-42B is the latest addition to the long line of legendary SIG KADET trainers. Did you know that the first SIG KADET was introduced in 1973! Since that time, thousands upon thousands of student pilots have successfully learned to fly R/C with a SIG KADET. Even expert pilots enjoy flying a SIG KADET now and then for an easygoing change of pace. Flying low and slow on a dead calm summer evening provides a satisfaction that can't be matched with other types of models.

The KADET EP-42B represents a major milestone in the history of SIG KADETS. This is the first ever electric powered SIG KADET kit! This blending of the legendary KADET flying characteristics with a state-of-the-art brushless electric power system has produced a marvelous little R/C ship, that is a pure joy to fly. It's small enough to carry around in your vehicle completely assembled and ready to fly almost anywhere, anytime! Unlike most other small electric powered models, the KADET EP-42B has a light wing loading - light enough to make you forget that you are flying an electric airplane. That overweight, heavy, afraid-to-slow-it-down feeling you may have experienced with other electric airplanes is gone!

Assembly of your SIG KADET EP-42B ARF is fast and simple when following the detailed instructions in this manual. A low parts count and professional engineering ensure quick and easy assembly. All parts are CAD-drawn, laser-cut, and jig assembled, which means that everything fits the way it should! We urge you to read this instruction manual completely before starting assembly, to familiarize yourself with the parts and the assembly sequence.

**AN IMPORTANT NOTE ABOUT LEARNING TO FLY R/C**

*The KADET EP-42B ARF is certainly a suitable model for learning to fly R/C. However, it is important to understand that if you have never flown an R/C airplane before, you will need to find and use a qualified R/C flight instructor. The instructor should make the first test flight of the new airplane, to make sure it "trims out" to fly properly. After that, he can teach you how to fly the airplane. Without an instructor, your chance of a successful first R/C flight is less than 1 in 1000. You will most likely crash and destroy your new airplane! With a qualified instructor, your chance of learning to fly R/C is nearly 100%. So, if this is your first radio control model airplane, DO NOT attempt to fly it without a qualified instructor. It's the fastest, most efficient way to become a good R/C pilot. And you'll make a new R/C flying buddy.*

**ELECTRIC POWER SYSTEM:**

**MOTOR (supplied):** Your KADET EP-42B comes with a powerful 90-watt brushless motor, ready to easily and quickly install

**SERVO CHORDS:** You will need one Y-Harness Chord to connect the two aileron servos together. This allows you to operate both aileron servos off of one receiver lead. Every radio manufacturer has Y-Harness Chords available for their radio systems. Also, depending on exactly how long the wires are on your aileron servos, you will most likely need two 6" Servo Extension Chords to give you enough wire length to run through the wing.

**NOTE:** In our prototype installations, we leave the single end of the Y-harness plugged into the receiver permanently, and then, unplug the two aileron servo extension chords from the Y-harness when we remove the wing from the airplane.

**COVERING MATERIAL:**

Your KADET EP-42B is covered with ORACOVER®, a premium quality covering made in Germany, and sold in the U.S. by Hanger-9 as Ultracote®.

Colors Used On Your Airplane

- ORACOVER® #10 White (Ultracote #HANU870) and
- ORACOVER® #29 Transparent Red (Ultracote #HANU950)
- or
- ORACOVER® #59 Transparent Blue (Ultracote #HANU954)

**Wrinkles!** After you remove the covered model parts from their plastic bags, you may notice within the first couple days that some of the covering material may become slack or wrinkled. If that's the case, there is no need to be alarmed. The covering is not defective! Your KADET EP-42B was covered in a part of the world that has consistently high humidity, and some of that moisture is retained in the balsa wood when the parts were put in the bags. When exposed to drier air, the wood loses the excess moisture, dimensionally shrinking slightly in the process. This may cause some slight relaxing of the covering, causing wrinkles to appear.

Any wrinkles that appear in the covering are easy to remove by applying a little heat from a small modeler's heat iron. Because of this model's small size, we do not recommend using a heat gun to tighten up loose covering. A typical hobby type covering iron will work just fine. Even better is a small modeler's "trim seal" iron, which is perfect for controlling the heat applied to a specific area. Using a small trim iron also minimizes the possibility of warping the thin control surface parts.

**Recommended Temperatures:**

- To adhere the covering - 220°F - 250°F (104°C - 121°C)**
- To shrink the covering - 300°F - 320°F (149°C - 160°C)**



First, use the hot iron to go over all the seams and color joints in the covering, making sure they are all sealed down and well adhered. Then, hold the hot iron over the wrinkle to lightly shrink the material - do not press on it. Once the covering is tight, lightly iron it back down to the wood. Use caution whenever the hot iron gets close to a seam in the covering. Over-heating a seam can cause the covering to creep, exposing the wood underneath. Also, be careful when working around the windshield and side windows

- too much heat will distort this clear plastic material.

**REQUIRED TOOLS:**

For proper assembly, we suggest you have the following tools and materials available:



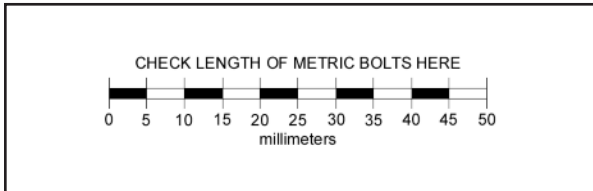
- A selection of glues - thin, medium, and thick SIG CA, and SIG Epoxy Glue (5-minute and 30-minute)
- Fine point CA applicator tips
- Screwdrivers
- Pliers - Needle Nose and Flat Nose
- Wire Cutters
- Soldering Iron & Flux
- Drill with Assorted Drill Bits
- 1.5 mm Hex Wrench or Ball Driver
- Pin Vise for small diameter drill bits
- Small T-Pins
- Sandpaper
- Hobby Knife with sharp #11 blades
- Scissors
- Covering Iron and Trim Seal Tool
- Paper Towels
- Rubbing Alcohol (for cleaning off excess epoxy glue)

**KIT INVENTORY:**

The following is a complete list of all parts contained in this kit. Before beginning assembly, we suggest that you take the time to inventory the parts in your kit.

- 1 bag  (1) Fuselage, with Electric Motor installed  
Molded Plastic Cowling installed  
Clear Plastic Windshield installed  
Clear Plastic Side Windows installed
- 1 bag  (1) Right Wing Panel
- (1) Right Aileron with 3 CA Hinges, installed but not glued
- 1 bag  (1) Left Wing Panel
- Left Aileron with 3 CA Hinges, installed but not glued
- 1 bag  (1) Fin & Rudder with 3 CA Hinges, installed but not glued
- 1 bag  (1) Stabilizer & Elevator with 4 CA Hinges, installed but not glued
- 1 bag  (1) Aluminum Main Landing Gear
- (2) Main Wheels
- (2) M3 x 20 mm Axle Bolts
- (2) M3 Hex Nuts
- (2) M3 Lock Nuts
- (2) M2.6 x 10 mm Screws
- 1 bag  (2) Aileron Pushrod Wires (short)
- (1) Elevator Pushrod Wire (long)
- (1) Rudder Pushrod Wire (long)
- 1 bag  (2) 4-40 x 1" Nylon Wing Bolts
- (4) Nylon Control Horns
- (4) Nylon Pushrod Keepers

- (1) Strip of White Covering Material
  - (1) 3/4" x 1-3/4" Velcro® Tape
  - (1) Plywood Wing Joiner - 3 mm
  - (7) T2 x 6 mm PWA Screws - Cowl & Motor Mounting
  - 1 bag  (1) 8-1/2 x 8 SIG EP Propeller
  - 1 box  (1) RCS Simplex Brushless Motor &
  - (1) Electric Speed Controller
  - (1) 1" Diameter Rubber Spinner
  - (1) Hardware Bag\* with
    - 2 each 3.5 mm Lock Nuts
    - 1 each 10 mm Diameter Washer
- (\*Note that the additional hardware in this bag will not be used)



**NOTE:** In this manual, any references to right or left, refer to your right or left as if you were seated in the cockpit of the airplane.

### WING ASSEMBLY:

From the kit contents locate the right and left wing panels and the plywood wing joiner. You will also need epoxy glue, epoxy mixing supplies, paper towels, and rubbing alcohol.

- 1) For maximum strength, we recommend using SIG Epoxy Glue for joining the wing panels in this step.
  - a) Trial fit both wing panels together, without glue, on the plywood wing joiner to familiarize yourself with the assembly. Then, take back apart.
  - b) Mix up a small amount of epoxy glue. Use a wire or stick to quickly coat the inside of the wing joiner slot in the end of the right wing panel. Also, coat the right half of the plywood wing joiner with glue. Push the plywood wing joiner all the way into the slot in the right wing panel. Hold the wing joiner in place until the glue dries, wiping off any excess glue that oozes out of the joint.

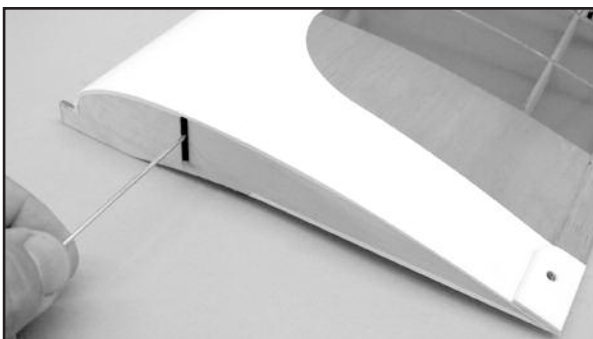
the inside of the slot in the end of the left wing panel with glue. Also, coat the stub of the plywood wing joiner, that is sticking out of the right wing panel, and the bare wood end ribs of both wing panels. Then, put the wing panels together. Squeeze the panels tightly together, aligning the leading and trailing edges of the wing panels with each other. Wipe off any excess glue that oozes out of the joint with a paper towel soaked in rubbing alcohol. Hold or tape the wing panels in proper position until dry.

**NOTE:** If possible, get someone to help you with this step. An extra set of hands makes the job much easier. While one person holds the two wing panels together in correct alignment, the other person can clean off the excess glue and tape the wing panels tightly together.

- 2) **Optional Step:** A 3/8" wide strip of white covering material is supplied to cover the center joint of the wing panels. Remove the clear backing from the covering, and then, iron the strip in place. This covering strip has no structural purpose, it simply gives the wing a more finished look.



- 3) Test fit the assembled wing onto the fuselage. The plywood tab that sticks out from the center leading edge of the wing fits into a cutout in the front fuselage former. Make sure the wing slides the entire way forward, snug against the back of the fuselage former. At the rear, align the wing with the fuselage, and then, use the two 4-40 x 1" nylon wing bolts to secure the wing in place on the fuselage. After checking the fit, remove the wing for the next step.



- c) Mix up a batch of epoxy glue. Use a wire or stick to coat 4

□ 4) As received, the ailerons are only temporarily attached to the wing with unglued CA hinges in the pre-cut slots. In this step, we will glue the aileron hinges permanently in place.

- a) Working on one aileron at a time, first push the aileron up firmly against the back of the wing. Check to make sure the aileron is centered in the wing opening. Next, set the proper amount of gap between the aileron and the wing by deflecting the aileron about 45° each way. This will automatically set the proper hinge gap. Keep in mind that for best control response the gap should be as small as possible, but big enough to allow full movement of the aileron. Make sure everything is functioning properly before proceeding to the next step.
- b) With a fine applicator tip on your glue bottle, carefully place 2-3 drops of Thin CA glue directly onto the hinge in the gap. You will notice that the glue wicks into the wood and the hinge. Quickly turn the part over and apply 2-3 drops of glue to the other side of the hinge. Continue this process until you have glued both sides of all the aileron hinges. Keep a rag handy to wipe off any excess Thin CA glue. (If you get some glue smears on the plastic covering, don't worry about them right now. Once all the hinges are glued, you can go back to clean the smears off with a little CA Debonder on a rag or paper towel.
- c) Let the glue dry a minimum of 10 minutes before flexing the hinges. At first, you might notice a little stiffness in the joint. This will go away after the hinges have been flexed back and forth a couple dozen times.
- d) Repeat steps a, b, and c to hinge the other aileron.



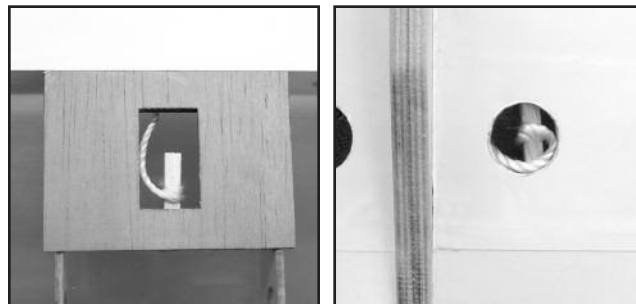
**VERY IMPORTANT:** It's critical that you only make one application of glue to each side of a CA hinge. If you apply additional glue to the hinge after the first application of glue is already dry, the second application of glue will merely puddle in the hinge gap and make the hinge too stiff to operate properly. The excess glue can also weaken the hinge! When properly glued, the portion of the hinge that you see in the hinge gap should have a dry appearance, not wet. A dry appearance indicates that almost all of the glue has properly soaked into the hinge and wood. A wet appearance indicates that excess glue is puddled in the hinge gap. Excess glue can become brittle with age and cut the hinge. Also, NEVER USE CA ACCELERATOR (KICKER) ON CA HINGES!

#### **AILERON HOOKUP:**

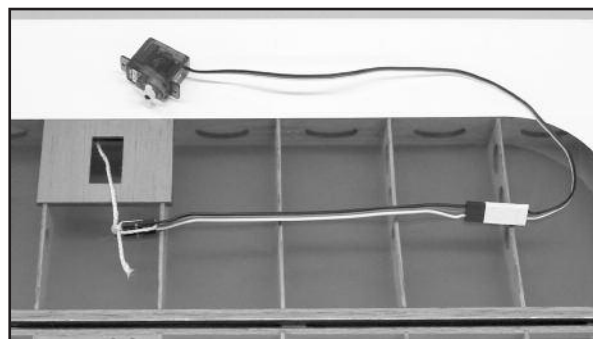
For this section you will need the assembled wing, 2 aileron servos and appropriate chords (see radio notes at beginning of this book), 2 aileron pushrods (the short ones), 2 nylon control horns, and 2 nylon pushrod keepers.

□ 5) Looking into the aileron servo mount opening in the bottom of the wing, you will find a short length of scrap wood with a string tied to it. The other end of this string is tied to another piece of

scrap wood in the round hole near the center of the wing. This string is used to pull the aileron servo chord through the wing, from the servo mount towards the center section, in the following steps.



- a) Working on one aileron at a time, plug a 6" servo extension chord onto the end of your aileron servo wire. Secure this connection with a piece of plastic tape.
- b) With a needle nose pliers, grip hold of the scrap wood in the servo mount opening. Gently break the wood loose from the wing structure, and then pull the wood and string a couple inches out of the opening. Untie the string from the wood piece, and re-tie it securely to the end of your aileron servo chord.

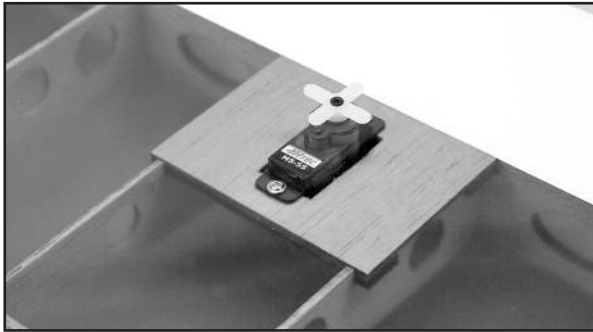


- c) Now break loose the other end of the string at the center of the wing, and carefully begin pulling the end of the aileron chord down into the servo mount opening and through the wing. You will encounter obstructions as the servo plug bumps into the rib structure inside the wing. When you do, don't pull too hard on the string! You will find that by gently tugging back and forth alternately on the string at the center and then on the servo chord at the opening, that you can eventually work the plug past the obstructions. Keep feeding the servo chord through the wing until the end plug comes out the hole at the center of the wing. Remove the string from the end of the servo chord and use a piece of tape to hold the chord to the wing for now (so it can't fall back in the hole).

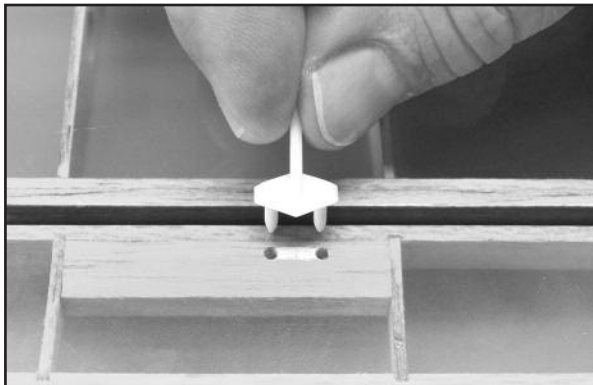


- d) Mount the aileron servo in the wing, using the screws that came with the servo.

- e) Repeat these steps to install the other aileron servo in the other wing panel.



- 6) Note that there are two holes pre-drilled in the bottom of the aileron, under the covering material, for the control horn mounting. Puncture the covering material directly over these two holes to accept the two "pegs" of the control horn. Use a sharp knife to remove the small strip of covering material between the two holes. Then, glue the nylon control horn in place using thick CA glue. Apply a small amount of glue to the two pegs and a small amount of glue to the bottom of the control horn base itself. With the three small holes in the control horn facing forward, firmly press the horn into the two pre-drilled holes in the aileron, until the base bottoms out on the elevator surface. If any glue oozes out onto the covering, it can be easily removed with SIG CA Debonder.

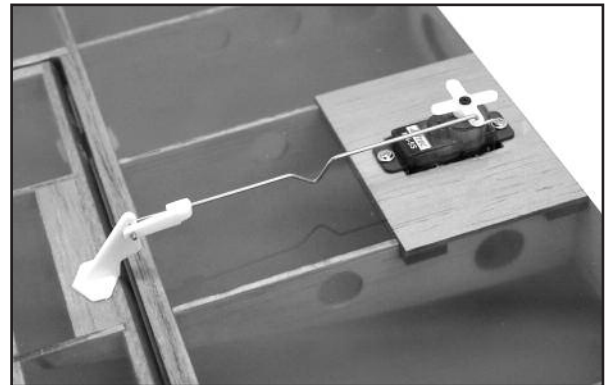


- 7) In preparation for installing the aileron pushrods, center the aileron servo output arms in neutral position. Also, secure the ailerons in neutral position with small pieces of tape.
- Working on one aileron at a time, slide one of the nylon pushrod keepers over the plain unbent end of the aileron pushrod wire.
  - Insert the Z-bend end of the aileron pushrod wire into the outermost hole of the servo output arm (if the holes in your servo arm are too small for the wire, drill out the holes with a #60 or 3/64" dia. drill bit).
  - Hold the pushrod wire against the side of the nylon control horn and use a fine tip pen to mark the exact position of the



control horn hole on the wire. **NOTE:** The wire will be installed in the 2nd hole from the end of the horn.

- Use a pair of pliers to grasp the pushrod wire at the mark just made, and then bend the plain end of the wire 90° towards the center of the wing. Make the bend as sharp as possible.
- The excess length of pushrod wire can now be cutoff, leaving a 3/16" end leg to pass through the control horn hole. Use a good sharp pair of wire cutters to do this. Clean off any burrs on the end of the wire, caused by the cutting.
- Insert the bent end of the pushrod wire into the hole in the control horn. Slide the nylon pushrod keeper up to the control horn and snap its tab end over the exposed wire on the opposite side of the control horn.
- Remove the pieces of tape holding the aileron in neutral position.
- Repeat these steps to bend and install the other aileron pushrod on the other side of the wing.

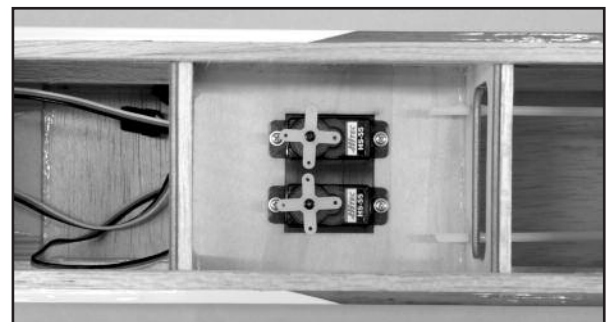


**NOTE:** Later, when you turn on your full radio system for the first time, you may find that the length of the aileron pushrod wires did not come out exactly perfect, leaving the ailerons slightly out of neutral position. If so, you can make small corrections to the overall pushrod length by slight tweaking of the V-shaped adjustment bend that is provided in the middle of the pushrod wire.

#### FUSELAGE:

For this section, you will need the fuselage, the elevator pushrod wire, the rudder pushrod wire, and 2 servos.

- Remove the Battery Hatch from the bottom of the fuselage in preparation for mounting the elevator and rudder servos. Note that there is a molded plastic latch built into the front of the hatch. Simply turn the plastic latch 90° and remove the hatch.
- Mount the elevator and rudder servos in the fuselage, using the screws that came with the servos.
  - Begin by positioning the servos in place in the plywood servo tray built into the fuselage. Note in the picture that the servos should be located out against the sides of the

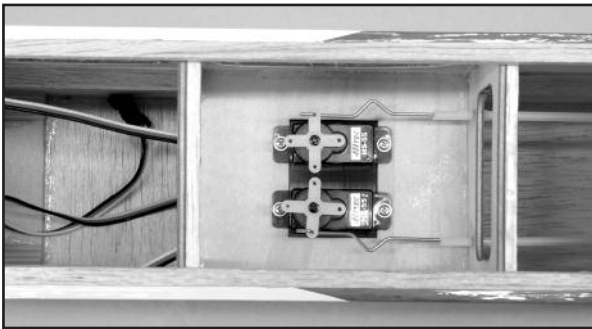


opening in the plywood tray, so that the ends of the servo arms line up with the plastic pushrod tubes already installed in the fuselage.

- b) Once you have the servos correctly positioned, drill small pilot holes through the plywood for each servo mounting screw - we used a small pin vise and a .040" (#60) drill bit to make these pilot holes. Then, use a small screwdriver to install the servo mounting screws.

□ 10) Determine which of the long pre-bent pushrod wires is for the elevator (right side) and which is for the rudder (left side). Notice in the next picture that the Z-bend in the end of the pushrod will be installed up through the bottom of the servo arm and that the V-shaped adjustment bend goes towards the outside of the fuselage. Using these two criteria, you can determine which pushrod is for the elevator and which is for the rudder. Once you've got them properly identified, slide the pushrod wires inside the appropriate plastic pushrod tubes in the fuselage.

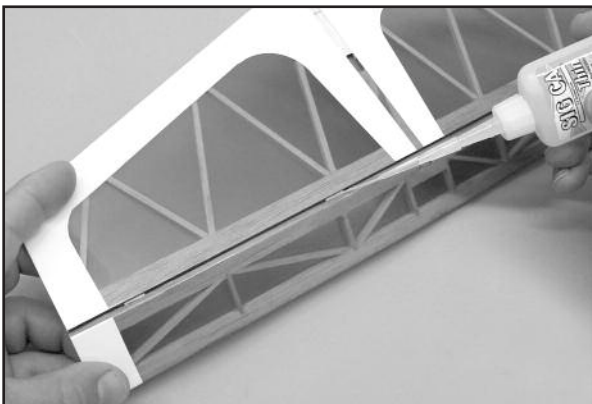
□ 11) Remove the servo arms from the servos. Install the servo arms on the Z-bend ends of the pushrod wires (if the holes in your servo arm are too small for the wire, drill out the holes with a #60 or 3/64" dia. drill bit). Then, reinstall the servo arms back onto the servos - do not tighten the servo arm screws completely yet because the arms may have to be repositioned when the radio system is tested and centered.



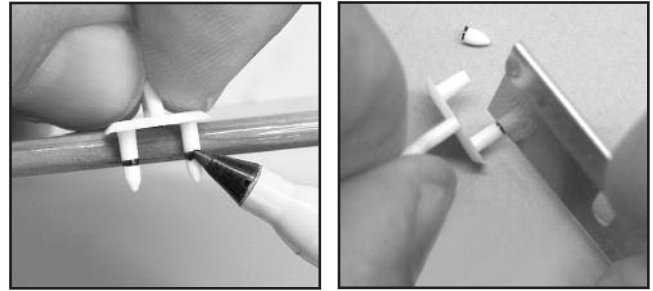
**TAIL SURFACES:**

For this section you will need the horizontal stabilizer/elevator assembly, the vertical fin/rudder assembly, and 2 nylon control horns.

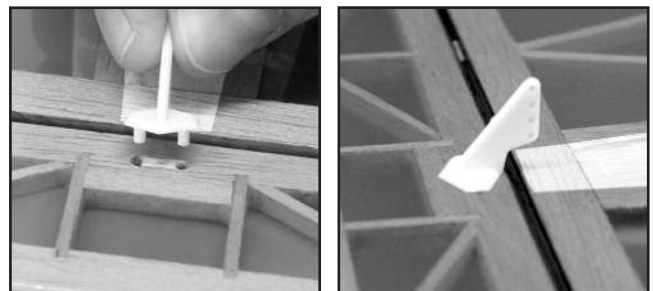
□ 12) As received, the elevator is only temporarily attached to the stabilizer with 4 unglued CA hinges in the pre-cut slots. Refer back to page 3, step 4 of this manual for instructions on gluing CA hinges and use the same procedures described there to glue the elevator hinges permanently in place. Let the glue dry a minimum of 10 minutes before flexing the hinges.



□ 13) Hold one of the white plastic control horns up against the edge of the elevator. Use a fine tip pen to mark the two pegs on the base of the control horn for cutting off just below the top covering of the elevator. Then, use a sharp razor blade or hobby knife to cut off the pegs at the marks.

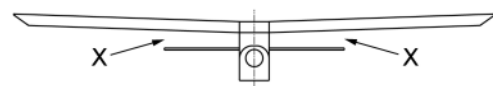


□ 14) Note that there are two holes pre-drilled in the center of the elevator, under the covering material, for the control horn mounting. Puncture the covering material directly over these two holes, on the BOTTOM of the elevator only, to accept the two "pegs" of the control horn. Use a sharp knife to remove the small strip of covering material between the two holes. Then, glue the nylon control horn in place on the BOTTOM of the elevator, using thick CA glue. Apply a small amount of glue to the two pegs and a small amount of glue to the bottom of the control horn base itself. With the three small holes in the control horn facing forward, firmly press the horn into the two pre-drilled holes in the elevator, until the base bottoms out on the elevator surface. If any glue oozes out onto the covering, it can be easily removed with SIG CA Debonder.



□ 15) Next, the horizontal stabilizer/elevator assembly is glued permanently onto the fuselage. To allow enough time to properly align the stabilizer, we recommend using slow drying SIG Epoxy Glue for this step.

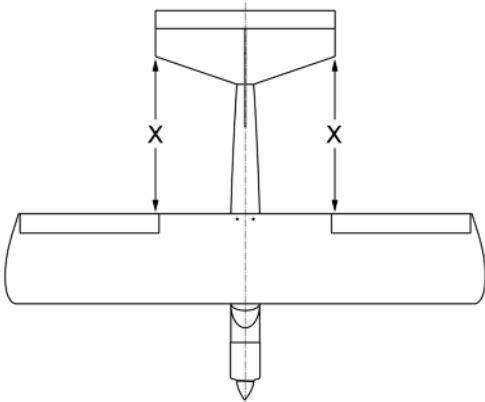
- a) Begin by first mounting the wing to the fuselage using the provided 4-40 x 1" nylon wing bolts. Place the model on a flat surface that lets you view it directly from the front.
- b) Set the stabilizer in place on the fuselage. Use a small weight or pins to hold the stabilizer in position. View the model from the front to see if the stabilizer is properly aligned with the wing and fuselage, without tilting to one side or the other. If necessary, take the stabilizer back off



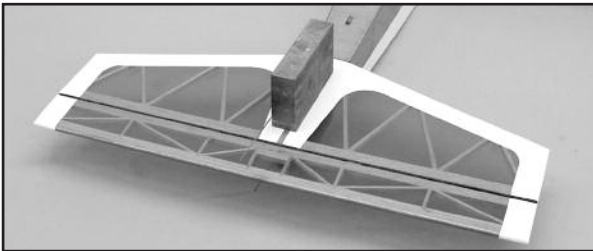
and make slight adjustments to the fuselage where the stabilizer sits, with a sanding block, until the stabilizer will sit level.

- c) Remove the stabilizer. Mix a small amount of epoxy glue and apply it to the mating surfaces of the fuselage and

bottom of the stabilizer. Carefully place the stabilizer back on the fuselage. Again, use a small weight or pins to hold it in position. Make sure the stabilizer is square with the fuselage by measuring from the trailing edge of the wing



back to the leading edge of the stabilizer, on both sides. Shift the stabilizer slightly if necessary until both measurements are the same. Wipe off any excess glue using a paper towel or rag soaked in rubbing alcohol. Allow the glue to dry.



□ 16) As received, the rudder is only temporarily attached to the fin with 3 unglued CA hinges in the pre-cut slots. Refer back to page 3, step 4 of this manual for instructions on gluing CA hinges and use the same procedures described there to glue the elevator hinges permanently in place. Let the glue dry a minimum of 10 minutes before flexing the hinges

□ 17) Mount a nylon control horn on the LEFT SIDE of the rudder. Refer back to steps 13 and 14, where we cut off the pegs of a control horn and then, glued the horn to the elevator - use the same steps to prepare and install the control horn for the left side of the rudder.

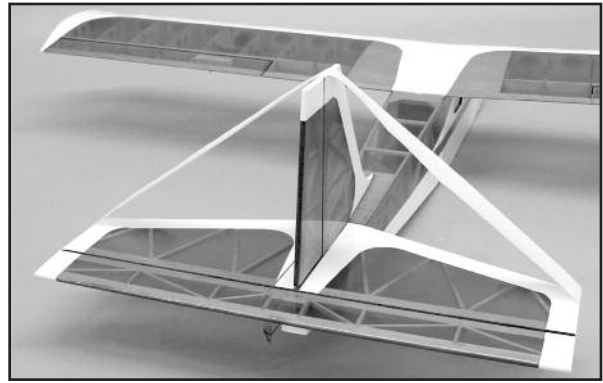
□ 18) The fin and rudder assembly is now glued in place on top of the stabilizer and fuselage, again using SIG Epoxy Glue.

- a) First, trial fit the fin/rudder in place, without any glue. If needed, make adjustments to the bottom of the fin to allow full contact with the top of the stabilizer and the fuselage.
- b) Mix a small amount of glue and apply it to the bottom edge of the fin and to the sides of the fin leading and trailing edge stubs. Carefully set the fin/rudder assembly in place on the fuselage. Make sure that the fin is 90° to the horizontal stabilizer. Use low-tack masking tape to hold the fin in correct position. Wipe off any excess epoxy using alcohol and paper towel. Let the glue dry.

(see photo at top of next column)

□ 19) Now, we complete the aft end of the rudder pushrod. Start by centering the rudder servo output arm in neutral position. Use a small piece of tape to hold the rudder in neutral position.

- a) Slide one of the nylon pushrod keepers over the aft end of



the rudder pushrod wire.

- b) Hold the rudder pushrod wire against the side of the nylon control horn and use a fine tip pen to mark the exact position of the control horn hole on the wire. **NOTE:** The wire will be installed in the 2nd hole from the end of the horn.

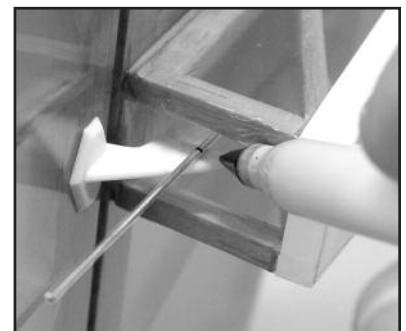


- c) Use a pair of pliers to firmly grasp the pushrod wire at the mark just made, and then bend the plain end of the wire 90° UPWARDS. Make the bend as sharp as possible.
- d) The excess length of pushrod wire can now be cutoff, leaving a 3/16" end leg to pass through the control horn hole. Use a good sharp pair of wire cutters to do this.
- e) Insert the bent end of the pushrod wire in the hole in the control horn, from the bottom. Then, slide the nylon pushrod keeper up to the control horn and snap its tab end over the exposed wire.
- f) Remove the tape holding the rudder in neutral position.



□ 20) Now, we complete the aft end of the elevator pushrod. Start by centering the elevator servo output arm in neutral position. Use a small piece of tape to hold the elevator in neutral position.

- a) Slide one of the nylon pushrod keepers over the aft end of the elevator pushrod wire.
- b) Hold the aft end of the elevator pushrod wire against the side of the nylon control horn and use a fine tip pen to mark the exact





position of the control horn hole on the wire. **NOTE:** The wire will be installed in the 2nd hole from the end of the horn.

- c) Temporarily remove the elevator servo output arm from the servo. This will allow you to pull the elevator pushrod farther outside the rear of the fuselage, to make the next step easier to do.
- d) Use a pair of pliers to firmly grasp the pushrod wire at the mark just made. Look inside the fuselage to make sure that the Z-bend end of the pushrod is parallel to the jaws of your pliers. What we're getting ready to do is bend the aft end of the pushrod wire 90° SIDEWAYS to the fuselage - meaning, sideways when the servo arm is re-installed on the servo. If needed, readjust your grip on the wire so that you can bend the wire in the right direction. When ready, bend the aft end of the pushrod wire 90°. Make the bend as sharp as possible.



- e) The excess length of pushrod wire can now be cutoff, leaving a 3/16" end leg to pass through the control horn hole. Use a good sharp pair of wire cutters to do this.
- f) Remove the tape holding the elevator in neutral position.
- g) Insert the bent end of the pushrod wire in the hole in the control horn. Then, slide the nylon pushrod keeper up to the control horn and snap its tab end over the exposed wire.
- h) Re-install the elevator servo arm on the servo.

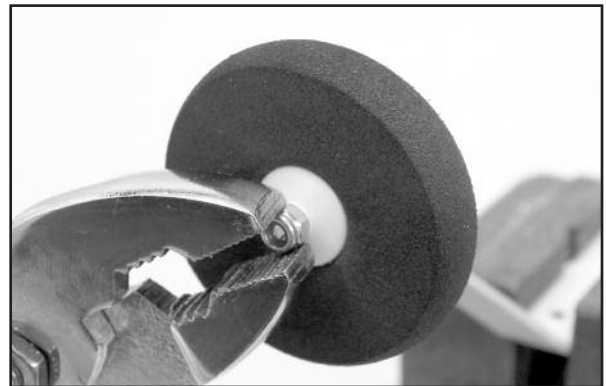


**NOTE:** Later, when you hook up and turn on your full radio system for the first time, you may find that the length of the elevator and rudder pushrods did not come out exactly perfect, leaving the control surface slightly out of neutral position. If so, you can make small corrections to the overall pushrod length by slight tweaking of the "V-shaped adjustment bend" that is near the servo end of the pushrod.

#### LANDING GEAR:

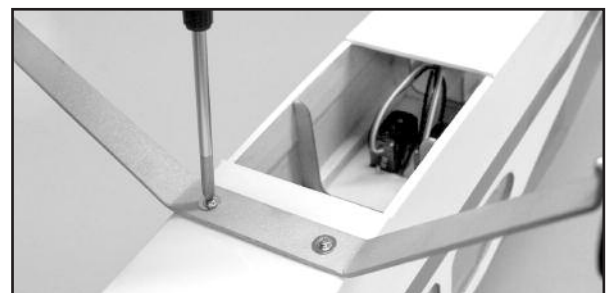
For this section you will need the aluminum landing gear, two main wheels, two M3 x 20 mm axle bolts, two M3 hex nuts, two M3 lock nuts, and two M2.6 x 10 mm screws.

- 21) Install the M3 x 20 mm axle bolts and M3 hex nuts onto the aluminum landing gear legs. Tighten securely. **NOTE:** If you have some Loctite® Thread Locking Compound around your shop, use some here to eliminate any chance of the axles ever coming loose in flight.



- 22) Slip the main wheels onto the axle bolts and then thread on the M3 lock nuts. Screw the lock nuts up close to the wheels, but not actually touching them. Leave a little room so the wheels can turn freely.

- 23) Attach the assembled landing gear to the fuselage bottom using the two M2.6 x 10 mm screws supplied. Notice that two holes are pre-drilled in the bottom of the fuselage at the landing gear location to accept the screws.



#### RADIO INSTALLATION:

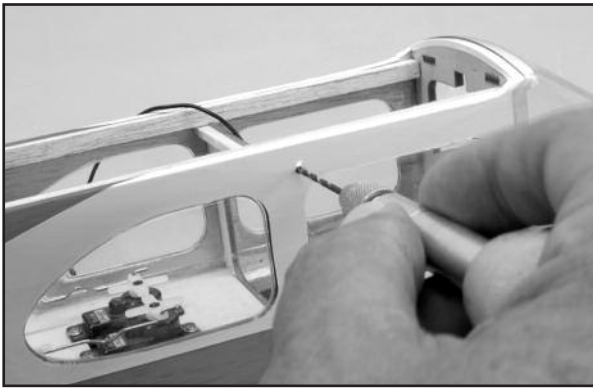
For this section, you will need the piece of Velcro® tape from the kit contents, plus your micro receiver and charged flight battery pack (see notes at the beginning of this manual about receiver and battery specifications).

#### RECEIVER:

- 24) Using a piece of Velcro® tape, mount the receiver directly to the fuselage floor, just ahead of the fuselage former that is in front of the servos.

- 25) Route the receiver antenna out of the fuselage. First, drill

a small hole through the right fuselage side, just below the wing saddle and just in front of the fuselage former separating the servo and receiver compartments. Then, pull the antenna through this hole and extend it back to the tail end of the fuselage.



□ 26) To hold the antenna at the rear of the fuselage, use a pair of needle nose pliers to make a small wire hook with a loop at one end out of a straight pin (not supplied). Glue the hook to the rear of the fuselage, beneath the stabilizer, using a little thick CA. Then, use a small rubber band (not supplied) to cinch the antenna to the wire hook.



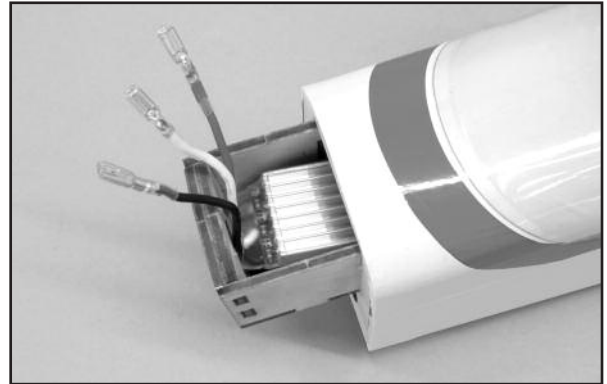
□ 27) Plug the rudder and servo leads into the appropriate receptacles in your receiver. Also, plug the aileron Y-harness into the aileron receptacle in the receiver.

#### ELECTRONIC SPEED CONTROL (ESC) INSTALLATION:

□ 28) The provided RC System 18 amp brushless ESC will now be installed into the plywood box immediately behind the firewall/motor mount, secured with a piece of Velcro® tape. But before the ESC is installed, the positive (red) and negative (black) battery wires must first be prepared with a connector (not included). Good connectors, typically, require soldering of these wires and this requires the use of a soldering iron and flux. For our ESC and battery connectors, we chose to use a Kavan #6321 K-2 connector set. These great little connectors are small, lightweight, and self-polarizing.



- a) Solder a battery connector to the two black (negative) and red (positive) wires on the ESC. Solder the corresponding connector to your flight pack battery.
- b) Note that the ESC is installed into the plywood box with the flight battery connector routed into the battery compartment and the receiver connector routed into the fuselage where the receiver is in place. The three forward motor wires are located toward the front of the fuselage as shown. Attach Velcro® strips to the bottom of the ESC and to the bottom of the ESC tray and press the ESC in place. **NOTE:** DO NOT pad or pack the ESC in foam or plastic. It must be left fully exposed, allowing it to stay cool.

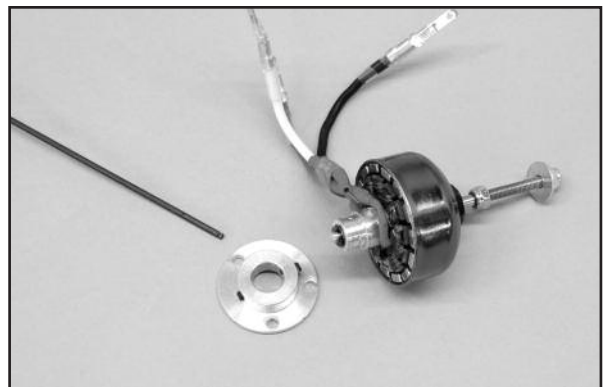
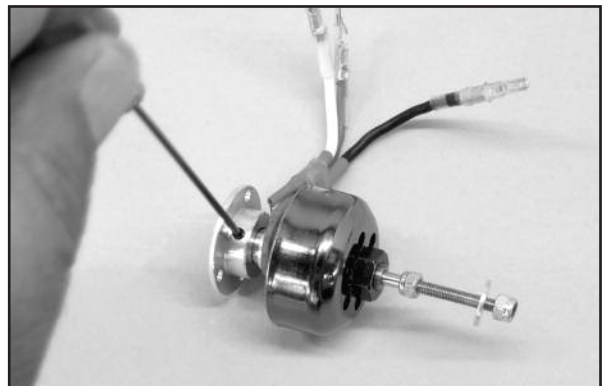


- c) Connect the ESC receiver connector into the appropriate throttle receptacle in the receiver.

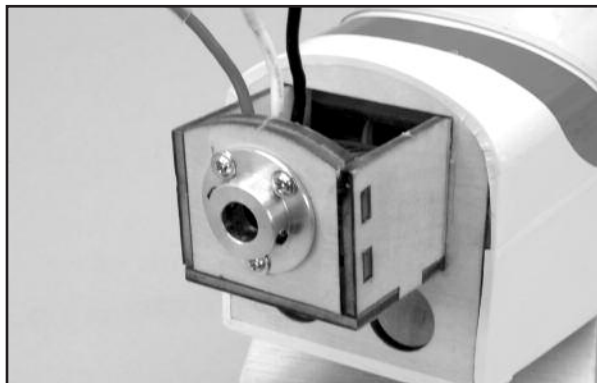
#### MOUNTING THE MOTOR:

□ 29) The brushless motor is now mounted to the firewall/motor mount at the front of the fuselage.

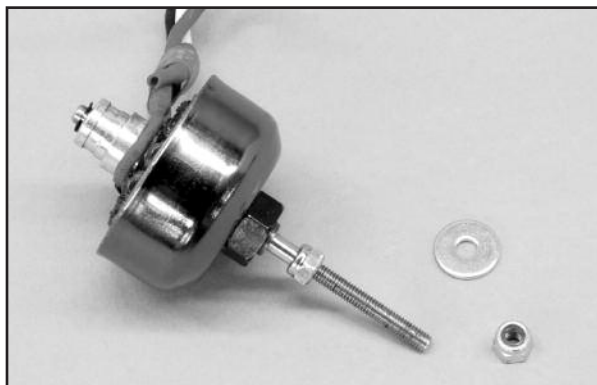
- a) Use a 1.5 mm hex or ball-driver wrench to remove the rear aluminum motor mount from the motor shaft. Use the hex wrench to loosen the two grub screws just enough to allow the motor to be removed.



b) Using the three T2 x 6 mm PWA screws that are provided, mount the aluminum motor mount disk to the firewall, as shown. After running the three screws fully in place, we suggest removing them and "hardening" the threads in the plywood with a drop of thin CA glue. Once the glue has set, remount the disk in place and tighten the screws firmly.



c) Next prepare the motor shaft to accept the propeller. In the small hardware bag that came with the brushless motor and ESC, locate the two 3.5 mm lock nuts and the 10 mm dia. metal washer. Thread one of the lock nuts onto the motor shaft in reverse direction, leaving its hex end pointing forward. Thread this nut all the way onto the shaft until you run out of threads, as shown. After that, slip the flat washer onto the motor shaft, and then screw the remaining lock nut onto the end of the shaft - with its hex end going on first, to be against the propeller when it is added later.



d) The motor is now reinstalled into the aluminum motor mount disk. Use a 1.5 mm wrench to firmly tighten the two setscrews, locking the motor in place. Connect the three red, black, and white motor wires to the corresponding red, black, and white wires from the ESC. As shown, we kept these wires over to one side of the ESC/motor mount box to allow the cowl to fit in place.



#### BATTERY PACK:

□ 30) Remove the battery hatch from the bottom front of the fuselage by turning the plastic latch 90°. In the battery compartment, you will see a piece of Velcro® tape that has been factory installed. The Velcro® is used to hold the flight battery pack in position for flight. The use of Velcro® makes the battery pack quickly and easily removed for recharging between flights. Place a charged flight battery into the battery hatch and secure it with the Velcro® tape. The complete radio system can now be checked and adjusted as necessary, using the transmitter.

#### SYSTEM TESTS:

□ 31) The completed radio and motor systems are now powered up and tested for proper operation. Note that the wing and propeller are NOT yet installed at this point.

- a) Make sure your transmitter aileron, elevator, and rudder trim levers are each in neutral position and that the throttle stick is in the full "low throttle" position. Turn on your transmitter.

**NOTE: Transmitter MUST always be the first to be turned on and the last to be turned off!**

- b) In the fuselage battery compartment, plug the flight battery into the ESC. You will hear an audio tone from the ESC, indicating that it is recognizing the signal from the transmitter.
- c) The elevator and rudder servos should now be working. If necessary, reposition the servo output arms on the elevator and rudder servos as close to 90° to the servo case as possible. Be sure to reinstall the output arm retaining screws after making the adjustment.
- d) Move the elevator stick on the transmitter to check for the correct direction of the elevator servo and elevators. If necessary, use the servo-reversing feature in your transmitter to reverse the direction of the servo, and therefore, the elevator movement. Repeat this same procedure for the rudder servo.
- e) With the rudder and elevator servos now moving in the correct directions, check the neutral positioning of the rudder and elevator surfaces. If needed, adjust the V-bend in the pushrods to properly center these surfaces.

□ 32) Set the wing in place on the fuselage, plugging the aileron servo chords into the Y-harness in the fuselage.

- a) Move the transmitter aileron stick and check for correct direction of movement. If needed, use the servo-reversing feature in your transmitter to make the ailerons move in the correct direction.
- b) If necessary, reposition the aileron servo output arms as close to 90° to the servo case as possible. Be sure to reinstall the output arm retaining screws after making the adjustment.
- c) With the servo output arms now squared up, check the positions of the two ailerons. Adjust the V-bend in the pushrods as needed to properly align both ailerons in the centered neutral position.

□ 33) **IMPORTANT NOTE:** For safety, the propeller and spinner should NOT be installed on the motor for this initial test!

- a) Slowly advance the throttle stick on the transmitter. The motor should start turning. If not, your throttle channel needs to be reversed on the transmitter. If this is the case, unplug the flight battery first, and then, reverse the throttle channel in your transmitter. To continue, plug the flight battery back into the ESC connector.
- b) Again slowly advance the throttle stick. The motor should begin turning in proportion to the amount of throttle stick

movement. Now, make sure the motor shaft is moving in the correct direction. When viewing the fuselage from the rear to the front - as if you were sitting in the cockpit - the motor shaft should turn clockwise, when throttle is applied. If your motor is turning in the wrong direction, you have the polarity of the motor-to-ESC or ESC-to-battery wiring reversed.

#### CONTROL THROWS:

□ 34) The maximum distance that a control surface moves when you move the transmitter stick to full deflection is normally called the "control throw" or "control travel". Most modern radio systems allow you to adjust the control throw of the servos directly from the transmitter. This radio feature is usually referred to as EPA or End Point Adjustment. Use this feature to adjust the control movements for the ailerons, elevator, and rudder of your KADET EP-42B. The following control movements are recommended for your initial flights.

#### RECOMMENDED INITIAL CONTROL THROWS

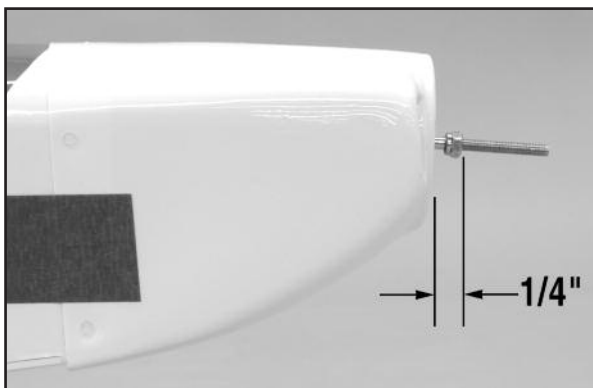
Ailerons: 5/16" (7.9 mm) Up    5/16" (7.9 mm) Down  
 Elevator: 7/16" (11.1 mm) Up    7/16" (11.1 mm) Down  
 Rudder: 5/8" (15.8 mm) Right    5/8" (15.8 mm) Left

**NOTE:** These measurements are always taken at the widest part of the control surface, at their trailing edges.

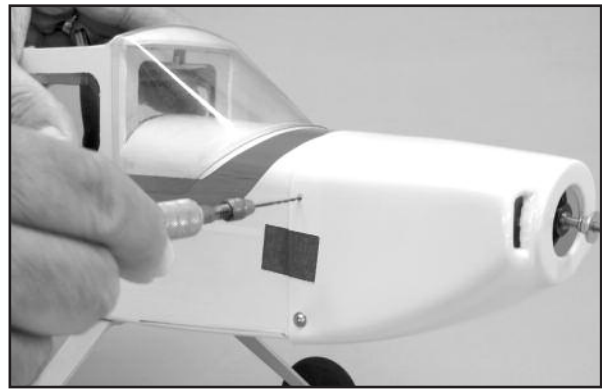
#### MOUNTING THE COWL:

□ 35) From the kit contents, locate the plastic cowl and the four remaining T2 x 6 mm PWA screws. Note that the correct mounting location and position of the cowl is with its forward face approximately 1/4" (6 mm) behind the front face of the 3.5 mm lock nut and centered with the motor.

- a) Slide the cowl in place over the motor and onto the front of the fuselage. Use pieces of tape to secure the cowl in place, centered with the motor - do not cover the four pre-drilled mounting holes. The front of the cowl should be about 1/4" (6 mm) behind the front face of the 3.5 mm lock nut on the motor shaft.



- b) Use a sharp pencil or a pointed object, such as an awl, to mark or punch a centered mark in one of the cowl mounting holes. Use a small (.040") dia. bit to drill a pilot hole through the fuselage side at the mark just made. Use a screwdriver to install one of the T2 x 6 mm PWA cowl mounting screws into the drilled hole. Check the front of the cowl to make sure it is still centered, and again, use a sharp object to mark the center of the opposite hole in the cowl. Drill a pilot hole and install another mounting screw. Repeat this process until all four mounting screws are in place.



#### MOUNTING THE PROPELLER AND SPINNER:

□ 36) For this step you will need the propeller and rubber spinner from the kit contents.

- a) Remove the forward 3.5 mm lock nut and the washer from the motor shaft. Slide the propeller in place onto the motor shaft with the center hex relief facing back to the motor. Press the propeller in place over the rear hex nut. Place the 10 mm washer onto the shaft and then thread the forward 3.5 mm lock nut in place against the washer and propeller. Tighten the nut securely.



- b) The rubber safety spinner can now be pressed firmly in place onto the motor shaft and propeller.

**SAFETY WARNING:** With the propeller mounted to the motor, it is very important that you **always** remain aware of the position of the throttle stick on your transmitter whenever there is a battery plugged into the airborne system. The motor unit used in this model is powerful enough to cause damage to people or property if it is activated prematurely, accidentally, or unexpectedly. With an electric airplane, we recommend that you get in the habit of always keeping the throttle stick in the "low throttle" position, even when the transmitter is in storage. Be sure to recheck the throttle stick position before plugging in the airborne battery pack and also before turning on the airborne on/off switch. Under no circumstances should you hold this model by the nose when the battery is plugged in. **Never** plug your flight battery to the ESC until 1) your transmitter is on with the throttle stick in the low position and 2) you are on the flight line, ready to fly.

#### DECAL APPLICATION:

The decals supplied with the KADET EP-42B are Mylar® stickers with a self-stick adhesive. They are not water slide decals. Also, these decals are not die-cut. Each design must be cut from the

sheet with a sharp #11 hobby knife or a sharp scissors.

Small decals can be easily applied to the model by simply removing the paper backing sheet, and then, laying the decal in position and pressing it in place with your finger.

For the larger decals, such as the "KADET EP-42" wing decal, we suggest the following method of application:

- a) Carefully cut out the decal with a hobby knife.
- b) Peel the paper backing sheet completely off the decal, being careful not to let the sticky side double over and adhere to itself.
- c) Use a product like SIG Pure Magic Model Airplane Cleaner, Fantastic®, or Windex® to spray the adhesive side of the decal. Also, spray the area of the model that will receive the decal.
- d) Lightly place the decal onto the wet surface of the model. The liquid cleaner solution will keep the decal from actually sticking to the model until you have had time to shift it around into exact position. Once in position, use a piece of



stiff cardboard (or sheet balsa, thin plywood, or a SIG SH678 EPOXY SPREADER) to squeegee the excess liquid out from under the decal. Squeegee repeatedly, removing all excess liquid and any air bubbles. Mop up the liquid with a paper towel. Allow to dry overnight.

- e) When completely dry, wash off any soapy smears with a soft clean wet rag.

#### **BALANCE YOUR AIRPLANE:**

**IMPORTANT:** An R/C model should always be balanced with everything on board, ready for flight. The flight battery must be installed in the fuselage and the propeller and spinner must be mounted in place when balancing the model.

**IMPORTANT NOTE:** Because the EP-42B is a fundamentally light airplane, the single largest influence in establishing the correct balance is the flight battery pack. As mentioned earlier, we have used 3-cell (3S) LiPo battery packs in the 910 mAh (3 ounces) to 1400 mAh (4.1 ounces) range. These packs all provide plenty of flight time, so we chose the pack that best balanced the airplane. We suggest that you do the same thing.

**RECOMMENDED BALANCE POINT**  
2-1/4" (28%) to 2-3/8" (30%)  
Behind The Leading Edge Of The Wing

The main wing spar of the KADET EP-42B is located precisely in the middle of this balance range. This means that the simplest way to check the balance of your KADET EP-42B is to place a fingertip, one on each side of the fuselage, at the main spar location on the bottom of the wing. Slowly lift the airplane off the

worktable and note the attitude of the fuselage. The airplane should balance on your fingertips in level position - not nose up or nose down. If the nose hangs low, the model is "nose heavy". If the tail hangs low, this means that the model is "tail heavy". If either of these conditions exists, you must make adjustments to correct the problem. Never attempt to fly a model that is out of balance! Since the flight battery pack is the single heaviest component in the airplane, it can be used to adjust almost any tail heavy or nose heavy condition. This is simply done by moving the battery forwards or backwards inside the airplane.



#### **FLYING YOUR KADET EP-42B:**

The KADET EP-42B appeals to R/C fliers of all experience levels - from beginners to expert pilots. Assuming that the expert pilots will not need much guidance, these flying notes are written for the R/C newcomer.

#### **PRE-FLIGHT:**

Be sure your flight battery pack is fully charged. Also, be sure your transmitter is fully charged. We highly recommend that you perform a standard range check on your radio system - with and without the motor running. Make sure your propeller is balanced and has no nicks or cracks - never fly with a faulty propeller! Finally, take a few minutes to give your model a thorough pre-flight inspection. Make sure everything is secure and tight and operating properly, before attempting to fly the model. Any problems you have will not magically disappear at the field - they will get worse!

#### **AN INSTRUCTOR CAN SAVE YOUR AIRPLANE!**

If you are new to the hobby of flying R/C model airplanes, DO NOT attempt to fly this model by yourself! We strongly urge you to seek the help of a competent flight instructor. There are hundreds of R/C clubs in the U.S. and these clubs normally have designated instructors, who are eager to help newcomers. The easiest way to find an R/C flying club in your area is to ask your local hobby shop or check the AMA (Academy of Model Aeronautics) web site: [www.modelaircraft.org](http://www.modelaircraft.org).

An R/C flight instructor serves two important functions. First, he will test fly your new airplane to make sure it is performing correctly, before you try to fly it. These first flights are called "trim flights". During these flights, the flight instructor will "trim" the model from the transmitter to ensure that it flies straight and level without any problems. When a brand new R/C model takes off for the first time, there is no way of knowing which way it might go. Some models will try to climb, while others may want to go down. Some will try to turn left, others right. Some models will be doing both at the same time! It doesn't mean that there is anything wrong with the model, but these minor differences must be "trimmed out"

in order for the model to fly "hands-off" straight and level. An experienced pilot can instantly correct out of trim conditions before the model crashes into the ground. An inexperienced beginner has almost no chance of saving an out of trim model!

The second reason for an instructor is to have someone there to correct the mistakes you will make during the learning process. It isn't that flying an R/C model aircraft is all that difficult. It is more a matter of learning what to do and when to do it. No matter how slowly a model flies, an incorrect control input can produce almost instant problems that, in turn, demand almost instant correction. This is especially true at lower flight altitudes. A good flight instructor will climb your model to an altitude that gives him a good chance of saving your airplane when you make these inevitable mistakes. This altitude is generally referred to as "2 mistakes high". When you get into trouble, quickly hand the transmitter back to your instructor so he can rescue the airplane. He will get it leveled off, and then, let you try it again. Without an instructor, it is very likely that you would not receive this second chance.

Beginning R/C pilots, almost always, over-control their models. This is perfectly normal but a trait that must be cured during instruction. Another problem common to beginners is disorientation. For example, when the airplane is flying away from you, right aileron input produces a right turn and left aileron input produces a left turn. However, when the airplane is flying directly toward you, the same right aileron input now makes the airplane turn to YOUR left. The airplane is still turning to it's right, but that is now your left side! This perceived control reversal is very confusing to all first time R/C pilots! Without an experienced flight instructor on hand, it will most likely cause the loss of the model.

With a flight instructor, these early learning problems can be easily dealt with. The more you fly, the quicker you will learn. Soon you will be flying "solo" with little thought of the moves required. It will start to come easy. Remember the first time you tried to ride a bicycle? It seemed completely awkward the first time, but once you learned how, it became easy. Don't get discouraged if you have a minor crack-up. Repair the damage and get back into the air as soon as possible.

#### **FIRST TEST FLIGHT:**

Choose a calm day, with little or no wind, for the initial test flights. This is important in getting the model properly trimmed. If there is too much wind, you won't get a true reading on what the model is doing in the air.

The KADET EP-42B is capable of taking off from any smooth surface runway or a closely cut grass field - this is called an ROG (Rise-Off-Ground) take-off. The correct ROG take-off procedure is to line the airplane up with the center of the runway, facing directly into the wind. Advance the throttle smoothly to full high throttle position. As the airplane accelerates, apply a little right rudder input to counteract motor torque and keep the model tracking straight. When sufficient speed is attained, a small input of up elevator will get the model airborne.

The KADET EP-42B can also be easily hand-launched if the grass is too long at your flying field. When hand launching, the airplane must be launched, straight and level directly into the wind, with the nose aimed at a point on the ground about 75' in front of you. Never launch the model with the nose pointed up or the wings tipped to one side or the other. The launch should be firm enough to achieve flight speed, but yet, not overly hard.

Once the airplane is in the air, it should be flown to a reasonable

altitude for flight trimming - approx. 100' or so. The transmitter trim levers are then used to trim the model to fly straight and level. Depending upon the altitude of your flying field, the condition of your flight battery, and other factors, you will most likely find that the KADET EP-42B will fly well in level flight at 1/2 to 3/4-throttle setting. This reduced throttle setting will slow the model down, increase your flight duration, and make the model easier to fly for beginners. Note that every time the throttle setting is changed, the elevator trim must also be re-adjusted to make the model fly level.



The KADET EP-42B has very mild stall characteristics - straight ahead with a slight nose drop, resuming flight almost immediately. It can also be banked fairly sharply with little tendency to "fall off".

Landing the KADET EP-42B is relatively easy. The power-off glide is quite flat and all flight controls remain effective at slow landing approach speeds. Flying into the wind, line up with the center of the runway and gradually throttle back. As the airplane slows down, the nose will drop, allowing the airplane to glide down to the runway. If the glide is too steep and the model is picking up speed, feed in a little up elevator until you get a shallow glide at a constant speed. About a foot or so above the ground, start to flare the landing by carefully feeding in more up elevator a little bit at a time. This will bring the nose up, slowing the airplane even more. Try to hold the airplane just inches off the ground until it finally slows enough to settle smoothly onto the runway.

**Caution:** Never land your airplane in tall grass or weeds with the motor running. Always throttle back completely if you land in such terrain or if you nose over after landing. Tall grass or a nose over will stall the motor if it is running. A stalled motor can overheat the ESC and batteries, causing them to fail.

#### **JOIN THE CLUB**

Although the KADET EP-42B is considered a "park flyer" and can be flown in fairly confined spaces by accomplished pilots, it should never be flown within five miles of an organized R/C aircraft flying site. This one simple precaution can prevent the loss of your model from radio interference. Do yourself a favor and join your local R/C club - you'll almost always get assistance and good advice - and you will even make a friend or two!

#### **GOOD LUCK AND HAPPY LANDINGS!**

**WARNING! THIS IS NOT A TOY!**

Flying machines of any form, either model-size or full-size, are not toys! Because of the speeds that airplanes must achieve in order to fly, they are capable of causing serious bodily harm and property damage if they crash. **IT IS YOUR RESPONSIBILITY AND YOURS ALONE** to assemble this model airplane correctly according to the plans and instructions, to ground test the finished model before each flight to make sure it is completely airworthy, and to always fly your model in a safe location and in a safe manner. The first test flights should only be made by an experienced R/C flyer, familiar with high performance R/C aircraft.

**JOIN THE AMA**

The governing body for radio-control model airplanes in the United States is the ACADEMY OF MODEL AERONAUTICS, commonly called the AMA. The AMA SAFETY CODE provides guidelines for the safe operation of R/C model airplanes. While AMA membership is not necessarily mandatory, it is required by most R/C flying clubs in the U.S. and provides you with important liability insurance in case your R/C model should ever cause serious property damage or personal injury to someone else.

**ACADEMY OF MODEL AERONAUTICS**  
5161 East Memorial Drive  
Muncie, IN 47302  
Telephone: (765) 287-1256  
AMA WEB SITE: [www.modelaircraft.org](http://www.modelaircraft.org)

**CUSTOMER SERVICE**

SIG MFG. CO., INC. is committed to your success in both assembling and flying the KADET EP-42B ARF. Should you encounter any problem building this kit or discover any missing or damaged parts, please feel free to contact us by mail or telephone.

**SIG MFG. CO., INC.**  
P.O. Box 520  
401 South Front Street  
Montezuma, IA 50171-0520

**PHONE: 1-641-623-5154**  
**FAX: 1-641-623-3922**

**SIG WEB SITE: [www.sigmfmg.com](http://www.sigmfmg.com)**  
**SIG E-MAIL: [mail@sigmfmg.com](mailto:mail@sigmfmg.com)**

**LIMIT OF LIABILITY**

The craftsmanship, attention to detail and actions of the builder/flyer of this model airplane kit will ultimately determine the airworthiness, flight performance, and safety of the finished model. SIG MFG. CO.'s obligation shall be to replace those parts of the kit proven to be defective or missing. The user shall determine the suitability of the product for his or her intended use and shall assume all risk and liability in connection therewith.

**KADET EP-42B LOG BOOK**

Date: \_\_\_\_\_ Battery Pack: \_\_\_\_\_ Propeller: \_\_\_\_\_

Comments: \_\_\_\_\_  
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