## FRESH AERO EasyEdge Light

## Plug-In LED Side Panel Light For Grumman AA-5 Series Aircraft



(User Manual)



Where Imagination Meets Innovation

Thank you for purchasing the Fresh Aero EasyEdge Plug-in Side Panel LED Light for Grumman AA-5 Series Aircraft.

If you fly your Grumman AA series aircraft at night, you know that the original instrument panel lighting leaves a lot to be desired. The EasyEdge Side Panel lights are the perfect compliment to the Fresh Aero EasyEdge Eyebrow Light and a great way to light the bottom of your instrument panel like they've never been lit before.

The existing side panel lights on the Grumman AA-5 series aircraft don't provide much light to the lower instrument panel on the right and left sides. The incandescent bulbs don't have reflectors and the red lens absorbs most of the radiated light.

The EasyEdge Lights solves this issue by bathing lower instrument panel with direct red, blue, green or white LED light.

The EasyEdge Light consists of a textured ABS plastic hooded bracket with with a 6 LED light strip and 14 inch wire leads and plug-in adaptor attached. The EasyEdge Lights use the same plug-in bayonet adaptors we use on our Easy Light overhead lighting unit and EasyEdge Eyebrow Light. The adaptor just plugs into the existing incandescent light socket in the Grumman side panel. The entire unit weighs less than 1 ounce.

### Innovative Features Include .....

- State of the art LED solid state lighting in red, blue, green and white.
- Illuminates the entire lower instrument panel on the right and left side with bright and clean light. No halos, hot spots or weak spots just beautiful even light. The EasyEdge Light accentuates the needles and indices on your gauges so you won't need to strain to see them.
- If you have the original glove compartment, the EasyEdge Light will really light up the the interior of the glove box all the way to the back.
- Very long life cycle. LEDs , when used correctly, have a life span of at least 50,000 hours!
- Many times brighter than the original Grumman panel lighting and they consume a fraction of the power.
- Unlike the original side panel lights, the EasyEdge Lights run extremely cool with no heat build-up.
- All components have a UL flame retardant rating of at least HB 94.
- They are fully controllable using the existing panel rheostat -- from dim to full bright. And with the optional dimmer control, the lights can be "fine tuned" to your preference.
- Vibration proof design. Aircraft vibration will not be a factor
- Available for both 12 and 24 volt Grumman aircraft

## Study and save this manual



Read this entire manual before using the Fresh Aero EasyEdge Light System. Make sure you understand the instructions and safety precautions in this manual. Keep this manual and your invoice in a safe place for future reference.

## Fresh Aero EasyEdge Light General Safety Warnings and Precautions

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

- Do not alter or modify the EasyEdge Light in any way.
- Do not tamper with internal components. These lights use internal components that match the specific LED light configuration. There are no user replacement parts.
- Handle lights carefully. Do not drop. LEDs are static sensitive so be sure to use proper grounding procedures when handling these lights.
- When installing the EasyEdge Light, locate the aircraft on a level surface and chock aircraft tires to prevent movement.
- The EasyEdge Light is designed for Grumman AA-5 series aircraft with 12 volt or 24 volt electrical systems. Do not modify or use in other aircraft. Do not use the 12 volt configuration on 24 volt Grumman aircraft. Contact Fresh Aero for correct configuration or for modified units for other applications.
- Never use the EasyEdge Light or any other single cockpit/cabin/panel light as the only lighting source when flying at night. As with other aircraft systems, always have redundant lighting available for safe night operations.

**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 EasyEdge Light and must be supplied by the person or persons using this product.

If you have questions regarding the installation or operation of the EasyEdge Light, or just need another manual, please call or write Fresh Aero at the at the contact numbers or e-mail address at the bottom of the next page. Manuals are also available on our web site in PDF format at www.freshaero.com.

### Other Legal Notices

The Fresh Aero Aviation 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**

Fresh Aero Aviation makes no representations of warranties, either expressed or implied, by or concerning any content of these written materials and in no event shall be liable for any implied warranty for any consequential, incidental or indirect damages (including but not limited to damages for loss of business profits or business interruption) arising from the use or inability to use these written materials or equipment. No liability is assumed with respect to the use of the information contained in these written materials, or for damages resulting from the use of the information contained therein.

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## The Fresh Aero EasyEdge Plug-In Eyebrow Light for Grumman AA-5 series Aircraft

## **5 year Limited Warranty**

Fresh Aero Aviation 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 3 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 be 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.

## **Installation Photos**



Photo 1 - EasyEdge Light back of panel wiring



Photo 2 – Mounted EasyEdge Light before panel mounting



Photo 3 – Possible locations for the optional dimmer control

## Installing the Fresh Aero EasyEdge Side Panel Light



Read and understand all the proceeding safety precautions and warnings before installing the EasyEdge Light.

FAA Approval Information: If you install the EasyEdge Light in your aircraft, you need at least a log book entry by an A&P mechanic to be completely legal and airworthy. Please see the next page for more information.

**Note:** These instructions apply to both side panel lights. The EasyEdge Lights are matched to each side - left and right, so be sure the mounting holes on each light are located towards the bottom of the light bracket.

■ Locate aircraft on a level surface and chock aircraft tires to prevent movement.

Remove the 5-6 screws that secure the side panel with the existing incandescent light and remove the panel. Note: you may need to pull away the adjacent panels to pull the panel out.

- Remove the incandescent bulb and remove the screw that holds the light socket on the panel.
- Pass the screw through the hole in the EasyEdge Light bracket, position the EasyEdge bracket on the side panel over the existing red light lens and re-install the screw into the incandescent light socket. The slot in the Easy Edge bracket should mate with the raised ridge on the side panel.. Be sure the light socket opening is facing up.
- Cut a small 1/16 inch slot at the bottom of the side panel, ½ inch long directly below the wire leads at the bottom of the EasyEdge bracket with heavy duty scissors or tin snips and pass the wires through the slot to the back of the panel.
- Plug the EasyEdge adaptor into the existing socket by aligning the "bayonet" lugs on the adaptor with the mating slots in the bulb socket and "push & twist" the adaptor into place. This will require very little turning. Confirm that adaptor is locked in socket by gently pulling on adaptor. If adaptor pops out, align and try again.

### **Mounting the optional Dimmer Control**

■ If you purchased the optional integrated dimmer control with the EasyEdge Light, it can be mounted now. Choose a location on the side panel and drill a ¼ inch hole to mount the dimmer. Please see photo 3 on the photo page for possible mounting locations.

- Use an awl to start the hole, them use a step drill or standard ¼ inch drill bit to drill the hole manually. The plastic is soft and you shouldn't need power.
- Remove the dimmer knob with a 1/16 inch hex wrench, remove the nut and pass the dimmer threaded shank through the hole (leave the o-ring and washer on the threaded shank). Replace and tighten the nut (don't over tighten) and re-install the knob.
- Mount the side panel on the aircraft in the reverse order it was removed and enjoy your EasyEdge Light.

### Operating The EasyEdge Light Unit

Except for a major improvement in the quality of panel light, nothing changes! Just use your panel mounted rheostat to control the brightness of your EasyEdge Light, just as you always have to control your other panel lights. **Note:** The EasyEdge Light LEDs are optimized for maximum brightness at 13.8 volts dc (27.6 volts on the 24 volt Tigers), the standard bus voltage on the Grumman AA-5 Series aircraft with the engine running and alternator charging. The EasyEdge Light will certainly work well with the engine off but the brightness will be slightly less than when the engine is running. Trust us, you won't notice it.

#### A Few Words on FAA Approval

We consider the EasyEdge Light System to be a major improvement in Grumman cockpit and cabin lighting. Intrinsic safety and easy installation with absolutely no modification to the airframe or electrical system make the EasyEdge Light a superior panel lighting solution for your AA-5 series aircraft.

But even some minor modifications to certified aircraft need some type of FAA approval to be legally used in the aircraft.

If you install the EasyEdge Light unit in your aircraft, you may need at least a log book—entry by an A&P mechanic to be completely legal and airworthy. The FAA people we have talked with consider the installation of this unit a very minor "add-on" that would be approved using the field approval process (337 form). Some district offices consider the EasyEdge Light to be just a bulb replacement with a power requirement significantly less than the original lighting. Please talk to your local FAA Flight Standards Office for more information.

To amplify on our warranty, if you are unable to get the EasyEdge Light approved, just—return the unit to us at Fresh Aero in the condition it was received (unused) within 6 months for a full refund less shipping.

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