

***FRESH AERO Easy Seat Tool
For Grumman
AA1 & AA5 Series Aircraft***

Alpha Model For Grumman AA-1 & AA-5 Series Aircraft
with Access Holes in Front Seat Buckets



User Manual



Where Imagination Meets Innovation

Fresh Aero *Easy Seat Tool*

Grumman AA1 & AA5 Series Aircraft

Thank you for purchasing the Fresh Aero Easy Seat Tool for AA1 & AA5 series Grumman aircraft. We're confident you will be pleased with this innovation in Grumman maintenance tools.

If you've ever removed and installed the front seats in Grumman AA1 & AA5 series aircraft, you know how tough this job can be. The round head slotted screws that fasten the seats to the seat brackets on the spar are nearly impossible to remove with a standard blade type screwdriver. Blade screwdrivers just don't make it here because the blade slips off the screw due to the tight working quarters and angle of attack of the screwdriver.

To make matters worse, many early Grummans do not have access holes in the seat buckets, necessitating working upside down under the seat -- more like an acrobatic routine than a maintenance procedure.

The Fresh Aero Easy Seat Tool was developed to eliminate the above difficulties and make Grumman seat removal and installation considerably easier. The Easy Seat system is offered in two configurations for seats with and without access holes in the seat buckets. The "access hole" Alpha Model consists of a special deep well socket with an imbedded screwdriver blade that perfectly fits and captures the head of the existing seat screws. This makes removing and re-inserting the screws into their mating holes a relatively easy and quick job.

The seat screws are loosened and tightened using a ¼ inch drive ratchet wrench (available from any hardware store or from Fresh Aero as an optional item).

Grumman front seat removal is never a cakewalk, but the Fresh Aero Easy Seat Tool lessens the work and frustration considerably. Once you've used the Easy Seat Tool, you'll never want to go back to using a standard screwdriver to remove and re-insert these seat screws again!

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Study and save this manual



Read this entire manual before using the Easy Seat Tool. Make sure you understand the instructions and safety precautions in this manual. Failure to follow all the instructions in this manual can cause personal injury. Keep this manual and your invoice in a safe place for future reference. Do not use this product if you do not understand all the instructions and safety precautions in this manual. If this product is used without observing the information given under this symbol, injury may result.

Fresh Aero Grumman AA1 & AA5 Series Easy Seat Tool Safety Warnings and Precautions

Warning: always adhere to the following safety precautions when using this product.

- Always keep the work area clean. Cluttered areas invite accidents and possible injuries.
- Stay alert and concentrate on safety.
- Never perform aircraft maintenance if under the influence of alcohol or drugs. Read warning labels on prescriptions you are taking to determine if your judgment or reflexes will be impaired while taking these drugs.
- Always maintain proper footing and balance when removing and re-installing seats from aircraft. Do not overreach. Ask for help if necessary. Awkward positions and/or improper bending can cause falls, personal injury and equipment damage.
- Always locate aircraft on a level surface and chock aircraft tires to prevent movement.
- Make sure re-inserted screws are in proper mating holes and properly tightened. Check for proper security and operation of seats as specified in Grumman maintenance manuals.

Warning: The warnings, precautions and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors that cannot be built into the Easy Seat system and must be supplied by the person or persons using this product.

If you have questions regarding the performance or operation of the Easy Seat Tool, or just need another manual, please contact Fresh Aero at the contact numbers or e-mail address on the last page of this manual. Our manuals are also on our web site, www.freshaero.com, in PDF format.

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Other Legal Notices

Fresh Aero makes no representations or warranties regarding any damages, injuries or benefit expected by using this unit lawfully, or any request from a third person, which are caused by the inappropriate use of this product.

Disclaimer of Warranty

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The Fresh Aero Grumman Easy Seat Tool 5 year Limited Warranty

Fresh Aero makes every effort to provide high quality and durable products to the aviation community and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 5 years from the date of purchase. This warranty does not apply to damage due directly or indirectly to misuse, abuse, negligence or accidents; repairs or alterations outside our facilities; or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation defect or problem must included with the product. If inspection verifies the defect, we will either repair or replace the product at our discretion or may elect to refund the purchase price price if we cannot readily and quickly provide you with a replacement. We will return the repaired or replaced product at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then the purchaser must bear the cost of returning the product.

This warranty gives you specific rights and you may also have other rights which vary from state to state.

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Using the Easy Seat Tool on Aircraft with Access Holes in Seat Buckets



Read and understand all the proceeding safety precautions and warnings before performing the following procedures

- Locate the aircraft on a flat, level, dry and debris free surface and chock tires to prevent movement.

1. Removing the Front Seats

- Perform the same procedure for both seats.

1.1 With canopy open, kneel on one wing walk and position front seat so the front edge of seat is even with the center of the wing flap indicating slot on the center console. This will give you better access to the seat fastening screws. A knee pad or similar non-slip cushion between the wing walk and your knees is helpful to cushion the knees and to enhance the working position.

Warning: Maintain proper balance when working on wing

1.2 Lift up on seat cushion to access the seat screws through the seat bucket holes. You may want to “tie” the lifted bottom seat cushion to the seat back with a bungee cord or light rope. This will give you unobstructed access to the holes in the seat bucket without holding the cushion with your body.

1.3 Attach the Easy Seat Tool to a ¼ inch drive ratchet wrench and, while supporting your body with one hand on the seat, reach through an access hole in the seat bucket and locate one of the round head seat bolts that secure the seat to the spar seat support bracket (one screw in each side rail). Place the Easy Seat Tool socket on the screw and rotate the socket by hand until the screwdriver blade drops into the slot in the screw. Begin turning the screw counter-clockwise (looking at the screw head) with the ratchet handle, while keeping the socket parallel with the screw and applying pressure on the screw. Refer to your Grumman maintenance manual for location of screws and additional information.

Note: It's important to keep the Easy Seat Tool parallel with the screw and to apply pressure to the screw, just as you would using a standard screwdriver.

Another Note: Avoid supporting yourself by leaning on the seat bucket. This will apply pressure on the screws, making them more difficult to remove.

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Using the Easy Seat System on aircraft with access holes in seat buckets - *continued*

- 1.4 Continue turning and remove the screw from the seat rail and bracket. Use the same procedure to remove the screw on the opposite side of the seat. You can now remove the seat assembly by pushing aft to dislodge the seat from its rear attach pins and lifting the seat out of the aircraft. Use the same procedure to remove the other seat.

Warning: After seats are removed, do not change the position of the seat rails as this will make aligning the seats and screws difficult when re-installing the seats. Also, Be very careful when lifting the seat assembly up and out of the aircraft and off the wing. The seats are bulky and it is possible to lose your balance and fall.

2. Re-installing the Front Seats

- 2.1 Lower the seat assembly and position the seat on the rear attach pins, then lower the front of the seat into position.

Warning: Adhere to the above message when lifting the seats up on the aircraft. Do not lose your balance.

Note: It may be helpful to block the rear of the seat assembly to prevent the seat from sliding back and off the rear attach pins while you are installing the seat screws. Be sure to remove the blocking device when the seat is secure.

Note: If your existing seat screws are "wallowed out" and/or have burrs, we recommend that you purchase new screws. New screws will conform more snugly to the recess in the tool this will improve the Easy Seat's performance.

- 2.2 Hand start the seat screw in the proper hole, then reach through the access hole and capture the screw with just the Easy Seat socket by rotating the socket on the screw until it locks with the screw.

Note: Jiggling the seat assembly up and down while starting the screw will facilitate aligning the screw in the hole. Do not apply downward pressure.

Note: If you have difficulty starting the screw with your hand, apply a small amount of "vacuum" grease to the working end of the Easy Seat socket and push the screw into the socket. Then use the socket to start the screw. The grease should hold the screw in place until it is started in the mating rail hole.

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Using the Easy Seat System on aircraft with access holes in seat buckets - *continued*

- 2.3 When the screw is firmly started in the hole threads, attach the ratchet handle to the socket and continue to turn the screw clockwise (looking at the screw head) while keeping the socket parallel with and applying pressure on the screw. Tighten screw to the proper torque setting. If screw does not tighten, determine the cause and properly repair before flying aircraft.



Warning: Do not overtighten bolts. The ratchet wrench will develop considerably more torque than a screwdriver and stripping the bolt or hole threads is possible.

- 2.4 Repeat above procedures for the remaining bolts on both front seats.
- 2.5 Confirm that all 4 seat bolts are in proper mating holes and correctly tightened. Check for proper security and operation of seats by moving seats fore and aft and checking for smooth and secure travel.

Drilling Front Seat Screw Access Holes

Late model AA1 & AA5 series Grumman's have access holes in the front seat buckets to facilitate removing and replacing the seat fastening bolts. This is a tremendous improvement over the original design as the bolts can be accessed from the top of the seat making a difficult job significantly easier.

If your Grumman does not have these access holes, we strongly recommend talking to your A & P mechanic about drilling these holes or drilling them yourself if you're qualified and have access to the proper hole saw. Extreme care must be taken when drilling these holes so please don't attempt this procedure without the necessary skill, specifications and equipment.

We have posted the procedure and drawing we use to drill these holes on our web site. Look on the Easy Seat Tool detail page, in the right column, for the link to the PDF file.

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