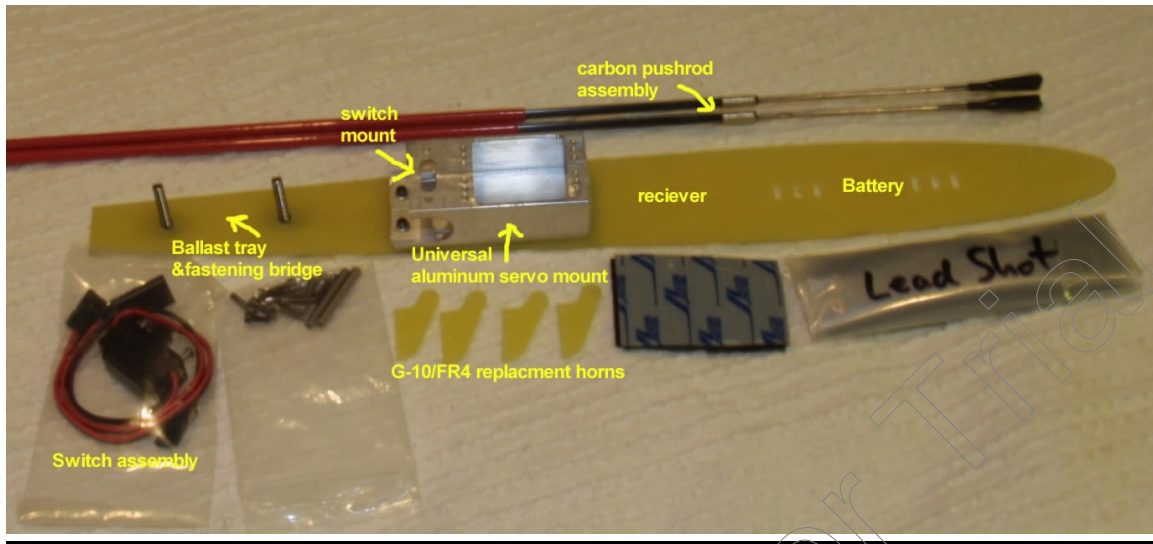


Opus retro-fit tray assembly kit

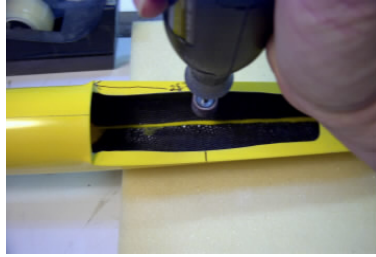


Features:

- CNC machined G10/FR4 fiberglass tray assembly.
- CNC machined G10/FR4 fiberglass replacement control horns.
- Milled aluminum servo mount system
- Servo mount is pre-drilled and tapped to universally fit Hitec HS85, JR 341,351,DS368 and Futaba Micro servos.
- Switch/charge assembly mount on to aluminum servo box.
- Pre-made carbon pushrod and housing assembly. Ready to install.
- Lead shot nose weight pre-measured for balancing the plane.
- Bolt down ballast system to add 20oz. of additional ballast!
- Easy 2 step installation with no unsightly holes to be drilled into the fuselage.
- All necessary hardware for installation.
- Detailed instructions set for a easy installation.

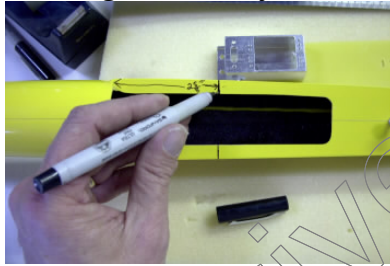
Tray Installation

1. Sand the wing seat lip slightly with a Dremel sanding drum to allow the tray to slip



easily into the nose.

2. Mark the CG location on the wing seat exactly 2 5/8" back from the leading edge.



3. Draw a line on the ballast/front tray fastening bridge at the small hole between the 2 large ballast hold down bolts. (This is where you align the bridge to the CG on the



fuselage.)

4. Sand the bottom of the fuselage where the bridge will attach with some coarse sandpaper to help the epoxy adhere. (If the glue seam in the fuselage is unusually high up and hinders the fastening bridge to lay properly in the fuselage, sand it down



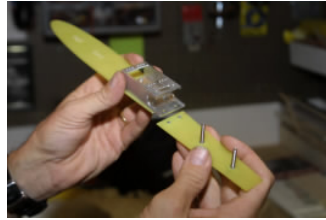
also).

5. Lightly grease with Vaseline or equivalent, the bottom and sides of the aluminum servo mount and the fiberglass tray up about a inch or so to prevent epoxy from sticking where it will squish out from the bridge when it is glued into place.



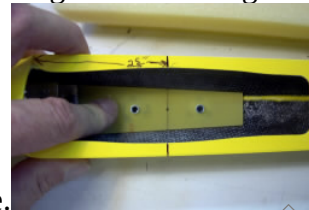
6. Attach the fastening bridge to the tray assembly using the 2-56x1/4" screws. Also lightly grease the threads and attach the 6-32 ballast fastening screws. (Note: only

tighten these screws far enough so that the threads extend barely past the bottom of



the blind nuts.)

7. Place the assembly into the fuselage and look straight down to align the line on the



fastening bridge to the CG line on the fuselage.

8. Place a straight edge or something flat on the wing seat and sight down the fuselage, then position the tray so that the servo mount will be level with the wing. NOTE: A little flex in the assembly is normal just press down and hold into



place.

9. After you have everything aligned properly, scribe a line in the fuse with a exacto



knife around the fastening bridge to mark its placement.

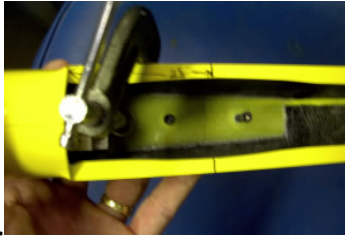
10. Mix up some good quality epoxy resin (such as West systems or similar) and enough cabosil (colloidal silica) to make the resin somewhat thick and non-sagging and then spread a generous amount to the bottom of the fastening bridge. Then place the assembly into place aligning to the scribe marks that you made



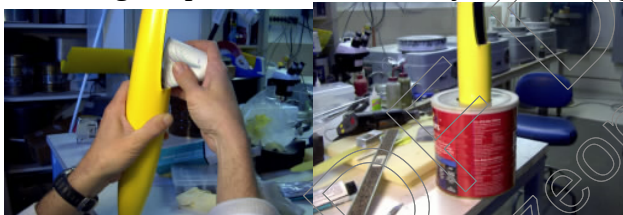
prior.

11. Clamp the assembly down lightly just to the rear of the aluminum servo mounting box with a C-clamp (If you don't have a C-clamp you can wad enough paper towels and stuff them between the top of the fuselage and the aluminum servo box to put enough pressure to push the assembly down.) until the fastening bridge

comes in full contact with the fuselage and the epoxy squishes out the



12. When you are happy with it's position, squeegee the excess epoxy from the sides and let the epoxy cure overnight.
13. Remove the tray from the bridge and grease the nose of the tray all the way up to the slots with Vaseline. Place enough masking tape to cover the aluminum servo box to protect it from any epoxy drips in the next step, and bolt the tray back into place.
14. Mix up approximately 25 grams or 1oz. of epoxy in a small paper cup and then add the lead shot to the epoxy and mix well. Then pour the epoxy-lead shot mixture into the nose of the fuselage with the fuselage vertical and tilted slightly towards the top to prevent any epoxy from dripping on the tray.(Don't worry about getting any epoxy on the inside top as this will not harm anything. If you should get any epoxy on the inside of where the wing seat tongue fits, just wipe it out with a paper towel or rag.) Now place the fuselage nose down vertically into a coffee can or large cup of water to cure, this will prevent the epoxy from getting too hot and damaging the surface finish of the nose. After the epoxy cures the tray will pull out of the epoxy leaving a slot for the nose to key into.(The lead shot and exactly 25 grams of epoxy will bring the plane 1/2 to 3/4oz.shy of balancing.) to allow for CG adjustment.



Pushrod assembly

1. Make a mark 1 1/2" Up from the rear of the wing saddle cutout area.(This is where the pushrod tube housing will end.)
 2. Lightly sand the pushrod tube housing.
 3. Lay the fuselage on its side and weight it down with something heavy so that it will not move.
 4. Apply a bead of Household Goop on the length of one side of the pushrod tube housing while it is still on the carbon pushrod.
 5. Carefully insert the pushrod and housing assembly into the rear of the fuselage with the glue on the top all the way to the 1 1/2" mark and approximately 1/4" down from the lip of the wing saddle.
 6. When you are happy with the location, rotate the housing 180 degrees so that the glue comes into contact with the fuselage and let the glue cure.
- Repeat the same procedure on the other side for the other pushrod.

TRAY INSTALLATION

1. Install the servos with the servo arms towards the nose
2. Attach the battery using the tie-wrap and loop it through the slots in the front of the tray. A 1700mA A size square pack or smaller will fit nicely.(The kit was designed using a 1700mA A square pack. If you use a smaller pack more nose weight will be necessary.)
3. Mount the receiver between the battery and servos using the Velcro piece.
4. Secure all the wiring with tape to assist in sliding the tray into the nose.
5. Turn on the radio and center the horns so that they are 90 degrees.
6. Turn of the radio and rotate the servo arms so that they are pointing back to the rear of the plane.
7. Slide the tray assembly into the nose so that the arms are just visible behind the leading edge of the wing saddle.
8. Attach the clevises to the pushrod ends and install them on the servo horns.(Note: the ball links on the tail section should be disconnected when performing this step. I also recommend taping the V-tail control surfaces up out of the way to prevent the pushrod ends from hanging up on the ball links.)
9. Now slide the nose of the tray into the slot and push all the way forward and bolt the tray into place.(You might have to fish around a little to find the slot.)
10. Attach the pushrod ends to the ball links.

Any comments or questions feel free to contact me at---

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Thanks, Gary Legerton