I-PASR0049

Part I (for new model installation)

INSTALLATION: Main Gear Mount Reinforcement Kits

PA-SR-0049



Notice: The extended use of the Bandit ARF's (both Turbine and Electric Power) on some grass fields has prompted this reinforcement kit.

The application of the carbon fiber reinforcement pieces to the backside (top) of the 12 layer plywood bracers offers a much stronger base for the 4-40 thread bolts.

Install these parts during original assembly of the kit (those shipped post 06/01/2012).

These same CF parts can be retrofitted to finished models. See Part II of these instructions.

PREPARING THE CF TABS FOR INSTALLATION

☐ Use a fiber reinforced cut-off disc to separate the parts. The round discs function as large flat washers during the installation sequence. They do not remain in the model.



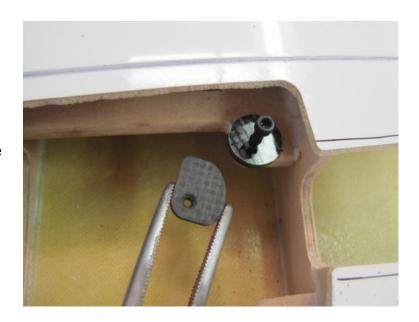
- ☐ Use a suitable Channel Lock tool to hold the CF reinforcement tab to 1st drill out the hole with a #43 bit.
- ☐ Chamfer the hole with a Perma Grit (RF9UF) countersink tool.
- □ Tap the hole with #4-40 a few times. Test fit the 4-40 bolts (be sure to use a sharp, 2 flute tap)
- Repeat the above steps on each of the 4 holes in the plywood mounts in the wing.
- □ Drill the (4) holes in the plywood mounts in the wing with a #33 drill bit.
- □ Each 4-40 bolt must have a point ground on the end. Thread on a 4-40 nut and hold with a vice grip. Spin the bolt against a grinding wheel or belt sander. Removal of the nut helps to clear the threads.





INSTALLING THE CF TABS

The CF tabs fit under the plywood mounts, but must be scuffed before gluing. A coat of paste wax on the CF discs and the 4-40 bolts before installation will protect them from glue.



□ Install (4) CF washers, and 4-40 bolts. Push the bolts into the plywood until end of bolt is flush with the backside of plywood surface.

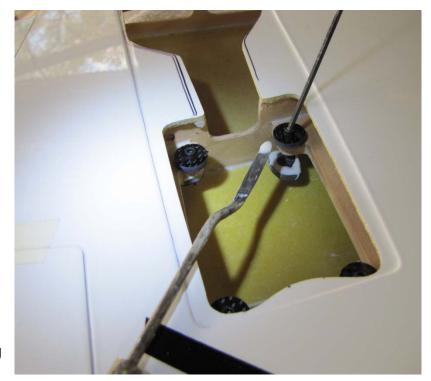
Before Applying Glue, test thread each 4-40 bolt into each CF tab while holding it in place on the backside of the plywood.



- Install all CF tabs, CF washers, and bolts.
- Loosen each bolt a couple of turns to allow the tab to swivel.
 Apply BVM Aeropoxy to the exposed surface of the tab.
 Tighten the bolt with the tab swiveled back into its proper alignment.

A small hand mixed batch of Aeropoxy applied with a blade spatula works well.

 Use Isopropyl Alcohol and paper towels to clean fingers and check the surrounding wing skin for glue prints.



- After the glue cures, remove the bolts and CF washers.
- □ Use a band saw and an 80 grit sanding block to trim the 1/2" x 3/4" x 3" end grain balsa block to fit between the top skin and the plywood mounts. Notice the notch at the inboard end to clear the CF tabs and rounded corners to allow for the glue joints at the #2 and #3 ribs. Use Aeropoxy to glue in place. They are structural pieces that help distribute landing loads.



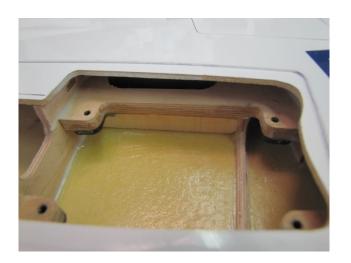
NOTE: The aft block will be 1/2" tall and 2.9" long while the forward block will be .70" tall and 2.9" long.



☐ End grain balsa blocks are shown here glued in place.







Part II (Retrofit for completed or a damaged models)

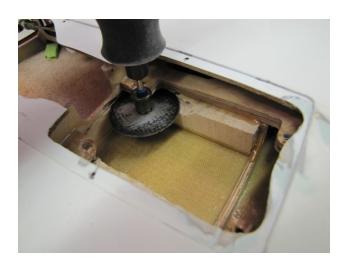
INSTALLATION: Main Gear Mount Reinforcement Kits (Part II)

PA-SR-0049



Use the methods shown in the previous pages (Part I), and this part II, to install these CF reinforcements into a finished and/or damaged main gear mount system.

Shown below is a damaged main gear system but these same procedures are necessary for a retrofit to models built prior to June 2012. The subject here shows damage to the 12 layered plywood bracers where the 4-40 bolts that retain the flex plates were ripped out.





☐ Use a 1-1/2" diameter reinforced Dremel cut-off disc to clear away the end grain balsa and allow insertion of the new CF tabs.

Note: See Part I for preparing the CF tabs for installation

- Apply 2 coats of paste wax to the 4-40 bolts and CF discs because Aeropoxy is used in the repair.
- ☐ Use a #34 drill bit to make clearance holes for the 4-40 bolts in the 1/4" ply.
- Custom trim each CF tab to fit into the inboard positions.
- ☐ Test fit each CF tab with CF washer and 4-40 bolt.
- □ #80 grit scuff on both sides of the CF tabs.
- Make this simple tool to help hold the CF tab up against the plywood while threading in the 4-40 bolt. It is also handy to tidy up the Aeropoxy before it cures.
- Inject Aeropoxy into the injured plywood and onto the CF tab, then install using a pointed "awl" to align the hole in the plywood with the hole in the CF tab.

☐ The CF discs act as large flat washers when you are installing the 4-40 bolts. The pointed tool will help hold the CF tab while tightening the bolt.









☐ Finish filling the area with Aeropoxy.



Complete these steps for all 4 corner mounts.

 Clean away excess glue and check area for glue prints on the painted surface. Wipe clean with Isopropyl Alcohol.



- ☐ After the Aeropoxy has cured, remove the 4-40 bolts and disc washers. They will pop loose.
- ☐ Use a Perma-Grit Reverse Cone rotary cutter (RF-7C) to flatten the outer surface of the plywood tabs to accept the flex plates.

The Main Gear Mounts are now ready to accept new CF Flex Plates.

