WARNING! THIS IS NOT A TOY!
THIS IS NOT A BEGINNERS AIRPLANE

This R/C kit and the model you will build from it is not a toy! It is capable of serious bodily harm and property damage. It is your responsibility, and yours alone - to build this kit correctly, properly install all R/C components and flying gear (engine, tank, radio, pushrods, etc. and to test the model and fly it only with experienced, competent help, using common sense and in accordance with all safety standards as set forth in the Academy of Model Aeronautics Safety Code. It is suggested that you join the AMA and become properly insured before attempting to fly this model. If you are just starting R/C modeling, consult your local hobby dealer or write to the Academy of Model Aeronautics to find an experienced instructor in your area.

Write to: Academy of Model Aeronautics, 5151 Memorial Dr. Muncie, IN 47302

LIMITED WARRANTY

Carl Goldberg Products is proud of the care and attention that goes into the manufacture of parts for its model kits. The company warrants that for a period of 90 days, it will replace, at the buyer's request, any part or material shown to the company's satisfaction to have been defective in workmanship or material at the time of purchase.

No other warranty of any kind, expressed or implied, is made with respect to the merchandise sold by the company. The buyer acknowledges and understands that he is purchasing only a component kit from which the buyer will himself construct a finished flying model airplane. The company is neither the manufacturer of such a flying model airplane, nor a seller of it. The buyer hereby assumes the risk and all liability for personal or property damage or injury arising out of the buyer's use of the components or the finished flying model airplane, whenever any such damage or injury shall occur.

Any action brought forth against the company, based on the breach of the contract of sale to the buyer, or on any alleged warranty there under, must be brought within one year of the date of such sale, or there after be barred. This one-year limitation is imposed by agreement of the parties as permitted by the laws of the state of Georgia.

IMPORTANT INFORMATION

Covering coming loose is not COVERED UNDER WARRANTY. Due to temperature changes the plane may develop some wrinkles in the covering that you will need to remove with an iron. Be sure to seal the edges down first so that you do not cause the covering to shrink and leave exposed areas of wood. Please inspect the plane before beginning to assemble to make sure you are happy with it. After assembly has begun you cannot return the kit. If you find a problem before beginning to assemble the plane you must contact us, please do not return it to the dealer.
Congratulations on your purchase of the Lanier Wild Stick .40. This is a very unique aircraft, with great 3-D capabilities. Every effort has been made to produce a lightweight, straight, easy to assemble aircraft. Because of its oversize control surfaces which are double beveled to allow for extreme throws, great care must be taken in the set-up and flying of this airplane. Quality hardware components have been provided to allow for 3D set-up while maintaining adequate mechanical advantage to eliminate flutter. It is your responsibility as an advanced pilot to fly the aircraft in an intelligent manner. THROTTLE MANAGEMENT IS A MUST!!!!!!! We at Lanier have put the Wild Stick .40 through a very rigorous flight-testing schedule and have stressed the airframe beyond all practical parameters without a single failure. Lanier will NOT warrant the Wild Stick .40 against flutter due to improper set-up or excessive speed maneuvers. Having said that, we believe you will find the Wild Stick .40 to be one of the most responsive, in-the-grove aircraft on the market. The Wild Stick .40 excels at high-alpha maneuvers including Harriers (both upright and inverted), high-alpha rolls, and high-alpha knife edge. Torque rolls, waterfalls, knife edge loops and elevators are all within the performance parameters of this unique aircraft. Just remember to use common sense when flying this high performance machine.
(1) Fuselage 1
(2) Wing Halves 2
(3) Ailerons 4
(4) Stabilizer 1
(5) Elevator Halves 2
(6) Fin 1
(7) Rudder 1
(8) Landing Gear 1
(9) Dihedral Brace 1
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BUILDING INSTRUCTIONS

Before starting to build this kit, we urge you to read through these instructions. They contain some important building sequences as well as instructions and warnings concerning the assembly and use of the model. We expect that you have some building experience to take on this model. However, every minute detail is not covered. This is not a basic trainer. The instructions together with the simplicity of this kit will allow you to produce a first class Wild Stick 3-D.

BUILDING SUPPLIES NEEDED
Hobby knife w/ #11 blade
Thin Zap CA
30 Minute Z-poxy
Thread lock
Wire cutters
Pliers
Drill with bits: 1/8", 5/32", 1/16" 5/64"
Phillips and standard screwdriver
Small clamps
Masking tape
Tape measure
Washable marker
Paper towels
Rubbing alcohol

See the list at the end of the instruction book for a list of additional R/C equipment you will need to complete the Wild Stick .40.

WING CONSTRUCTION

Collect the following parts:
1. left and right wing panel
2. dihedral brace
3. wing holddown bolts(2)

1. Trial fit the dihedral brace in the slot on one wing. The wing is flat (no dihedral) so the brace should fit either way. Slide the other wing panel in place and make sure the joint in the center is closed.

2. Mix some 30 minute epoxy and spread on all sides of the dihedral brace, front back and edges.
3. Spread epoxy on the root rib of each wing panel. Use a thin scrap of wood and work some of the epoxy down into the slots for the dihedral brace on each panel.

4. Use masking tape to hold the wing panels firmly together while the epoxy sets. Lay the wing flat on the floor or workbench while the epoxy cures. Do not stand the wing on one tip, all the glue will run to one end and give you a poor joint.

5. Locate the two 4mm x 45mm bolts and two 4mm flat washers.

6. After the epoxy has cured, bolt the wing in place on the fuselage.

尾部构造

- 找到以下部件：
  1. 稳定器与升降舵
  2. 机身与舵

3. 尼龙控制舵

4. 尼龙螺母

5. 2mm x 20mm 螺丝

6. 硅酮接头保持器

1. 找到控制舵在升降舵的内侧边。确保铰链线上的孔与接头对齐。在四个位置标记孔的位置。使用2mm螺丝和螺母将控制舵固定。

Wild Stick .40
2. Remove the elevators from the stab and make sure all the hinges are centered in the slots. To make sure the hinges are centered, use a straight pin in the middle of the hinge when pushing the elevator onto the stab.

3. Flex the elevator to the full extent of its travel in one direction. Make sure the hinge line stays closed as close as possible. Apply a drop of thin CA to each hinge. Turn the stab over, flex the elevator to the full travel in the other direction and apply glue to each hinge. Go back and apply another drop of glue to each hinge.

4. Set the stab in place in the slot on the rear of the fuselage.

5. Measure the stab to make sure it is centered in the fuselage. Make sure the slot for the fin is centered on the fuselage. Move the stab until dimension X-X are the same. This will have the stab square to the fuselage.

6. When you have the stab square to the fuselage, make a mark along the side of the fuselage on the bottom of the stab.
7. Use a razor blade or Exacto knife to carefully remove the covering inside the marks on the bottom of the stab. Cut carefully so as not to cut the wood, just the covering.

8. Mix some 30 minute epoxy and apply to the bare wood on the bottom of the stab and in the slot on the rear of the fuse. Reinstall the stab and check to make sure it is square. Use pins to hold in place. Check the alignment with the wing by sighting from the front and rear. Apply pressure to one side if necessary to make stab parallel to wing.

9. Remove the covering from the bottom portion of the rudder where it plugs into the stab.

10. Fit the fin in place and make a mark around it. Remove the covering inside the marks on both the stab and the rear portion of the fuselage behind the stab.
11. Epoxy the fin in place making sure it is square to the stab and centered on the fuselage in the rear.

**LANDING GEAR**

Collect the following parts:
1. Tail wheel bracket
2. Tail wheel
3. Wheel collar
4. Three 2mm screws
5. Three 2mm washers

1. Place the tail wheel bracket on the bottom of the fuselage with the tiller are flush against the rear of the fuselage and centered.

2. Drill a 1/16” hole at the three holes in the tail wheel bracket.

3. Use the three 2mm screws and washers to mount the tail wheel bracket.

4. Install the tail wheel using wheel collar.

Locate the following parts:
1. Landing gear
2. Two wheels
3. Two axels
4. Two axle nuts
5. Four wheel collars
6. Six flat washers
7. Four mm screws
5. Fit the landing gear to the bottom of the fuselage and install the four screws and flat washers. Use lock-tite on the screws.

6. Install the axels using the aircraft lock nuts.

7. Install the wheels using one wheel collar on the inside and one on the outside of the wheel.

Rudder installation

1. Install two control horns on the rudder with the bottom edge of the control horn flush with the bottom edge of the rudder. Use two 2mm screws with nuts to mount the two horns.
2. Locate the position of the tail wheel tiller arm and drill a 3/32' hole. Cut a slot from the hole to the bottom of the rudder to accept the wire. Apply a small amount of epoxy in the hole and fit the rudder in place on the hinges. Use straight pin to keep the hinges centered as we did on the elevators.

3. Deflect the rudder to the full extent of its travel and make sure the hinge line is closed. Make sure the rudder counter balance clears the top of the fin and does not hit it as it swings from side to side. Apply a drop of thin CA to each hinge. Deflect the rudder in the opposite direction and apply another drop of glue to each hinge on the opposite side.

**Engine Installation**

1. Locate the following parts:
   1. Two motor mounts
   2. Four 4mmx25mm screws
   3. Four 4mm blind nuts
   4. Four 4mmx35mm bolts
   5. Four 4mm aircraft lock nuts.
   6. 8 4mm flat washers

2. Clamp your engine to the two motor mount making sure that both sides of the mounts sit squarely on the table. Make sure the engine is not offset to the left or right in the mount. Mark the location of the four holes.

3. Drill four holes and mount the engine using the four 4mm bolts and aircraft lock nuts.
3. Center the engine on the firewall and mark the location of the four mounting bolts.

4. Install the four blind nuts in the firewall. The best way to install the nuts is to use a piece of wire to pull the nuts into place.

5. Pull the nuts up with the wire then install the bolt and washer through the hole and tighten to finish pulling the blind nut into the hole.

6. After all four nuts are pulled tight, install the engine using the four 4mm bolts and washers. Use lock tite on the bolts.

Radio Installation

1. For the Ailerons you will need four servos and two 12” servo extensions.
2. **Install the servos using the hardware supplied with the radio. Use the stings installed in the wing to pull the wires through to the center of the wing.**

3. **Hinge the ailerons using the same method used on the elevators. Center all hinges and use thin CA to glue in place making sure you have full deflection in both directions and a tight hinge line.**

4. **Use a straight edge to mark the location of the four aileron horns in line with the output arm. Install the four horns using the 2mm bolts and nylon plates. Align over the hinge line as we did on the elevators.**
5. Locate one of the 2mm pushrods, metal clevis, silicone clevis keeper, and nylon swing in keeper. Make sure the clevis is screwed on the pushrod with about 1/16” of threads showing on the inside of the clevis. Install the clevis on the control horn. Make sure the servo is centered and the aileron is in neutral. Mark the location of the wire where it crosses the control horn and bend at a 90 degree angle. Cut the angle off at 3/8”. Install the pushrod in the control horn and retain using the nylon swing in keeper.

6. Install the rudder servo in the bottom of the fuselage at the rear using hardware supplied with radio.

7. Install the rudder pushrods the same way we installed the aileron pushrod. Locate two 2mm x 30cm pushrods, install the clevises on the horns, center the rudder and servo. Mark the bend at the servo end and bend 90 degrees. Cut off at 3/8”. Install in servo arm and retain with nylon swing in keeper.
8. Install the elevator servo, throttle servo and switch in the cutouts provided in the servo tray.

9. Use a long 3/16” drill and drill a hole in the firewall in line with the throttle are.

10. Bend a 90 degree angle in the end of the throttle pushrod and cut at 3/8”. Attach to the throttle arm and retain with a nylon swing in keeper.

11. Locate the pushrod connector and attach it to a servo arm. It has a washer on top of the arm, the bottom of the arm, then install nut. Use a drop of CA glue on nut to make sure it does not come loose. Make sure the pushrod connector will rotate in the servo arm.
12. Slide the 5mm plastic tube on the throttle pushrod until it extends 1/4” through the firewall. Install the pushrod connector on the servo. Open the throttle full and set the throttle servo to full. Tighten the set screw on the pushrod connector onto the pushrod. Cut the pushrod off about 1/4” past the connector. The throttle can be adjusted by loosening the screw on the pushrod connector if necessary.

13. Locate the 14” wooden dowel, two 12” threaded rods with clevis, one 6” piece of 2mm wire, and two pieces of Shrink tubing.

14. Take the two pushrods and bend a 90 degree angle at 8-1/2” on one and 8-11/16” on the other. The difference in length will make the ends even after you install them in the holes in the wooden dowel.

15. Insert the ends of the pushrods in the pre-drilled holes in the dowel with the short one in the rear most hole.

16. Glue in place with CA glue then install the Shrink tubing and shrink it tight.

17. Bend the pushrods out until the clevises are about 2-1/2” apart.
18. Install the 6” piece of wire on the other end of the dowel and glue in place. Install the heat shrink tube.

19. Install the pushrod in the fuselage guiding the rods out each side of the fuselage in the slots provided.

20. Connect the clevis to the horn on both sides with the silicone keeper installed.

21. Center the servo arm, make sure the elevators are centered and mark the wire on the control arm. Bend 90 degrees and cut at 3/8”. Install in servo arm and retain with nylon swing in keeper.

Fuel Tank

1. Locate the fuel tank and hardware.

2. Assemble the tank cap with the big washer, the rubber stopper, and the little washer in the rear. For a two line system we will only use the long piece of aluminum tube and one short one.

3. Insert the tubes through the stopper and attach the silicone tubing on the short one. Cut the tubing so that when the clunk is attached it will be about 1/4” off the bottom of the tank when held vertically. Leave the tubes out the front of the cap about 3/4” and bend the long tube at a 45 degree angle so it goes to the top of the tank when installed.
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4. Install stopper in tank and tighten the bolt in the center until stopper is snug. Don’t over tighten. Clunk should move freely and vent tube should be to the top of the tank.

5. Install the tank in the fuselage with the cap in the hole in the firewall.

6. If necessary for balance, the battery can be installed under the tank before it is installed.

7. Install the receiver and battery (if necessary) in the area in front of servo tray and behind tank. Use form around receiver.

Final Setup

The CG should be between 4” and 4-1/2” behind the leading edge of the wing.

The control throws should be:

**Elevator**
- Low Rate +or- 1”
- High Rate All you can get

**Ailerons**
- Low Rate +or- 1/2”
- High Rate All you can get

**Rudder**
- Low Rate +or- 2”
- High Rate All you can get

The four aileron setup gives you several options. If you want to fly the plane in a normal setup, just use three y-connectors and connect all four aileron servos into the aileron channel. This will give a normal aileron setup. Because of the large size the roll rate will be really rapid. If you want just flaps and ailerons you can use two y-connectors and plug the two outside servos into the aileron channel and the two inboard into the flap channel. If you have a computer radio you can explore several other flight modes. In the following modes you will need to plug all four aileron servos into different channels. Consult your radio manual for the proper channels.

(1). Flaperons. In this mode you will couple the two inboard aileron servos with the elevator servo. Adjust the radio so that up elevator causes both flaps to go down, down elevator will cause the flaps to go up. This setup allows very tight loops and very square corners.
(2). Crow. In this mode the two out-board ailerons move to the up position and the flaps move to the down position. This is a very high drag condition and will allow you to make very steep descents, then slow to a crawl to land. It is also used to do the “Harrier”. In this maneuver you slow the plane down, flip the switch for the crow configuration, and slowly feed in full up elevator. The plane will get into a very high angle of attack, 50 to 60 degrees. You will have to use the throttle to maintain the attitude. The crow set-up make the plane very stable in this attitude.

It is recommended that before trying these different modes that you fly the plane with a standard set-up to get used to the plane. When turning on the different flight modes be sure to have plenty of altitude for your first tries. Because of the large control surfaces, the plane can get out of control very quickly if you are not ready for it or if you have something not set up correctly. If the flight modes are not set-up correctly, the plane could be unflyable in that configuration, so be ready to turn it off if you cannot handle it.

Thank you buying the Wild Stick .40 so go have some fun.

The colors used on your Wild Stick are matched to Ultra Coat:
True Red #866
Black # 804
Bright Yellow #872

To complete your plane you will need a motor, .40 to .50 two stroke or .50 to .70 four stroke. You will need the appropriate size prop for the engine you choose plus a spinner nut or 2” to 2-1/2” spinner. You will need a 5 channel radio plus 7 servos. It will require two 12” servo extension wires and two y-connectors. You will need about 12” of fuel line to connect from the tank to the engine.