

Installation Procedure Used for New Aerosport Tips

RANS S-21

1. Remove old tips. Set the eight #8 bolts for each tip aside, they will be reused on the new tips.



2. Tape the new carbon fiber tip ribs to the outboard ribs using tape to adjust their position. Use small C clamps to attach new tips ribs to outboard tips as shown in the pictures.



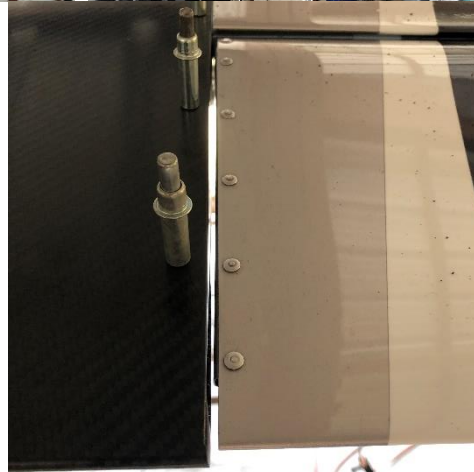
3. Trial fit tips to ribs and make any adjustments necessary to align the new tip ribs correctly. Reattach the C clamps to hold ribs firmly in position.



4. Back drill with a #19 drill through existing attach holes in the outboard ribs through the new carbon fiber ribs and cleco as shown. We used an angle drill with threaded drill bit.



5. Place the new tips over the ribs and secure with tape or have a helper hold them firmly in position. Drill with a #40 drill through tips and ribs at 4" intervals as shown. Start at the front and work back towards the trailing edge, top and bottom.



6. Mark the trailing edges of the new tips even with the ailerons as shown. Use a gold Sharpie. The new tips are purposely a little long so that they can be trimmed even with your particular wing.



7. Remove tips and ribs from wing.
8. Install eight each #8 nutplates to each wingtip ribs as shown.

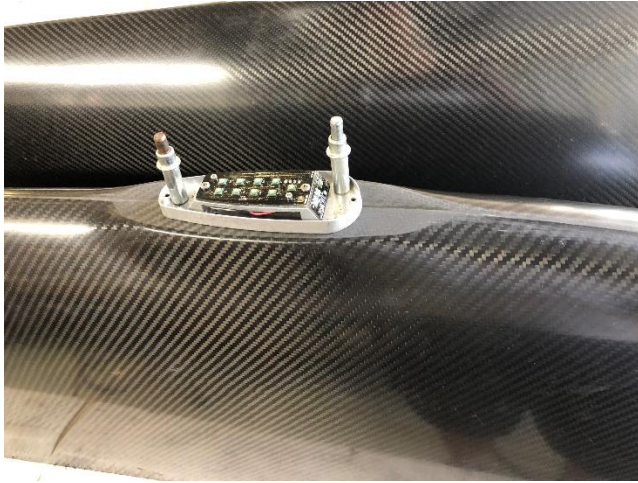


9. Cut out for the lights insert along the scored outlines on the tips. We used a Dremmel cutoff wheel and then sanded to the scored lines.



10. Glue the light inserts to the inside of the tips as shown above using a flox mixture or similar adhesive and hold in position with clecos or pop rivets until flox sets up.

11. Drill holes for the nav/position lights using the lights as a drill guide but do not install the lights at this time.



12. Glue ribs to the tips using the same clecos to hold the ribs in position. We used Scotch-Weld adhesive. Make sure to pull the clecos after the glue starts to set up.



13. Fit the clear plastic lenses to the lens inserts as shown below. Drill two holes in the corners as shown. These are for #6 nutplates for the screws that hold the lenses in place. Install the landing lights, taxi lights, wigwag lights, as desired. Install the nav/position lights.



14. Screw tips back onto the wings using the same #8 bolts used on the original tips.

