GALLAGHER AVIATION BEECHCRAFT WINGTIP BRACKET INSTALLATION INSTRUCTIONS STC # SA04537CH

NOTES AND NOTICES:

1. All work shall be completed per applicable Aircraft Maintenance Manual or Advisory Circular (AC) 43.13 *Acceptable Methods, Techniques & Practices Aircraft Inspection, Repair & Alterations.*

2. User assumes all liability if modification or alteration is made to this kit that is not identified herein and shall hold harmless Gallagher Aviation from liability or damages if any occur as a result of deviation from these instructions.

3. Work must be completed and signed off by an authorized FAA Repair Station or an authorized Airframe and Powerplant mechanic with Inspection Authorization.

INSTALLATION INSTRUCTIONS

1. Bring aircraft in for modification and gain access to each wingtip in accordance with the applicable Aircraft maintenance Manual.

2. Ensure power has been removed from the aircraft electrical system (no electrical generator and battery disconnected to prevent any kind of electrical shock). Aircraft should be grounded while conducting this work.

3. Carefully remove the wingtip lenses. The wingtip lenses, with age, can become brittle or easy to break due to long-term effects of being exposed to the elements.

4. Remove existing lights, brackets, and hardware from the aircraft wingtip. Generally speaking, most wire can be repurposed for this kit and the Whelen Aerospace Technologies (WAT) LED lamps supplied as part of the kit. Any existing strobe power supply or power pack shall be removed and wiring soldered or connected to ensure strobe power continuity to the wingtip. Most Beechcraft aircraft strobe power supplies are found either in the wingtip or behind the rear bulkhead in the fuselage. NOTE: Strobe power supplies must be removed with any LED strobe light installation (if applicable). If the strobe power supplies are not removed and they are wired to LED strobe lights, they will cause instant destruction of the diodes and will void the WAT warranty.

5. Remove all sharp burrs, corners, and sharp edges prior to installation.

6. Exact wingtip structure, shape, and dimensions may vary between aircraft.

7. Install wingtip brackets in accordance with the General Arrangement drawing GAL01-5720-001 (Attachment 1) configuration and applicable installation drawings. All hardware pieces are included in the kit to install the wingtip brackets and the mount the applicable WAT LED lights.

8. Pick up existing screw holes in wingtip structure

9. Coordinate location with GAL01-5100-401-001 / GAL01-5100-401-002 bracket location.

10. Install bracket hardware per GAL01-AMM-26156 Aircraft Maintenance Manual Supplement (Attachment 2).

11. Run new wire, switch, and circuit breaker for WAT LED 71125 supplemental landing light (if applicable). WAT recommends an 18 gauge, 2 conduit wire for the 71125 supplemental landing light. Gallagher Aviation recommends connecting them to the existing aircraft landing light switch, taxi light switch, or its own independent switch.

12. Identify appropriate aircraft power, ground, and sync wire. Connect appropriate aircraft wire to corresponding WAT LED light connector.

13. Install matching wire connectors on new WAT LED lights (plastic quick disconnect, pigtail connector, knife disconnects etc.) in accordance with WAT installation guide/ICA and AC 43.13.

14. Install WAT Orion 650E Wingtip Position/Anti-Collision Lighthead in accordance with appropriate WAT installation guide/ICA.

    a. 28V WAT Orion 650E (P/Ns 01-0790701-11, 01-0790701-12)
    b. 14V WAT Orion 650E (P/Ns 01-0790701-01, 01-0790701-02)
    c. Installation instructions can be found at www.flywat.com

15. Install WAT 71125 supplemental landing lights with appropriate WAT installation guide/ICA.

    a. 28V WAT 7112521 (P/N 01-0771125-21)
    b. 14V WAT 7112511 (P/N 01-0771125-11)

16. Install WAT Orion 500 LED Tail Position/Anti-Collision Light Assembly in accordance with appropriate WAT installation guide/ICA.
    a. 28V Orion 500 (P/N 01-0771774V02)
    b. 14V Orion 500 (P/N 01-0771774V01)
    c. Installation instructions can be found at www.flywat.com

17. Complete functional light check of each light to ensure proper operation.

18. Adjust and aim on ground the forward-facing WAT 71125 LED supplemental landing lights and tighten hardware once aiming has been complete. Select an aiming target at least ten feet away with the aircraft wings level.

19. Reinstall wingtip lens.

20. Update weight and balance (Refer to GAL01-ICA-26155) (Attachment 3).

    a. Bracket pieces -001 / -002 weight are 0.788 lbs each
    b. Bracket pieces -003 / -004 weight are 0.434 lbs each
    c. WAT Orion 650E weight is 0.27 lbs each lamp
    d. WAT 71125 supplemental landing light weight is 0.3 lbs each lamp
    e. WAT Orion 500 weight is 0.28 lbs each lamp
    f. Factor in weight of removed equipment (lights, hardware, strobe power supplies, etc.)

21. Return the aircraft to service with FAA Form 337, Major Alteration, to be completed by appropriately rated FAA Repair Station, A&P Mechanic with Inspection Authorization, or by the FAA FSDO with a Field Approval. Complete logbook entry.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

1. Periodically visually inspect wingtip bracket to ensure there is no lost or lose hardware. If any hardware detaches, replace with appropriate hardware pieces.

2. Implement Instructions for Continued Airworthiness document GAL01-ICA-26155 into existing aircraft maintenance documents.

3. Follow instructions for Continued Airworthiness for WAT LED Lamps in accordance with each applicable model installation guide/ICA

STC ASSIGNMENT

This section is intended as written evidence per 14CFR 21.120 “Responsibility of Supplemental Type Certificate holders to provide written permission for alterations” granting permission to the aircraft owner/operator to use the following STC in the listed application:

FAA STC Number SA04537CH on the aircraft listed below:

Aircraft Make:

Aircraft Model:

Aircraft MSN:

Aircraft Registration:

For questions visit www.gallagheraviationllc.com

ATTACHMENTS

1. ATTACHMENT 1 – General Arrangement drawing GAL01-5720-001
2. ATTACHMENT 2 – GAL01-AMM-26156 Aircraft Maintenance Manual Supplement
3. ATTACHMENT 3 – GAL01-ICA-26155 Instructions for Continued Airworthiness

REVISIONS

REV	ZN	DESCRIPTION	DRAWN	APPROVED	DATE
IR	ALL SHTS	INITIAL RELEASE	Z. KAUFMAN	S. MARSAN	04/30/2021

GENERAL NOTES:

1. THIS DRAWING HAS BEEN GENERATED AND MUST BE MAINTAINED BY A 3D CAD SYSTEM. CHANGES SHALL BE INCORPORATED AS DIRECTED BY THE DESIGN ACTIVITY. THE MODEL SHALL BE KEPT CURRENT WITH THE DRAWING AT ALL TIMES.
2. THIS GENERAL ARRANGEMENT DRAWING IS A CONFIGURATION TOOL USED TO MANAGE COMBINATIONS OF INSTALLATIONS AS APPROVED CONFIGURATIONS OF A STC. THIS DRAWING IS USED FOR CONFIGURATION MANAGEMENT ONLY AND SHALL BE USED IN CONJUNCTION WITH THE APPROVED INSTALLATION DATA LIST (IDL). IDL PROVIDES REVISION CONTROL TO ALL DESIGN DATA. CONTACT INNOVIATOR PLANNING FOR IDL DOCUMENT NUMBER AND LATEST REVISION LEVEL.
3. INSTALLATION KIT NUMBERS CORRESPOND TO GENERAL ARRANGEMENT DEFINED HEREIN.

4 APPLICABLE TO -001 ARRANGEMENT ONLY.

5 APPLICABLE TO -003 ARRANGEMENT ONLY.

6 TEXTRON AVIATION, INC. BARON AIRCRAFT SHOWN. APPLICABLE TO ALL MODELS IN APPLICABILITY LIST..

INSTALLATION REQUIREMENTS::

1. THE INSTALLER MUST DETERMINE WHETHER THIS DESIGN CHANGE IS COMPATIBLE WITH PREVIOUSLY APPROVED MODIFICATIONS.
2. PRIOR TO INSTALLATION, THE AIRCRAFT OWNER MUST HAVE A LETTER OF AUTHORIZATION OR A PERMISSION OF USE LETTER PER 14 CFR PART 21.120 THAT PROVIDES AUTHORIZATION FOR THE INSTALLATION OF THIS STC.
3. THIS STC ONLY PROVIDES STRUCTURAL MOUNTING OF THE LIGHT AND DOES NOT PROVIDE ELECTRICAL INTEGRATION, LIGHT OPERATION, OR FUNCTIONAL CHECKS OF THE LIGHT. LIGHT ELECTRICAL INTEGRATION, OPERATION, AND FUNCTION REQUIRE ADDITIONAL APPROVALS.
4. INSTALLATION ON A FOREIGN REGISTERED AIRCRAFT REQUIRES FOREIGN VALIDATION OF FAA STC.
5. WEIGHT AND BALANCE EFFECTS DUE TO THE INSTALLATION OF CONFIGURATIONS DEFINED HEREIN ARE DEFINED IN DOCUMENT GAL01-ICA-26115, INSTRUCTIONS FOR CONTINUED AIRWORTHINESS, AND SHALL BE INCORPORATED INTO THE AIRCRAFT WEIGHT AND BALANCE DOCUMENTS.
6. THE AIRCRAFT MUST BE MAINTAINED IN ACCORDANCE WITH THE LATEST FAA-APPROVED REVISION OF INSTRUCTIONS FOR CONTINUED AIRWORTHINESS, DOCUMENT GAL01-ICA-26115.

APPLICATION::

1. THIS STC IS APPLICABLE FOR THE AIRCRAFT LISTED IN THE APPLICABILITY LIST, BELOW.
2. IN ADDITION TO THE AIRCRAFT APPLICABILITY LISTING IN THE APPLICABILITY TABLE, BELOW, ALL CONDITIONS OF THE INSTALLATION REQUIREMENTS SECTION MUST BE SATISFIED PRIOR TO INSTALLATION.

APPLICABILITY LIST

MAKE	MODEL(S)	SERIES	TCDS
TEXTRON AVIATION, INC.	35, A35, B35, C35, D35, E35, F35, G35, 35R	BONANZA	A-777
TEXTRON AVIATION, INC.	H35, J35, K35, M35, N35, P35, S35, V35, V35A, V35B, 35-33, 35-A33, 35-B33, 35-C33, 35-C33A, 36, A36, A36TC, B36TC, G36, E33, E33A, E33C, F33, F33A, F33C	BONANZA	3A15
TEXTRON AVIATION, INC.	D55, D55A, E55, E55A, 56TC, A56TC, 58	BARON	3A16

SEE SHEET 2 FOR PARTS LIST

PART DASH NO.	NHA	TOTAL	NEXT ASSY	USED ON

APPLICATION

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
DECIMAL
.X ± 0.1
.XX ± 0.03
.XXX ± 0.010
ANGULAR ±0.50°
WEIGHT IN U.S. LBS.
SURFACE FINISH 125

THIRD ANGLE PROJECTION

DO NOT SCALE DRAWING

SOLIDWORKS DRAWING

APPROVAL (PRINT AND SIGN)	DATE
3D MODEL: Z. KAUFMAN	04/30/2021
DRAWN: Z. KAUFMAN	04/30/2021
CHECKED: S. MARSAN	04/30/2021
STRESS: Z. KAUFMAN	04/30/2021
APPROVED: S.MARSAN	04/30/2021

INNOVIATOR FLIGHT SCIENCE

TITLE: GENERAL ARRANGEMENT - WINGTIP POSITION/ANTICOLLISION AND RECOGNITION LIGHT SUPPORT BRACKET

SIZE	CAGE	DWG. NO.	REV
B	6WW92	GAL01-5720-001	IR

SCALE: NONE | SOLIDWORKS DRAWING | CALC WT. | ACT WT. | SHEET 1 OF 3

REVISIONS

REV	ZN	DESCRIPTION	DRAWN	APPROVED	DATE

QTY	QTY	CAGE	PART NUMBER	NOMEN OR DESCRIPTION	MATERIAL & SPECIFICATION	NOTES	WEIGHT IN LBS	ZONE	ITEM NO.	CNF
1			GAL01-5720-101-004	RH POSITION/ANTICOLLISION LIGHT PROVISIONS INSTL				0304D		
1			GAL01-5720-101-003	LH POSITION/ANTICOLLISION LIGHT PROVISIONS INSTL				0308D		
	1		GAL01-5720-101-002	RH POSITION/ANTICOLLISION AND RECOGNITION LIGHT PROVISIONS INSTL				0304D		
	1		GAL01-5720-101-001	LH POSITION/ANTICOLLISION AND RECOGNITION LIGHT PROVISIONS INSTL				0308D		
---			-003	POSITION/ANTICOLLISION LIGHT PROVISIONS INSTL				0306A		
	---		-001	POSITION/ANTICOLLISION AND RECOGNITION LIGHT PROVISIONS INSTL				0306A		
-003	-001									

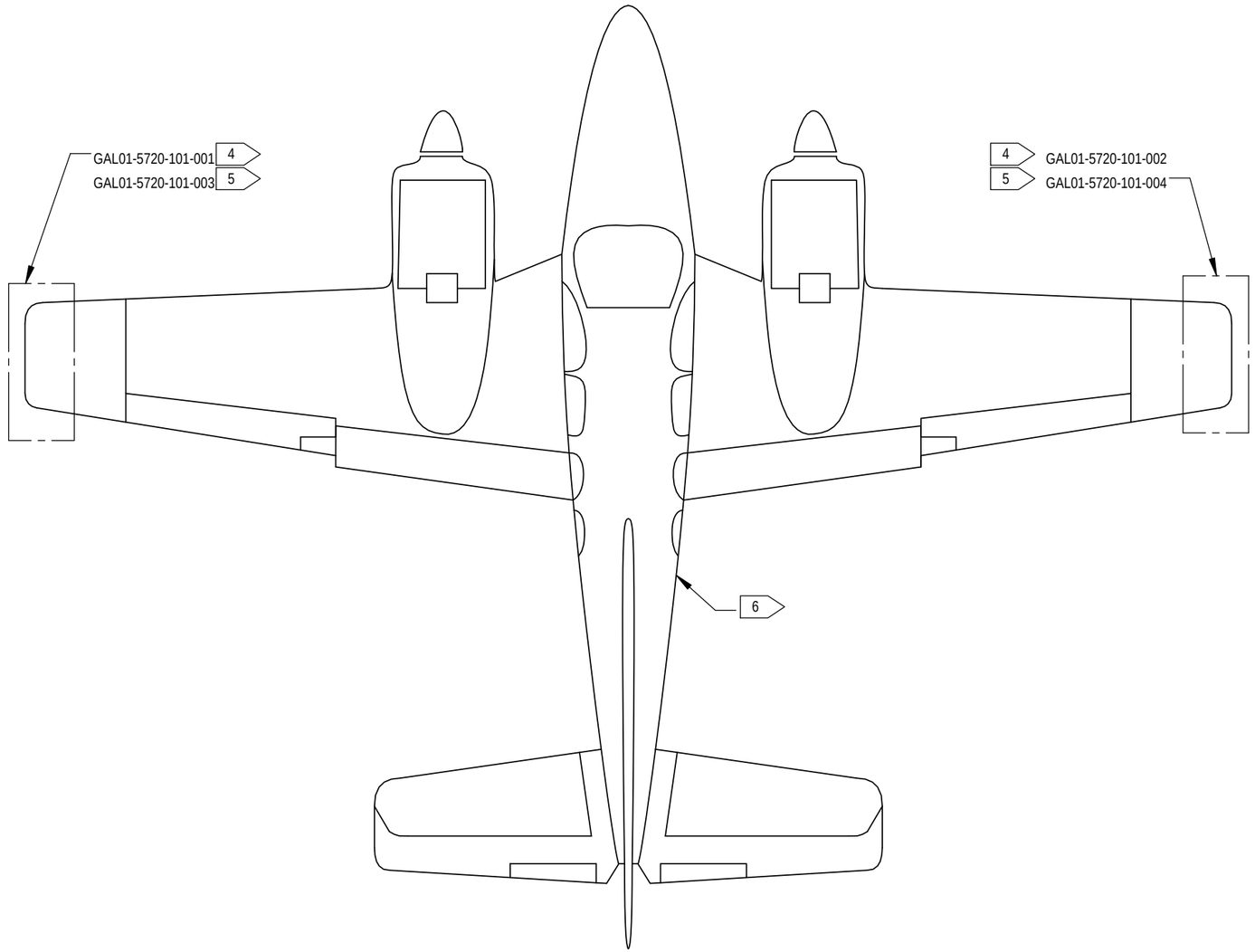
INNOVIATOR
FLIGHT SCIENCE

SIZE	CAGE	DWG. NO.	REV
B	6WW92	GAL01-5720-001	IR

SCALE: NONE	SOLIDWORKS DRAWING	CALC WT.	ACT WT.	SHEET 2 OF 3

REVISIONS

REV	ZN	DESCRIPTION	DRAWN	APPROVED	DATE



-001 (GENERAL ARRANGEMENT, POSITION/ANTICOLLISION AND RECOGNITION LIGHT PROVISIONS INSTL)

-003 (GENERAL ARRANGEMENT, POSITION/ANTICOLLISION LIGHT PROVISIONS INSTL)

INNOVIATOR
FLIGHT SCIENCE

SIZE	CAGE	DWG. NO.	REV
B	6WW92	GAL01-5720-001	IR

SCALE: NONE	SOLIDWORKS DRAWING	CALC WT.	ACT WT.	SHEET 3 OF 3

INNOVIATOR
FLIGHT SCIENCE

3189 Princeton Road
Hamilton, OH 45011
513-907-4257

DOCUMENT NO. **GAL01-AMM-26156**
REVISION LEVEL **IR**

AIRCRAFT MAINTENANCE MANUAL SUPPLEMENT

FOR

Installation of Wingtip Position/Anticollision Light Support Bracket

Textron Aviation Inc. Bonanza and Baron Aircraft

FAA STC No.:_____

Prepared By:	*(Signature on File)*	04/30/2021
	Z. Kaufman, Structural Engineering, Innoviator LLC	*Date*
Checked By:	*(Signature on File)*	04/30/2021
	S. Marsan, Structures DER, Innoviator LLC	Date
Approved By:	*(Signature on File)*	04/30/2021
	S. Marsan, Structures DER, Innoviator LLC	Date

LIST OF REVISIONS

Revision Level	Pages Affected	Description of Revision	Approved Date
IR	All	Initial Release	See Cover

TABLE OF CONTENTS

57-00-01 – WING TIP POSITION/ANTICOLLISION LIGHT SUPPORT BRACKET

Description and Operation

This STC installs brackets for the structural mounting of LED wingtip anticollision lights. Aftermarket LED anticollision lights are not exact form/fit replacements for the OEM wingtip anticollision lights. Structure provided in this STC mounting provisions only and does not approve the function of the replacement LED wingtip anticollision lights. Additional approvals are required.

This STC also provides mounting provisions for a forward recognition light should the operator choose to utilize the provisions to install a forward recognition light. Forward recognition lights do not require FAA-approval. Mounting and activation of the forward recognition light is the responsibility of the operator.

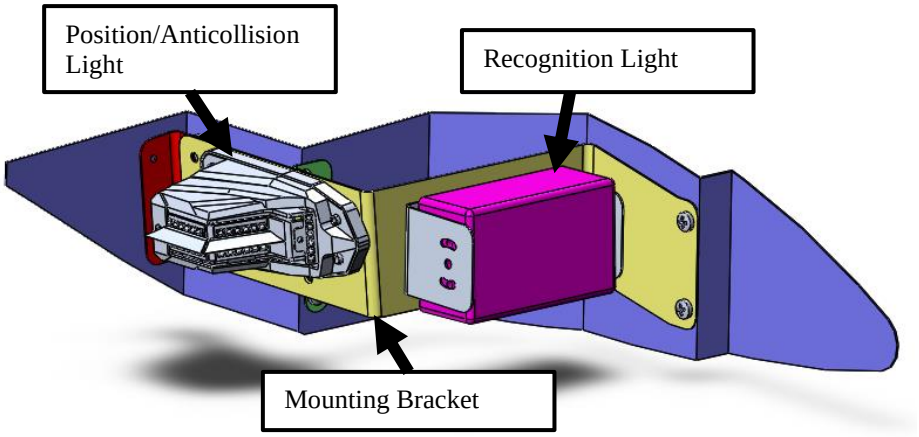


Figure 1: Installation Detail

The mounting bracket, shown in yellow in the figure above, is attached to the aircraft via 6 screws. Position/Anticollision light and recognition light (if used) are attached via screws as well.

Configurations and the scope of the installation are defined below, as defined by configurations in the General Arrangement Drawing, drawing GAL01-5710-001.

Table 1: STC Configurations

Configuration	Installation Data	Description
GAL01-5710-001-001	GAL01-5720-101-001	Position/Anticollision and Recognition Light Instl, LH Side
	GAL01-5720-101-002	Position/Anticollision and Recognition Light Instl, RH Side
GAL01-5710-001-003	GAL01-5720-101-003	Position/Anticollision Light Instl, LH Side
	GAL01-5720-101-004	Position/Anticollision Light Instl, RH Side

Maintenance Practices

The following maintenance practices cover the following maintenance activities associated with the installation of the wingtip position/anticollision support bracket installation:

- Physical removal of wingtip position/anticollision lights
- Physical removal of forward recognition light
- Removal of wingtip position/anticollision bracket
- Installation of wingtip position/anticollision bracket
- Physical installation of wingtip position/anticollision lights
- Physical installation of forward recognition light

Removal and installation of the wingtip position/anticollision and forward recognition lights include physical mounting removal/installation only and does not account for wiring or function of the light assemblies. Wiring, activation, and function are provided under a separate design approval.

Required equipment and materials are defined in the table below.

Table 2: Maintenance Equipment and Materials

ITEM	DESIGNATION
A. #2 Phillips Screwdriver	Screwdriver
B. Acetone per ASTM D239	Cleaning Agent

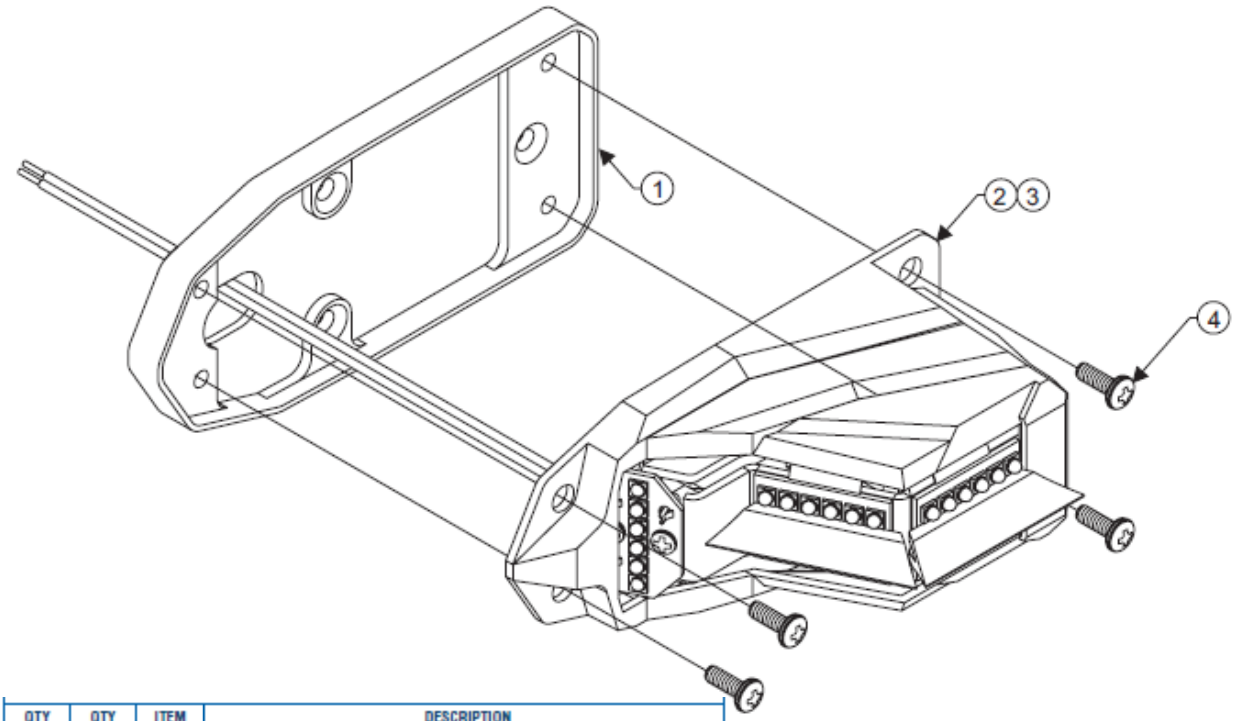
Notes: Applicable to all Maintenance Activity:

1. Prior to performing any maintenance activity, the aircraft shall be in a safe condition for maintenance.
2. During all maintenance activity, remove all parts as serviceable and retain hardware for reinstallation.
3. Use maintenance best practices defined in Chapter 20 of the aircraft Maintenance Manual, AC 43.13, or equivalent.

Position / Anticollision Light Removal

Note: Light removal instructions are only for the physical removal of the light and do not address deactivation of the light. Prior to completing these steps to remove the light, ensure the light has been made safe for maintenance (disconnected from aircraft power) with the maintenance instructions provided with the light installation/activation (not covered under the scope of this STC).

1. Job Setup
    a. Gain Access to the wing tip
    b. Remove the attaching screws from the transparent shield (lens cover) and remove from the wingtip
        i. Retain shield (lens cover) and retain hardware for reinstallation.
2. Light Removal
    a. Remove the four screws from the LED light removing the light from the mounting plate as shown in Figure 2.
    b. Remove the light baseplate from the aircraft by removing the three countersunk screws in the baseplate common to the bracket.



QTY	QTY	ITEM	DESCRIPTION
—	*	*	OR6501GE Wingtip Position/Anti-Collision Light, 12V (Green)
*	—	*	OR6501RE Wingtip Position/Anti-Collision Light, 12V (Red)
1	1	1	Mounting Plate, Model 90701 (Heli-Coils, CMPL)
—	1	2	Sub-Assy, Model OR6501GE (12 VDC, GRN)
1	—	3	Sub-Assy, Model OR6501RE (12 VDC, RED)
4	4	4	Screw, #4-40 x 5/16, PPHMS (MS51957-14)

Figure 2: Wingtip Position/Anticollision LED Light Detail

Forward Recognition Light Removal

Note: Light removal instructions are only for the physical removal of the light and do not address deactivation of the light. Prior to completing these steps to remove the light, ensure the light has been made safe for maintenance (disconnected from aircraft power) with the maintenance instructions provided with the light installation/activation (not covered under the scope of this STC).

1. Job Setup
    a. Gain Access to the wing tip
    b. Remove the attaching screws from the transparent shield (lens cover) and remove from the wingtip
        i. Retain shield (lens cover) and retain hardware for reinstallation.
2. Light Removal
    a. Remove the MS35206-212 screw and corresponding NAS1149GN432P washer and MS35206-225 screw and corresponding NAS1149GN632P washer from the LH and RH side of the GAL01-5100-401-007 bracket as shown in Figure 3.
    b. Remove the forward recognition light from the aircraft.

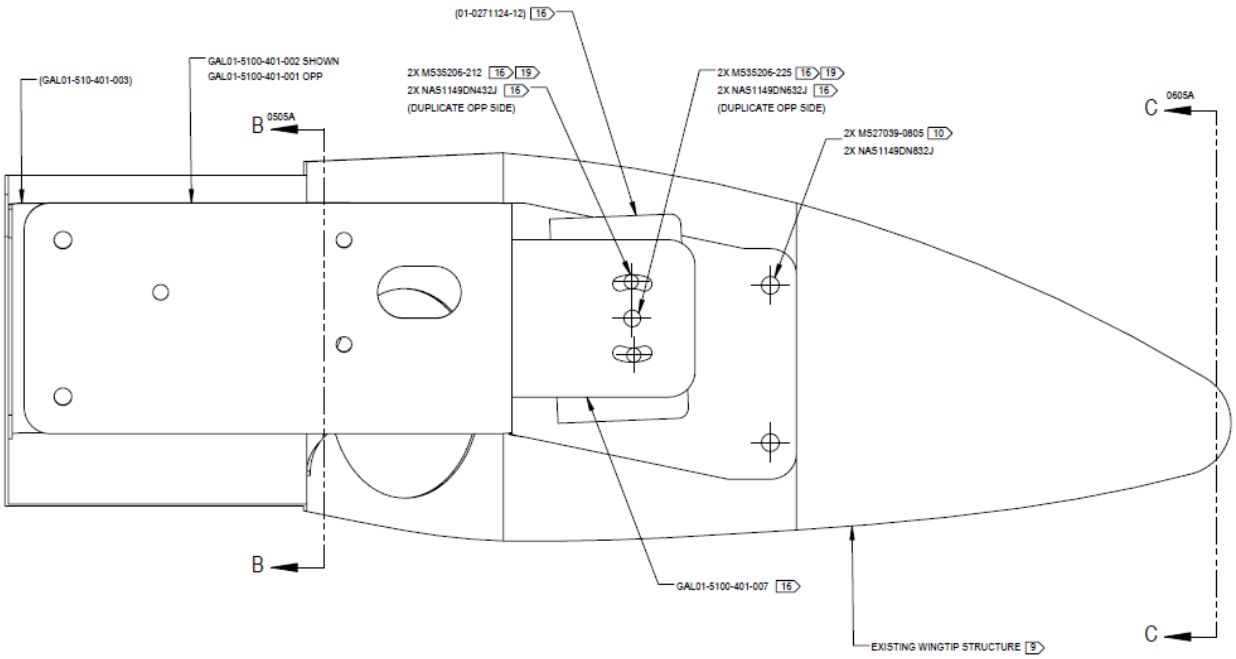


Figure 3: Forward Recognition LED Light Removal Detail

Bracket Removal, P/N GAL01-5100-401-001 or GAL01-5100-401-002

Note: In order to remove the bracket, P/N GAL01-5100-401-001 or GAL01-5100-401-002, any lights attached to the bracket (position/anticollision light and forward recognition light, as applicable) must be removed from the bracket.

1. Job Setup
    a. Gain Access to the wing tip
    b. Remove the attaching screws from the transparent shield (lens cover) and remove from the wingtip
        i. Retain shield (lens cover) and retain hardware for reinstallation.
    c. Ensure any lights attached to the bracket have been removed from the bracket in accordance with steps contained in the previous section.
2. Bracket Removal
    a. Remove the (4) MS27039-0805 screws and corresponding NAS1149G832P washers from the bracket, as identified in the figure below.
    b. Remove the bracket, P/N GAL01-5100-401-001 or GAL01-5100-401-002, from the aircraft. Retain for installation.

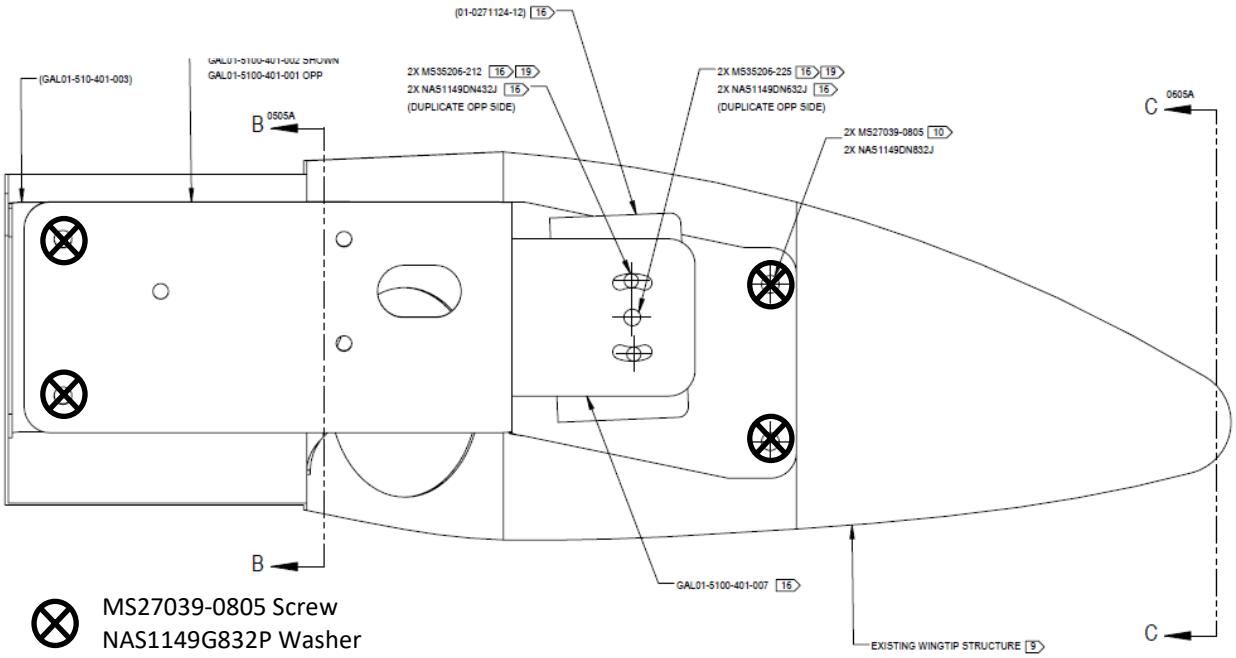


Figure 4: Bracket Removal Detail

Bracket Installation

Note: In order to remove the bracket, P/N GAL01-5100-401-001 or GAL01-5100-401-002, any lights attached to the bracket (position/anticollision light and forward recognition light, as applicable) must be removed from the bracket.

1. Bracket Installation
    a. Use cleaning agent and a clean cloth to clean the wingtip area as required to remove any unwanted debris, dust, oil, dirt, or etc. prior to reinstallation.
    b. Install the MS35206-212 screw and corresponding NAS1149GN432P washer and MS35206-225 screw and corresponding NAS1149GN632P washer to the LH and RH side of the GAL01-5100-401-007 bracket as identified in Figure 4.
2. Restore Access
    a. Ensure any lights attached to the bracket have been reinstalled to the bracket in accordance with steps contained in the subsequent section prior to returning the aircraft to service.

Position / Anticollision Light Installation

Note: Light installation instructions are only for the physical mounting of the light and do not address activation and operation of the light. Prior to completing these steps to install the light, ensure the mounting bracket has been installed on the aircraft.

1. Job Setup
    a. Ensure bracket, P/N GAL01-5100-401-001 or GAL01-5100-401-002, is installed on the aircraft.
2. Light Installation
    a. Install the light baseplate from the aircraft by installing the three MS24693-26 countersunk screws in the baseplate common to the bracket.
    b. Install the four screws from the LED light fastening the light to the mounting plate as shown in Figure 2.
    c. Ensure the light is correctly hooked up to the aircraft electrical system and is fully functional after installation.
        i. Function and operation of the light are not part of the scope of this STC. Refer to additional approval data for instructions on electrical integration and operational checks.
3. Restore Access
    a. Install the transparent shield (lens cover) with the attaching screws on the wingtip.

Forward Recognition Light Installation

Note: Light installation instructions are only for the physical mounting of the light and do not address activation and operation of the light. Prior to completing these steps to install the light, ensure the mounting bracket has been installed on the aircraft.

1. Job Setup
    a. Ensure bracket, P/N GAL01-5100-401-001 or GAL01-5100-401-002, is installed on the aircraft.
2. Light Installation
    a. Locate the forward recognition light between the sheet metal bracket, P/N GAL01-5100-401-007, as shown in Figure 3.
    b. Install the MS35206-225 screw and corresponding NAS1149GN632P washer from the LH and RH side of the GAL01-5100-401-007 bracket as shown in Figure 3.
    c. Manipulate the forward recognition light to the desired angle and install the MS35206-212 screw and corresponding NAS1149GN432P washer on the LH and RH sides of the bracket to fix in place.
3. Restore Access
    a. Install the transparent shield (lens cover) with the attaching screws on the wingtip

INNOVIATOR
FLIGHT SCIENCE

3189 Princeton Road
Hamilton, OH 45011
513-907-4257

DOCUMENT NO. **GAL01-ICA-26115**
REVISION LEVEL **IR**

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

FOR

Installation of Wingtip Position/Anticollision Light Support Bracket

Textron Aviation Inc. Bonanza and Baron Aircraft

Aircraft TCDS 3A15, A-777, 3A16
Aircraft Serial Number: _____
Aircraft Registration Number: _____
FAA STC: _____

This supplement must be attached to the Airplane Instructions for Continued Airworthiness (Maintenance Manuals). The information contained herein supplements the basic Instructions for Continued Airworthiness only in those areas listed, when the aircraft is modified with the STC listed above. For limitations and procedures not contained in this supplement, consult the basic Airplane Instructions for Continued Airworthiness (Maintenance Manuals).

The inspections specified in this document are FAA accepted. If applicable, the referenced airworthiness limitations are FAA approved. The Airworthiness Limitations section is FAA approved and specifies maintenance required under §43.16 and §91.403 of the Federal Aviation Regulations unless an alternative program has been approved.

Prepared By:	*(Signature on File)*	04/30/2021
	Z. Kaufman, Structural Engineering, Innoviator LLC	*Date*
Checked By:	*(Signature on File)*	04/30/2021
	S. Marsan, Structures DER, Innoviator LLC	Date
Approved By:	*(Signature on File)*	04/30/2021
	S. Marsan, Structures DER, Innoviator LLC	Date

LIST OF REVISIONS

Revision Level	Pages Affected	Description of Revision	Approved Date
IR	All	Initial Release	See Cover

TABLE OF CONTENTS

1.0 REFERENCES

The most recent revisions of the following references are used in this document. Revisions to Innoviator documents are controlled by Innoviator Data lists. Contact Innoviator for latest document revisions at tech.support@innoviator.com.

Table 1: References

Data	Title
14CFR Part 23	Airworthiness Standards: Commuter Category Airplanes
8110.54A	Instructions for Continued Airworthiness, Responsibilities, Requirements, and Contents
AC 120-27E	Aircraft Weight and Balance Control
GAL01-IDL-26168	Installation Data List
GAL01-5710-001	General Arrangement – Wingtip Anticollision Light Support Bracket

2.0 INTRODUCTION

2.1 Purpose

This document provides a list of Instructions for Continued Airworthiness (ICA) for the installation of wingtip anticollision light support brackets on the Textron Aviation Inc. Bonanza and Baron Aircraft. Specific applicable models are detailed on the General Arrangement Drawing GAL01-5710-001.

This document includes additional maintenance tasks in addition to and not covered by OEM maintenance activity and manuals. This manual satisfies the FAA requirement that Design Approval Holder (DAH) provide "Instructions for Continued Airworthiness" (ICA) as specified in CFR 14 Part 23.1529 and Appendix G to 14 CFR Part 23.

The scheduled maintenance tasks in this document should not be considered all-inclusive. The operator has the final responsibility to decide what to do and when to do it. Additional temporary requirements in the form of Service Letters, Service Bulletins, and Airworthiness Directives are the responsibility of airline and/or operator to incorporate.

2.2 Distribution of ICA Changes

All revisions to this document will be accounted for in the revision block and/or by use of vertical change bars in the left-hand margin where information has been changed or added.

All revisions to this document must be submitted to and accepted by the FAA AEG prior to distribution.

Changes to this document or to the reference data listed within this document shall be disseminated by Innoviator, within 14 days after FAA acceptance of the data to the Aircraft Operator/Owner to ensure continued safe operation and maintenance.

A list of all aircraft affected by this modification is maintained by Innoviator. Revisions to this document will be distributed to all operators for the aircraft affected by this modification. Aircraft Owners/Operators are encouraged to provide up-to-date information to Innoviator to ensure timely access to new information.

Contact Innoviator at:

Innoviator Flight Science
15840 Pilot Dr.
Sisters, Oregon 97759

2.3 Description

This STC installs brackets for the structural mounting of LED wingtip position/anticollision lights. Aftermarket LED position/anticollision lights are not exact form/fit replacements for the OEM wingtip position/anticollision lights. Structure provided in this STC mounting provisions only and does not approve the function of the replacement LED wingtip position/anticollision lights. Additional approvals are required.

This STC also provides mounting provisions for a forward recognition light should the operator choose to utilize the provisions to install a forward recognition light. Forward recognition lights do not require FAA-approval. Mounting and activation of the forward recognition light is the responsibility of the operator.

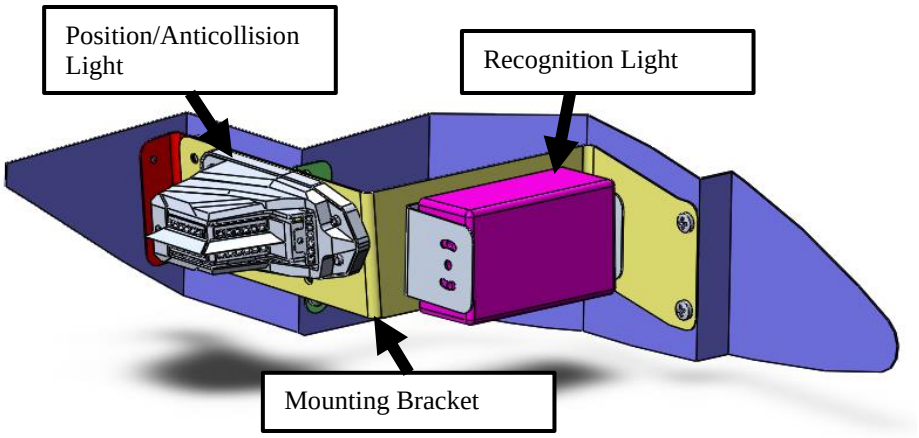


Figure 1: Installation Detail

The mounting bracket, shown in yellow in the figure above, is attached to the aircraft via 6 screws. Position/Anticollision light and recognition light (if used) are attached via screws as well. Installation and removal of these lights and the bracket are defined within the AMM supplement defined in Table 4.

Configurations and the scope of the installation are defined below, as defined by configurations in the General Arrangement Drawing, drawing GAL01-5710-001.

Table 2: STC Configurations

Configuration	Installation Data	Description
GAL01-5710-001-001	GAL01-5720-101-001	Position/Anticollision and Recognition Light Instl, LH Side
	GAL01-5720-101-002	Position/Anticollision and Recognition Light Instl, RH Side
GAL01-5710-001-003	GAL01-5720-101-003	Position/Anticollision Light Instl, LH Side
	GAL01-5720-101-004	Position/Anticollision Light Instl, RH Side

2.4 Acronyms, Abbreviations and Definitions

ABBREVIATION	DEFINITION
CFR	Code of Federal Regulations
DTA	Damage Tolerance Analysis
FAA	Federal Aviation Administration
ICA	Instructions for Continued Airworthiness
INBD	Inboard
INSTL	Installation
IPC	Illustrated Parts Catalog
LRU	Line Replaceable Unit
MDL	Master Data List
MM	Maintenance Manual
MRB	Maintenance Review Board
QTY	Quantity
SIRM	Structural Inspection and Repair Manual
STA	Station (Fuselage Station)
STC	Supplemental Type Certificate
TCDS	Type Certificate Data Sheets

3.0 CERTIFICATION REQUIREMENTS

This document shows compliance of the following regulations.

Table 3: ICA Compliance

FAR	Amendment Level	Description
23.1529	Amdt. 25-26	Instructions for Continued Airworthiness

4.0 ATA CHAPTER 0010 – AIRCRAFT MANUALS

The following documents are technical publications requiring implementation into current aircraft manuals as supplements to existing documents. This manual is the primary manual with subordinate, supporting manuals identified in Table 4, below; note that not all manuals are approved data as part of the STC type design. Manuals that are not part of the type design require operator action to implement into the maintenance program. Contact Innoviator for latest revision levels.

Table 4: Manual Supplements

Data ID	Data Description
GAL01-ICA-26115*	Instructions for Continued Airworthiness
GAL01-AMM-26156	Aircraft Maintenance Manual Supplement

*Denotes top level manual

5.0 ATA CHAPTER 5 – INSPECTION REQUIREMENTS AND OVERHAUL SCHEDULE

5.1 Position/Anticollision Light and Forward Recognition Light

5.1.1 Inspection Requirements

There are no additional equipment inspection requirements for the wingtip positon/anticollision light and forward recognition light support bracket. This STC provides structural mounting only and does not activate the light functionality. When the light is utilized in the context of an activated system, it is the responsibility of the integrator to ensure that the antenna is in good, working (serviceable) condition. Refer to maintenance instructions contained within the activation/operation approval of the light for maintenance of the light functionality itself. For changes to the Airworthiness Limitations of the aircraft resulting from the installation of the access panel or the anti-collision light relocation, refer to Section 0, Airworthiness Limitations.

5.1.2 Component Overhaul Schedule

None of the components installed within this modification require overhaul maintenance.

6.0 ATA CHAPTER 6 – DIMENSIONS & AREAS

6.1 Aircraft Features

No change to basic Airplane Instructions for Continued Airworthiness (Maintenance Manuals).

6.2 Location

The bracket and light provisions are installed in the wingtip on the aircraft, underneath the transparent shield (lens cover) of the wintip.

7.0 LIFTING AND SHORING

7.1 Jacking Information

No change to basic Airplane Instructions for Continued Airworthiness (Maintenance Manuals).

7.2 Lifting Instructions

No change to basic Airplane Instructions for Continued Airworthiness (Maintenance Manuals).

7.3 Shoring Instructions

No change to basic Airplane Instructions for Continued Airworthiness (Maintenance Manuals).

8.0 ATA CHAPTER 8 – LEVELING & WEIGHING

8.1 Leveling Information

No change to basic Airplane Instructions for Continued Airworthiness (Maintenance Manuals).

8.2 Weight and Determination of CG Instructions

The scope of the installation does not affect the maximum certified gross weight, CG range, or flight envelope of the aircraft. Installed components weigh either 1.58lb (configuration GAL01-5720-001-001) or 0.88lb (configuration GAL01-5720-001-003). Removed components include position light (Qty 2 at 0.25lb each) and strobe light and mounting angles (Qty 2 at 0.50lb each). The net weight change of the modification is less than 1lb and therefore does not need to be documented in the aircraft logbook per AC 120-27E. Component removal weight shall be verified by the installer as any changes to installed lighting component may affect weight and balance changes.

Weight changes for the each configuration are detailed blow:

Table 5: Component Weight, Configuration GAL01-5720-001-001

P/N or Designator	Description	Weight (lb)	QTY	Total Weight (lb)
650E	Wingtip Position Light	0.26	2	0.52
71125	Forward Recognition Light	0.3	2	0.60
Various	Sheet Metal Structure and Hardware	0.23	2	0.56
			Total	1.58

Table 6: Component Weight, Configuration GAL01-5720-001-003

P/N or Designator	Description	Weight (lb)	QTY	Total Weight (lb)
650E	Wingtip Position Light	0.26	2	0.52
Various	Sheet Metal Structure and Hardware	0.18	2	0.36
			Total	0.88

9.0 ATA CHAPTER 9 – TOWING & TAXING

9.1 Tow Information

No change to basic Airplane Instructions for Continued Airworthiness (Maintenance Manuals).

9.2 Taxiing Information

No change to basic Airplane Instructions for Continued Airworthiness (Maintenance Manuals).

10.0 ATA CHAPTER 10 – PARKING AND MOORING

10.1 Mooring Information

No change to basic Airplane Instructions for Continued Airworthiness (Maintenance Manuals).

10.2 Parking Instructions

No change to basic Airplane Instructions for Continued Airworthiness (Maintenance Manuals).

10.3 Storing Limitations

No change to basic Airplane Instructions for Continued Airworthiness (Maintenance Manuals).

11.0 ATA CHAPTER 11 – PLACARD & MARKING

11.1 Placards and Marking Information

No change to basic Airplane Instructions for Continued Airworthiness (Maintenance Manuals).

12.0 ATA CHAPTER 12 – SERVICING

12.1 Component Removal/Installation

For removal and installation of the modified horizontal stabilizer cover, antenna structural provisions, and installation and removal of the wingtip position/anticollision light and forward recognition light support bracket, reference AMM supplement, GAL01-AMM-26156.

12.2 Lubrication Information

No change to basic Airplane Instructions for Continued Airworthiness (Maintenance Manuals).

12.3 Equipment Required for Servicing

No special tooling or equipment is required for servicing.

12.4 Consumable Materials

No change to basic Airplane Instructions for Continued Airworthiness (Maintenance Manuals).

13.0 AIRWORTHINESS LIMITATIONS SECTION

The Airworthiness Limitations Section (ALS) is FAA Approved and specifies maintenance required under 14 CFR 43.16 and 91.403 of the Federal Aviation Regulations (FAR) unless an alternative program has been approved.

There are no airworthiness limitations associated with the modification.