

915 Kearsley Park Blvd.  
Flint, MI 48503



(810) 235-1402  
www.glapinc.com

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# INSTRUCTIONS A-10

## SPECIAL INSTRUCTIONS FOR TIGER WINDSHIELD GLAP DRAWING # W-2290

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### AIRCRAFT MANUFACTURERS:

American Aviation, Grumman American Aviation, Gulfstream American,  
Gulfstream Aerospace, American General Aircraft, Tiger Aircraft LLC

### MODELS:

**AA-5, AA-5A, AA-5B, AG-5B (All serial numbers)**

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### MATERIALS REQUIRED:

- One of the following Great Lakes Aero Products part number(s):
- (Clear) W-2290, (Green) W/T-2290, (Gray) W/G-2290 or (Solar Control Gray) SC-W/G-2290
- Masking Tape 3M Painters Tape (Green or Blue) recommended
- Acetone or Methyl Ethyl Keytone (MEK)
- Mineral Spirits or VM&P Naptha (Lighter fluid)
- Bostik 70-03 (WHITE) or 70-03A (BLACK) (Sealant Supplied)

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### TOOLS REQUIRED:

- Power Drill ( I.E. Air or Electric )
- Drill for Pilot hole and, 5/16 (.312") Drill Bit or #2 Unibit
- 24 to 32 Spring clamps
- 400 or 600 grit wet/dry Sand Paper
- Hand Held Disc Sander 36 to 50 grit recommended or other appropriate tool to trim the edge of the windshield if necessary.
- Grease pencil or marking Pen.

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### REMOVAL AND INSTALLATION PROCEDURE:

1. Read these instructions and the AA-5 Maintenance manuals as and understand them thoroughly before any attempt of installation.
2. Remove windshield assembly - Reference AA-5 Maintenance Manual.
3. Separate the old windshield from the bow support, remove any screws and use a putty knife or similar to delaminate the bow from the windshield. **Be very careful not to damage or distort the bow support.**
4. Carefully clean the bow support and the surfaces of the fuselage that the windshield will contact. If necessary scrape the bow support with a razor to remove thick sealant from the bow. Inspect the bow for any potential problem areas and correct before moving on to the next step. Be careful and make sure all original sealant is removed from the Bow. You may use Acetone or MEK to remove thin amounts of original sealant.

**DO NOT GET ANY MEK OR ACETONE ON NEW WINDSHIELD.**

- 5 You may peel back the paper slightly (about 1 to 2 inches) as to expose the edges of the windshield. Use masking tape to Hold down the paper to the windshield if it does not stay folded back. NOTE: The paper may need to be folded back further where the bow support meets the windshield.
- 6 Set the new windshield into the aircraft as if it was being installed, **DO NOT DRILL ANY HOLES AT THIS TIME**. Align the support bow to the new windshield for the proper fit and verify the location with the canopy in the **closed position**. The screws and nuts which are used to hold the support bow to the fuselage may be used to hold the bow in place.
- 6a. If necessary trim the windshield using the trimming methods described in the attached trimming instructions. For additional information you may also reference the Instructions in FAA AC 43.131B Chapter 3 Pages 15 thru 25 . Be very careful to properly align & fit the new windshield and remember to recheck the alignment of the bow and windshield with the canopy before proceeding. **If it is necessary to remove any material do not remove too much at one time, as more material may always be removed whereas adding material is not possible.**
7. When the windshield is properly aligned and the fit is as desired, clamp the windshield to the bow. Mask any areas where sealant is not desired, such as, but not limited to the inside & outside surfaces of the windshield, the inside of bow support etc. to help with cleanup. A gap of approximately 1/32" to 1/16" between the masked area and the aircraft surfaces is appropriate.
8. Drill pilot holes into windshield for screws that go through the bow and windshields at this time.
- 9 With the Grease pencil or marker make some alignment marks on the bow and windshield. Note the relationship of the bow support and the windshield for proper realignment. Recheck fit of windshield to the Canopy.
10. Remove the windshield and bow from the Aircraft.
11. Drill oversized holes into windshield using the pilot holes drilled in step 8.
12. Sand the windshield with 220 to 400 grit sandpaper to remove the gloss where the bow support will contact the windshield. Clean the windshield with mineral spirits or Naptha to remove any sanding dust from the sanded surface.
13. Make sure the windshield is completely dry before proceeding to next step.
- 14 Apply a bead of supplied sealant to the bow or windshield. Mate the windshield and the Bow together and align them using the marks you made in step 8. Starting at the top of the windshield and working towards the outside **clamp the bow every few inches**. Use clamps as necessary to get an even layer of sealant across the bow. Ideally the sealant should be about 15 to 30 mils thick.  
NOTE: Pad the clamps to protect the Windshield surface.
- 15 Before the sealant cures wipe it off of the masking tape where it has squeezed out from under the bow. If sealant on the outside edge is not accessible because of the clamps it may be cut away with a razor blade or knife after the clamps have been removed and it has partially cured.
- 16 A recommended 48 hours minimum dry time before flight.
- 17 Remove clamps and Install windshield as per AA-5 Maintenance Manual.