OHIO MODEL PRODUCTS

EDGE 540 V3 PROFILE

Specifications:

Wingspan: 47"
Wing Area: 752 sq in
Length: 46 1/2"
Approx. Weight: 4.25 lbs.
Engine: .46 to .52 two-strk,
.52 to .82 four-strk

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Thank you for purchasing the OMP Edge 540 Profile. The original OMP Edge 540 was created in the summer of 2001 as the result of my desire to learn 3D aerobatics at a very reasonable cost using standard radio equipment and readily available .40 – .46 size sport motors. After flying many fun fly aircraft on the market I decided to design my own based on the popular Edge 540, which has proven itself at all levels of aerobatic competition. The large wing area, thick aspect ratio, and tail design allow this aircraft to perform anything you can imagine: elevators, harriers, super fast waterfalls, knife edge spins, positive and inverted climbing flat spins, and of course rock solid hovers and torque rolls. Although I had never flown 3D aerobatics before, I learned to perform all these maneuvers with this aircraft in a short period of time.

In our continuing effort to bring the best in performance to our customers, we have improved on this model in both construction, features, and performance. The New Version 3 Edge Profile incorporates the latest in OMP innovative design and construction. Included is a fiberglass tube reinforced fuselage for maximum durability, a two piece wing with easy assembly and disassembly at the field, and the latest in precision laser cut parts. The OMP Edge 540 was designed to be the perfect 3D profile trainer in the 40 size class. You can now learn 3D aerobatics at a very reasonable cost using standard radio equipment and readily available .46 to .72 size sport motors. I hope you will enjoy the Edge 540 Profile as much as we have – *Mike Pilkenton.*

A QUICK WORD ABOUT SAFETY AND RADIO CONTROL FLYING MODELS

With radio control aircraft, like any hobby or sport, there are certain risks. The operator of these models are responsible for these risks. If misused or abused, you may cause serious bodily injury and/or damage to property. With this in mind, you will want to be certain that you build your model carefully and correctly. If you are not an experienced flier, have your work checked and ask for help in learning to fly safely. This model aircraft is not a toy and must be operated and flown in a safe manner at all times.

Always perform a pre-flight check of the model including all control surfaces, proper function of the radio gear, structure, radio range, and any other area relating to the safe operation of this aircraft.

Models are not insurable but operators are. You can obtain coverage through membership in the Academy of Model Aeronautics (AMA). For an AMA information package call 1-800-435-9262, ext. 292 or visit the AMA website at "www.modelaircraft.org".

OHIO MODEL PLANES GUARANTEE AND CUSTOMER SERVICE

Ohio Model Planes guarantees this kit to be free from defects in both material and workmanship at the date of purchase. This does not cover any parts damaged by use, misuse or modification. In no case shall OMP's liability exceed the original cost of this kit. Because OMP has no control over the final assembly or equipment/components used in the final assembly, no liability shall be assumed for any damage resulting from the use of the this model by the user. By the act of using the final assembled model, the user accepts all resulting liability. If you should find any missing or damaged parts, or have any questions about this product, please contact us at **omp@ohiomodelplanes.com** or call OMP at (937) 429-3056.

ENGINES, PROPELLERS AND MUFFLERS

The recommended engine range for the Edge 540 Profile is a .46 to .52 2-stroke engine or a .52 to .82 4-stroke engine. There are a tremendous variety of engines available and each type has its own advantages and disadvantages. The 2-stroke engines are lighter and more powerful for their weight while the 4-stroke engines are somewhat heavier but are quieter and usually have better torque transition. Additionally, the 4-strokers can turn a larger diameter prop that can deliver more airflow over the control surfaces. The choice is purely pilot preference. Selecting the proper size of propeller for your particular engine is a very important part of the whole set up. The Edge 540, as all 3d profiles, was designed to use low pitch props. What you need is air flow and vertical performance, not straight-line speed. We recommend using the lowest pitch, highest diameter propeller you can find for your particular engine. The use of high pitch props can cause air "cavitation" around the prop blades during hovering or slow vertical maneuvers. Air cavitation may sound neat but it's not what you want because the prop is no longer biting into "clean air" and you may loose altitude very quickly; so be wise when selecting your prop. Also, please be aware that the power available in today's engines, while tremendously advantageous for 3d flying, can quickly lead to over speeding the plane. Manage your throttle wisely to prevent over speeding and stressing the airframe.

Note: This manual covers both the kit and ARF versions of the Edge Profile. As with all kits, it's a good idea to read all the instructions and study the plans before you begin construction. Make sure you have a flat and sturdy workbench and follow all safety advice for the tools and adhesives you plan to use. If you have purchased the Edge ARF please skip down to the "Final Assembly Section".

Edge 540 V3 Kit Material List: (balsa except where noted)

Sheets and Sticks	Quant.	Additional Parts	Quant.
1/16 x 1 x 24	4	1/4 sq. x 24" basswood	1
1/16 x 4 x 24	8	1/4 x 3/8 x 2.25 basswood	2
1/16 x 3/8 x 36	4	3/8 sq. x 4.25 hardwood	2
1/8 x 1/4 x 36	2	1/8 x 5/8 x 2.5 lite-ply	1
1/8 x 3/8 x 36	4	3/8 x 10.5 fiberglass tube	2
1/8 x 1/2 x 24	1	3/8 x 32.5 fiberglass tube	1
1/4 sq. x 24	12	Main gear set	1
1/4 x 3/8 x 36	6	Tail skid	1
1/4 x 1/2 x 24	1	Plans	1
3/8 sq. x 24	2	CD Manual	1
3/8 sq. x 36	3		
1/4 triangle x 24	7		

Materials required to complete kit:

- 2-56 pushrods w/clevises (4-5)
- control horns (4)
- hinges
- 1/4"-20 nylon wing bolt/wingnut
- 2" main wheels
- engine, prop, and spinner
- fuel tank
- covering
- radio gear
- tail wheel and bracket (optional)

FUSELAGE CONSTRUCTION:

The fuselage is basically constructed by assembling the 3/8" thick laser cut and stick frame complete with the fiberglass tube and then sheeting both sides.

1. First assemble the main spar by gluing the 3/8" fiberglass tube to the 1/4" x 3/8" and 3/8" sq. balsa spars. Note the proper lengths, position, and the required taper at the end of the 1/4" x 3/8" piece. Use the plans to position the pieces and glue together with CA. Position and glue in place the laser cut 3/8" fuselage members as shown on the plans.

2. Frame the perimeter of the fuse structure using 1/4" and 3/8" wide balsa stock as shown on the plans. Use the laser cut pieces provided for the canopy and rear servo area. Locate and glue in place the 3/8" sq. hardwood engine rails as shown on the plans. Cut and glue in place the 1/4" x 3/8" basswood servo mounts as shown on the plans. Two laser cut pieces are provided for the rear portion of the stabilizer slot. Position and glue these in place along with the 1/4" x 3/8" bottom piece and front filler (see plans).

3. Continue framing the fuselage cross-bracing using the 1/8" x 3/8" balsa stock provided. The use of a good razor saw or sharp x-acto blade can make cutting angles on the balsa

sticks much easier and quicker. After adding the 1/8" x 3/8" balsa stinger that forms the servo wire tunnel, be sure to add the 3/8" sq. x 3" filler block where the wing trailing edge will be supported.

4. As shown in the photo and plans, you will need to carve a slot in the balsa block that is in the middle of the wing. This slot will allow your servo wires to pass through the fuse from rear to front or vice versa. Only cut the slot as wide or deep as necessary to fit your servo connectors.
5. Carefully assemble the laser cut balsa and ply fuselage side sheeting making sure all joints are tight and flat. If necessary, tape each seam with masking tape to lock in the overall shape and then flip the whole sheet over onto a piece of wax paper. Using a flat sanding block, sand the seams flat to remove any slight irregularities. Wipe off all sanding dust, and wick thin CA into each seam. Wipe off excess glue quickly with a paper towel and you are done. If you prefer not to use CA adhesives, you should cover the plans with wax paper and assemble the parts using your favorite adhesive. Give the sides a quick sanding to smooth the seams and repeat for the other side.
6. Test fit the side sheeting over the frame and align all corners to assure everything fits. It is important to have both sides aligned square from one side to the other. Use thick CA or your favorite wood glue and spread a thin bead of glue over the frame. Carefully align the sheeting and press in place using a smooth hardwood block about 1” x 2” by 10” long to slide along the sheeting as you press down firmly. This technique allows even pressure without poking through the sheeting. Repeat for the other side, again carefully aligning all corners as emphasized above. You may also temporarily install the 1/4" wing dowels to help alignment. After the glue cures, sand both sides smooth.
8. Locate the 1/8" x 1/2" x 2.5" lite-ply tail wheel mount, trim any balsa required on the bottom rear of the fuselage, and glue in place as shown on the plans.
9. Test fit your tail and throttle servos now and fine trim the openings as required. You may either glue in place the 1/4" wing anti-rotation dowel now or wait until after you cover the fuselage (recommended). When you glue it in, make sure that it extends through both sides evenly. To increase the room for a receiver you may optionally remove the 1/4" x 3/8" balsa below the fiberglass tube in the wing openings.

WING CONSTRUCTION

Note that the wing is a fully symmetrical wing and both panels are built almost exactly the same, upside down on your building board. The only real difference is the location of the servo mounts and wing tubes. The Edge has a flat top wing and the bottom tapers towards the tip.

1. The first thing we are going to do is assemble the unique ribs making sure we have both left and right hand parts. You are going to like how fast these wings can be built! Locate ribs R1, R1A, R2, and the R2A doublers. Now glue on ply R1 ribs over the balsa R1A ribs making sure they are perfectly aligned and that you assemble both right and left hand sets. Glue the R2 doublers to the inboard side of the R2 ribs making sure you align the spar slots and the wing tube holes.

2. Begin by cutting four wing sub-spars out of 1/4” sq. balsa about 11" long each. Cut each end of each spar off at approximately 45 degrees. Glue these to four 1/4" sq. x 24" balsa spars as shown in the photos and plans. You can place the spar against a straight edge before gluing to assure a straight spar.

3. Place wax paper over the plans and pin a sheet of 1/16" x 4" x 24" balsa to the plans so that the trailing edge of the sheet covers half the width of the main spar. This will later form part of the leading edge sheeting. Take one of the spar assemblies you just constructed and glue it in place so that it overlaps the sheeting by 1/8" (i.e. as shown on the plans and photos below).

4. Place all the ribs onto the bottom spar and pin in place through the rear alignment tabs. Make sure each rib is exactly at 90 degrees to your building board and glue to the bottom spar using thin CA. Be careful not glue the leading edge sheeting yet until you get a chette to pull it up later on.

5. Now glue in place the top 1/4" sq. spar making sure you keep the ribs square to the building board and in proper alignment. Cut and glue in place each of the 1/16" x 4" balsa shear webs as shown on the plans using thick CA. Note the root bay shear web will require some extra balsa to complete the shear web from R1 to R2. The grain must run vertically on the shear webs. Make sure you have adequate glue joints on all shear webs and ribs and that R1 is at exactly 90 degrees to your board (this step will lock in the rib positions).

6. Using a pencil mark the rib locations on the 3/8" sq. balsa leading edge and the 1/4" sq. balsa trailing edge. Glue in place onto the ribs making sure each is fully seating into the ribs and centered from top to bottom. Using a sanding block, carefully sand the trailing edge balsa to match the rib contour and sand the leading edge joints smooth with the ribs. Do not sand too much as to alter the airfoil shape. Now glue the 1/16" x 1" balsa trailing edge sheeting making sure the back edge is flush with the 1/4" balsa stock or overhangs just slightly. It will be sanded flush later.

7. Now it is time to pull up and glue in place the lower leading edge sheeting. It is very important to keep the R1 rib perfectly straight from front to back so that you get a nice flush fit against the fuselage. You may temporarily clamp a straight piece of wood or metal against R1 to assure this happens. Gently pull up the lower sheeting and glue to the ribs and leading edge stock using thin CA while you hold it and work from center to the ends. A nice trick is to use a piece of scrap 1/16 balsa placed under the sheeting as far under as you canget and use this to pull the sheeting up tight against the ribs while you glue. Again, make sure R1 stays straight during this step!

8. Place the leading edge top sheeting in place so that the rear edge covers half the width of the main spar. You should be able to easily bend the thin balsa over the ribs. You can lightly wet the balsa with water and ammonia to aid in bending it to shape. Trial fit and when satisfied, coat the spar, LE, and each rib with thick CA and glue the sheeting in place. The easiest way is to align the rear edge halfway over the spar and secure in place with pins or tape. Then bend the sheeting down to the LE stock and hold in place with tape until the glue dries. Work your way out from the center to each end and be sure you don't twist the ribs out of alignment. Make sure the wing is securely held in place while gluing the sheeting down as this step "locks" in the "D-Tube" and the shape of the wing. The use of weights on the trailing edge will help secure the wing.

9. Glue the aileron servo and hatch support part into the slots in R1 and R2. Sand the top smooth with the ribs.

10. Using 1/16" x 4" balsa, construct the wing root bay sheeting as shown in the photos. Cut the sheet into 5” wide pieces to cover the root bay. You can get a smoother finish if you first glue and trim all pieces together on a flat building board before gluing them onto the wing. Trim the edges to fit the wing and glue in place using thick CA.

11. Cap the exposed ribs using 1/16” x 3/8” balsa. The rib cap should be flush with the outboard edge of R6.

12. Now remove the wing panel from your building board and cut off the rib alignment tabs. Lay the trailing edge of the wing flat against the edge of your building board and carefully and the ribs and trailing edge stock smooth.
13. Glue the 1/16” x 1” balsa trailing edge sheeting in place, the root bay sheeting, and the remaining 1/16” x 3/8” rib caps as you did in the steps above.
14. Trim off any excess stock at the root and tip and sand smooth. Glue the 1/16” balsa wing tip onto R6 and sand the perimeter smooth with the wing.
15. Cut the servo opening out and trial fit your servos now. Trim the opening if necessary to fit your servo.
16. Repeat steps 3 through 15 above for the for the other wing panel. Slide the 3/8” x 10.5” fiberglass wing tubes into the RIGHT wing panel so that they extend past R2 about 1/8”. Permanently glue these in place using plenty of thin CA around all joints. Round off the left-hand ends using sandpaper making field assembly much easier.
17. Construct a hatch in the bottom of the LEFT wing panel to access the wing bolt and battery compartment. Use the laser cut hatch provided as a template and the plans as a guide. Mark the balsa sheeting and cut out the opening. Use 1/8” x 1/2” balsa provided to line the left and right sides of the opening and glue a piece of 1/16” balsa scrap on the leading edge lip of the hatch as shown in the photos. Test fit the hatch and allow enough gap around the edges for covering material. The hatch can be secured with two screws in the rear corners.
18. Cut and glue 1/4” balsa triangle to fit on each wing making sure you have them centered on the trailing edge. Sand if necessary to blend into wing. Be careful not to sand the 45-degree bevels, as these are what provide the extreme throws necessary for 3D aerobatics.
19. Sand the LE, TE, top, and bottom of the wing smooth. Note that the LE should have a constant radius from the top to bottom sheeting. Use the plans as a guide. A razor plane and large block sander will be useful here.

FLAT SURFACES CONSTRUCTION:

The stabilizer, elevators, fin, rudder, and ailerons are all built in the same manner from 1/4" laser cut parts and mostly 1/4"sq. balsa stock provided. Locate the proper laser parts for each sub assembly, pin down over your plans, cut the appropriate 1/4" stock balsa and glue together with CA.

1. Construct the stabilizer and elevators first. Locate all the appropriate 1/4" thick laser cut parts and pin in place. The

stab spar is 1/4” sq. basswood and the stab and elevator trailing edge pieces are 1/4" x 3/8" balsa. From the 1/4" sq. balsa stock provided, cut and glue in place all ribs. Glue joints are important here as the elevators are light but work very hard in this model! When cured, unpin each assembly from your building board and sand both sides smooth. Cut and glue in place the 1/4" triangle balsa hinge stock to the rear or the stabilizer and front of each elevator half. Sand the triangle stock to blend into the assembly as necessary.

2. Construct the fin and rudder in a similar fashion. Note the rudder bottom and trailing edge are 1/4" x 1/2" balsa, the top is 1/4" x 3/8" balsa, and the fin cross brace is 1/8" x 1/4" balsa respectively. When finished, unpin the assemblies and sand both sides smooth. Cut and glue in place the 1/4" balsa triangle stock onto the leading edge of the rudder but **do not glue the triangle stock on the back of the fin until the fin is glued to the fuselage in a later step.**

3. Pin the laser cut aileron leading edge stock over the plans. Cut and glue in place the 1/4" x 3/8" balsa trailing edge and the 1/4" sq. balsa ribs. Finally cut and glue in place the 1/8" x 1/4" balsa cross bracing. When the glue has cured, unpin the aileron assembly and glue in place the 1/4" balsa triangle stock onto the leading edge. Sand the triangle stock to blend into the assembly as necessary.

4. Fine sand each surface smooth. Shape all leading edges of the stab, fin, and rudder counterbalance round but leave the trailing edges square as this helps to reduce flutter.

5. Now glue the fin to the rear of the fuselage making sure it is properly centered and straight up and down. Also make sure you have tight glue joints. Cut two pieces of 1/8" x 1/4" balsa the proper length and with the proper angle at the top edge and glue these to either side of the fin post. The plans show a bottom view of the fuselage and fin post construction. The top edge should match the angle of the turtle deck. Now you can glue the 1/4" balsa triangle stock to the rear of the fin again making sure it is centered. Sand the fin trailing edge so that is blends smoothly into the fuselage sides.

6. Pre-hinge all the control surfaces using CA hinges or your favorite brand by cutting appropriate slots in each corresponding surface and making sure you cut the slots dead center on the triangle stock. Trial fit each surface to assure proper alignment and function but do not glue the hinges in until final assembly of the model.



COVERING: Cover all the parts first and then assemble the model according to the steps below. The plans conveniently provide guide lines through the center of the stabilizer that can be used to align your covering while leaving the center bare. After covering, cut open and iron down the edges of all the servo and hatch openings. Also be sure to seal any exposed wood with a thin coating of epoxy to prevent engine oil from soaking in. This is especially important around the engine compartment and servo openings with exposed areas. OMP recommends sealing the hinge gaps using strips of appropriate covering or clear trim tape after final assembly.

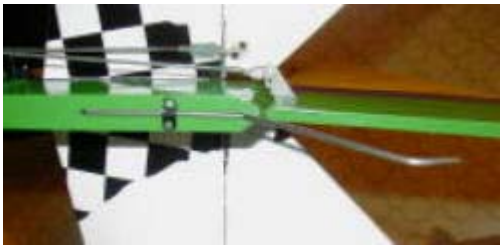
FINAL ASSEMBLY and RADIO INSTALLATION:

You will require at least a 4-channel radio system with 5 standard size servos. To take full advantage of the flight performance, a radio system with mixing capabilities is best. This will greatly enhance the maneuverability of your model. A good example would be coupling the elevators to the flaps. This can be done in both directions. For example you can mix up flaps with down elevator (and vise versa) for really tight turns or loops. This is commonly referred to as "flaperons" and requires the aileron servos to be plugged into separate channels, usually 1 and 6. You can also mix up flaps with up elevators for quick descent elevators; this is referred to as "spoilerons".

1. If you are assembling the ARF version, you will need to glue the vertical stabilizer (fin) to the rear of the fuselage. There is a slot in the rear of the fuselage for the fin post. Carefully trim away the covering from the slot and fin post as well as the bottom of the fin and fuselage where the fin will glue on. When satisfied with the fit, glue in place using CA. Make sure the fin is fully seated and straight up and down.

2. Two guide holes are provided in the ply fuselage doublers for mounting the main landing gear. Drill these all the way through to accept a 6-32 bolt. Match drill the gear provided and secure to the fuselage using 6-32 x 1.5" socket head bolts and nylon insert lock nuts. Mount 2" - 2.5" wheels by installing a 6-32 x 1.25" socket head bolt into the wheel, installing a 6-32 nut on the bolt (tighten just enough to allow the wheel to spin freely), inserting into the gear and securing with a 6-32 nylon insert lock nut on the inside. Mount a suitable tail wheel assembly or wire skid to the hardwood mount in the rear of the fuselage. Hint: harden the screw holes with thin CA before final mounting.





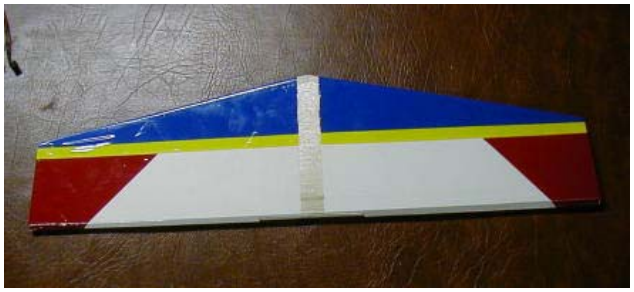
3. Now glue in place the 1/4” hardwood dowel into the fuselage for the wing anti-rotation pin. The hole is located near the trailing edge. Position so that the dowels extends equally on both sides of the fuse and glue in place with thin CA. Test fit the wings by sliding the right wing onto the fuse first and then the left

wing. Reach through the left wing hatch to help guide the wing tubes into their sockets. The wings should be secured to the fuselage using a 6-32 blind-nut in the right wing and a 6-32 bolt inserted through the left wing. Alternatively you can secure a ¼-20 wing bolt in the right wing and use a wing nut on the left wing.

4. Trial fit the ailerons, elevators, and rudder into each respective location using CA hinges and when satisfied, glue each hinge only into the control surface side and set aside for later. Note the following pictures are not necessarily from this version kit.



5. If the stab is covered all the way, be sure to cut away the covering (1/2" wide) in the center for the glue to adhere properly. **Be extremely careful not to cut any of the wood or you will weaken the stabilizer and cause possible failure!** Temporarily install the wings, insert the elevators through the stab slot and position in the rear of the opening and then fit the stabilizer into position. Use string to measure from the stab corners to a common point near the front of the fuselage or the wing tips. A carpenter's square can also be used to align the stab TE to the fuselage side. Also make sure the stab is parallel to the wings and centered side to side. Sand or file as necessary. When satisfied with the fit, glue in place by wicking thin CA into the joints making sure the stab is correctly positioned as described above. You can add a small filet of glue at the fuselage/stabilizer joint using thick CA or your favorite adhesive.




6. Now permanently glue in each control surface making sure the hinge gaps are as tight as possible while still retaining maximum throw. Make sure the elevator counterbalances clear the stabilizer before securing the hinges with glue.

7. Trial fit your engine and mark the location for each mounting hole. The location can be moved forward or aft depending on balance requirements. ***Note: You may wish to wait until all your radio gear is installed before completing this step.*** Drill the holes and mount your engine using bolts and blind nuts or nylon-lock nuts. Use thin CA on the inside of the holes to harden them up. You should use a couple of wedge plates or washers under the front of the engine to induce about 2 degrees of right thrust.

8. Mount your fuel tank (6 oz nominal) on the left side of the fuselage centered behind the engine mount. Place the tank in position and drill two sets of holes about 4 inches apart on the top and bottom sides of the tank. Assemble your tank per its instructions and use two zip ties to secure to the fuselage. Be sure to use a piece of foam between the tank and fuselage to reduce foaming.

9. Mount all the control horns to the surfaces as shown in the photos. For maximum surface deflection, trim off the bottom few holes of the control horns so they won't bind when deflected fully. Again, it is a good idea to harden the mounting holes by wicking thin CA into the holes prior to final installation.

10. Install the throttle servo into the opening in the right hand side of the fuselage. Feed the wire through the tunnel provided in the fuselage and into the receiver hatch area. Use an extension if required and pull

it through the tunnel using a string or nylon pushrod taped to the servo lead. Use a 2-56 pushrod and nylon clevis to finish off the throttle linkage. Make sure you have the proper throws set for idle and full.

11. Install the aileron servos in the wings. Finish the control linkage setup using 2-56 pushrods and clevises. A neat trick is to make a small cable clamp out of scrap balsa to help hold the end of the servo wire near the root of the wing.

12. Install the tail servos into their respective sockets on the left side of the fuselage. Feed the wires through the tunnel by taping the ends to a piece of long nylon pushrod or similar semi-flexible wire and inserting through a small cutout in the side of the fuselage. OMP recommends putting tape or string around servo wire connections to prevent accidental detachment. Mount the servos to their respective sockets and complete the controls using 2-56 pushrods and clevises.



13. Now is a good time to check your cg and decide where you want to mount the receiver and battery. The preferred location for the receiver is either in the forward or aft fuselage hatch between the wing panels. One way to accomplish this is by gluing a flat piece of lite-ply on the top surface of the opening and securing the receiver with tie straps or Velcro. The battery can be mounted in either of the two locations between the wings, or in the left wing. If mounting in the wing, be sure to secure thoroughly. The switch can be mounted in the hatch cover, anywhere under the fuselage sheeting, or in the wing sheeting next to the battery. If mounting the battery in the wing, a "Y-harness" can be used from the output of the switch to both the aileron servo and the aileron servo channel of the receiver. This technique is widely popular for large profiles and maintains only one connection between the wing and fuselage.



14. This aircraft is very aerobatic yet perfectly suited to be an inexpensive 3D trainer. If you are not used to flying an extremely responsive aircraft you should set the initial throws to under 30 degrees of movement for the elevator and rudder and about 20 degrees for the ailerons. This is a good setting for 3D beginners. More experienced pilots will want to set the throws to as much as 45 degrees or more for high rates on the tail surfaces and 35-40 degrees on the ailerons. The use of dual rates and exponential is preferred for most pilots. For flying certain 3D maneuvers, it is important to have the proper amount of throws for each type of maneuver as well as any special mixing as described above. Many experienced pilots will set different mode switches or rate switches accordingly. For example there may be a mode just for doing snaps while another mode may be used for performing rolling maneuvers or harriers. We have found that the following settings provide a good initial setup for most pilots. The low settings can

be used for sport or beginner 3D pilots while getting used to the aircraft. High rates are reserved for 3D only. Always check the functions, range, and proper directions of your radio setup prior to flying.

	Low Rate	High Rate
Elevator	20 degrees	45-50 degrees
Rudder	25 degrees	45 degrees
Ailerons	25 degrees	35-40 degrees

BALANCING:

Most state of the art aerobatic aircraft allow for a wide margin for balancing depending on what level of precision or freestyle the pilot prefers. To perform properly without being too squirrelly, you must not go too aft on the CG. **OMP recommends an initial CG setting of 4.5 – 5.0 inches behind the leading edge of the wing at the root.** More experienced pilots may want to set the CG further aft. Varying weights of engines and radio gear will dictate how you should install each. The engine can be moved forward or aft on the engine mount to shift weight. Also the battery and receiver can be located in either of the two hatch locations in the fuselage. The battery could also be mounted in the left wing along with the switch and a "Y-harness" to the left aileron servo. These options should allow you to balance the model without adding any weight.

Note: The best way to check your balance is to trim for level flight at about 1/2 to 3/4 throttle and then roll inverted. The aircraft should maintain level flight with very little to no down elevator. If the aircraft climbs when inverted then you've probably got your CG too far aft. If the nose drops more than slightly, then you are most likely nose heavy.

Always thoroughly pre-flight your aircraft before flight and make sure the airframe is structurally sound, all control linkages are solid, and a complete radio range check is performed. When assembling the wings at the field, make sure your wing bolt is secure and will not vibrate loose during flight. This would be a very bad thing! Again, thank you for purchasing the OMP Edge 540 V3 Profile. If you have any comments or questions about this manual or the aircraft please email "omp@ohiomodelplanes.com".

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