



HANGAR 9®

Fly First Class™

Alpha 40 with Spektrum™ DX5e

ASSEMBLY MANUAL



Specifications

Wingspan.....	63.0 in (160 cm)	Engine Size.....	.45 cu in (included)
Length w/Spinner.....	52.5 in (133 cm)	Radio.....	Spektrum DX5e (included)
Wing Area.....	710 sq in (45.8 sq dm)	Servos.....	4 servos (included)
Flying Weight.....	5.25 - 5.75 lb (2.40 - 2.60 kg)		

The Spektrum trademark is used with permission of Bachmann Industries, Inc. US patent 7,391,320. Other patents pending.



NOTICE: All instructions, warranties and other collateral documents are subject to change at the sole discretion of Horizon Hobby, Inc. For up-to-date product literature, visit <http://www.horizonhobby.com> and click on the support tab for this product.


Meaning of Special Language:

The following terms are used throughout the product literature to indicate various levels of potential harm when operating this product:

NOTICE: Procedures, which if not properly followed, create a possibility of physical property damage AND little or no possibility of injury.

CAUTION: Procedures, which if not properly followed, create the probability of physical property damage AND a possibility of serious injury.

WARNING: Procedures, which if not properly followed, create the probability of property damage, collateral damage, and serious injury OR create a high probability of superficial injury.

 **WARNING:** Read the ENTIRE instruction manual to become familiar with the features of the product before operating. Failure to operate the product correctly can result in damage to the product, personal property and cause serious injury.

This is a sophisticated hobby product and NOT a toy. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision. Do not attempt disassembly, use with incompatible components or augment product in any way without the approval of Horizon Hobby, Inc. This manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or serious injury.

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Using the Manual

This manual is divided into sections to help make assembly easier to understand, and to provide breaks between each major section. In addition, check boxes have been placed next to each step to keep track of each step completed. Steps with a single box () are performed once, while steps with two boxes () indicate that the step will require repeating, such as for a right or left wing panel, two servos, etc. Remember to take your time and follow the directions.

Required Items

- Fuel (10%–15% nitro content)
- Glow Plug Igniter with Charger (HAN7101)
- Manual Fuel Pump (HAN118)
- or
- Start-Up Field Pack (HANSTART)
- Glow Plug Wrench (HAN2510)
- Glow Plug (EVOGP1)

Optional Parts and Accessories

- Fieldmate Prebuilt Field Box (HAN117)
- Metered Glow Driver w/Ni-Cd and Charger (HAN7101)
- Manual Fuel Pump (HAN118)
- Aluminum Transmitter Case for Single Tx (HAN124)
- Long Reach Glow Plug Wrench (HAN2510)
- Transmitter Stand (HAN2525)
- Hangar 9 Straw Hat (HANP303)
- Sealing Iron Sock (HAN141)
- Covering Glove (HAN150)
- MOSFET Power Panel (HAN106)
- PowerPro™ 12V Starter (HAN161)
- Double Vision™ Fast Field Charger (HAN114)
- Digital Variable Load Voltmeter (HAN171)
- Super Glow Plug (EVOGP1)
- Angle Pro Throw/Incidence Meter (HAN192)
- Sealing Iron (HAN101)
- Heat Gun (HAN100)
- Trainer Power System Propeller (EVOE100P)

Required Tools and Adhesives

- #64 Rubber Bands (ARC064)
- Felt-tipped pen
- 30-minute Epoxy (HAN8002)
- Phillips screwdriver: #2
- Rubbing alcohol
- Ruler
- Thin CA (MEUM5T10Z)
- 4-Way Wrench (DUB810)
- Adjustable wrench
- Hobby knife
- Paper towels
- Masking tape
- Hobby scissors
- Epoxy brush

EasyCote™ Covering Colors

- White (HANU70000)
- Orange (HANU70700)
- Black (HANU70800)
- Silver (HANU70900)

Before Starting Assembly

Before beginning the assembly of the Alpha RTF with DSM, remove each part from its bag for inspection. Closely inspect the fuselage, wing panels, rudder, and stabilizer for damage. If you find any damaged or missing parts, contact the place of purchase.

If you find any wrinkles in the covering, use a heat gun or sealing iron to remove them. Use caution while working around areas where the colors overlap to prevent separating the colors.



HAN101 – Sealing Iron

HAN141 – Sealing Iron Sock



HAN100 – Heat Gun

HAN150 – Covering Glove

Phoenix R/C

Get ready to fly like you've never flown before. PhoenixRC's flight sim is the only simulator with a genuine Spektrum™ DX5e 2.4GHz DSM2™ transmitter you can use on screen or at the field. This sim features advanced heli and aircraft training modes, as well as more than 100 aircraft from Horizon Hobby brands you know and love. Brands like JR® Heli, E-flite® and Hangar 9®. You can even fly with other pilots around the world via an internet multiplayer mode.

Once you've mastered flying on your computer, you can use your DX5e to fly the real planes and helis you've been practicing with. And you can do it all with state-of-the-art technology. The DX5e's 2.4GHz DSM® technology is so advanced you'll fly without any interference or frequency conflicts. And for pilots who already have a transmitter, the simulator comes in a version without one.



PhoenixRC and the PhoenixRC logo are registered trademarks of Runtime Games Ltd.

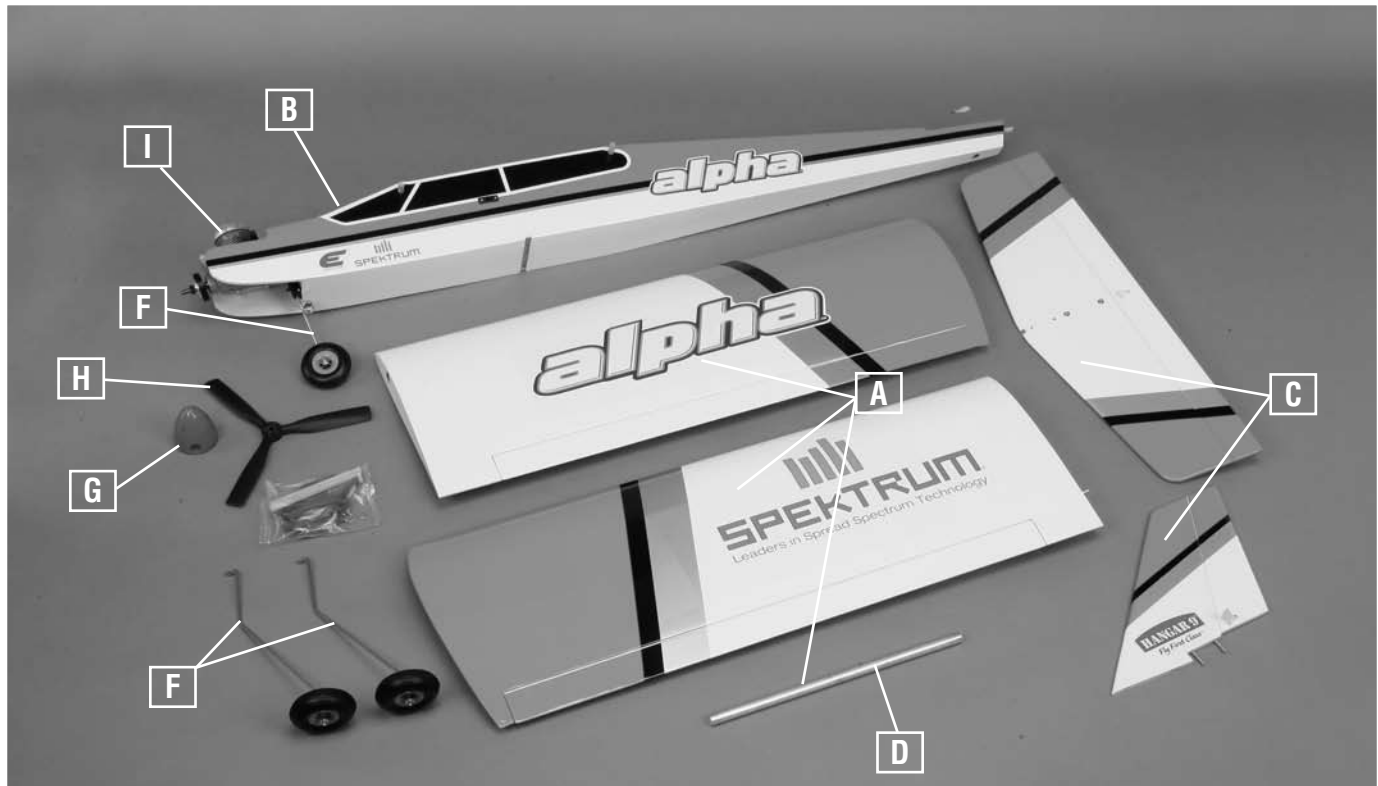
Safety, Precautions, and Warnings

Age Recommendation: 14 years or over. This is not a toy. This product is not intended for use by children without direct adult supervision. This model is controlled by a radio signal that is subject to interference from many sources outside your control. This interference can cause momentary loss of control so it is advisable to always keep a safe distance in all directions around your model, as this margin will help to avoid collisions or injury.

- Consult local laws and ordinances before choosing a location to fly your aircraft.
- Always operate your model in an open area away from cars, traffic, or people.
- Avoid operating your model in the street where injury or damage can occur.
- Never operate the model into the street or populated areas for any reason.
- Never operate your model with low transmitter batteries.
- Carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.) that you use.
- Keep all chemicals, small parts and anything electrical out of the reach of children.
- Moisture causes damage to electronics. Avoid water exposure to all equipment not specifically designed and protected for this purpose.

Contents of Kit

- A. HAN4401 Wing Set w/Wing Tube
- B. HAN4402 Fuselage
- C. HAN4403 Tail Set
- D. HAN4404 Aluminum Wing Tube
- E. HAN4405 Decal Sheet
- F. HAN2454 Landing Gear Set
(does not include wheels)
- G. HAN304 2.5-inch Wheels (2)
- H. HAN305 2.75-inch Wheels (2)
- I. EVOE200S Evolution Power System
Orange Spinner
- J. EVOE100P Evolution Power System Propeller
- K. EVOE100 Evolution Trainer Power System



Section 1: Landing Gear Installation

Required Parts

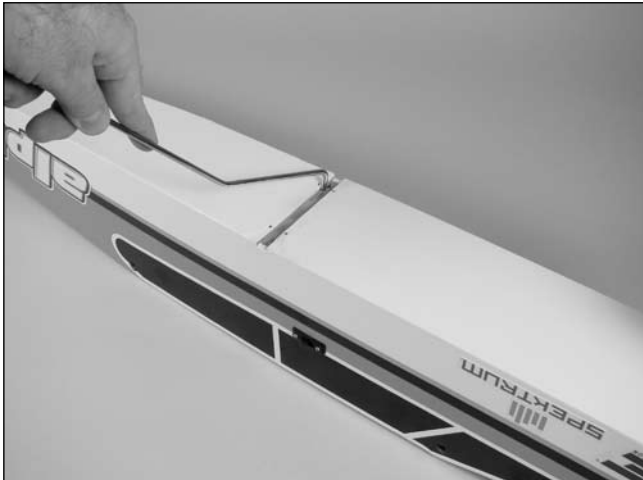
- Fuselage
- Landing gear strap (2)
- Main landing gear assembly (2)
- 3mm x 12mm sheet metal screw (4)

Required Tools and Adhesives

- Phillips screwdriver: #2

Step 1

Locate one of the landing gear assemblies. Insert the end of the wire into the hole in the fuselage.



Step 2

Press the landing gear into the notch on the bottom of the fuselage so it is flush with the bottom of the fuselage.



Step 3

Repeat Steps 1 and 2 to install the remaining landing gear assembly.



Step 4

Locate one of the landing gear straps. The strap will be used to secure the main gear to the fuselage. Holes have been pre-drilled for the screws that secure the landing gear strap in position.

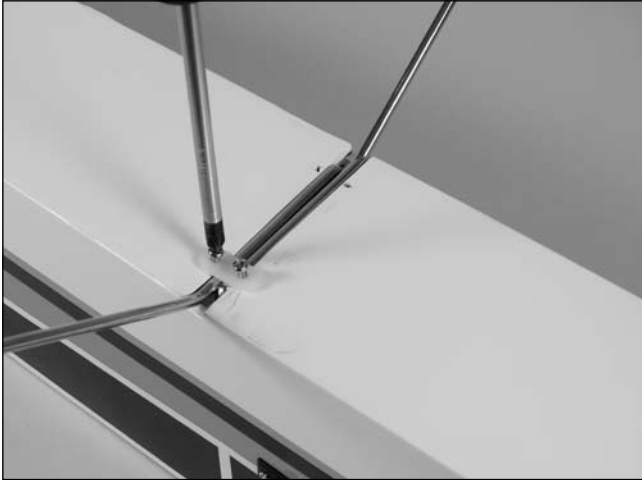


Note: Before installing the screws, apply 2–3 drops of thin CA into each of the holes to harden the surrounding wood. This will allow the screws to be more secure and will help in preventing them from vibrating loose.

Section 1: Landing Gear Installation

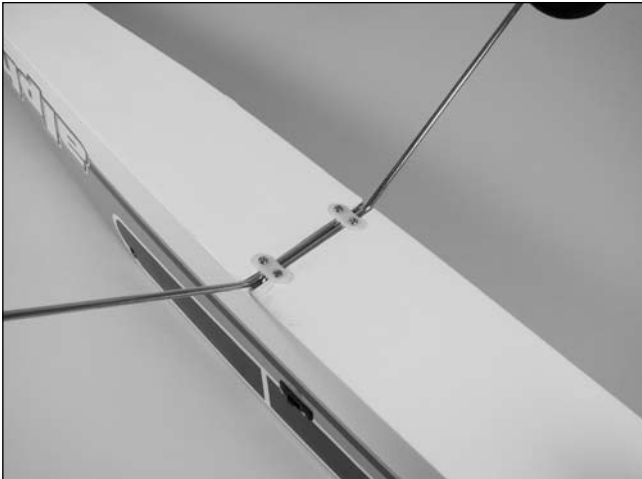
Step 5

Use a #2 Phillips screwdriver and two 3mm x 12mm sheet metal screws to secure one of the straps to the bottom of the fuselage.



Step 6

Repeat Steps 4 and 5 to secure the remaining landing gear strap to the bottom of the fuselage.



Section 2: Fin and Stabilizer Installation

Required Parts

- Fin/Rudder assembly
- #4 washer (4)
- Stabilizer/Elevator assembly
- Wing nut (2)
- 3mm x 10mm machine screw (2)

Required Tools and Adhesives

- Threadlock
- Scissors
- Phillips screwdriver: #2

Step 1

Locate the fin and stabilizer assemblies. The threaded rods from the fin will fit into the holes that are pre-drilled in the stabilizer as shown.



Step 2

Slide the two #4 washers onto the threaded rods from the bottom of the stabilizer.



Step 3

Use scissors to cut the end of the tube of threadlock. Cut only the corner so the application of the threadlock can be controlled easier than if the whole end were cut off.



Step 4

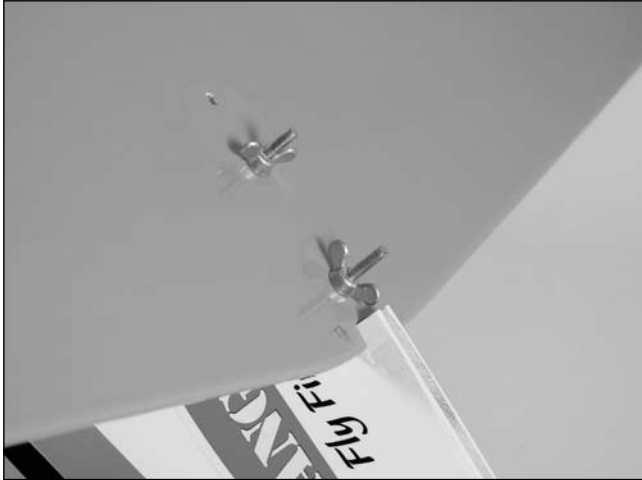
Apply a drop of threadlock onto each of the threaded rods.



Section 2: Fin and Stabilizer Installation

□ Step 5

Thread the two wing nuts onto the threaded rods to secure the fin to the stabilizer. Don't over-tighten the wing nut and damage the underlying wood.



□ Step 6

Slide the fin into position. Make sure the control rod for the rudder is on the top side of the stabilizer when installing the tail assembly.



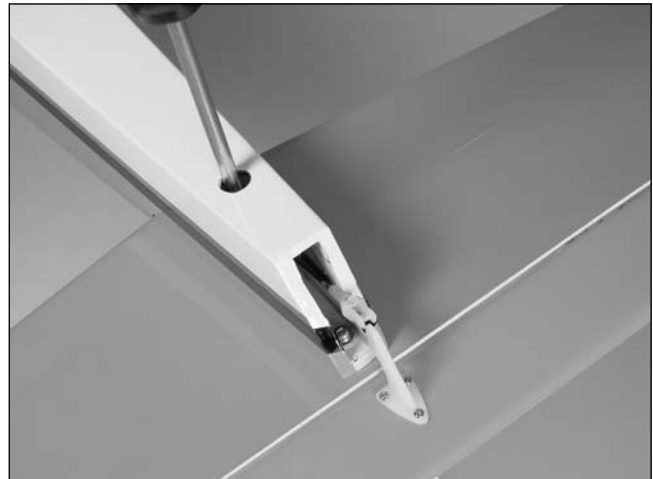
□□ Step 7

Locate a #4 washer and 3mm x 10mm machine screw. Slide the washer onto the screw, then apply a small amount of threadlock on the screw.



□□ Step 8

Insert the screw into the hole in the fuselage and through the stabilizer to the pre-installed blind nut on the top of the stabilizer. Use a #2 Phillips screwdriver to tighten the screw.





Section 2: Fin and Stabilizer Installation

□ Step 9

Repeat Steps 7 and 8 to install the second screw.



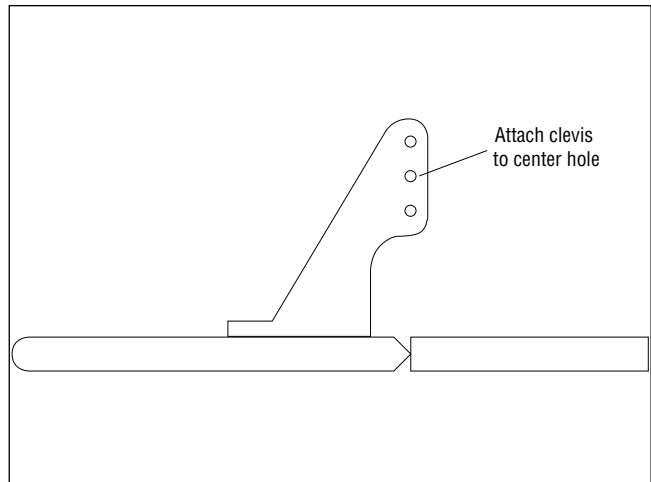
□ Step 10

Connect the clevis to the center hole of the elevator control horn. The alignment of the elevator will be covered later in this manual.



□ Step 11

Connect the clevis to the center hole of the rudder control horn. The alignment of the rudder will be covered later in this manual.



Section 3: Propeller and Spinner Installation

Required Parts

- Fuselage assembly
- Propeller
- Spinner assembly

Required Tools and Adhesives

- Adjustable wrench
- Hex wrench: 2.5mm

□ Step 1

Remove the plastic shipping saver, nut and washer from the engine crankshaft.



□ Step 2

Check that the flywheel is fully installed on the engine. It will fit closely to the engine when it is positioned correctly. Slide the spinner backplate onto the engine crankshaft so it is tight against the flywheel.



□ Step 3

Slide the propeller onto the engine crankshaft. The blades of the propeller will be positioned against the bosses for the spinner screws of the spinner backplate as shown below.



□ Step 4

Slide the propeller washer onto the engine crankshaft.



Section 3: Propeller and Spinner Installation

□ Step 5

Thread the propeller nut onto the engine crankshaft.



□ Step 6

Use an adjustable wrench to tighten the propeller nut, securing the propeller and spinner backplate onto the engine crankshaft.



Important: When tightening the propeller nut, always use an adjustable wrench, box end wrench or 3/8-inch drive socket. Using pliers will not allow you to place enough grip to properly tighten the propeller nut.

Note: Make sure the propeller has not moved from its position as described back in Step 3. If it has, the spinner cone will not be able to be installed in the following steps.

□ Step 7

Slide the spinner cone over the propeller. It will fit into the grooves in the spinner backplate when installed.



□□ Step 8

Use the three 3mm x 10mm sheet metal screws supplied with the spinner to secure the spinner cone to the spinner backplate. A #1 Phillips screwdriver will be required to tighten the screws.



Section 4: Wing Dowel Installation

Required Parts

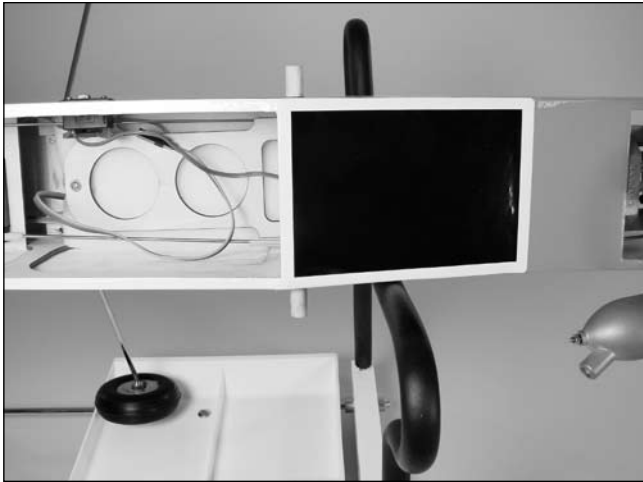
- Fuselage assembly
- Wing dowel (2)

Required Tools and Adhesives

- Thin CA

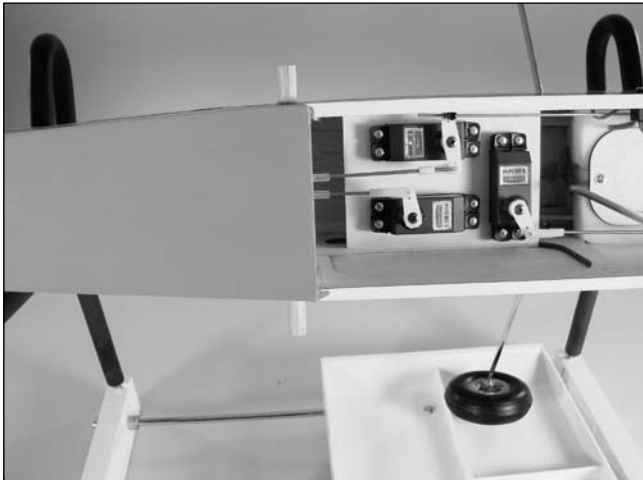
□ Step 1

Slide the wing dowel into the pre-drilled holes in the front of the fuselage. Center the dowel so it extends equally from both sides of the fuselage.



□ Step 2

Slide the second wing dowel into the pre-drilled holes in the rear of the fuselage. Center the dowel so it extends equally from both sides of the fuselage.



□ Step 3

Use the following photo to confirm the location of the wing dowel installation in the fuselage.



□ Step 4

Apply thin CA into the joint between the dowel and fuselage to keep it from moving.



Section 5: Wing Assembly

Required Parts

- Wing panel (left and right)
- Wing tube
- Clear tape

Note: The following covers the assembly of the wing without the use of glue. The wing, when joined in this method, is very strong and does not need to be glued together. You will want to purchase additional clear tape if you plan on breaking the wing down into two pieces for transportation purposes.

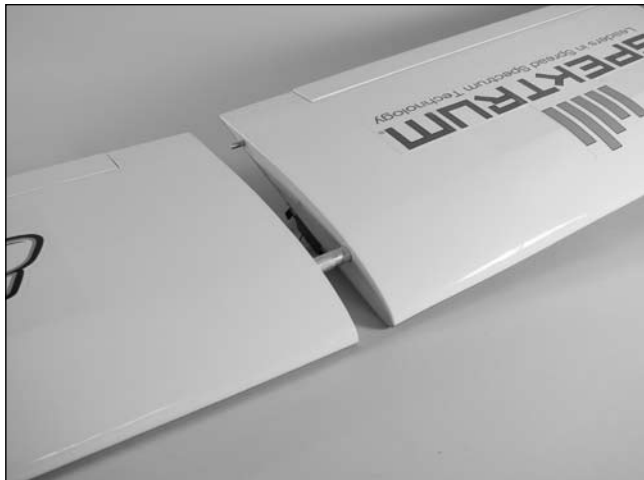
□ Step 1

Slide the wing tube into the wing panel as shown. The wing tube will only slide in halfway, so do not force it in any further than it will slide easily.



□ Step 2

Slide the remaining wing panel onto the wing tube.



□ Step 3

As you slide the wing panels together, make sure the aluminum pin at the back (trailing edge) of the wing slides into the hole of the receiving wing panel. Slide the two wing panels tightly together so there is no gap between the two.



□ Step 4

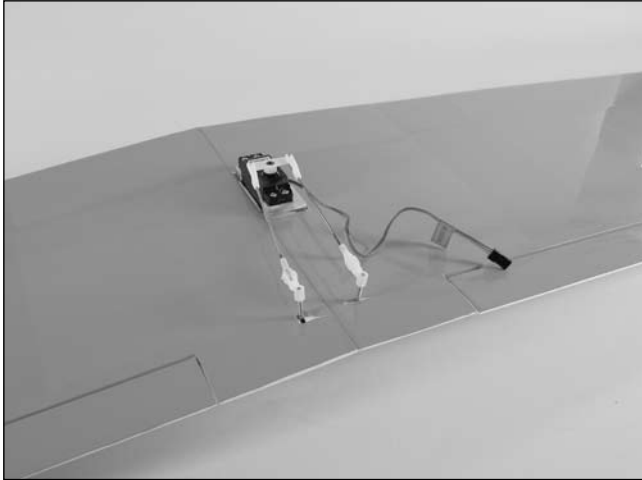
Use the supplied clear tape to secure the joint between the two wing panels. Make sure to apply the tape to both the top and bottom of the joint.



Section 5: Wing Assembly

□ Step 5

Connect the clevises from the aileron pushrods to the aileron control horns. The alignment of the ailerons will be checked later in this manual.



Section 5b: Optional: Gluing the Wing Halves

Required Parts

- Wing panel (left and right)
- Wing tube
- Covering (white)
- Covering (orange)

Required Tools and Adhesives

- 30-minute epoxy
- Mixing cup
- Mixing stick
- Epoxy brush
- Rubbing alcohol
- Paper towel
- Painter's tape
- Covering iron

Note: It is not necessary to glue the wing panels together on your model. This section has been provided in case you opt to do so. Make sure your vehicle has enough room to transport the joined wing before joining the wing panels using this method.

□ Step 1

Slide the wing tube into the wing panel as shown. The wing tube will only slide in halfway, so do not force it in any further than it will slide easily.





Section 5b: Gluing the Wing Halves

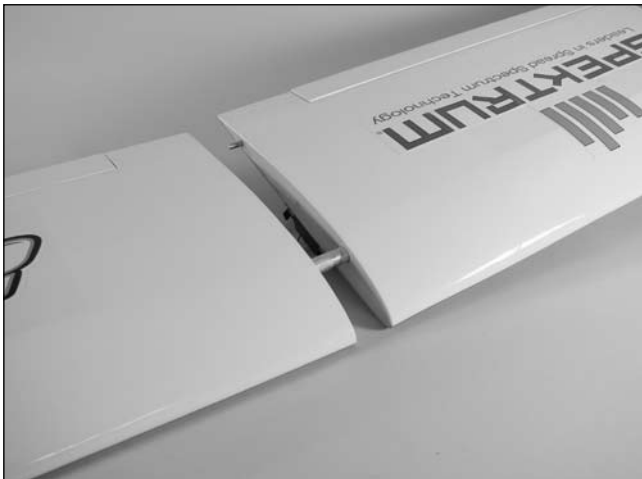
□ Step 2

Mix 1/2-ounce total (15ML) of 30-minute epoxy. Use an epoxy brush to apply a thin layer of epoxy to each of the wing roots as shown.



□ Step 3

Slide the remaining wing panel onto the wing tube.



□ Step 4

As you slide the wing panels together, make sure the pin at the back (trailing edge) of the wing slides into the hole of the receiving wing panel. Slide the two wing panels tightly together so there is no gap between the two.



□ Step 5

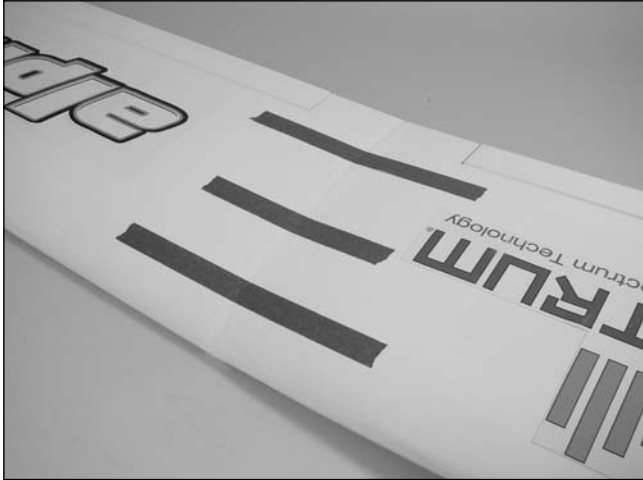
Use a paper towel and rubbing alcohol to remove any epoxy that seeps from the joint between the two wing panels.



Section 5b: Optional: Gluing the Wing Halves

Step 6

Use tape (painter's tape suggested) to keep the two wing panels tight against each other until the epoxy is fully cured.



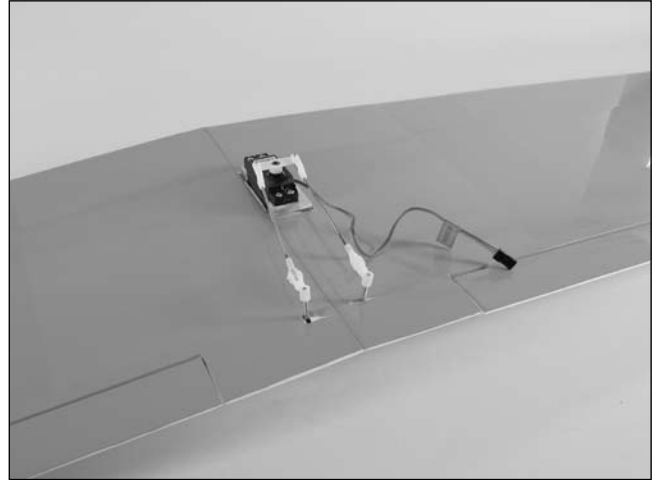
Step 7

After the epoxy has fully cured, use a covering iron to apply the covering to the joint of the wing. Use the orange covering on the bottom of the wing, and the white covering on the top of the wing.



Step 8

Connect the clevises from the aileron pushrods to the aileron control horns. The alignment of the ailerons will be checked later in this manual.



Section 6: Centering the Control Surfaces

Required Parts

- Assembled airframe

Required Tools and Adhesives

- Ruler

Checking the Elevator

Center the elevator stick and trim. If necessary, detach the clevis from the control horn and thread the clevis in or out on the elevator pushrod until the elevator is aligned with the stabilizer as shown. Remember to attach the clevis back in the center hole as described earlier in the manual.



Checking the Rudder

Center the rudder stick and trim. If necessary, detach the clevis from the control horn and thread the clevis in or out on the rudder pushrod until the rudder is aligned with the fin as shown. Remember to attach the clevis back in the center hole as described earlier in the manual.



Checking the Ailerons

Center the aileron stick and trim. If necessary, detach the clevis from the control horn and thread the clevis in or out on each aileron pushrod until the ailerons are aligned with the wing as shown. Don't forget to align both ailerons at this time. Remember to attach the clevis back as described earlier in the manual.



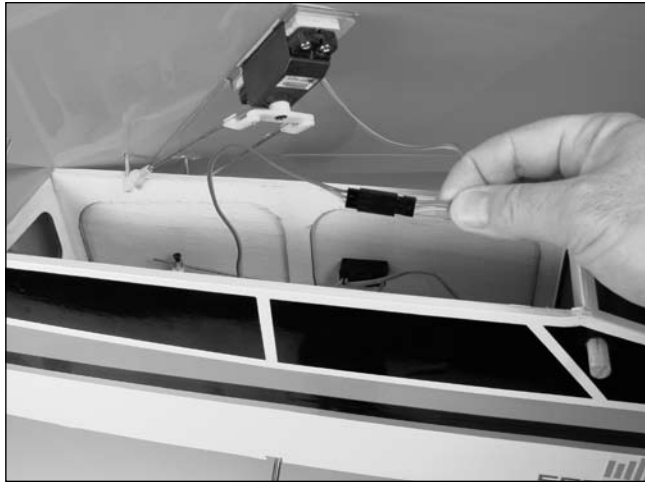
Section 7: Wing Installation

Required Parts

- Wing assembly
- Fuselage assembly
- Rubber band (10)

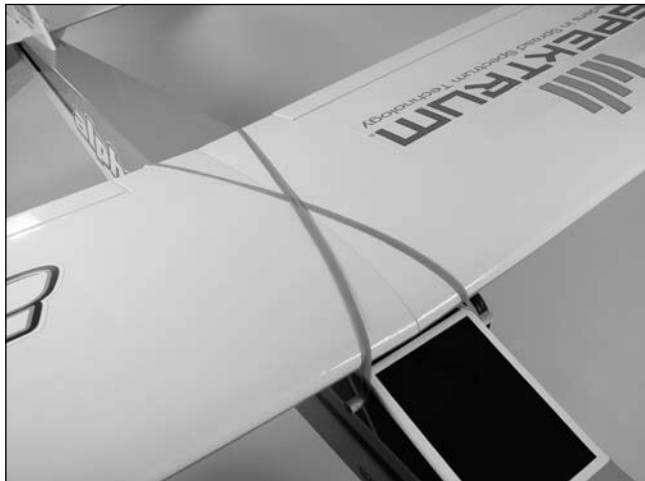
□ Step 1

Locate the aileron extension that is inside the fuselage. Align the colors from the aileron servo lead with the extension so they match, then plug them together.



□ Step 2

Start securing the wing to the fuselage by installing two of the rubber bands.



Hint: Always start with the cross rubber bands. This will keep the wing from twisting on the fuselage when installing the remaining rubber bands.

□ Step 3

Install a second set of rubber bands on the wing as shown.



□ Step 4

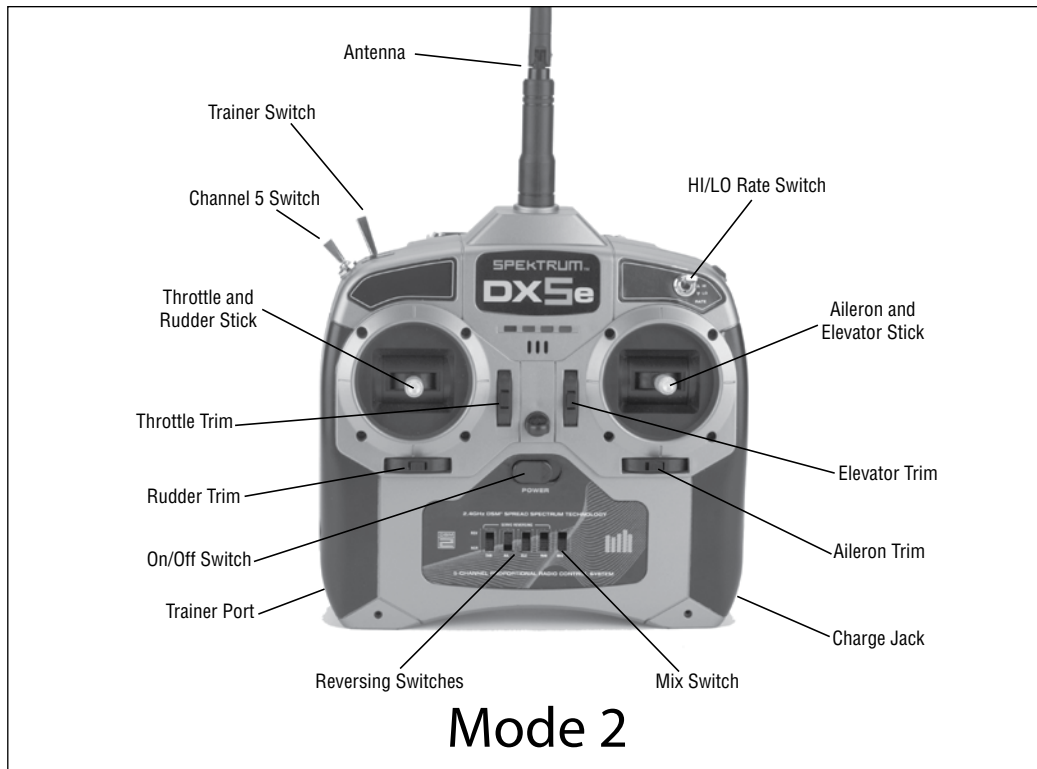
Continue installing a total of six or more of the rubber bands, alternating the direction of each set until they have all been installed.



Hint: Always end the rubber band installation by installing the cross rubber bands last. They will help in keeping all the other rubber bands in position on the wing dowels.

Hint: After flying, store your rubber bands in a bag with a small amount of baby powder. This will soak up the fuel that is on the rubber bands, making them last longer.

Section 8: Your Spektrum DX5e Radio System



Section 9: Battery Installation

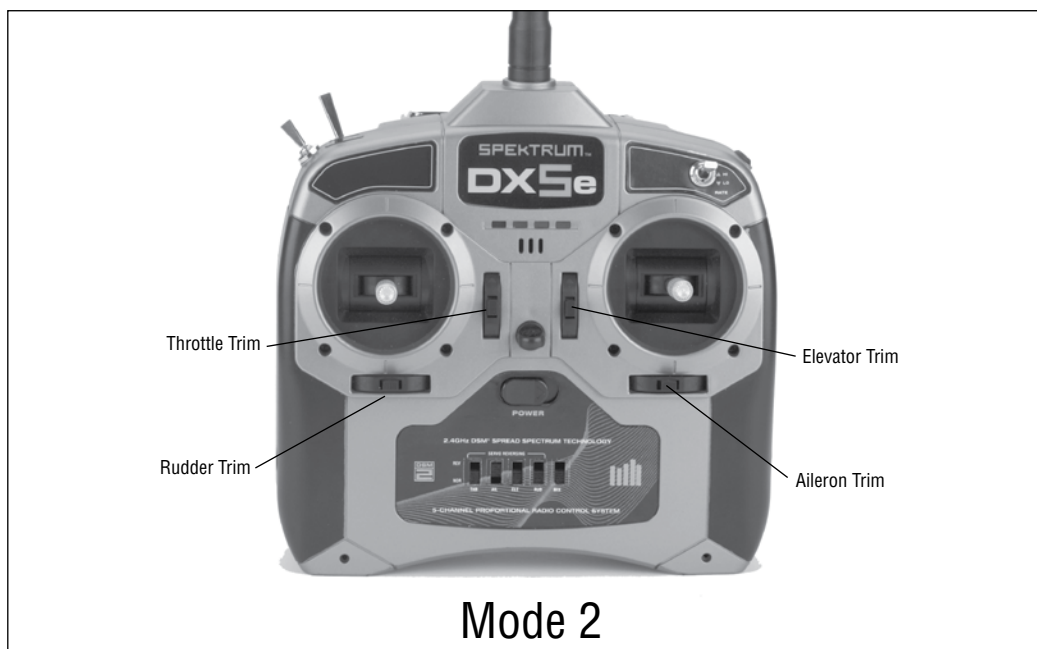


Remove the battery door and install 4 AA batteries noting the polarity of each corresponds with the diagram in the battery holder. Replace the battery door.

Note: Optional NiMH 1.2-volt AA rechargeable batteries can also be used. A charge jack is located on the right side of the transmitter for convenient recharging.

Section 10: Digital Trims

The DX5e features digital trims. Each time a trimmer is moved the servo output will change one step. If the trimmer is held, the output will scroll in that direction until the trimmer is released or the output reaches its end.



Section 11: Low Battery Alarm

When the battery voltage drops below 4.7 volts an alarm will sound and the voltage LEDs will flash.

Section 12: Trainer

The DX5e offers a Trainer function that allows the transmitter to operate as a master or slave. The trainer switch is located on the back left of the transmitter. When using the trainer function, plug the trainer cord (SPM6805) into the trainer port in both the master (controlling) and the slave (training) transmitters. The master transmitter must have the power turned on and the slave transmitter must have the power turned off.

Note: The DX5e trainer system is compatible with all JR® and Spektrum transmitters.

MASTER

The DX5e transmitter can be used as a master but the slave transmitter must have the same programming (i.e. reverse switch positions) as the master.

SLAVE

When using the DX5e transmitter as a slave with another DX5e, it's necessary to match all the reverse switch positions.

Section 13: Binding

Binding is the process of teaching the receiver the specific code of the transmitter so it will connect to that specific transmitter which it is bound to. The transmitter and receiver for your Alpha 40 RTF has already been bound, but this section has been included as reference. The Spektrum receiver must be bound to the transmitter before it will operate. Once bound, the receiver will only connect to that transmitter.

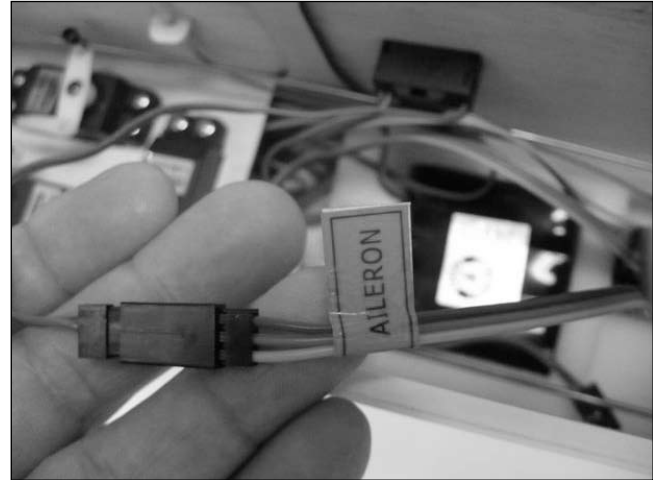
□ Step 1

Remove the receiver cover in the fuselage to access the receiver.



□ Step 2

Temporarily remove the power plug from the battery/bind port in the receiver and plug it into the aileron extension. Plug the bind plug into the battery/bind port in the receiver where the power lead was.



Section 13: Binding

□ Step 3

Turn on the receiver switch. The LED on the receiver should be flashing, indicating that the receiver is ready to bind.



□ Step 4

Establish the desired failsafe stick positions: normally low throttle and flight controls neutral.



□ Step 5

Pull and hold the trainer switch on the top of the transmitter while turning on the power switch. Turning on the switch will place the transmitter into bind mode. Within a few seconds the system should connect and the LEDs on the front of the transmitter will flash. The LED on the receiver should go solid indicating the system has connected. Once the system has connected release the trainer switch.



Note: Do not hold the trainer switch and turn on the power during normal operation or the receiver will become unbound and the entire binding process will have to be done again.

Section 13: Binding

□ Step 6

After the system is bound, turn off the power on the transmitter and receiver. Then remove the bind plug from the receiver and store it in a convenient place.



□ Step 7

Unplug the power lead from the aileron extension and plug it back into the power/bind port of the receiver. Turn on the transmitter and receiver to confirm that it is bound and working properly. Then replace the receiver cover in the fuselage.



Section 14: Checking the Control Surface Movement

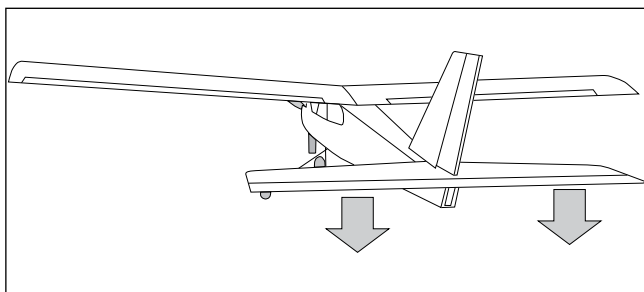
Required Parts

- Transmitter
- Assembled airframe

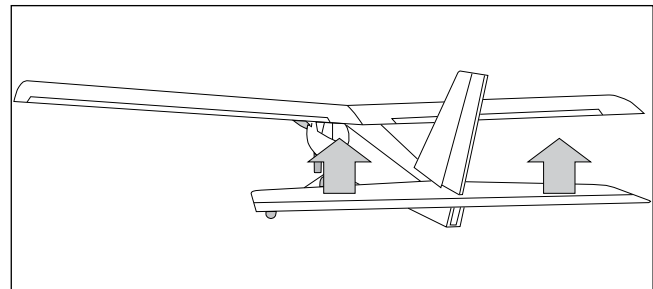
The control direction has been set at the factory. This section has been provided in case any servos or control surfaces are replaced so the control direction can be checked at a later date.

Checking the Elevator

Check the movement of the elevator with the radio system. Pushing the elevator/aileron stick (right stick on the transmitter) forward will make the airplane elevator move down. This will cause the aircraft to pitch down while in flight.



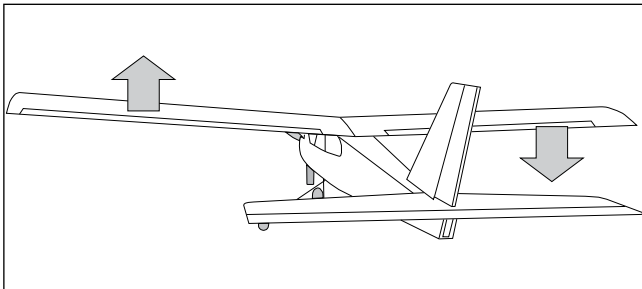
Check the movement of the elevator with the radio system. Pulling the elevator/aileron stick (right stick on the transmitter) back will make the airplane elevator move up. This will cause the aircraft to pitch up in flight.



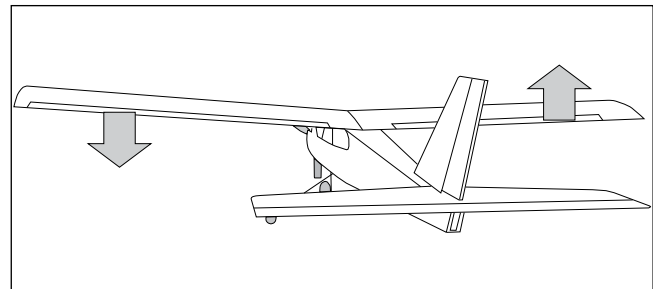
Section 14: Checking the Control Surface Movement

Checking the Ailerons

Check the movement of the aileron using the transmitter. When the aileron/elevator stick is moved left, the left aileron will move up and the right aileron will move down. This will cause the aircraft to roll left in flight.



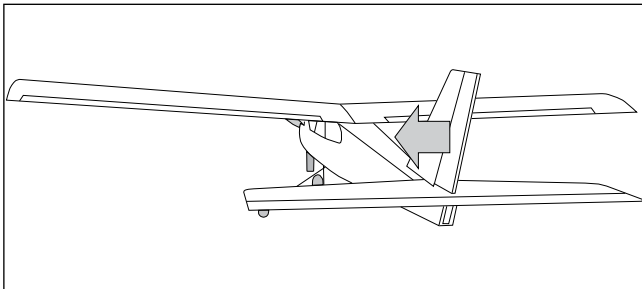
Check the movement of the aileron using the transmitter. When the elevator/aileron stick is moved right, the right aileron will move up and the left aileron will move down. This will cause the aircraft to roll right in flight.



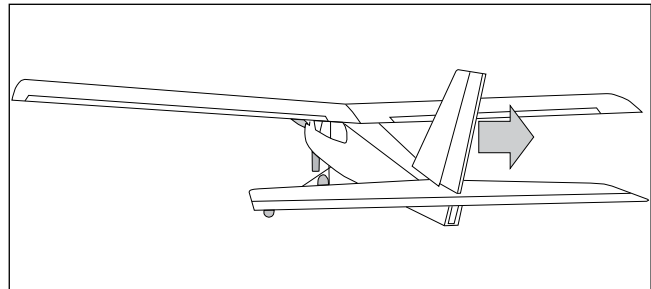
Section 14: Checking the Control Surface Movement

Checking the Rudder

Check the movement of the rudder using the transmitter. When the left stick is moved left, the rudder should also move left. This will cause the aircraft to turn left while on the ground and to yaw left while in flight.



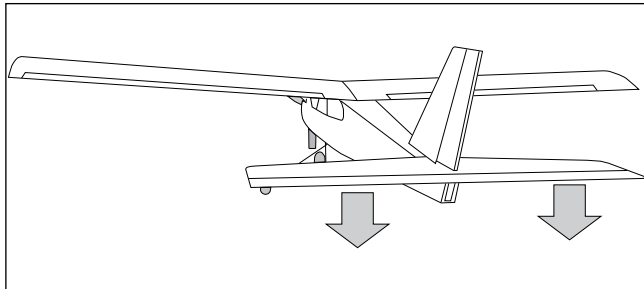
Check the movement of the rudder using the transmitter. When the rudder/throttle stick (left side of the transmitter) is moved right, the rudder should also move right. This will cause the aircraft to turn right while on the ground and to yaw right while in flight.



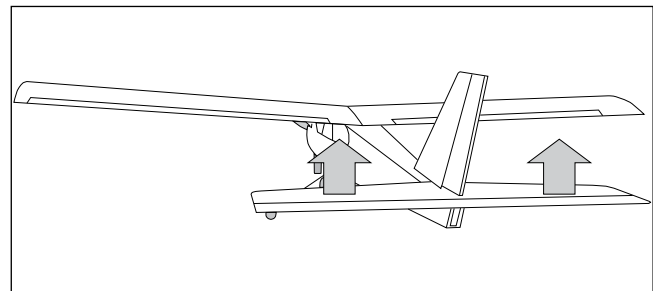
Section 14: Checking the Control Surface Movement

Reversing Direction of Flight Controls

If you find any of the control surfaces moving in the opposite direction (example shown below), you will need to use the **Servo Reversing** feature of your radio system. Follow the instructions included with your radio to change the servo reversing of the offending control surface.



Wrong



Right

Section 15: Hi/Lo Rate

The DX5e offers a high/low rate function on aileron, elevator and rudder. When the HI/LO rate switch is in the upper position or “HI” position, 100% travel is achieved on the aileron, elevator and rudder channels. When the switch is in the lower position, a reduced travel of 70% is achieved on the aileron, elevator and rudder channels. This is useful allowing the aircraft to have a high control rate (switch in the “HI” position) for aggressive maneuvers and a low control rate (switch in “LO” position) for smooth, precise maneuvers.



- High 100% rate on aileron, elevator and rudder
- Low 70% rate on aileron, elevator and rudder

Section 16: Setting the Control Throws

Required Parts

- Transmitter
- Assembled airframe

Required Tools and Adhesives

- Ruler

The control throws from the factory are preset in the transmitter. This section has been provided in case any servos or control surfaces are replaced so the control throws can be checked at a later date.

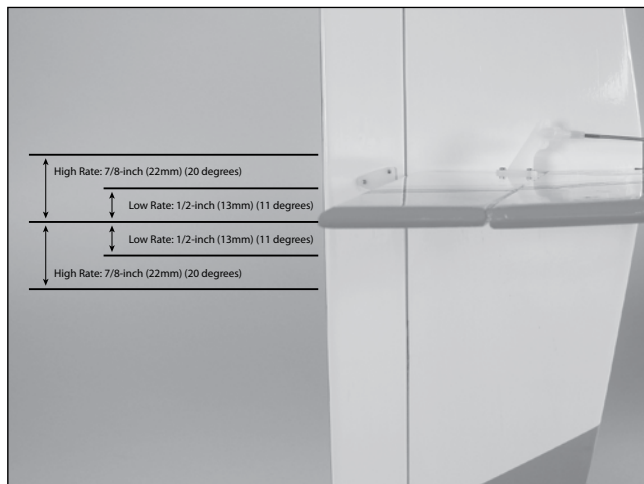
Rudder Throw

Use a ruler to check the amount of throw for the rudder. Move the rudder stick fully and check the measurements. Adjust the radio as necessary following the instructions provided with the radio to achieve the following measurement. The throw will measure:

Low Rate: 1/2-inch (13mm) (11 degrees)

High Rate: 7/8-inch (22mm) (20 degrees)

The throw is measured in both the right and left directions as shown below.



Note: The rudder throw is measured at the bottom of the rudder.

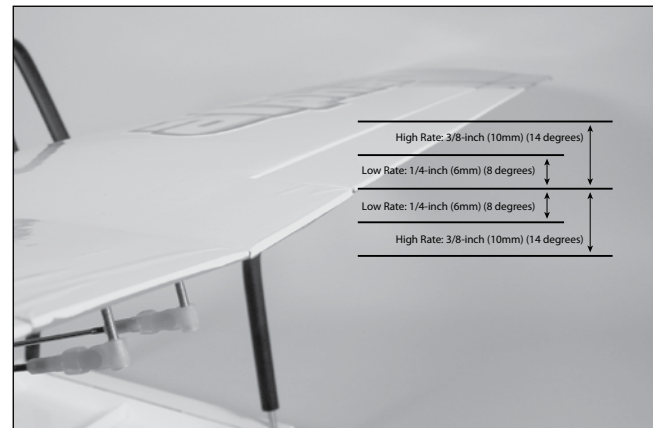
Aileron Throw

Use a ruler to check the amount of throw for the aileron. Move the aileron stick fully and check the measurements. Adjust the radio as necessary following the instructions provided with the radio to achieve the following measurement. The throw will measure:

Low Rate: 1/4-inch (6mm) (8 degrees)

High Rate: 3/8-inch (10mm) (14 degrees)

The throw is measured in both the up and down directions as shown below.



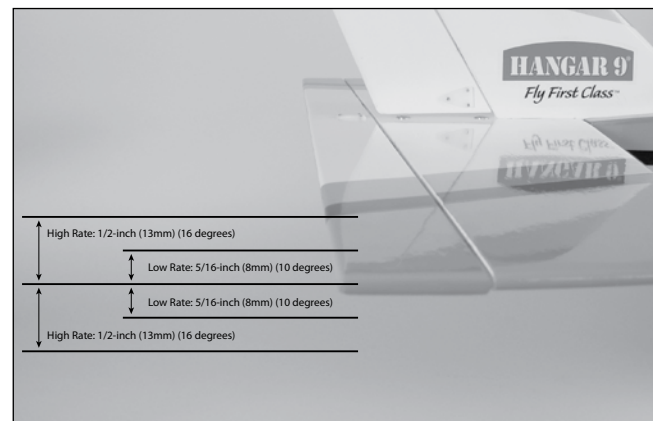
Elevator Throw

Use a ruler to check the amount of throw for the elevator. Move the elevator stick fully and check the measurements. Adjust the radio as necessary following the instructions provided with the radio to achieve the following measurement. The throw will measure:

Low Rate: 5/16-inch (8mm) (10 degrees)

High Rate: 1/2-inch (13mm) (16 degrees)

The throw is measured in both the up and down directions as shown below.



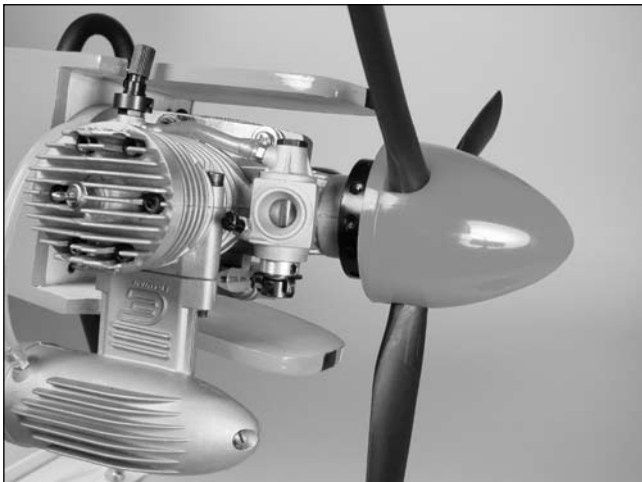
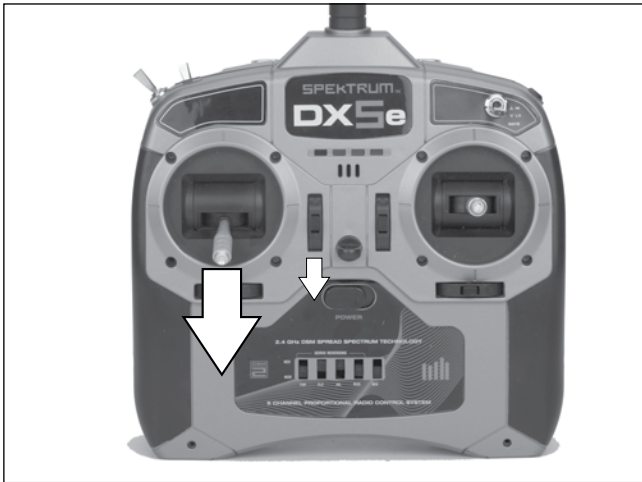
Section 17: Checking the Throttle Operation

Required Parts

- Fuselage assembly
- Transmitter

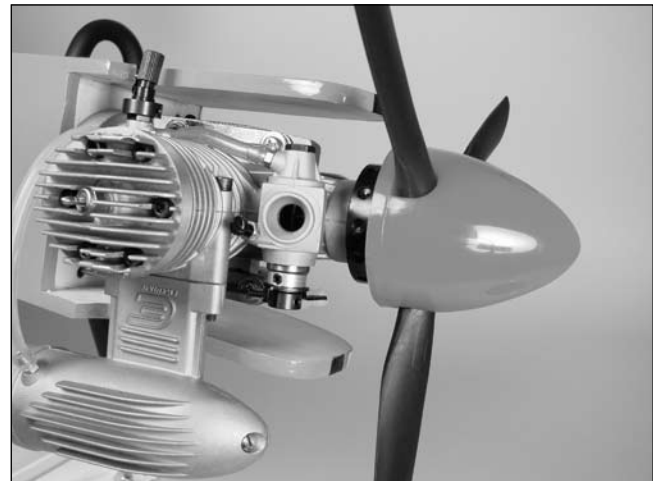
Throttle Closed

Move the throttle stick and trim down to the fully closed position as shown. The carburetor should close without binding the throttle servo. If the servo binds, you will need to adjust the clevis at the carburetor by threading it in or out to eliminate any binding.



Throttle Open

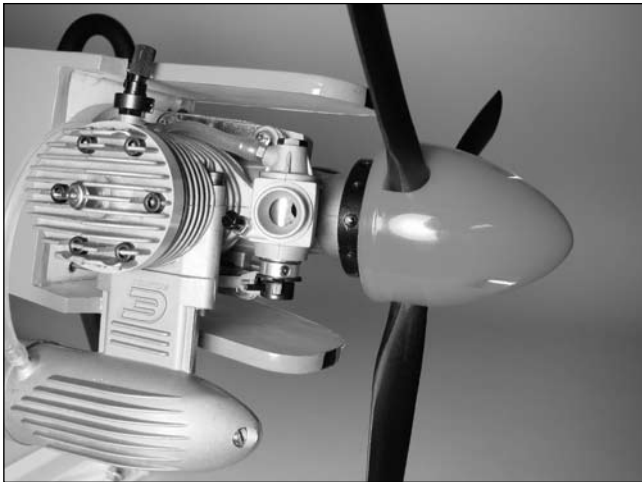
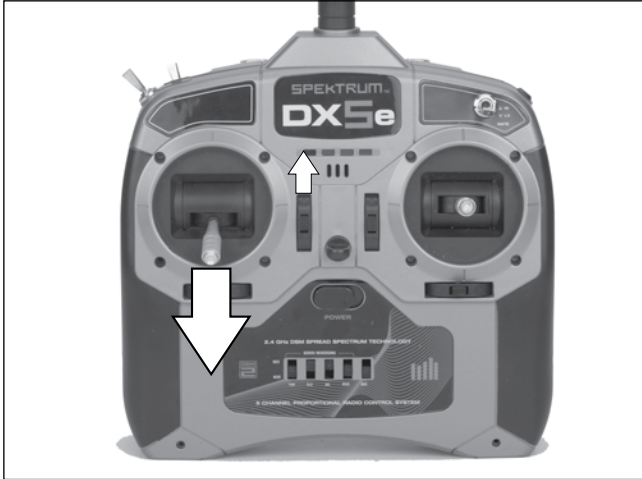
Move the throttle stick up, or the fully open, position as shown. The carburetor should open without binding the throttle servo. If the servo binds, you will need to adjust the clevis at the carburetor by threading it in or out to eliminate any binding.



Section 17: Checking the Throttle Operation

Throttle Set to Idle

Move the throttle stick down to the fully closed position. Move the trim lever upward to open the carburetor roughly 1/16-inch (1.5mm). This will be the idle position for your engine. The idle will be fine-tuned at the field so the engine will idle reliably without stalling for slow flight and landing procedures.

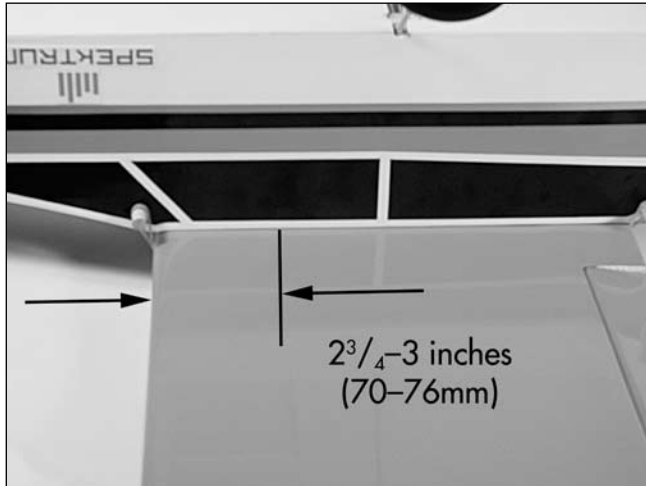


Section 18: Balancing Your Alpha RTF

In order for your Alpha 40 RTF to fly correctly, you will need to check the balance of the plane with the fuel tank empty. This is done by supporting the aircraft either using your fingers or by using a balancing stand. Not checking the balance can result in an aircraft that is difficult to fly, which can lead to the possibility of crashing your model.

□ Marking the Balance Point

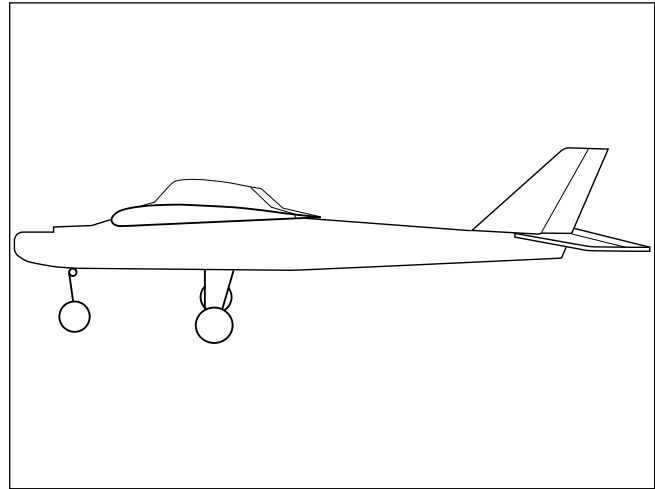
The first step in balancing your Alpha 40 RTF is to mark the location for the balance point. The ideal balance point for the Alpha RTF is $2\frac{3}{4}$ –3 inches (70–76mm) back from the leading edge against the fuselage. If your plane is only slightly out of balance, try placing the balancing stand towards the nose or tail by $\frac{1}{8}$ -inch (3mm) and recheck the balance. If it looks good and sits level, then you're good to go.



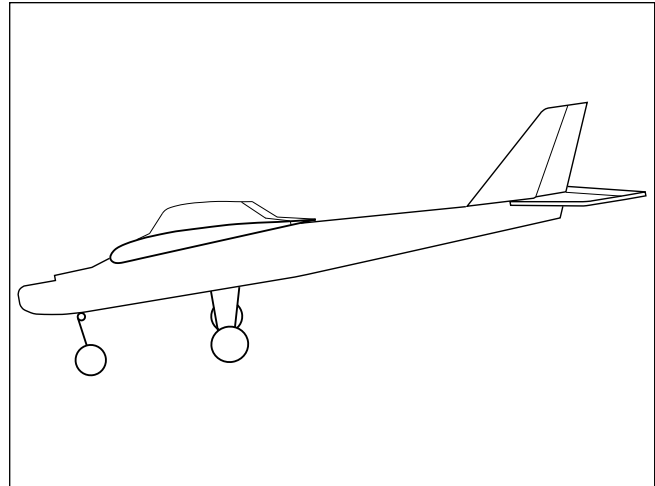
□ Lifting the Model and Observations

Make sure the Alpha RTF is balanced using either your fingers or a balancing stand. Place or lift the airplane so it is supported at the marks made in the previous step. The plane will rest level when balanced correctly. If not, weights must be added to correct any balancing problems.

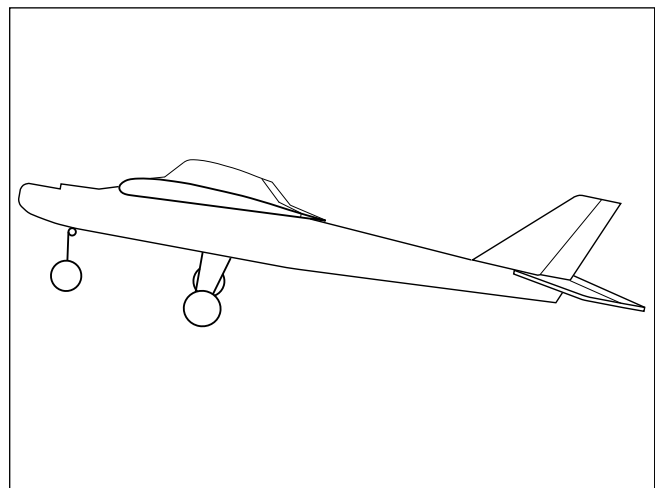
Balanced Correctly



Nose Heavy – Add Weight to Tail



Tail Heavy – Add Weight to Nose



Section 18: Balancing Your Alpha RTF

Adding Weights to Correct the Balance

Due to manufacturing differences, it is possible that the Alpha 40 RTF may not be balanced properly. Weights can be added to either the tail or the nose of your Alpha RTF if it does not balance properly. Stick-on weights available at your local hobby store are the easiest to use, and come in sizes that are easily placed on your plane. Add just enough weight as necessary to balance your plane. Once the weight has been added, make sure it is secure and will not fall off in flight.



Section 19: Flight Preparations

Flight preparations must be checked each time you travel to the flying field. Because the Alpha RTF will encounter a variety of situations, it is best to keep an eye on the various components of your model to keep it in the best flying condition.

Checking the Frequency

When using a Spektrum radio system, follow the guidelines for use of DSM radio systems at your particular field.

Checking the Controls

Before starting your engine, check to make sure the controls are operating in the correct directions and the linkages and surfaces are not binding anywhere. Also look at the clevises and clevis retainers to make sure they are secure and will not come loose or fail in flight.

Fueling the Alpha RTF

Fill the fuel tank with the proper fuel. Fill the tank by connecting the fuel pump to the line going to the needle valve. Disconnect the fuel line attached to the pressure fitting of the muffler; your tank is full when fuel begins to run out of the pressure line. Reconnect the fuel lines to the needle valve assembly and muffler.

Note: It is very important to reconnect the lines to the correct place. If they are reconnected incorrectly, the engine will not run properly.

Section 20: How to Range Test the DX5e

Before each flying session, and especially with a new model, it is important to perform a range check. The DX5e incorporates a range testing system which, when placed in the RANGE CHECK mode with the trainer switch activated and held, reduces the output power, allowing a range check.

RANGE TESTING THE DX5E

Step 1

With the model resting on the ground, stand 30 paces (approx. 90 feet) away from the model.

Step 2

Face the model with the transmitter in your normal flying position. Pull and hold the trainer switch while toggling the HI/LO Rate Switch four times. The LEDs will flash and the alarm will sound indicating the system is in range check mode.

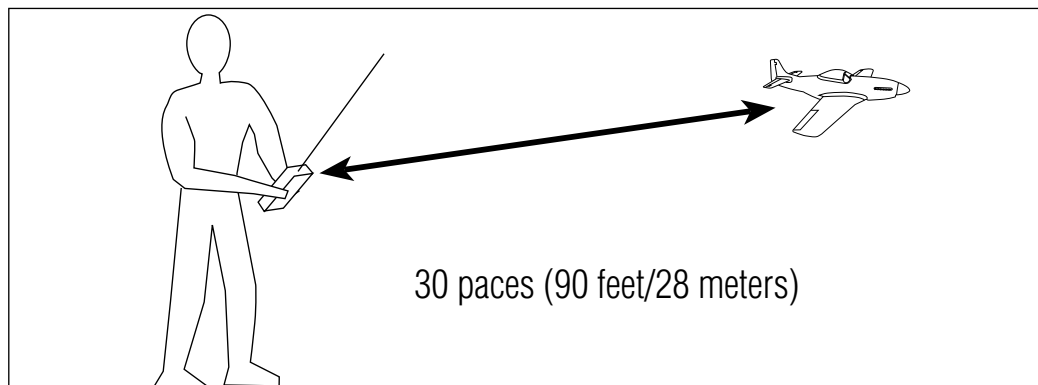


Step 3

You should have total control of the model with the trainer switch pulled at 30 paces (90 feet).

Step 4

If control issues exist, call the appropriate Horizon Product Support office or go to horizonhobby.com to find a local Spektrum distributor in your country for service.



Section 21: Starting and Adjusting the Evolution Engine

FUEL

The Evolution Engine comes adjusted from the factory. We recommend using high quality Cool Power Omega, Hangar 9® AeroBlend™ or Power Master fuels containing 10 to 15% Nitro. The Evolution Engine has been test run using these fuels. If another brand of fuel is used, it may be necessary to slightly adjust the needle valves to compensate for the differences in fuel.

GLOW PLUG

The Evolution Engine comes with a specially designed "Super Plug" that prevents idle and transition flameouts. The plug's unique shape directs incoming fuel/air mixture away from the plug element. When replacing the plug, be sure to replace it with another Evolution Super Plug (EVOGP1).

STARTING THE ENGINE

Step 1

Fill the tank with the above-mentioned 10 or 15% fuel.

Step 2

Reattach the fuel lines, making sure the vent and clunk line are attached to the fuel nipple and the muffler pressure nipple.

Caution: Do not attach the glow driver yet.

Step 3

With the throttle fully open, place your thumb over the carburetor and rotate the prop clock-wise through 6 complete revolutions, thus priming the engine.

Step 4

Close the throttle to the idle position and have a helper hold your airplane.

Step 5

Attach the glow driver.

Step 6

Turn the engine over using an electric starter. The engine should fire within seconds of applying the starter.

Step 7

Allow the engine to idle for 30 seconds. Adjust the throttle trim if necessary to achieve a constant slow idle.

Step 8

With the glow driver still attached and a helper securely holding the airplane, advance the throttle smoothly to full throttle. The engine will transition to full rpm.

Step 9

Reduce the throttle to idle and remove the glow driver.

NEEDLE LIMITERS

In some conditions: Due to high altitudes, extreme temperatures, etc., it may be necessary to slightly adjust the idle and high-speed needle valves. The high- and low-speed needles have limiters that prevent over-adjustment. To adjust the high & low speed needles, please refer to the engine manual.

Section 22: Maintaining Your Alpha 40 RTF

The following is a check list that you should follow every time you have completed a flying session with your Alpha 40 RTF. Doing so will keep your aircraft in the best flying condition.

Clean Up

After any flying session with your Alpha 40 RTF, you will want to clean it up before loading it into your vehicle to head home. Use glass cleaner and a paper towel to wipe down the exterior of your plane, removing the fuel residue. Remember a clean plane will last longer since the fuel won't be allowed to soak into any exposed wood.

Checking the Propeller

Check to make sure the propeller is tightly secured to the engine. If not, remove the spinner and use an adjustable wrench to tighten it back down. If you have had any not-so-great landings, you will want to inspect the propeller for any damage. Small nicks and scratches can quickly become fractures, causing the propeller to be unsafe for flight. Always carry a few spare propellers so a damaged propeller can be replaced at the field, increasing your flying time per trip to the field.

Checking the Clevises

Inspect the aileron, elevator and rudder clevises to make sure they are connected and in good working order. If you find a clevis that is showing signs of wear or is broken, replace it with a new clevis. Also check the nylon connectors at the servo for any wear or damage. If they look worn or in bad shape, replace them as well.

Checking the Control Horns

Inspect the control horns to make sure they have not crushed the wood of the control surface. If so, remove the control horn screws to remove the control horn. Place 2–3 drops of thin CA into each of the screw holes. In addition, use a T-pin to poke small holes in the covering in the area where the control horn mounts, then saturate the area with thin CA. This will harden the wood and give the control horns a solid surface to be mounted to.

Checking the Wheel Collars

Check the setscrews on the main and nose wheel collars, as well as the wheel collars on the elevator linkage, to make sure they are not loose. Use a hex wrench or Phillips screwdriver as necessary to tighten the setscrews. It is suggested if they loosen frequently to remove them, apply threadlock to the setscrews, then secure the wheel collars back into position.

Check the Muffler Bolts

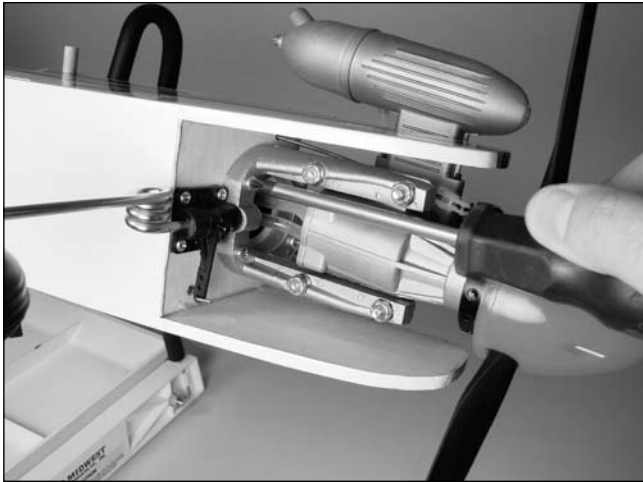
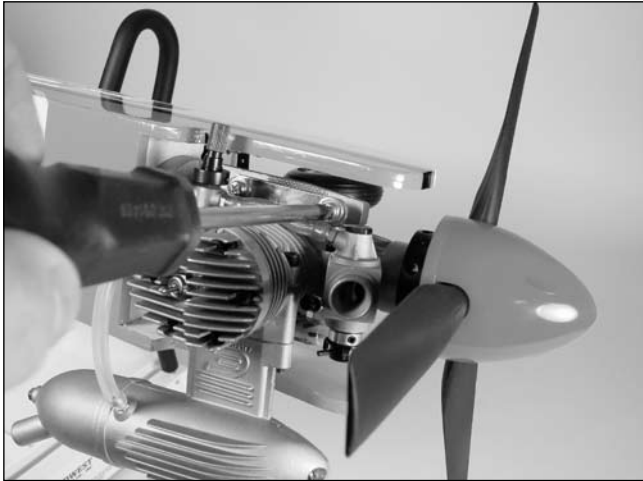
Use a 2.5mm hex wrench to make sure the bolts holding the muffler onto the engine are tight and have not vibrated loose during flight.



Section 22: Maintaining Your Alpha 40 RTF

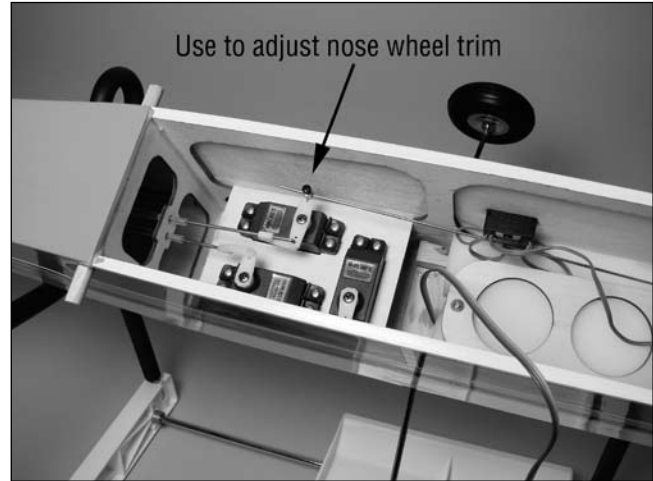
☐ Check the Engine Mount Bolts

Remove the spinner and propeller from the engine. Remove the exhaust stacks from the fuselage, and then remove the cowling from the fuselage. Remove the muffler from the engine, and then use a Phillips screwdriver to make sure the four bolts securing the engine to the mount are tight.



☐ Adjusting the Steering Trim

When adjusting the steering trim, do not use the trim on the transmitter. The rudder trim on the transmitter is used to trim the rudder while the aircraft is in flight. If you find your model does not track straight during taxi, loosen the screw and adjust the position of the nose wheel. Remember to tighten the screw as soon as you have changed the position of the nose wheel.



Safety Do's and Don'ts for Pilots

- Ensure that your batteries have been properly charged prior to your initial flight.
 - Keep track of the time the system is turned on so you will know how long you can safely operate your system.
 - Perform a ground range check prior to the initial flight of the day. See the "Daily Flight Checks Section" for information.
 - Check all control surfaces prior to each takeoff.
 - Do not fly your model near spectators, parking areas or any other area that could result in injury to people or damage of property.
- Do not fly during adverse weather conditions. Poor visibility can cause disorientation and loss of control of your aircraft. Strong winds can cause similar problems.
 - Do not point the transmitter antenna directly toward the model. The radiation pattern from the tip of the antenna is inherently low.
 - Do not take chances. If at any time during flight you observe any erratic or abnormal operation, land immediately and do not resume flight until the cause of the problem has been ascertained and corrected. Safety can never be taken lightly.

Daily Flight Checks

Step 1

Check the battery voltage on both the transmitter and the receiver battery packs. Do not fly below 4.3V on the transmitter or below 4.7V on the receiver. To do so can crash your aircraft.

Note: When you check these batteries, ensure that you have the polarities correct on your expanded scale voltmeter.

Step 2

Check all hardware (linkages, screws, nuts, and bolts) prior to each day's flight. Be sure that binding does not occur and that all parts are properly secured.

Step 3

Ensure that all surfaces are moving in the proper manner.

Step 4

Perform a ground range check before each day's flying session.

Step 5

Prior to starting your aircraft, turn off your transmitter, then turn it back on. Do this each time you start your aircraft. If any critical switches are on without your knowledge, the transmitter alarm will warn you at this time.

Step 6

Check that all trim levers are in the proper location.

Step 7

All servo pigtailed and switch harness plugs should be secured in the receiver. Make sure that the switch harness moves freely in both directions.

Glossary of Terms

Ailerons: Each side of this airplane has a hinged control surface (aileron), located on the trailing edge of the wing. Move the aileron stick on the transmitter left, the left aileron moves up and the right aileron moves down. Moving the left aileron up causes more drag and less lift, causing the left wing to drop down. When the right aileron moves down, more lift is created, causing the right wing to rise. This interaction causes the airplane to turn or roll to the left. Perform the opposite actions, and the airplane will roll to the right.

Clevis: The clevis connects the wire end of the pushrod to the control horn of the control surface. Being a small clip, the clevis has fine threads so that you can adjust the length of the pushrod.

Control Horn: This arm connects the control surface to the clevis and pushrod.

Dihedral: The degree of angle (V-shaped bend) at which the wings intersect the fuselage is called dihedral. More dihedral gives an airplane more aerodynamic stability. Some sailplanes and trainer planes with large dihedral dispense with ailerons and use only the rudder to control the roll and yaw.

Elevator: The hinged control surface on the back of the stabilizer that moves to control the airplane's pitch axis. Pulling the transmitter's control stick toward the bottom of the transmitter moves the elevator upward, and the airplane begins to climb. Push the control stick forward, and the airplane begins to dive.

Fuselage: The main body of an airplane.

Hinge: Flexible pieces used to connect the control surface to the flying surface. All hinges must be glued properly and securely to prevent the airplane from crashing. (This has already been done for you on the Alpha Advanced trainer.)

Horizontal Stabilizer: The horizontal flying surface of the tail gives the airplane stability while in flight.

Leading Edge: The front of a flying surface.

Main Landing Gear: The wheel and gear assembly the airplane uses to land. It is attached to the bottom of the fuselage.

Nose Gear: The part of the landing gear that is attached to the nose of the fuselage. The nose gear is usually connected to the rudder servo to help you steer the airplane on the ground.

Pitch Axis: The horizontal plane on which the airplane's nose is raised or lowered. By moving the elevator, you can raise the airplane's nose above the pitch axis (climb) or lower it below the pitch axis (dive).

Pushrod: The rigid mechanism that transfers movement from the servo to the control surface.

Roll Axis: The horizontal plane on which the airplane's wings are raised or lowered. By adjusting the ailerons, you can drop a wing tip below the roll axis and cause the airplane to bank or roll.

Rudder: The hinged control surface on the vertical stabilizer that controls the airplane's yaw. Moving the rudder to the left causes the airplane to yaw left; moving the rudder to the right causes it to yaw right.

Servo: The servo transforms your ground commands into physical adjustments of the airplane while it's in the air.

Servo Output Arm: A removable arm or wheel connecting the servo to the pushrod (also called servo horn).

Spinner: Term describing the nose cone that covers the propeller hub.

Threadlock: A liquid that solidifies; used to prevent screws from loosening due to vibration.

Torque Rods: Inserted into the ailerons, these rigid wire rods run along the wing's trailing edge, then bend downward and connect to the pushrod.

Vertical Stabilizer: The vertical flying surface of the tail gives the airplane stability while in flight.

Wheel Collar: The round, metal retaining piece that anchors wheels in place on the wheel axle.

Wing: The lifting surface of an airplane.

Yaw Axis: The vertical plane through which the airplane's nose rotates as it yaws to the left or to the right. The rudder controls the yaw axis.

2010 Official Academy of Model Aeronautics Safety Code

GENERAL

1. A model aircraft shall be defined as a non-human carrying device capable of sustained flight in the atmosphere. It shall not exceed limitations established in this code and is intended to be used exclusively for recreational or competition activity.
2. The maximum takeoff weight of a model aircraft, including fuel, is 55 pounds, except for those flown under the AMA Experimental Aircraft Rules.
3. I will abide by this Safety Code and all rules established for the flying site I use. I will not willfully fly my model aircraft in a reckless and/or dangerous manner.
4. I will not fly my model aircraft in sanctioned events, air shows, or model demonstrations until it has been proven airworthy.
5. I will not fly my model aircraft higher than approximately 400 feet above ground level, when within three (3) miles of an airport without notifying the airport operator. I will yield the right-of-way and avoid flying in the proximity of full-scale aircraft, utilizing a spotter when appropriate.
6. I will not fly my model aircraft unless it is identified with my name and address, or AMA number, inside or affixed to the outside of the model aircraft. This does not apply to model aircraft flown indoors.
7. I will not operate model aircraft with metal-blade propellers or with gaseous boosts (other than air), nor will I operate model aircraft with fuels containing tetranitromethane or hydrazine.
8. I will not operate model aircraft carrying pyrotechnic devices which explode, burn, or propel a projectile of any kind. Exceptions include Free Flight fuses or devices that burn producing smoke and are securely attached to the model aircraft during flight. Rocket motors up to a G-series size may be used, provided they remain firmly attached to the model aircraft during flight. Model rockets may be flown in accordance with the National Model Rocketry Safety Code; however, they may not be launched from model aircraft. Officially designated AMA Air Show Teams (AST) are authorized to use devices and practices as defined within the Air Show Advisory Committee Document.
9. I will not operate my model aircraft while under the influence of alcohol or within eight (8) hours of having consumed alcohol.
10. I will not operate my model aircraft while using any drug which could adversely affect my ability to safely control my model aircraft.
11. Children under six (6) years old are only allowed on a flightline or in a flight area as a pilot or while under flight instruction.
12. When and where required by rule, helmets must be properly worn and fastened. They must be OSHA, DOT, ANSI, SNELL or NOCSAE approved or comply with comparable standards.

2010 Official Academy of Model Aeronautics Safety Code

Radio Control

1. All model flying shall be conducted in a manner to avoid over flight of unprotected people.
2. I will have completed a successful radio equipment ground-range check before the first flight of a new or repaired model aircraft.
3. I will not fly my model aircraft in the presence of spectators until I become a proficient flier, unless I am assisted by an experienced pilot.
4. At all flying sites a line must be established, in front of which all flying takes place. Only personnel associated with flying the model aircraft are allowed at or in front of the line. In the case of airshows demonstrations straight line must be established. An area away from the line must be maintained for spectators. Intentional flying behind the line is prohibited.
5. I will operate my model aircraft using only radio control frequencies currently allowed by the Federal Communications Commission (FCC). Only individuals properly licensed by the FCC are authorized to operate equipment on Amateur Band frequencies.

Free Flight

1. I will not launch my model aircraft unless I am at least 100 feet downwind of spectators and automobile parking.
2. I will not fly my model aircraft unless the launch area is clear of all individuals except my mechanic, officials, and other fliers.
3. I will use an effective device to extinguish any fuse on the model aircraft after the fuse has completed its function.

Control Line

1. I will subject my complete control system (including the safety thong where applicable) to an inspection and pull test prior to flying. The pull test will be in accordance with the current Competition Regulations for the applicable model aircraft category. Model aircraft not fitting a specific category shall use those pull-test requirements as indicated for Control Line Precision Aerobatics.
2. I will ensure that my flying area is clear of all utility wires or poles and I will not fly a model aircraft closer than 50 feet to any above-ground electric utility lines.
3. I will ensure that my flying area is clear of all nonessential participants and spectators before permitting my engine to be started.

Warranty Information

Warranty Period

Exclusive Warranty- Horizon Hobby, Inc., (Horizon) warrants that the Products purchased (the "Product") will be free from defects in materials and workmanship at the date of purchase by the Purchaser.

Limited Warranty

Horizon reserves the right to change or modify this warranty without notice and disclaims all other warranties, express or implied.

(a) This warranty is limited to the original Purchaser ("Purchaser") and is not transferable. REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER. This warranty covers only those Products purchased from an authorized Horizon dealer. Third party transactions are not covered by this warranty. Proof of purchase is required for all warranty claims.

(b) Limitations- HORIZON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCT. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.

(c) Purchaser Remedy- Horizon's sole obligation hereunder shall be that Horizon will, at its option, (i) repair or (ii) replace, any Product determined by Horizon to be defective. In the event of a defect, these are the Purchaser's exclusive remedies. Horizon reserves the right to inspect any and all equipment involved in a warranty claim. Repair or replacement decisions are at the sole discretion of Horizon. This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of or to any part of the Product. This warranty does not cover damage due to improper installation, operation, maintenance, or attempted repair by anyone other than Horizon. Return of any Product by Purchaser must be approved in writing by Horizon before shipment.

Damage Limits

HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCT, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE, OR STRICT LIABILITY. Further, in no event shall the liability of Horizon exceed the individual price of the Product on which liability is asserted. As Horizon has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability.

If you as the Purchaser or user are not prepared to accept the liability associated with the use of this Product, you are advised to return this Product immediately in new and unused condition to the place of purchase.

Law: These Terms are governed by Illinois law (without regard to conflict of law principals).

Warranty Services

Questions, Assistance and Repairs

Your local hobby store and/or place of purchase cannot provide warranty support or repair. Once assembly, setup or use of the Product has been started, you must contact Horizon directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance. For questions or assistance, please direct your email to productsupport@horizonhobby.com, or call 877.504.0233 toll free to speak to the Product Support Department.

Inspection or Repairs

If this Product needs to be inspected or repaired, please use the Horizon Online Repair Request submission process found on our website or call Horizon to obtain a Return Merchandise Authorization (RMA) number. Pack the Product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, as Horizon is not responsible for merchandise until it arrives and is accepted at our facility. An Online Repair Request is available at www.horizonhobby.com <http://www.horizonhobby.com> under the Repairs tab. If you do not have internet access, please contact Horizon Product Support to obtain a RMA number along with instructions for submitting your product for repair. When calling Horizon, you will be asked to provide your complete name, street address, email address and phone number where you can be reached during business hours. When sending product into Horizon, please include your RMA number, a list of the included items, and a brief summary of the problem. A copy of your original sales receipt must be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

Notice: Do not ship batteries to Horizon. If you have any issue with a battery, please contact the appropriate Horizon Product Support Department.

Warranty Inspection and Repairs

To receive warranty service, you must include your original sales receipt verifying the proof-of-purchase date. Provided warranty conditions have been met, your Product will be repaired or replaced free of charge. Repair or replacement decisions are at the sole discretion of Horizon.

Non-Warranty Repairs

Should your repair not be covered by warranty the repair will be completed and payment will be required without notification or estimate of the expense unless the expense exceeds 50% of the retail purchase cost. By submitting the item for repair you are agreeing to payment of the repair without notification. Repair estimates are available upon request. You must include this

request with your repair. Non-warranty repair estimates will be billed a minimum of ½ hour of labor. In addition you will be billed for return freight. Horizon accepts money orders and cashiers checks,

as well as Visa, MasterCard, American Express, and Discover cards. By submitting any item to Horizon for inspection or repair, you are agreeing to Horizon's Terms and Conditions found on our website under the Repairs tab.

Country of Purchase	Horizon Hobby	Address	Phone Number/ Email
United States	Horizon Service Center (Electronics and engines)	4105 Fieldstone Rd Champaign, Illinois 61822 USA	877-504-0233 productsupport@horizonhobby.com
	Horizon Product Support (All other products)	4105 Fieldstone Rd Champaign, Illinois 61822 USA	877-504-0233 productsupport@horizonhobby.com
United Kingdom	Horizon Hobby Limited	Units 1-4 Ployters Rd Staple Tye Harlow, Essex CM18 7NS United Kingdom	+44 (0) 1279 641 097 sales@horizonhobby.co.uk
Germany	Horizon Technischer Service	Hamburger Str. 10 25335 Elmshorn Germany	+49 4121 46199 66 service@horizonhobby.de
France	Horizon Hobby SAS	14 Rue Gustave Eiffel Zone d'Activité du Réveil Matin 91230 Montgeron	+33 (0) 1 60 47 44 70

FCC Information

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

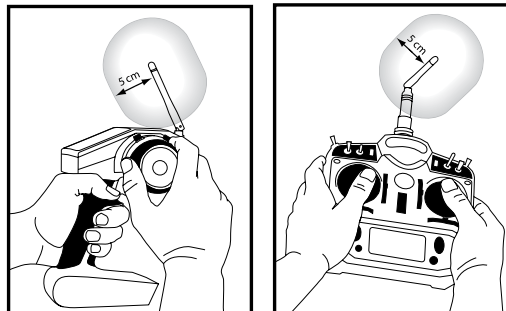
Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This product contains a radio transmitter with wireless technology which has been tested and found to be compliant with the applicable regulations governing a radio transmitter in the 2.400GHz to 2.4835GHz frequency range.

Antenna Separation Distance

When operating your Spektrum transmitter, please be sure to maintain a separation distance of at least 5 cm between your body (excluding fingers, hands, wrists, ankles and feet) and the antenna to meet RF exposure safety requirements as determined by FCC regulations.

The following illustrations show the approximate 5 cm RF exposure area and typical hand placement when operating your Spektrum transmitter.



Compliance Information for the European Union

The following information is for item numbers:
HAN4400EU1, HAN4400EU2, HAN4400UK1, HAN4400UK2



AT	BG	CZ	CY	DE
DK	ES	FI	GR	HU
IE	IT	LT	LU	LV
MT	NL	PL	PT	RO
SE	SI	SK	UK	

The following information is for item numbers:
HAN4400FR1, HAN4400FR2



AT	BG	CZ	CY	DE
DK	ES	FI	FR	GR
HU	IE	IT	LT	LU
LV	MT	NL	PL	PT
RO	SE	SI	SK	UK

CE Declaration of Conformity

(in accordance with ISO/IEC 17050-1)

No. HH20100526U1

Product(s): HAN Alpha 40 RTF

Item Number(s): HAN4400

Equipment class: 2

The object of declaration described above is in conformity with the requirements of the specifications listed below, following the provisions of the European R&TTE directive 1999/5/EC:

EN 300-328 Technical requirements for Radio equipment.

EN 301 489-1, 301 489-17 General EMC requirements

EN 60950 Safety

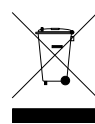
Signed for and on behalf of:

Horizon Hobby, Inc.

Champaign, IL USA

May 26, 2010

Steven A. Hall
Vice President
International Operations and Risk Management
Horizon Hobby, Inc.



Instructions for Disposal of WEEE by Users in the European Union

This product must not be disposed of with other waste. Instead, it is the user's responsibility to dispose of their waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or where you purchased the product.



Fly First Class™



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