



U.S. Department of Transportation  
Federal Aviation Administration

## MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved  
OMB No. 2120-0020  
2/28/2011

Electronic Tracking Number

For FAA Use Only

**INSTRUCTIONS:** Print or type all entries. See Title 14 CFR §43.9, Part 43, Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by 14 CFR (43.103-1, 43.103-2). Failure to report can result in a civil penalty for each such violation (49 U.S.C. §46301(a)).

|                    |   |                                |   |
|--------------------|---|--------------------------------|---|
| <b>1. Aircraft</b> | Nationality and Registration Mark<br><b>N1948B</b>                  | Serial No.<br><b>177RG0564</b> |   |
|                    | Make<br><b>Cessna</b>   | Model<br><b>177RG</b>          | Series<br><b>177</b>  |
| <b>2. Owner</b>    | Name (As shown on registration certificate)<br><b>Aeronaut, LLC</b> |                                | Address (As shown on registration certificate)<br><b>473 South River Road Suite 370</b> |
|                    | City <b>Saint George</b> State <b>UT</b>                            |                                | Zip <b>84790</b> Country <b>USA</b>   |

**3. For FAA Use Only**

\*Approval by Physical Inspection, Demonstration, Testing, etc. One Aircraft: The alteration identified herein complies with the applicable airworthiness requirements and is approved for the above described aircraft, subject to conformity inspection by a person authorized in 14 CFR 43.7. M. Bauermeister DARF636056NM, 19 FEB 2016

| 4. Type                  |                                     | 5. Unit Identification |              |                                |               |
|--------------------------|-------------------------------------|------------------------|--------------|--------------------------------|---------------|
| Repair                   | Alteration                          | Unit                   | Make         | Model                          | Serial Number |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | AIRFRAME               | _____        | (As described in Item 1 above) | _____         |
| <input type="checkbox"/> | <input type="checkbox"/>            | POWERPLANT             |              |                                |               |
| <input type="checkbox"/> | <input type="checkbox"/>            | PROPELLER              |              |                                |               |
| <input type="checkbox"/> | <input type="checkbox"/>            | APPLIANCE              | Type         |                                |               |
|                          |                                     |                        | Manufacturer |                                |               |

**6. Conformity Statement**

|   |  |
|---|--|
| <b>A. Agency's Name and Address</b><br>Name <b>SpanaFlight - Matt Selstad</b><br>Address <b>16705 103rd Ave Ct E</b><br>City <b>Puyallup</b> State <b>WA</b><br>Zip <b>98374</b> Country <b>USA</b> | <b>B. Kind of Agency</b><br><input checked="" type="checkbox"/> U.S. Certificated Mechanic<br><input type="checkbox"/> Foreign Certificated Mechanic<br><input type="checkbox"/> Certificated Repair Station<br><input type="checkbox"/> Certificated Maintenance Organization<br><input type="checkbox"/> Manufacturer<br><b>C. Certificate No.</b><br><b>AP3648024</b> |
|---|--|

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

|  |   |
|--|---|
| Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/> | Signature/Date of Authorized Individual<br>12-18-15 |
|--|---|

**7. Approval for Return to Service**

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  APPROVED  REJECTED

|           |  |   |  |  |
|-----------|--|---|--|--|
| <b>BY</b> | <input type="checkbox"/> FAA Fit Standards Inspector | <input type="checkbox"/> Manufacturer   | <input type="checkbox"/> Maintenance Organization            | <input type="checkbox"/> Person Approved by Canadian Department of Transport |
|           | <input type="checkbox"/> FAA Designee                | <input type="checkbox"/> Repair Station | <input checked="" type="checkbox"/> Inspection Authorization | Other (Specify)  |

|  |   |
|--|---|
| Certificate or Designation No.<br><b>3648024IA</b> | Signature/Date of Authorized Individual<br>12-18-15 |
|--|---|

## NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

### 8. Description of Work Accomplished

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

N1948B

12-18-15

Nationality and Registration Mark

Date

Aircraft modified as follows to provide to provide greater oil cooling efficiency:

Removed Aero Classics oil cooler P/N 8000075, modified the existing Cessna oil cooler brackets P/N's 2050003-5 and 2050003-7 to move the oil cooler closer to the firewall to provide clearance with the muffler, modify air duct adapter P/N 2050003-1 to accommodate the 1 inch wider 8001599 oil cooler, and install the Aero Classics oil cooler P/N 8001599. The 8001599 cooler has two extra rows of cooling fins. There is no change to the oil flow into and out of the oil cooler. All oil fittings and hoses are reused. The existing Vernatherm valve remains so there is no change to normal oil temperature control or oil temperature indication markings. This installation is a common modification per the Cardinal Flyers Online (CFO) and a similar modification has been previously approved on 337 dated 9-27-12 on N232CB.

Modified the existing 2 Cessna oil cooler mounting brackets and existing Cessna adapter (air duct) as depicted in the overview reference drawing #1 to relocate the larger oil cooler 3/8" closer to the firewall and to accommodate the increased width of the P/N 8001599 oil cooler as follows:

#1. Bracket P/N 2050003-7 modified by drilling 2 new 3/16" holes per reference Drawing #2 3/8" closer to the firewall.

#2 Bracket P/N 2050003-5 modified by trimming 1" to remove the 45 deg. Flange. Fabricated 2 1/4 inch 45 deg. Angle from .032 2024 t3 sheet and riveted to the -5 bracket. Bend line as depicted in reference Drawing #3 and flange formed per AC43.13-1B, para. 4-55 (c). New 3/16" holes to be located and drilled in the newly formed and attached 45 deg. Flange from existing holes in the new larger oil cooler upon final installation.

#3 Adapter (air duct) P/N 2050003-1 modified by removing the 1 inch inner vertical flange at the bend line. Fabricated 2 1/4 inch wide 135 deg. Angle from .032 2024 t3 sheet. Bend line as depicted in reference Drawing #4 and flange formed per AC43.13-1B, para. 4-55 (c) and riveted to the -1 adapter oriented so flange is opposite from the original flange to accommodate the mounting holes of the 8001599 oil cooler. The 3/16 inch holes in the new flange match drilled to the 8001599 oil cooler upon installation.

Modified brackets assembled on firewall with existing mounting hardware, new P/N 8001599 oil cooler located and the 2 new 3/16 holes drilled in the modified P/N 2050003-5 bracket and 2 new 3/16 holes matched drilled in the modified P/N 2050003-1 adapter. Oil cooler and modified adapter (air duct) installed on the brackets with MS27039-1-10 screws, NAS1149F0363P washers, and MS21045-10 nuts.

This installation meets FAR 23.1301 and FAR 23.1309 Installation of equipment.

Equipment list updated. Weight change was negligible.

The following checklist are Instructions for Continued Airworthiness (ICA) per FAA handbook bulletin for airworthiness (HBAW98-18 dated 10-7-1998), applicable to the aircraft listed above when the following equipment is installed:

- 1) Introduction: This ICA is for this oil cooler installation on a Cessna 177RG to provide greater oil cooling efficiency.
- 2) Description: The Aero Classics 8001599 oil cooler has two more rows of cooling fins and uses modified existing bracketry for installation. All hose fittings and elbows were reused for same inlet and outlet flow.
- 3) Control: N/A
- 4) Service Information: Standard procedure to drain cooler at time of oil change.
- 5) Maintenance Instructions: Maintain and inspect at normal intervals per aircraft manufacturer schedule.
- 6) Trouble shooting information: N/A
- 7) Removal and replacement information: N/A
- 8) Diagrams: N/A
- 9) Special inspection requirements: N/A
- 10) Application of protective treatments: N/A
- 11) Data: N/A
- 12) List of special tools: N/A
- 13) For commuter category aircraft: N/A
- 14) Recommended overhaul periods: N/A
- 15) Airworthiness limitation section: No additional airworthiness limitations.
- 14) Recommended overhaul periods: N/A

Continued page 2

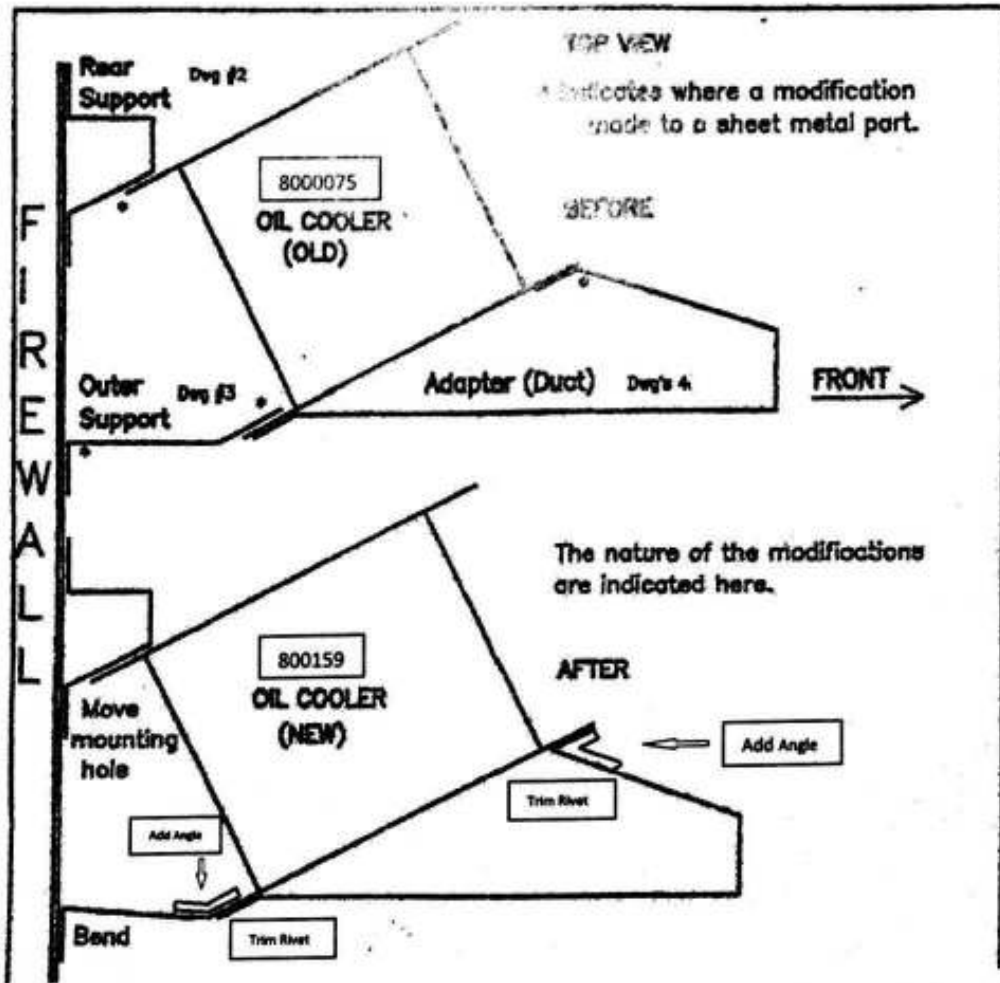
Additional Sheets Are Attached

15) Airworthiness limitation section: No additional airworthiness limitations.

16) Revision: For revision of this ICA a copy will be submitted to the local FSDO with a copy of the revised FAA form 337 and revised ICA. The FAA inspector accepts the change by signing block 3 and including the following statement: "The attached revised/new instructions for continued airworthiness (date ) for the above aircraft or component major alteration have been accepted by the FAA, superseding the instructions for continued airworthiness (date )." Once the revision has been accepted, a maintenance record entry will be made, identifying the revision, its location, date of the form 337.

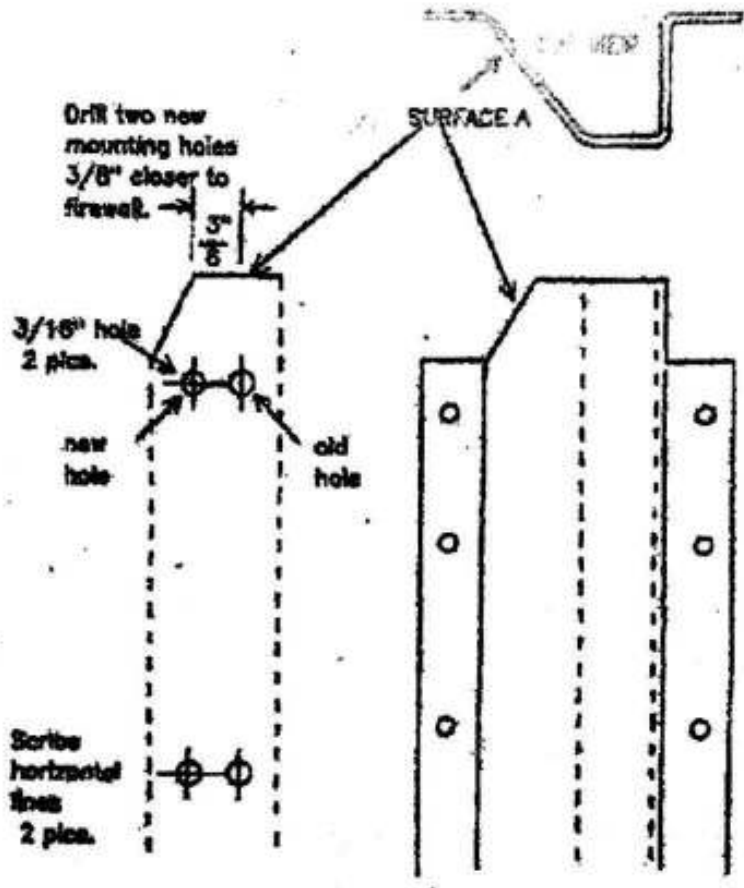
END

See ref. drawings #1 through #4



Over View of Modifications

Drawg # 1



Cessna P/N 2050003-7 Modification

Drawg # 2

Adjust this bend during fitting phase

TOP VIEW

Fabricate 45 degree angle, from .032 2024-t3 sheet.  
2 3/8" wide, Rivet on inboard edge of bracket to locate  
oil cooler 3/8" close to firewall

M20 470 AD 4-3 Rivets  
N" spacing

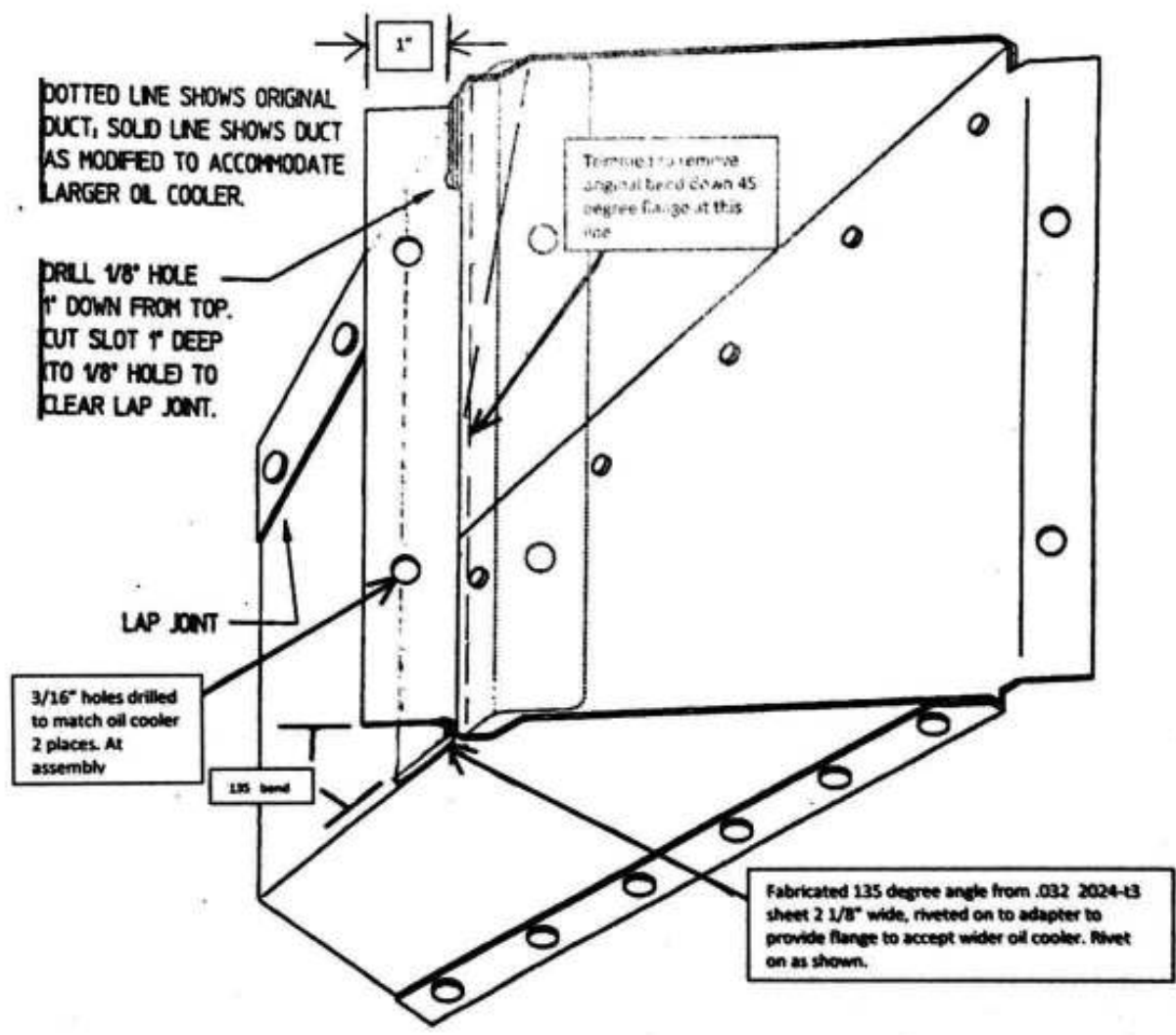
Remove 45 degree flange from original  
part at lead line

Drill 3/16" holes during fitting phase. 2 places to  
Match oil cooler at assembly.


Trim edges of 45 degree angle to match edges of  
bracket

Cessna P/N 2050003-5 Modification

Drawg # 3



Cessna P/N 205003-1 Modification  
 Drawg # 4

|  |                                 |   |                               |   |                                       |                  |
|--|---------------------------------|---|-------------------------------|---|---------------------------------------|------------------|
| 1. Approving Civil Aviation Authority/Country:<br>FAA/UNITED STATES  |                                 | 2. <b>AUTHORIZED RELEASE CERTIFICATE</b><br>FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG |                               |   | 3. Form Tracking Number:<br>H-Q081123 |                  |
| 4. Organization Name and Address:<br>HARTZELL ENGINE TECHNOLOGIES, 2900 SELMA HWY. MONTGOMERY, AL. 36108   |                                 |   |                               | 5. Work Order/Contract/Invoice Number:<br>M860410   |                                       |                  |
| 6. Item:   |                                 | 7. Description:   | 8. Part Number:               | 9. Quantity:  | 10. Serial Number:                    | 11. Status/Work: |
| 1  | ALTERNATOR-NEW<br>**** END **** | AL12-F60  | 1                             | H-Q081123   | NEW                                   |                  |
| 12. Remarks:<br>AIRWORTHINESS APPROVAL- PARTS FOR PMA ELIGIBILITY SEE WWW.HARTZELL.AERO/PMA/   |                                 |   |                               |   |                                       |                  |
| 13a. Certifies the items identified above were manufactured in conformity to:<br><input checked="" type="checkbox"/> Approved design data and are in a condition for safe operation.<br><input type="checkbox"/> Non-approved design data specified in Block 12.   |                                 |   |                               | 14a. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input type="checkbox"/> Other regulation specified in Block 12.<br>Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service. |                                       |                  |
| 13b. Authorized Signature:<br>  |                                 | 13c. Approval/Authorization No.:<br>749188261   | 14b. Authorized Signature:    |   | 14c. Approval/Certificate No.:        |                  |
| 13d. Name (Typed or Printed):<br>MICHAEL C. STRICKLAND   |                                 | 13e. Date (dd/mm/yyyy):<br>22/AUG/2016  | 14d. Name (Typed or Printed): |   | 14e. Date (dd/mm/yyyy):               |                  |
| <b>User/Installer Responsibilities</b>   |                                 |   |                               |   |                                       |                  |
| It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.<br>Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensure that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in Block 1.<br>Statements in Block 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown. |                                 |   |                               |   |                                       |                  |



United States of America  
Department of Transportation - Federal Aviation Administration

# Supplemental Type Certificate

IMPORT

Number SA02825NY

This certificate issued to  
Aerospac Logic Inc.  
180 James Street South, Suite 201  
Hamilton, Ontario  
Canada L8N1V1

certifies that the change in the type design for the following product with the limitations and conditions described in specified boxes meets the airworthiness requirements of the attached FAA AML.

Original Product Type Certificate Number:

Model \* See attached FAA Approved Model List dated 07/28/2010 or later FAA approved revisions for the list of approved airplane models.

Description of Type Design Changes: Installation of Aerospac Logic Aircraft Instruments, identified in document No. S280-CPL, Rev. 1.0, dated 12/02/2009 or later Transport Canada approved revisions, as primary or auxiliary, new or replacement instruments. Installation must be in accordance with Aerospac Logic Document No. S280-CIL, Rev. 1.0, dated 12/02/2009, Transport Canada approved 12/14/2009, or later Transport Canada approved revisions.

Limitations and Conditions:

(See Continuation Sheet 2 of 2)

This certificate and the supporting data which is the basis for approval shall remain in effect until cancelled, suspended, recalled or a termination date is otherwise established by the Administration of the United States of America.

Date of application: January 15, 2010

Date received:

Date of issuance: July 28, 2010

Date amended:



By direction of the Administrator  
*Jeffery J. Peltier*  
Anthony Socca  
Manager  
New York Aircraft Certification Office  
(756)

Any alteration of this certificate is prohibited by a civil penalty of \$1,000 for each alteration or \$10,000 for each alteration if such alteration is prohibited by the Administrator. See 14 CFR 1.617.

United States of America

Department of Transportation - Federal Aviation Administration

# Supplemental Type Certificate

(Continuation Sheet)

Number SA02825NY

Date of issuance: July 28, 2010

Limitations and Conditions (Continued):

1. Operation of instruments utilizing an annunciator control module must be in accordance with Aerospac Logic - Document S280-PAAS, Rev. 1.0, dated 12/02/2009, Transport Canada approved 12/14/2009, or later Transport Canada revisions.
2. Installation limitations must be observed in accordance with Aerospac Logic Installation Limitations Statement Document No. S200-ILS, Rev. 1.0, dated 12/02/2009, Transport Canada approved 12/14/2009, or later Transport Canada approved revisions. The products are to be installed in existing panel holes and are to replace existing instruments. As primary replacement products it is recommended and preferred that they be placed in the same panel location as the original equipment. Their visibility and placement relative to other instruments are to be the same or similar to the existing instruments. Where they are in a different location, it is the responsibility of the installer to ensure that they are visible to the pilot under all conditions.
3. Maintenance must be in accordance with Aerospac Logic Instructions for Continued Airworthiness - Document No. S280-ICA, Rev. 1.2, dated 5/04/2010 or later Transport Canada accepted revisions.
4. The installer must determine whether the design change is compatible with previously approved modifications.
5. If the holder agrees to permit another person to use this certificate to alter a product, the holder must give the other person written evidence of that permission.

END

Any alteration of this certificate is prohibited by a civil penalty of \$1,000 for each alteration or \$10,000 for each alteration if such alteration is prohibited by the Administrator. See 14 CFR 1.617.

## 200 Series Instruments

### CERTIFIED PRODUCT LIST

| ITEM | Part Number Series | Description & Accessories (if applicable)  |
|------|--------------------|--|
| 1    | A200-000           | Lighting Controller Kit - connector to all instruments   |
| 2    | CA200A             | Cock and Outside Air Temperature with Annunciator<br>- A200-TSA - Outside Air Temperature Sensor   |
| 3    | CO200A             | Cock and Outside Air Temperature<br>- A200-TSA - Outside Air Temperature Sensor  |
| 4    | CT2000X            | Cylinder Head Temperature<br>- A200-TCS - Bayonet Thermocouple Probe<br>- A200-TCR 12/14/16 - Ring Thermocouple Probe  |
| 5    | ET2000X            | Exhaust Gas Temperature<br>- A200-TSE - Bayonet Thermocouple Probe<br>- A200-TSC 16/20/25 - Clamp Thermocouple Probe   |
| 6    | ECT204000X         | Exhaust Gas and Cylinder Head Temperature<br>- A200-TC3 - Bayonet Thermocouple Probe<br>- A200-TCR 12/14/16 - Ring Thermocouple Probe<br>- A200-TSE - Bayonet Thermocouple Probe<br>- A200-TSC 16/20/25 - Clamp Thermocouple Probe |
| 7    | FA2000X            | Fuel Pressure and Annometer<br>- A200-PSF - Fuel Pressure Sender<br>- A200-HAS - Hall Effect Current Shunt   |
| 8    | FP200A             | Single Fuel Flow<br>- A200-201A-E - Flow Sensor 1.00 GPH<br>- A200-201B-E - Flow Sensor 2.00 GPH   |
| 9    | FP200B             | Dual Fuel Flow<br>- A200-201A-E - Flow Sensor 1.00 GPH<br>- A200-201B-E - Flow Sensor 2.00 GPH   |
| 10   | FL201              | Single Tank Fuel Level   |
| 11   | FL202              | Fuel Level for Reserve Senders   |
| 12   | FL203              | Fuel Level - Circuit Alarm   |
| 13   | FL211              | Fuel Level for 0 to 1V Capacitive Systems  |
| 14   | FL200              | Fuel Level for 0 to 5V Capacitive Systems  |
| 15   | FA2000X            | Fuel Pressure and Manifold Pressure<br>- A200-PSF - Fuel Pressure Sender<br>- A200-PMF - Manifold Pressure Sender  |
| 16   | FP200X             | Dual Fuel Pressure<br>- A200-PSF - Fuel Pressure Sender  |

Aerospac Legit Inc.  
140 Jones Street South, Suite 205, Hamilton, ON L8P 4Y1, Canada  
Tel: (416) 228-8783 | www.aerospaclegit.com | Fax: (416) 228-8287



REV 01, Nov 11  
10000000

## 200 Series Instruments

### CERTIFIED PRODUCT LIST

| ITEM | Part Number Series | Description & Accessories (if applicable)   |
|------|--------------------|---|
| 17   | MP200A             | Manifold Pressure and Fuel Flow<br>- A200-PMF - Manifold Pressure Sender<br>- A200-201A-E - Flow Sensor 1.00 GPH<br>- A200-201B-E - Flow Sensor 2.00 GPH  |
| 18   | MP200B             | Single Manifold Pressure<br>- A200-PMF - Manifold Pressure Sender   |
| 19   | MP200EX            | Dual Manifold Pressure<br>- A200-PMF - Manifold Pressure Sender   |
| 20   | MT200X             | Manifold Pressure and Tachometer<br>- A200-PMF - Manifold Pressure Sender<br>- A200-HMS - Hall Effect Speed Sensor - Slick<br>- A200-HMS - Hall Effect Speed Sensor - Stick<br>- A200-HMR - Hall Effect Speed Sensor - Ring |
| 21   | DP200X             | Dual Oil Pressure<br>- A200-PSO - Oil Pressure Sender   |
| 22   | OPT200X            | Oil Pressure and Temperature<br>- A200-PSO - Oil Pressure Sender<br>- A200-TSO - Oil Temperature Sender   |
| 23   | OT2000X            | Dual Oil Temperature<br>- A200-TSO - Oil Temperature Sender   |
| 24   | TA200A             | Tachometer<br>- A200-HMS - Hall Effect Speed Sensor - Slick<br>- A200-HMS - Hall Effect Speed Sensor - Stick<br>- A200-HMR - Hall Effect Speed Sensor - Ring  |
| 25   | TA200B             | Dual Tachometer<br>- A200-HMS - Hall Effect Speed Sensor - Slick<br>- A200-HMS - Hall Effect Speed Sensor - Stick<br>- A200-HMR - Hall Effect Speed Sensor - Ring   |
| 26   | V2000X             | Voltsmeter and Annometer<br>- A200-HAS - Hall Effect Current Shunt  |
| 27   | V2000X             | Dual Annometer and Voltmeter<br>- A200-HAS - Hall Effect Current Shunt  |

Aerospac Legit Inc.  
140 Jones Street South, Suite 205, Hamilton, ON L8P 4Y1, Canada  
Tel: (416) 228-8783 | www.aerospaclegit.com | Fax: (416) 228-8287



Page 2 of 2  
200-020, Nov 11  
10000000

**200 Series Instruments - ICA**

**Instructions for Continued Airworthiness**

Aerospacelab Logic Inc.  
192 Jones Street South, Suite 302, Hamilton, ON, L8P 4Y1, CANADA  
Tel: 416-662-8733 | www.aerospacelab.com | Fax: 416-662-8884



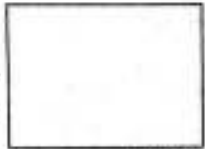
Page 1 of 15  
2004-01 Rev 1.2  
004/011

**200 Series Instruments - ICA**

**1. Table of Contents**

| SECTION | DESCRIPTION                     | PAGE |
|---------|---------------------------------|------|
| 2       | List of Effective Pages .....   | 3    |
| 3       | Revision History .....          | 2    |
| 4       | Applicable Products .....       | 4-14 |
| 5       | Airworthiness Limitations ..... | 15   |
| 6       | Maintenance Instructions .....  | 15   |

Aerospacelab Logic Inc.  
192 Jones Street South, Suite 302, Hamilton, ON, L8P 4Y1, CANADA  
Tel: 416-662-8733 | www.aerospacelab.com | Fax: 416-662-8884



Page 2 of 15  
2004-01 Rev 1.2  
004/011

**200 Series Instruments**

**CERTIFIED INSTALLATION LIST**

| Item | Part Number Series   | Description   | Installation Document   |
|------|--|---|---|
| 1    | A200-DCC   | Lighting Controller   | S200-DCC-002  |
| 2    | CA200X<br>• A200-TSA   | Clock, OAT & Annunciator<br>Outside Air Temperature Sensor  | S200-CA200X-002<br>A200-TSA-002   |
| 3    | CO200X<br>• A200-TSA   | Clock & Outside Air Temperature<br>Outside Air Temperature Sensor   | S200-CO200X-002<br>A200-TSA-002   |
| 4    | CT200X<br>• A200-TCB<br>• A200-TCR-12/14/18  | Cylinder Head Temperature<br>CHT Beyonet Probe<br>CHT Ring Probe  | S200-CT200X-002<br>A200-TCB-002<br>A200-TCR-002                                     |
| 5    | ET200X<br>• A200-TEB<br>• A200-TEC-15/20/25  | Exhaust Gas Temperature<br>EGT Beyonet Probe<br>EGT Clamp Probe   | S200-ET200X-002<br>A200-TEB-002<br>A200-TEC-002                                     |
| 6    | ECT200XXXX<br>• A200-TCB<br>• A200-TCR-12/14/18<br>• A200-TEB<br>• A200-TEC-15/20/25 | Exhaust Gas & Cylinder Head<br>Temperature<br>CHT Beyonet Probe<br>CHT Ring Probe<br>EGT Beyonet Probe<br>EGT Clamp Probe | S200-ECT200XXXX-002<br>A200-TCB-002<br>A200-TCR-002<br>A200-TEB-002<br>A200-TEC-002 |
| 7    | FA200X<br>• A200-PSF<br>• A200-HAS   | Fuel Pressure & Ammeter<br>Fuel Pressure Sensor<br>Current Shunt  | S200-FA200X-002<br>A200-PSF-002<br>A200-HAS-002                                     |
| 8    | FP200X<br>• A200-201A-6<br>• A200-201B-6   | Single Fuel Flow<br>Flow Sensor 1-30 GPH<br>Flow Sensor 2-60 GPH  | S200-FP200X-002<br>A200-201A-6-002<br>A200-201B-6-002                               |
| 9    | FP200X<br>• A200-201A-6<br>• A200-201B-6   | Dual Fuel Flow<br>Flow Sensor 1-30 GPH<br>Flow Sensor 2-60 GPH  | S200-FP200X-002<br>A200-201A-6-002<br>A200-201B-6-002                               |
| 10   | FL2X1  | Single Tank Fuel Level  | S200-FL2X1-002  |
| 11   | FL2X2  | Fuel Level - Resistor   | S200-FL2X2-002  |
| 12   | FL2X2G   | Fuel Level - Cruise Altitude  | S200-FL2X2G-002   |
| 13   | FL2X1X   | Fuel Level - Or 10 In   | S200-FL2X1X-002   |
| 14   | FL2X1X   | Fuel Level - Or 10 In   | S200-FL2X1X-002   |
| 15   | FM200X<br>• A200-PSF<br>• A200-PMP   | Fuel & Manifold Pressure<br>Fuel Pressure Sensor<br>Manifold Pressure Sensor  | S200-FM200X-002<br>A200-PSF-002<br>A200-PMP-002                                     |

Aerospac Logix Inc.  
181 Jones Street South, Suite 202, Hamilton, ON, L8P 9Y1, Canada  
Tel: (416) 244-0700 | www.aerospaclogix.com | Fax: (416) 244-0800



8880-01, Rev 1.1  
10020012

**200 Series Instruments**

**CERTIFIED INSTALLATION LIST**

| Item | Part Number Series   | Description  | Installation Document   |
|------|--|--|---|
| 16   | FP200X<br>• A200-PSF   | Dual Fuel Pressure<br>Fuel Pressure Sensor   | S200-FP200X-002<br>A200-PSF-002   |
| 17   | MP200X<br>• A200-PMP<br>• A200-201A-6<br>• A200-201B-6         | Manifold Pressure & Fuel Flow<br>Manifold Pressure Sensor<br>Flow Sensor 1-30 GPH<br>Flow Sensor 2-60 GPH  | S200-MP200X-002<br>A200-PMP-002<br>A200-201A-6-002<br>A200-201B-6-002           |
| 18   | MP200X<br>• A200-PMP   | Single Manifold Pressure<br>Manifold Pressure Sensor   | S200-MP200X-002<br>A200-PMP-002   |
| 19   | MP200X<br>• A200-PMP   | Dual Manifold Pressure<br>Manifold Pressure Sensor   | S200-MP200X-002<br>A200-PMP-002   |
| 20   | MT200X<br>• A200-PMP<br>• A200-HMS<br>• A200-HMS<br>• A200-HMR | Manifold Pressure & Tachometer<br>Manifold Pressure Sensor<br>Tachometer Sensor - Bands<br>Tachometer Sensor - Stick<br>Tachometer Sensor - Ring | S200-MT200X-002<br>A200-PMP-002<br>A200-HMS-002<br>A200-HMS-002<br>A200-HMR-002 |
| 21   | OP200X<br>• A200-PSO   | Dual Oil Pressure<br>Oil Pressure Sensor   | S200-OP200X-002<br>A200-PSO-002   |
| 22   | OPT200X<br>• A200-PSO<br>• A200-TSO                            | Oil Pressure & Temperature<br>Oil Pressure Sensor<br>Oil Temperature Sensor  | S200-OPT200X-002<br>A200-PSO-002<br>A200-TSO-002                                |
| 23   | OT200X<br>• A200-TSO   | Dual Oil Temperature<br>Oil Temperature Sensor   | S200-OT200X-002<br>A200-TSO-002   |
| 24   | TM200X<br>• A200-HMS<br>• A200-HMS<br>• A200-HMR               | Tachometer<br>Tachometer Sensor - Bands<br>Tachometer Sensor - Stick<br>Tachometer Sensor - Ring   | S200-TM200X-002<br>A200-HMS-002<br>A200-HMS-002<br>A200-HMR-002                 |
| 25   | TM200X<br>• A200-HMS<br>• A200-HMS<br>• A200-HMR               | Dual Tachometer<br>Tachometer Sensor - Bands<br>Tachometer Sensor - Stick<br>Tachometer Sensor - Ring  | S200-TM200X-002<br>A200-HMS-002<br>A200-HMS-002<br>A200-HMR-002                 |
| 26   | VAS200<br>• A200-HAS   | Voltmeter & Ammeter<br>Current Shunt   | S200-VAS200-002<br>A200-HAS-002   |
| 27   | VAS200<br>• A200-HAS   | Voltmeter & Dual Ammeter<br>Current Shunt  | S200-VAS200-002<br>A200-HAS-002   |

Note:  
Part number identified on the primary number and associated used  
with "V" where applicable

Aerospac Logix Inc.  
181 Jones Street South, Suite 202, Hamilton, ON, L8P 9Y1, Canada  
Tel: (416) 244-0700 | www.aerospaclogix.com | Fax: (416) 244-0800



8880-01, Rev 1.1  
10020012

## 200 Series Instruments - ICA

### 1. List of Effective Pages

This document is controlled and revised as a complete unit and does not contain pages of various revisions. All pages are of the same revision as indicated on the cover page and each subsequent page.

The effective pages consist of the sections as noted in the Table of Contents. Certain pages contain multiple sections and are indicated as such.

### 2. Revision History

| Date     | Rev | Detail   | By |
|----------|-----|--|----|
| 12/02/09 | 1.0 | Initial document release   | SG |
| 04/27/10 | 1.1 | Format and content changes   | SG |
|          |     | Document structure<br>List of Effective Pages<br>Revision History<br>Applicable Part Numbers<br>Applicability Limitations Statement  |    |
| 05/04/10 | 1.2 | Page 12, remove item 5.3, renumber 5.4 as 5.3  | SG |
| 10/04/12 | 1.3 | Added products: ECT2040XXX, FF200X, PF200X, FL2X1, PL200, MP200X, MP200X, MT200X, TMS20X - No changes to original applicability conditions.<br><br>Products are ordered by part number. Changed product numbering to correspond.<br><br>Added A200-HWR to existing product TM200X. | SG |

Aerospacelights Inc.  
160 James Street South, Suite 208, Hamilton, ON, L8P 4V1, Canada  
Tel: 416-265-8758 | www.aerospacelights.com | Fax: 416-262-8888

Page 2 of 16  
888-CA Rev 1.3  
10/04/12

## 200 Series Instruments - ICA

### 4. Applicable Products

This document is applicable to the following part numbers, as referenced in the Certified Product List, document # 5200-CPL, Rev 1.1 dated 10/02/2012

#### 4.1 A200-00C Lighting Controller

| Accessory |          |              |
|-----------|----------|--------------|
| Part #    | Part #   | Manual       |
| A200-00C  | A200-00C | A200-00C-002 |

#### 4.2 CA200X Clock and Outside Air Temperature with Annunciator

| Instrument |        | Related Senders / Probes |                       |
|------------|--------|--------------------------|-----------------------|
| Part #     | Part # | Part #                   | Manual                |
| CA200      | CA200  | 8200-CA200X-001          |                       |
| CA200X     | CA200  | 8200-CA200X-001          | A200-T8A A200-T8A-002 |

#### 4.3 CO200X Clock and Outside Air Temperature

| Instrument |        | Related Senders / Probes |                       |
|------------|--------|--------------------------|-----------------------|
| Part #     | Part # | Part #                   | Manual                |
| CO200      | CO200  | 8200-CO200X-001          |                       |
| CO200X     | CO200  | 8200-CO200X-001          | A200-T8A A200-T8A-002 |

Aerospacelights Inc.  
160 James Street South, Suite 208, Hamilton, ON, L8P 4V1, Canada  
Tel: 416-265-8758 | www.aerospacelights.com | Fax: 416-262-8888

Page 2 of 16  
888-CA Rev 1.3  
10/04/12

## 200 Series Instruments - ICA

### Applicable Products (Continued)

#### 4.4 CT200XX Cylinder Head Temperature

| Part #  | Part # | Instrument Model | Related Sensors / Probes |              |
|---------|--------|------------------|--------------------------|--------------|
|         |        |                  | Part #                   | Manual       |
| CT204   | CT204  | 3200-CT200XX-001 |                          |              |
| CT204B  | CT204  | 3200-CT200XX-001 | A200-TCH                 | A200-TCH-002 |
| CT204D2 | CT204  | 3200-CT200XX-001 | A200-TCH-12              | A200-TCH-002 |
| CT204H4 | CT204  | 3200-CT200XX-001 | A200-TCH-14              | A200-TCH-002 |
| CT204H8 | CT204  | 3200-CT200XX-001 | A200-TCH-18              | A200-TCH-002 |
| CT208   | CT208  | 3200-CT200XX-001 |                          |              |
| CT208B  | CT208  | 3200-CT200XX-001 | A200-TCH                 | A200-TCH-002 |
| CT208D2 | CT208  | 3200-CT200XX-001 | A200-TCH-12              | A200-TCH-002 |
| CT208H4 | CT208  | 3200-CT200XX-001 | A200-TCH-14              | A200-TCH-002 |
| CT208H8 | CT208  | 3200-CT200XX-001 | A200-TCH-18              | A200-TCH-002 |
| CT208   | CT208  | 3200-CT200XX-001 |                          |              |
| CT208B  | CT208  | 3200-CT200XX-001 | A200-TCH                 | A200-TCH-002 |
| CT208D2 | CT208  | 3200-CT200XX-001 | A200-TCH-12              | A200-TCH-002 |
| CT208H4 | CT208  | 3200-CT200XX-001 | A200-TCH-14              | A200-TCH-002 |
| CT208H8 | CT208  | 3200-CT200XX-001 | A200-TCH-18              | A200-TCH-002 |
| CT208   | CT208  | 3200-CT200XX-001 |                          |              |
| CT208B  | CT208  | 3200-CT200XX-001 | A200-TCH                 | A200-TCH-002 |
| CT208D2 | CT208  | 3200-CT200XX-001 | A200-TCH-12              | A200-TCH-002 |
| CT208H4 | CT208  | 3200-CT200XX-001 | A200-TCH-14              | A200-TCH-002 |
| CT208H8 | CT208  | 3200-CT200XX-001 | A200-TCH-18              | A200-TCH-002 |

Aerospacelogic Inc.  
 90 Jones Street South, Suite 300, Houston, TX, LRP #11, 046424  
 Tel: 410-420-0731 | www.aerospacelogic.com | Fax: 410-202-0880

Page 2 of 16  
 800-ICA Rev 1.3  
 00042011

## 200 Series Instruments - ICA

### Applicable Products (Continued)

#### 4.5 ET200XX Exhaust Gas Temperature

| Part #  | Part # | Instrument Model | Related Sensors / Probes |              |
|---------|--------|------------------|--------------------------|--------------|
|         |        |                  | Part #                   | Manual       |
| ET204   | ET204  | 3200-ET200XX-001 |                          |              |
| ET204B  | ET204  | 3200-ET200XX-001 | A200-TEB                 | A200-TEB-002 |
| ET204D2 | ET204  | 3200-ET200XX-001 | A200-TEC-12              | A200-TEC-002 |
| ET204H4 | ET204  | 3200-ET200XX-001 | A200-TEC-14              | A200-TEC-002 |
| ET204H8 | ET204  | 3200-ET200XX-001 | A200-TEC-18              | A200-TEC-002 |
| ET208   | ET208  | 3200-ET200XX-001 |                          |              |
| ET208B  | ET208  | 3200-ET200XX-001 | A200-TEB                 | A200-TEB-002 |
| ET208D2 | ET208  | 3200-ET200XX-001 | A200-TEC-12              | A200-TEC-002 |
| ET208H4 | ET208  | 3200-ET200XX-001 | A200-TEC-14              | A200-TEC-002 |
| ET208H8 | ET208  | 3200-ET200XX-001 | A200-TEC-18              | A200-TEC-002 |
| ET208   | ET208  | 3200-ET200XX-001 |                          |              |
| ET208B  | ET208  | 3200-ET200XX-001 | A200-TEB                 | A200-TEB-002 |
| ET208D2 | ET208  | 3200-ET200XX-001 | A200-TEC-12              | A200-TEC-002 |
| ET208H4 | ET208  | 3200-ET200XX-001 | A200-TEC-14              | A200-TEC-002 |
| ET208H8 | ET208  | 3200-ET200XX-001 | A200-TEC-18              | A200-TEC-002 |
| ET208   | ET208  | 3200-ET200XX-001 |                          |              |
| ET208B  | ET208  | 3200-ET200XX-001 | A200-TEB                 | A200-TEB-002 |
| ET208D2 | ET208  | 3200-ET200XX-001 | A200-TEC-12              | A200-TEC-002 |
| ET208H4 | ET208  | 3200-ET200XX-001 | A200-TEC-14              | A200-TEC-002 |
| ET208H8 | ET208  | 3200-ET200XX-001 | A200-TEC-18              | A200-TEC-002 |
| ET208   | ET208  | 3200-ET200XX-001 |                          |              |
| ET208B  | ET208  | 3200-ET200XX-001 | A200-TEB                 | A200-TEB-002 |
| ET208D2 | ET208  | 3200-ET200XX-001 | A200-TEC-12              | A200-TEC-002 |
| ET208H4 | ET208  | 3200-ET200XX-001 | A200-TEC-14              | A200-TEC-002 |
| ET208H8 | ET208  | 3200-ET200XX-001 | A200-TEC-18              | A200-TEC-002 |

Aerospacelogic Inc.  
 90 Jones Street South, Suite 300, Houston, TX, LRP #11, 046424  
 Tel: 410-420-0731 | www.aerospacelogic.com | Fax: 410-202-0880

Page 2 of 16  
 800-ICA Rev 1.3  
 00042011

## 200 Series Instruments - ICA

Applicable Products - ET200X (Continued)

| Part #    | Part # | Instrument<br>Manual | Related Sensors / Probes |              |
|-----------|--------|----------------------|--------------------------|--------------|
|           |        |                      | Part #                   | Manual       |
| ET200     | ET200  | 5200-ET200XX-001     | A200-TE8                 | A200-TE8-002 |
| ET200P6   | ET200  | 5200-ET200XX-001     | A200-TEC15               | A200-TEC-002 |
| ET200P1   | ET200  | 5200-ET200XX-001     | A200-TEC20               | A200-TEC-002 |
| ET200P2   | ET200  | 5200-ET200XX-001     | A200-TEC25               | A200-TEC-002 |
| ET200P3   | ET200  | 5200-ET200XX-001     | A200-TEC28               | A200-TEC-002 |
| ET200T    | ET200T | 5200-ET200XX-001     | A200-TE8                 | A200-TE8-002 |
| ET200T198 | ET200T | 5200-ET200XX-001     | A200-TE8                 | A200-TE8-002 |
| ET200T191 | ET200T | 5200-ET200XX-001     | A200-TE8                 | A200-TE8-002 |
| ET200T192 | ET200T | 5200-ET200XX-001     | A200-TEC18               | A200-TEC-002 |
| ET200T193 | ET200T | 5200-ET200XX-001     | A200-TE8                 | A200-TE8-002 |
| ET200T194 | ET200T | 5200-ET200XX-001     | A200-TEC26               | A200-TEC-002 |
| ET200T195 | ET200T | 5200-ET200XX-001     | A200-TE8                 | A200-TE8-002 |
| ET200T196 | ET200T | 5200-ET200XX-001     | A200-TEC28               | A200-TEC-002 |
| ET200     | ET200  | 5200-ET200XX-001     | A200-TE8                 | A200-TE8-002 |
| ET200P6   | ET200  | 5200-ET200XX-001     | A200-TEC15               | A200-TEC-002 |
| ET200P1   | ET200  | 5200-ET200XX-001     | A200-TEC20               | A200-TEC-002 |
| ET200P2   | ET200  | 5200-ET200XX-001     | A200-TEC25               | A200-TEC-002 |
| ET200P3   | ET200  | 5200-ET200XX-001     | A200-TEC28               | A200-TEC-002 |

**Amprobe Logic Inc.**  
160 Jones Street South, Suite 200, Hamilton, ON, L8P 4V1, CANADA  
Tel: 416-459-0722 | www.amprobe-logic.com | Fax: 416-562-8884

Page 7 of 19  
888-ACA Rev 1.3  
10042012

## 200 Series Instruments - ICA

Applicable Products (Continued)

### 4.8 ECT204XXXX Exhaust Gas and Cylinder Head Temperature

| Part #     | Part # | Instrument<br>Manual | Related Sensors / Probes |              |
|------------|--------|----------------------|--------------------------|--------------|
|            |        |                      | Part #                   | Manual       |
| ECT204     | ECT204 | 5200-ECT204XXXX-001  |                          |              |
| ECT204XXXX | ECT204 | 5200-ECT204XXXX-001  |                          |              |
| Where      |        |                      | A200-TEC15               | A200-TEC-002 |
| ECT204P100 |        |                      | A200-TEC20               | A200-TEC-002 |
| ECT204P105 |        |                      | A200-TEC25               | A200-TEC-002 |
| ECT204P100 |        |                      | A200-TE8                 | A200-TE8-002 |
| and        |        |                      |                          |              |
| ECT204C006 |        |                      | A200-TC8                 | A200-TC8-002 |
| ECT204C007 |        |                      | A200-TC8-12              | A200-TC8-002 |
| ECT204C008 |        |                      | A200-TC8-14              | A200-TC8-002 |
| ECT204C009 |        |                      | A200-TC8-18              | A200-TC8-002 |

### 4.7 FA200XX Fuel Pressure and Anemometer

| Part #  | Part # | Instrument<br>Manual | Related Sensors / Probes |              |
|---------|--------|----------------------|--------------------------|--------------|
|         |        |                      | Part #                   | Manual       |
| FA200   | FA200  | 5200-FA200XX-001     |                          |              |
| FA200K  | FA200  | 5200-FA200XX-001     | A200-HAS                 | A200-HAS-002 |
| FA200V  | FA200V | 5200-FA200XX-001     | A200-PSF                 | A200-PSF-002 |
| FA200VA | FA200V | 5200-FA200XX-001     | A200-HAS                 | A200-HAS-002 |
| FA200VA | FA200V | 5200-FA200XX-001     | A200-PSF                 | A200-PSF-002 |

**Amprobe Logic Inc.**  
160 Jones Street South, Suite 200, Hamilton, ON, L8P 4V1, CANADA  
Tel: 416-459-0722 | www.amprobe-logic.com | Fax: 416-562-8884

Page 8 of 19  
888-ACA Rev 1.3  
10042012

## 200 Series Instruments - ICA

### Applicable Products (Continued)

#### 4.8 FF200K Single Fuel Flow

| Part #   | Instrument |                | Related Senders / Probes |                 |
|----------|------------|----------------|--------------------------|-----------------|
|          | Part #     | Manual         | Part #                   | Manual          |
| FF200    | FF200      | 3200-FF200-001 |                          |                 |
| FF200C30 | FF200      | 3200-FF200-001 | A200-201A-E              | A200-201A-E-001 |
| FF200R80 | FF200      | 3200-FF200-001 | A200-201B-E              | A200-201B-E-001 |

#### 4.9 FF200X

| Part #   | Instrument |                | Related Senders / Probes |                 |
|----------|------------|----------------|--------------------------|-----------------|
|          | Part #     | Manual         | Part #                   | Manual          |
| FF200    | FF200      | 3200-FF200-001 |                          |                 |
| FF200C30 | FF200      | 3200-FF200-001 | A200-201A-E              | A200-201A-E-001 |
| FF200R80 | FF200      | 3200-FF200-001 | A200-201B-E              | A200-201B-E-001 |

#### 4.10 FL201 Single Tank Fuel Level

| Part # | Instrument |                | Related Senders / Probes |        |
|--------|------------|----------------|--------------------------|--------|
|        | Part #     | Manual         | Part #                   | Manual |
| FL201  | FL201      | 3200-FL201-001 |                          |        |
| FL211  | FL211      | 3200-FL211-001 |                          |        |
| FL281  | FL281      | 3200-FL281-001 |                          |        |

#### 4.11 FL20X Fuel Level for Resistive Senders

| Part # | Instrument |                | Related Senders / Probes |        |
|--------|------------|----------------|--------------------------|--------|
|        | Part #     | Manual         | Part #                   | Manual |
| FL202  | FL202      | 3200-FL202-001 |                          |        |
| FL203  | FL203      | 3200-FL202-001 |                          |        |
| FL204  | FL204      | 3200-FL202-001 |                          |        |
| FL205  | FL205      | 3200-FL202-001 |                          |        |
| FL206  | FL206      | 3200-FL202-001 |                          |        |

Aerospaciale Legit Inc.  
 191 James Street South, Suite 705, Hamilton, ON, L8P 4V1, CANADA  
 Tel: 416-826-8720 | www.aerospacialelegit.com | Fax: 416-362-6889

Page 8 of 18  
 8200-CA Rev 1.2  
 10042012

## 200 Series Instruments - ICA

### Applicable Products (Continued)

#### 4.12 FL300G Fuel Level - Cirrus Aircraft

| Part # | Instrument |                 | Related Senders / Probes |        |
|--------|------------|-----------------|--------------------------|--------|
|        | Part #     | Manual          | Part #                   | Manual |
| FL300G | FL300G     | 3200-FL300G-001 |                          |        |

#### 4.13 FL21X Fuel Level for 8 to 14V Capacitive Systems

| Part # | Instrument |                | Related Senders / Probes |        |
|--------|------------|----------------|--------------------------|--------|
|        | Part #     | Manual         | Part #                   | Manual |
| FL212  | FL212      | 3200-FL21X-001 |                          |        |
| FL213  | FL213      | 3200-FL21X-001 |                          |        |
| FL214  | FL214      | 3200-FL21X-001 |                          |        |
| FL215  | FL215      | 3200-FL21X-001 |                          |        |
| FL216  | FL216      | 3200-FL21X-001 |                          |        |

#### 4.14 FL20X Fuel Level for 8 to 14V Capacitive Systems

| Part # | Instrument |                | Related Senders / Probes |        |
|--------|------------|----------------|--------------------------|--------|
|        | Part #     | Manual         | Part #                   | Manual |
| FL201  | FL201      | 3200-FL20X-001 |                          |        |
| FL202  | FL202      | 3200-FL20X-001 |                          |        |
| FL203  | FL203      | 3200-FL20X-001 |                          |        |
| FL204  | FL204      | 3200-FL20X-001 |                          |        |
| FL205  | FL205      | 3200-FL20X-001 |                          |        |
| FL206  | FL206      | 3200-FL20X-001 |                          |        |

Aerospaciale Legit Inc.  
 191 James Street South, Suite 705, Hamilton, ON, L8P 4V1, CANADA  
 Tel: 416-826-8720 | www.aerospacialelegit.com | Fax: 416-362-6889

Page 10 of 18  
 8200-CA Rev 1.2  
 10042012



## 200 Series Instruments - ICA

### Applicable Products (Continued)

#### 4.15 FM200X Fuel Pressure and Manifold Pressure

| Part #  | Part # | Instrument      |        | Related Senders / Probes |              |
|---------|--------|-----------------|--------|--------------------------|--------------|
|         |        | Manual          | Part # | Manual                   | Part #       |
| FM200   | FM200  | S200-FM200X-001 |        | A200-PSP                 | A200-PSP-002 |
| FM200N  | FM200  | S200-FM200X-001 |        | A200-PMP                 | A200-PMP-002 |
| FM200V  | FM200V | S200-FM200X-001 |        | A200-PSP                 | A200-PSP-002 |
| FM200VN | FM200V | S200-FM200X-001 |        | A200-PMP                 | A200-PMP-002 |

#### 4.16 FP200X Dual Fuel Pressure

| Part #  | Part # | Instrument      |          | Related Senders / Probes |        |
|---------|--------|-----------------|----------|--------------------------|--------|
|         |        | Manual          | Part #   | Manual                   | Part # |
| FP200   | FP200  | S200-FP200X-001 |          |                          |        |
| FP200N  | FP200  | S200-FP200X-001 | A200-PSP | A200-PSP-002             |        |
| FP200V  | FP200V | S200-FP200X-001 |          |                          |        |
| FP200VN | FP200V | S200-FP200X-001 | A200-PSP | A200-PSP-002             |        |

#### 4.17 MP200X Manifold Pressure and Fuel Flow

| Part #   | Part # | Instrument      |             | Related Senders / Probes |        |
|----------|--------|-----------------|-------------|--------------------------|--------|
|          |        | Manual          | Part #      | Manual                   | Part # |
| MP200    | MP200  | S200-MP200X-001 |             |                          |        |
| MP200K30 | MP200  | S200-MP200X-001 | A200-PMP    | A200-PMP-002             |        |
| MP200K80 | MP200  | S200-MP200X-001 | A200-201A-B | A200-201A-B-002          |        |
|          |        |                 | A200-PMP    | A200-PMP-002             |        |
|          |        |                 | A200-201B-B | A200-201B-B-002          |        |

Aerospacelab Logic Inc.  
190 James Street South, Suite 206, Hamilton, ON L8P 6V1, CANADA  
Tel: 416-450-0726 | www.aerospacelab.com | Fax: 416-563-0884

Page 11 of 18  
8000-ICA Rev 1.3  
10/04/07

## 200 Series Instruments - ICA

### Applicable Products (Continued)

#### 4.18 MP200X Single Manifold Pressure

| Part # | Part # | Instrument      |          | Related Senders / Probes |        |
|--------|--------|-----------------|----------|--------------------------|--------|
|        |        | Manual          | Part #   | Manual                   | Part # |
| MP200  | MP200  | S200-MP200X-001 |          |                          |        |
| MP200N | MP200  | S200-MP200X-001 | A200-PMP | A200-PMP-002             |        |

#### 4.19 MP200X Dual Manifold Pressure

| Part #  | Part # | Instrument      |          | Related Senders / Probes |        |
|---------|--------|-----------------|----------|--------------------------|--------|
|         |        | Manual          | Part #   | Manual                   | Part # |
| MP200   | MP200  | S200-MP200X-001 |          |                          |        |
| MP200N  | MP200  | S200-MP200X-001 | A200-PMP | A200-PMP-002             |        |
| MP200V  | MP200V | S200-MP200X-001 |          |                          |        |
| MP200VN | MP200V | S200-MP200X-001 | A200-PMP | A200-PMP-002             |        |

#### 4.20 MT200X Manifold Pressure and Tachometer

| Part #  | Part # | Instrument      |          | Related Senders / Probes |        |
|---------|--------|-----------------|----------|--------------------------|--------|
|         |        | Manual          | Part #   | Manual                   | Part # |
| MT200   | MT200  | S200-MT200X-001 |          |                          |        |
| MT200K8 | MT200  | S200-MT200X-001 | A200-PMP | A200-PMP-002             |        |
|         |        |                 | A200-H48 | A200-H48-002             |        |
| MT200K8 | MT200  | S200-MT200X-001 | A200-PMP | A200-PMP-002             |        |
|         |        |                 | A200-H48 | A200-H48-002             |        |
| MT200K8 | MT200  | S200-MT200X-001 | A200-PMP | A200-PMP-002             |        |
|         |        |                 | A200-H48 | A200-H48-002             |        |

Aerospacelab Logic Inc.  
190 James Street South, Suite 206, Hamilton, ON L8P 6V1, CANADA  
Tel: 416-450-0726 | www.aerospacelab.com | Fax: 416-563-0884

Page 12 of 18  
8000-ICA Rev 1.3  
10/04/07

## 200 Series Instruments - ICA

### Applicable Products (Continued)

#### 4.31 OP30XX Dual Oil Pressure

| Part #  | Instrument |                 | Related Senders / Probes |              |
|---------|------------|-----------------|--------------------------|--------------|
|         | Part #     | Manual          | Part #                   | Manual       |
| OP300   | OP300      | S200-OP300X-001 |                          |              |
| OP300K  | OP300      | S200-OP300X-001 | A200-P90                 | A200-P90-002 |
| OP300V  | OP300V     | S200-OP300X-001 |                          |              |
| OP300VK | OP300V     | S200-OP300X-001 | A200-P90                 | A200-P90-002 |

#### 4.32 OPT200XX Oil Pressure and Temperature

| Part #   | Instrument |                  | Related Senders / Probes |              |
|----------|------------|------------------|--------------------------|--------------|
|          | Part #     | Manual           | Part #                   | Manual       |
| OPT200   | OPT200     | S200-OPT200X-001 |                          |              |
| OPT200K  | OPT200     | S200-OPT200X-001 | A200-T90                 | A200-T90-002 |
| OPT200V  | OPT200V    | S200-OPT200X-001 |                          |              |
| OPT200VK | OPT200V    | S200-OPT200X-001 | A200-T90                 | A200-T90-002 |

#### 4.33 OT30XX Dual Oil Pressure

| Part #  | Instrument |                 | Related Senders / Probes |              |
|---------|------------|-----------------|--------------------------|--------------|
|         | Part #     | Manual          | Part #                   | Manual       |
| OT300   | OT300      | S200-OT300X-001 |                          |              |
| OT300K  | OT300      | S200-OT300X-001 | A200-T90                 | A200-T90-002 |
| OT300V  | OT300V     | S200-OT300X-001 |                          |              |
| OT300VK | OT300V     | S200-OT300X-001 | A200-T90                 | A200-T90-002 |

Aerospacelights Inc.  
160 Jones Street South, Suite 200, Hamilton, ON, L8P 4Y1, CANADA  
Tel: 416-424-0726 | www.aerospacelights.com | Fax: 416-424-0886

Page 12 of 18  
200-ICA Rev 1.2  
04/2012

## 200 Series Instruments - ICA

### Applicable Products (Continued)

#### 4.34 TM20XX Tachometer

| Part #  | Instrument |                 | Related Senders / Probes |              |
|---------|------------|-----------------|--------------------------|--------------|
|         | Part #     | Manual          | Part #                   | Manual       |
| TM200   | TM200      | S200-TM200X-001 |                          |              |
| TM200K  | TM200      | S200-TM200X-001 | A200-H48                 | A200-H48-002 |
| TM200V  | TM200      | S200-TM200X-001 | A200-H48                 | A200-H48-002 |
| TM200VK | TM200      | S200-TM200X-001 | A200-H48                 | A200-H48-002 |

#### 4.35 TM20XX Dual Tachometer

| Part #  | Instrument |                 | Related Senders / Probes |              |
|---------|------------|-----------------|--------------------------|--------------|
|         | Part #     | Manual          | Part #                   | Manual       |
| TM200   | TM200      | S200-TM200X-001 |                          |              |
| TM200K  | TM200      | S200-TM200X-001 | A200-H48                 | A200-H48-002 |
| TM200V  | TM200      | S200-TM200X-001 | A200-H48                 | A200-H48-002 |
| TM200VK | TM200      | S200-TM200X-001 | A200-H48                 | A200-H48-002 |

#### 4.36 VA20XX Voltmeter and Ammeter

| Part # | Instrument |                 | Related Senders / Probes |              |
|--------|------------|-----------------|--------------------------|--------------|
|        | Part #     | Manual          | Part #                   | Manual       |
| VA200  | VA200      | S200-VA200X-001 |                          |              |
| VA200K | VA200      | S200-VA200X-001 | A200-H48                 | A200-H48-002 |

#### 4.37 VA20XX Dual Ammeter and Voltmeter

| Part # | Instrument |                 | Related Senders / Probes |              |
|--------|------------|-----------------|--------------------------|--------------|
|        | Part #     | Manual          | Part #                   | Manual       |
| VA200  | VA200      | S200-VA200X-001 |                          |              |
| VA200K | VA200      | S200-VA200X-001 | A200-H48                 | A200-H48-002 |

Aerospacelights Inc.  
160 Jones Street South, Suite 200, Hamilton, ON, L8P 4Y1, CANADA  
Tel: 416-424-0726 | www.aerospacelights.com | Fax: 416-424-0886

Page 12 of 18  
200-ICA Rev 1.2  
04/2012

## 200 Series Instruments - ICA

### 5. Airworthiness Limitations

There are no new or additional airworthiness limitations when installing any of the products referenced in this document.

The Airworthiness Limitations Section is FAA approved and specifies maintenance required under 14 CFR Secs. 43.15 and 91.403 unless an alternative program has been FAA approved.

### 6. Maintenance Instructions

6.1 Maintenance of the specific instrument, senders, probes, wiring harness and connectors should be accomplished during routine annual or time-interval inspections in accordance with applicable airworthiness standards.

6.2 No additional maintenance requirements are specified after the installation.

6.3 No component maintenance or repair is performed on any component of the system. In the event of failure the failing device is replaced in its entirety.

Aerospace Logic Inc.  
187 Jones Street South, Suite 205, Hamilton, ON, L8P 4V1, CANADA  
Tel: 416-621-8723 | www.aerospacelogic.com | Fax: 416-963-8864

Page 16 of 18  
2000-CA-Rev 1.0  
10/06/12

FAA APPROVED MODEL (M) (JAM) (C) SUBSIDIARY  
AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2002  
Amended Date: October 10, 2012

| Part Number | Part Name | Part Description   | Part Category | Part Status | Part Date  | Part Revision | Part Drawing | Part Drawing | Part Drawing |
|-------------|-----------|--|---------------|-------------|--|---------------|--------------|--------------|--------------|
| 1           | Avionics  | 16, 16A, 16B, 16C, 16D, 16E, 16F, 16G, 16H, 16I, 16J, 16K, 16L, 16M, 16N, 16O, 16P, 16Q, 16R, 16S, 16T, 16U, 16V, 16W, 16X, 16Y, 16Z | CDU           | CDU         | 16, 16A, 16B, 16C, 16D, 16E, 16F, 16G, 16H, 16I, 16J, 16K, 16L, 16M, 16N, 16O, 16P, 16Q, 16R, 16S, 16T, 16U, 16V, 16W, 16X, 16Y, 16Z | 1.0           | 16-1000-12   | 16-1000-12   | 16-1000-12   |
| 2           | Avionics  | 17, 17A, 17B, 17C, 17D, 17E, 17F, 17G, 17H, 17I, 17J, 17K, 17L, 17M, 17N, 17O, 17P, 17Q, 17R, 17S, 17T, 17U, 17V, 17W, 17X, 17Y, 17Z | CDU           | CDU         | 17, 17A, 17B, 17C, 17D, 17E, 17F, 17G, 17H, 17I, 17J, 17K, 17L, 17M, 17N, 17O, 17P, 17Q, 17R, 17S, 17T, 17U, 17V, 17W, 17X, 17Y, 17Z | 1.0           | 17-1000-12   | 17-1000-12   | 17-1000-12   |
| 3           | Avionics  | 18, 18A, 18B, 18C, 18D, 18E, 18F, 18G, 18H, 18I, 18J, 18K, 18L, 18M, 18N, 18O, 18P, 18Q, 18R, 18S, 18T, 18U, 18V, 18W, 18X, 18Y, 18Z | CDU           | CDU         | 18, 18A, 18B, 18C, 18D, 18E, 18F, 18G, 18H, 18I, 18J, 18K, 18L, 18M, 18N, 18O, 18P, 18Q, 18R, 18S, 18T, 18U, 18V, 18W, 18X, 18Y, 18Z | 1.0           | 18-1000-12   | 18-1000-12   | 18-1000-12   |
| 4           | Avionics  | 19, 19A, 19B, 19C, 19D, 19E, 19F, 19G, 19H, 19I, 19J, 19K, 19L, 19M, 19N, 19O, 19P, 19Q, 19R, 19S, 19T, 19U, 19V, 19W, 19X, 19Y, 19Z | CDU           | CDU         | 19, 19A, 19B, 19C, 19D, 19E, 19F, 19G, 19H, 19I, 19J, 19K, 19L, 19M, 19N, 19O, 19P, 19Q, 19R, 19S, 19T, 19U, 19V, 19W, 19X, 19Y, 19Z | 1.0           | 19-1000-12   | 19-1000-12   | 19-1000-12   |
| 5           | Avionics  | 20, 20A, 20B, 20C, 20D, 20E, 20F, 20G, 20H, 20I, 20J, 20K, 20L, 20M, 20N, 20O, 20P, 20Q, 20R, 20S, 20T, 20U, 20V, 20W, 20X, 20Y, 20Z | CDU           | CDU         | 20, 20A, 20B, 20C, 20D, 20E, 20F, 20G, 20H, 20I, 20J, 20K, 20L, 20M, 20N, 20O, 20P, 20Q, 20R, 20S, 20T, 20U, 20V, 20W, 20X, 20Y, 20Z | 1.0           | 20-1000-12   | 20-1000-12   | 20-1000-12   |

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010

Amended Date: October 10, 2012

| ID# | AIRCRAFT MAKE           | AIRCRAFT MODEL  | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERNATION (As defined in TCDS) | INSTALLATION INSTRUCTIONS  |  | AFM SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|-----|-------------------------|---|----------------------------------|--|--|--|--------------------------------|--------------------|
|     |                         |   |                                  |  | NOTE NUMBER  | REVISION NO. AND DATE  |                                |                    |
| 6   | Aerona                  | KM, 50-M  | A-576                            | Aero Bulletin 7A   | Installation of any of the identified products excluding #'s 12, 24 & 25 | Installation of any of the identified products excluding #'s 12, 24 & 25 | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012         |
| 7   | Aerona                  | 50-TC, 65-TC(Army L-3), YO-5B(Army L-3), 60-TF, 65-TF, 50-TL, 65-TL, 65-TAC(Army L-3E), 65-TAF(Army L-3D), 65-TAL | A-728                            | CAR 4a   | Installation of any of the identified products excluding # 12            | Installation of any of the identified products excluding # 12            | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012         |
| 8   | Aerona                  | O-58A (Army L-3A), O-58B(Army L-3E, L-3C) SO-58B  | A-751                            | CAR 4a   | Installation of any of the identified products excluding # 12            | Installation of any of the identified products excluding # 12            | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012         |
| 9   | Aerostar Aircraft Corp. | 300, 400  | A11WE                            | FAR 23   | Installation of any of the identified products excluding # 12            | Installation of any of the identified products excluding # 12            | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012         |
| 10  | Aerostar Aircraft Corp. | PA-60-600, PA-60-601, PA-601P, PA-60-602P, PA-60-700P   | A17WE                            | FAR 23   | Installation of any of the identified products excluding # 12            | Installation of any of the identified products excluding # 12            | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012         |
| 11  | Alexandria Aircraft     | 14-18, 14-18-2, 14-18-3, 14-18-3A, 17-30, 17-31, 17-31TC  | 1A3                              | CAR 3  | Installation of any of the identified products excluding # 12            | Installation of any of the identified products excluding # 12            | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012         |

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010

Amended Date: October 10, 2012

| ID# | AIRCRAFT MAKE       | AIRCRAFT MODEL   | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERNATION (As defined in TCDS) | INSTALLATION INSTRUCTIONS                                     |   | AFM SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|-----|---------------------|--|----------------------------------|--|---|---|--------------------------------|--------------------|
|     |                     |  |                                  |  | NOTE NUMBER   | REVISION NO. AND DATE   |                                |                    |
| 12  | Alexandria Aircraft | 17-30A, 17-31A, 17-31ATC   | A19CE                            | FAR 23   | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012         |
| 13  | American Champion   | 60CA, 60CBC  | A21CE                            | FAR 23   | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012         |
| 14  | American Champion   | 402  | A3CE                             | CAR 3  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012         |
| 15  | American Champion   | 7AC, 7ACA, 57AC, 76CA, 76CA, 576CA, 76C, 576C, 76C, 76C, 76CA, 76CB, 76C, 71C, 71C<br><br>76CA, 76CAA, 76CBC, 76CAB<br><br>76CBA | A-78B                            | CAR 4a<br><br>CAR 4a, CAR 8 & FAR 23<br><br>CAR 8        | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012         |
| 16  | Avid                | A-1, A-1A, A-1B, A-1C-1B5, A-1C-2B5  | A28B1                            | FAR 21, FAR 23 & FAR 39                                  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012         |

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010  
Amended Date: October 10, 2012

| ITEM | AIRCRAFT MAKE | AIRCRAFT MODEL                          | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERATION - (As defined in TSOs) | INSTALLATION INSTRUCTIONS  |  | AFIS SUPPLEMENT NUMBER AND DATE | AML ASSIGNMENT DATE |
|------|---------------|---|----------------------------------|---|--|--|---------------------------------|---------------------|
|      |               |   |                                  |   | NOTE NUMBER  | REVISION NO. AND DATE  |                                 |                     |
| 17   | Aviat         | S-15, S-1T, S-2, S-2A, S-2S, S-2B, S-2C | AB50                             | FAH 23 & FAH 30   | Installation of any of the identified products excluding #'s 12, 24 & 25 | Installation of any of the identified products excluding #'s 12, 24 & 25 | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012          |
| 18   | Bellanca      | 14-13, 14-13-2, 14-13-3, 14-13-3W       | A-773                            | CAR 4a  | Installation of any of the identified products excluding #'s 12, 24 & 25 | Installation of any of the identified products excluding #'s 12, 24 & 25 | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012          |
| 19   | Bellanca      | CH-300 Pacemaker                        | ATC 129                          | Aero Bulletin 7A  | Installation of any of the identified products excluding #'s 12, 24 & 25 | Installation of any of the identified products excluding #'s 12, 24 & 25 | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012          |
| 20   | Bellanca      | CH-450 Styrocast                        | ATC 319                          | Aero Bulletin 7A  | Installation of any of the identified products excluding #'s 12, 24 & 25 | Installation of any of the identified products excluding #'s 12, 24 & 25 | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012          |
| 21   | Bellanca      | 300-W Pacemaker                         | ATC 328                          | Aero Bulletin 7A  | Installation of any of the identified products excluding #'s 12, 24 & 25 | Installation of any of the identified products excluding #'s 12, 24 & 25 | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012          |

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010  
Amended Date: October 10, 2012

| ITEM | AIRCRAFT MAKE | AIRCRAFT MODEL  | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERATION - (As defined in TSOs) | INSTALLATION INSTRUCTIONS  |  | AFIS SUPPLEMENT NUMBER AND DATE | AML ASSIGNMENT DATE |
|------|---------------|-----------------|----------------------------------|---|--|--|---------------------------------|---------------------|
|      |               |                 |                                  |   | NOTE NUMBER  | REVISION NO. AND DATE  |                                 |                     |
| 22   | Bellanca      | CH              | ATC 47                           | Aero Bulletin 7A  | Installation of any of the identified products excluding #'s 12, 24 & 25 | Installation of any of the identified products excluding #'s 12, 24 & 25 | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012          |
| 23   | Bellanca      | E Pacemaker     | ATC 47B                          | Aero Bulletin 7A  | Installation of any of the identified products excluding #'s 12, 24 & 25 | Installation of any of the identified products excluding #'s 12, 24 & 25 | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012          |
| 24   | Bellanca      | F Styrocast     | TC 2-47S                         | Aero Bulletin 7A  | Installation of any of the identified products excluding #'s 12, 24 & 25 | Installation of any of the identified products excluding #'s 12, 24 & 25 | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012          |
| 25   | Bellanca      | Pacemaker 31-42 | TC 57B                           | Aero Bulletin 7A  | Installation of any of the identified products excluding #'s 12, 24 & 25 | Installation of any of the identified products excluding #'s 12, 24 & 25 | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012          |
| 26   | Bellanca      | 14-B, 14-BL     | TC 79B                           | CAR 4a  | Installation of any of the identified products excluding #'s 12, 24 & 25 | Installation of any of the identified products excluding #'s 12, 24 & 25 | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012          |

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010

Amended Date: October 10, 2012

| ITEM | AIRCRAFT MAKE | AIRCRAFT MODEL  | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERNATION (As defined in TCR) | INSTALLATION INSTRUCTIONS   |   | AFM SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|------|---------------|---|----------------------------------|---|---|---|--------------------------------|--------------------|
|      |               |   |                                  |   | NOTE NUMBER   | REVISION NO. AND DATE   |                                |                    |
| 27   | Bellanca      | 14-12F-3, 3 PCLM  | TC 745                           | CAR 4a  | Installation of any of the identified products excluding #s 12, 24 & 25 | Installation of any of the identified products excluding #s 12, 24 & 25 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 28   | Bushmaster    | Bushmaster 2000   | A19WE                            | CAR 3   | Installation of any of the identified products excluding #s 12, 24 & 25 | Installation of any of the identified products excluding #s 12, 24 & 25 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 29   | Cessna        | 310, 310A, 310B, 310C, 310D, 310E, 310F, 310G, 310H, E310H, 310I, 310J, 310J-1, E310J, 310K, 310L, 310M, 310P, T310P, 310Q, T310Q | 3A10                             | CAR 3   | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
|      |               | 310R, T310R   |                                  | CAR 3 & FAR 23  |   |   |                                |                    |
| 30   | Cessna        | 321   | 3A11                             | CAR 3   | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 31   | Cessna        | 172A,C,E,G,H,I,J,M,N,P<br>172B,D,F,K<br>172R,S,Q  | 3A12                             | CAR 3<br>CAR 3 & FAR 23<br>FAR 23                       | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010

Amended Date: October 10, 2012

| ITEM | AIRCRAFT MAKE | AIRCRAFT MODEL  | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERNATION (As defined in TCR) | INSTALLATION INSTRUCTIONS                                     |   | AFM SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|------|---------------|---|----------------------------------|---|---|---|--------------------------------|--------------------|
|      |               |   |                                  |   | NOTE NUMBER   | REVISION NO. AND DATE   |                                |                    |
| 32   | Cessna        | 182A,B,C,D,E,F,G,H,I,K,L,M,N,P,Q,R,S,T, R182, T182, T182T, T182               | 3A13                             | CAR 3 & FAR 23  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 33   | Cessna        | 175, 175A, 175B, 175C, P172D, R172E, R172F, R172G, R172H, R172J, R172K, 172RQ | 3A17                             | CAR 3 & FAR 23  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 34   | Cessna        | 180, A,B,C,D,E,F,G,H,I,K,L,M, A180K, A180L, A180M, 180, A182                  | 3A18                             | FAR 23  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 35   | Cessna        | 210, A,B,C,D,E,F,G,H,I,K,L,M, T210F,G,H,I,K,L,M, 210-SC209, 210-6A(205A)      | 3A21                             | CAR 3   | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
|      |               | 210NR, T210NR, P210N, P210R   |                                  | CAR 3 & FAR 23  |   |   |                                |                    |
| 36   | Cessna        | 185, A,B,C,D,E, A185E, A185F  | 3A24                             | CAR 3, FAR 23 & FAR 21(Rec. 21.26)                      | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 37   | Cessna        | 320, 320-1, 320A, 320B, 320C, 320D, 320E, 320F<br>326, 340, 340A              | 3A25                             | CAR 3<br>CAR 3 & FAR 23                                 | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010  
Amended Date: October 10, 2012

| ITEM | AIRCRAFT MODEL | AIRCRAFT MODEL   | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERATION (As defined in TSOs)     | INSTALLATION INSTRUCTIONS                                     |   | AFIS SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|------|----------------|--|----------------------------------|---|---|---|---------------------------------|--------------------|
|      |                |  |                                  |   | NOTE NUMBER   | REVISION NO. AND DATE   |                                 |                    |
| 38   | Cessna         | 140A   | SA2                              | Landplane - CAR 1<br>Skiplane - CAR 4a<br>Seaplane - CAR 4a | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0<br>12/02/2008  | 10/10/2012         |
| 39   | Cessna         | 180, A,B,C,D,E,F,G,H<br>180JK  | SA8                              | CAR 3<br>CAR 3 & FAR 23                                     | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0<br>12/02/2008  | 10/10/2012         |
| 40   | Cessna         | LC40-550FG, LC42-550FG,<br>LC41-550FG  | A00003SE                         | FAR 23  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0<br>12/02/2008  | 10/10/2012         |
| 41   | Cessna         | 177, 177A, 177B  | A13CE                            | FAR 23  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0<br>12/02/2008  | 10/10/2012         |
| 42   | Cessna         | F150F, F150G, F150H,<br>F150J, F150K, F150L,<br>F150M, F152, FA150K,<br>FA150L, FA150M, FA152,<br>FRA150L, FRA150M | A15EU                            | CAR 3   | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0<br>12/02/2008  | 10/10/2012         |
| 43   | Cessna         | 207, 207A, T207, T207A   | A18CE                            | FAR 23  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0<br>12/02/2008  | 10/10/2012         |

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010  
Amended Date: October 10, 2012

| ITEM | AIRCRAFT MODEL | AIRCRAFT MODEL   | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERATION (As defined in TSOs) | INSTALLATION INSTRUCTIONS  |  | AFIS SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|------|----------------|--|----------------------------------|---|--|--|---------------------------------|--------------------|
|      |                |  |                                  |   | NOTE NUMBER  | REVISION NO. AND DATE  |                                 |                    |
| 44   | Cessna         | 177RG  | A30CE                            | FAR 23  | Installation of any of the identified products excluding # 12      | Installation of any of the identified products excluding # 12      | 5200-FMS Rev 1.0<br>12/02/2008  | 10/10/2012         |
| 45   | Cessna         | F337E, FT337E, F337F,<br>FT337F, F337G, FT337GP,<br>F337H, FT337HP | A25EU                            | FAR 23  | Installation of any of the identified products excluding # 12      | Installation of any of the identified products excluding # 12      | 5200-FMS Rev 1.0<br>12/02/2008  | 10/10/2012         |
| 46   | Cessna         | 404  | A29CE                            | FAR 23  | Installation of any of the identified products excluding # 10 - 14 | Installation of any of the identified products excluding # 10 - 14 | 5200-FMS Rev 1.0<br>12/02/2008  | 10/10/2012         |
| 47   | Cessna         | Cessna F177RG  | A38EU                            | FAR 23  | Installation of any of the identified products excluding # 12      | Installation of any of the identified products excluding # 12      | 5200-FMS Rev 1.0<br>12/02/2008  | 10/10/2012         |
| 48   | Cessna         | 308  | A3CE                             | CAR 3   | Installation of any of the identified products excluding # 12      | Installation of any of the identified products excluding # 12      | 5200-FMS Rev 1.0<br>12/02/2008  | 10/10/2012         |
| 49   | Cessna         | T303   | A3ACE                            | FAR 23  | Installation of any of the identified products excluding # 12      | Installation of any of the identified products excluding # 12      | 5200-FMS Rev 1.0<br>12/02/2008  | 10/10/2012         |

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010  
Amended Date: October 10, 2012

| ITEM | AIRCRAFT MAKE | AIRCRAFT MODEL   | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERNATION (As defined in TCDS) | INSTALLATION INSTRUCTIONS                                     |   | AFIS SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|------|---------------|--|----------------------------------|--|---|---|---------------------------------|--------------------|
|      |               |  |                                  |  | NOTE NUMBER   | REVISION NO. AND DATE   |                                 |                    |
| 50   | Cessna        | Cessna F162P, Cessna F162Q, Cessna FR162   | A42EU                            | CAR 3 & FAR 23   | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0 12/02/2008     | 10/10/2012         |
| 51   | Cessna        | 208, P208, A,B,C,D,E, L208, A,B,C,D,E,F,G,H, TP208A,B,C,D,E, T1208A,B,C,D,E,F,G, T208H   | AJCE                             | CAR 3 & FAR 23<br><br>FAR 23                             | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0 12/02/2008     | 10/10/2012         |
| 52   | Cessna        | Cessna F172D, Cessna F172E, Cessna F172F, Cessna F172G, Cessna F172H, Cessna F172K, Cessna F172L, Cessna F172M<br><br>Cessna F172N, Cessna F172P | AREU                             | CAR 3 & CAR 10<br><br>CAR 3, CAR 10 & FAR 23             | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0 12/02/2008     | 10/10/2012         |
| 53   | Cessna        | 337, 337A, 337B, M337B, T337B, 337C, T337C, 337D, T337D, 337E, T337E, 337F, T337F, 337G, T337G, 337H, P337H, T337H, T337H-SP                     | ABCE                             | CAR 3<br><br>FAR 23                                      | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0 12/02/2008     | 10/10/2012         |
| 54   | Cessna        | 126, 140   | A-798                            | CAR 4a   | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0 12/02/2008     | 10/10/2012         |

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010  
Amended Date: October 10, 2012

| ITEM | AIRCRAFT MAKE     | AIRCRAFT MODEL  | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERNATION (As defined in TCDS) | INSTALLATION INSTRUCTIONS  |  | AFIS SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|------|-------------------|---|----------------------------------|--|--|--|---------------------------------|--------------------|
|      |                   |   |                                  |  | NOTE NUMBER  | REVISION NO. AND DATE  |                                 |                    |
| 56   | Cessna            | 180, 180A, 180A, 180B   | A-790                            | CAR 3  | Installation of any of the identified products excluding # 12, 24 & 25 | Installation of any of the identified products excluding # 12, 24 & 25 | 5200-FMS Rev 1.0 12/02/2008     | 10/10/2012         |
| 58   | Cessna            | 170, 170A, 170B   | A-798                            | CAR 3  | Installation of any of the identified products excluding # 12          | Installation of any of the identified products excluding # 12          | 5200-FMS Rev 1.0 12/02/2008     | 10/10/2012         |
| 57   | Cessna            | 401, 401A, 401B, 402, 402A, 411, 411A, 421, 421A, 402B, 402C, 414, 414A, 421B, 421C | AJCE                             | CAR 3<br><br>CAR 3 & FAR 23                              | Installation of any of the identified products excluding # 12          | Installation of any of the identified products excluding # 12          | 5200-FMS Rev 1.0 12/02/2008     | 10/10/2012         |
| 58   | Cessna            | 186, 186A, 186B, A186, A186A, A186B, T186C  | ABCE                             | Revised - FAR 21<br>Normal - FAR 23                      | Installation of any of the identified products excluding # 12          | Installation of any of the identified products excluding # 12          | 5200-FMS Rev 1.0 12/02/2008     | 10/10/2012         |
| 59   | Cessna            | C-58  | TC 886                           | Aero Bulletin 7A   | Installation of any of the identified products excluding # 12, 24 & 25 | Installation of any of the identified products excluding # 12, 24 & 25 | 5200-FMS Rev 1.0 12/02/2008     | 10/10/2012         |
| 60   | Comet Design Corp | BR30, BR32, BR32T   | AB000CH                          | FAR 23   | Installation of any of the identified products                         | Installation of any of the identified products                         | 5200-FMS Rev 1.0 12/02/2008     | 10/10/2012         |



## FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010

Amended Date: October 10, 2012

| ITEM | AIRCRAFT MAKE              | AIRCRAFT MODEL                                   | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERATION (As defined in T008) | METALLATION INSTRUCTIONS   |  | AFM SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|------|----------------------------|--|----------------------------------|---|--|--|--------------------------------|--------------------|
|      |                            |  |                                  |   | NOTE NUMBER  | REVISION NO. AND DATE  |                                |                    |
| 61   | Continental                | FA-II (Auribon)                                  | IA11                             | CAR 3   | Installation of any of the identified products excluding #'s 12, 24 & 25 | Installation of any of the identified products excluding #'s 12, 24 & 25 | S200-FMS Rev 1.0<br>12/02/2008 | 10/10/2012         |
| 62   | CPAC, Inc.                 | 112, 114, 112TC, 112B, 112TCA, 114A, 114B, 114TC | A1250                            | FAR 23  | Installation of any of the identified products excluding # 12            | Installation of any of the identified products excluding # 12            | S200-FMS Rev 1.0<br>12/02/2008 | 10/10/2012         |
| 63   | Cub Crafter                | CC18-180, CC18-180A                              | A00008E                          | FAR 23  | Installation of any of the identified products excluding # 12            | Installation of any of the identified products excluding # 12            | S200-FMS Rev 1.0<br>12/02/2008 | 10/10/2012         |
| 64   | Dornier/Douglas Bombarrier | DHC-1, 31, 32, 33A                               | A44EU                            | FAR 21  | Installation of any of the identified products excluding #'s 12, 24 & 25 | Installation of any of the identified products excluding #'s 12, 24 & 25 | S200-FMS Rev 1.0<br>12/02/2008 | 10/10/2012         |
| 65   | Dornier/Douglas Bombarrier | DHC-2 Mark I, DHC-2 Mark II                      | A-808                            | CAR 3 & CAR 10  | Installation of any of the identified products excluding #'s 12, 24 & 25 | Installation of any of the identified products excluding #'s 12, 24 & 25 | S200-FMS Rev 1.0<br>12/02/2008 | 10/10/2012         |
| 66   | Diamond                    | DA-40, DA-40F                                    | A47CE                            | FAR 21 & FAR 23   | Installation of any of the identified products excluding # 12            | Installation of any of the identified products excluding # 12            | S200-FMS Rev 1.0<br>12/02/2008 | 10/10/2012         |

Page 12 of 37

## FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010

Amended Date: October 10, 2012

| ITEM | AIRCRAFT MAKE                    | AIRCRAFT MODEL   | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERATION (As defined in T008) | METALLATION INSTRUCTIONS                                      |   | AFM SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|------|----------------------------------|--|----------------------------------|---|---|---|--------------------------------|--------------------|
|      |                                  |  |                                  |   | NOTE NUMBER   | REVISION NO. AND DATE   |                                |                    |
| 67   | Diamond                          | DA20-A1, DA20-C1   | TA0CH                            | FAR 21 & FAR 23   | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0<br>12/02/2008 | 10/10/2012         |
| 68   | Euro                             | EA-400   | A43CE                            | FAR 31 & 35   | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0<br>12/02/2008 | 10/10/2012         |
| 69   | Found Aircraft Development, Inc. | FBA-3C<br>FBA-3C1 (Bush Hawk), FBA-3C2 (Bush Hawk XP)<br>FBA-3C3 | A75A                             | CAR 3<br>FAR 23 & 36<br>FAR 23                          | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0<br>12/02/2008 | 10/10/2012         |
| 70   | FE 2002 Corp.                    | FA-12, FA-12B  | A-780                            | CAR 3   | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0<br>12/02/2008 | 10/10/2012         |
| 71   | FE 2002 Corp.                    | FA-14  | A-787                            | CAR 3   | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0<br>12/02/2008 | 10/10/2012         |
| 72   | Glenn                            | GC-1A, GC-1B   | A-788                            | CAR 4a  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0<br>12/02/2008 | 10/10/2012         |

Page 13 of 37

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010  
Amended Date: October 10, 2012

| ID# | AIRCRAFT MAKE            | AIRCRAFT MODEL  | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERNATE (As defined in TCDS) | INSTALLATION INSTRUCTIONS  |  | AFM SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|-----|--------------------------|---|----------------------------------|--|--|--|--------------------------------|--------------------|
|     |                          |   |                                  |  | NOTE NUMBER  | REVISION NO. AND DATE  |                                |                    |
| 73  | Gulfstream American Corp | G-44, G-44A   | A-734                            | CAR 4a   | Installation of any of the identified products excluding #'s 12, 24 & 25 | Installation of any of the identified products excluding #'s 12, 24 & 25 | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 74  | Hawker Beechcraft        | 18A, S18A   | TC 630                           | Aero Bulletin 7A                                       | Installation of any of the identified products excluding #'s 12, 24 & 25 | Installation of any of the identified products excluding #'s 12, 24 & 25 | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 75  | Hawker Beechcraft        | 35-33, 35-A33, 35-B33, 35-C33, 35-C33A, E33, E33A, E33C, F33, F33A, F33C, G33, H33, G36, J33, K33, M33, N33, P33, S33, V33, V33A, V33B, 36, A36, A36TC, B36TC | 3A13                             | CAR 3, FAR 23 & FAR 36                                 | Installation of any of the identified products excluding # 12            | Installation of any of the identified products excluding # 12            | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 76  | Hawker Beechcraft        | 305A, D55A, E36, 95-55, 95-A55, 95-55S, 95-55SA, 95-55SB (T-43), 95-C55, 95-C55A, G56, D55, D55A, E55, E55A, 95TC, A56TC, 56, 56A, 95, 95S                    | 3A18                             | CAR 3, FAR 23 & FAR 36                                 | Installation of any of the identified products excluding #'s 12, 24 & 25 | Installation of any of the identified products excluding #'s 12, 24 & 25 | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 77  | Hawker Beechcraft        | 95, 95-B1, 95-A92, 95-A92-950, 95-95, 95-950, A95, A95-9200, 70   | 3A20                             | CAR 3  | See Notes 1-6 & 10-18 for installation of any of the identified products | See Notes 1-6 & 10-18 for installation of any of the identified products | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010  
Amended Date: October 10, 2012

| ID# | AIRCRAFT MAKE     | AIRCRAFT MODEL   | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERNATE (As defined in TCDS) | INSTALLATION INSTRUCTIONS                                     |   | AFM SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|-----|-------------------|--|----------------------------------|--|---|---|--------------------------------|--------------------|
|     |                   |  |                                  |  | NOTE NUMBER   | REVISION NO. AND DATE   |                                |                    |
| 78  | Hawker Beechcraft | 45 (T-34), A45 (T-34A, B45), D45 (T-34B)   | 5A3                              | CAR 3  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 79  | Hawker Beechcraft | 50 (L-23A), 500 (L23B), C30, D30 (L-23E), D60A, D60B, D60C, D60E, E30 (L-23D, RL-23D), F50, G60, H50, J50<br>D60E-5990 | 5A4                              | CAR 3<br><br>CAR 3 & FAR 23                            | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 80  | Hawker Beechcraft | 60, A60, 660   | A10CE                            | FAR 23   | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 81  | Hawker Beechcraft | 18A, B18, M18A, 23, A23, A23A, A23-18, A23-24, B23, A24, A24R, B24R<br>C23, C24R                                       | A10CE                            | CAR 3<br><br>CAR 3 & FAR 23                            | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 82  | Hawker Beechcraft | 56P, 56PA, 56TC, 56TCA   | A20CE                            | FAR 23   | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 83  | Hawker Beechcraft | 76   | A20CE                            | FAR 23 & FAR 36  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010

Amended Date: October 20, 2012

| ITEM | AIRCRAFT MAKE        | AIRCRAFT MODEL  | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERNATION (As defined in TCDS) | INSTALLATION INSTRUCTIONS   |   | AFIS SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|------|----------------------|---|----------------------------------|--|---|---|---------------------------------|--------------------|
|      |                      |   |                                  |  | NOTE NUMBER   | REVISION NO. AND DATE   |                                 |                    |
| 84   | Hawker<br>Beechcraft | T7  | A30CE                            | FAR 23   | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | 5200-FMS Rev 1.0<br>12/02/2009  | 10/10/2012         |
| 85   | Hawker<br>Beechcraft | 180, A18A, A18D, S18D,<br>SA18A, SA18D  | A-604                            | Aero Bulletin TA   | Installation of any of the identified products excluding #s 12, 24 & 25 | Installation of any of the identified products excluding #s 12, 24 & 25 | 5200-FMS Rev 1.0<br>12/02/2009  | 10/10/2012         |
| 86   | Hawker<br>Beechcraft | Beechcraft C185   | A-757                            | CAR 3 & CAR 4a   | Installation of any of the identified products excluding #s 12, 24 & 25 | Installation of any of the identified products excluding #s 12, 24 & 25 | 5200-FMS Rev 1.0<br>12/02/2009  | 10/10/2012         |
| 87   | Hawker<br>Beechcraft | 3H, 3HA, 3TM, 3RB-A,<br>D18C, D18S, E18S, RC-45J<br>(SMB-SP), E18S-8700,<br>G18S, H18, C-45G, TC-45G,<br>C-45H, TC-45H, TC-45J or<br>UC-45J (SMB-S) | A-785                            | CAR 3  | Installation of any of the identified products excluding #s 12, 24 & 25 | Installation of any of the identified products excluding #s 12, 24 & 25 | 5200-FMS Rev 1.0<br>12/02/2009  | 10/10/2012         |
| 88   | Hawker<br>Beechcraft | 35, A35, B35, C35, C35,<br>E35, F35, G35, 34R   | A-777                            | CAR 3  | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | 5200-FMS Rev 1.0<br>12/02/2009  | 10/10/2012         |

Page 16 of 37

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010

Amended Date: October 10, 2012

| ITEM | AIRCRAFT MAKE        | AIRCRAFT MODEL    | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERNATION (As defined in TCDS) | INSTALLATION INSTRUCTIONS   |   | AFIS SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|------|----------------------|-------------------|----------------------------------|--|---|---|---------------------------------|--------------------|
|      |                      |                   |                                  |  | NOTE NUMBER   | REVISION NO. AND DATE   |                                 |                    |
| 89   | Hawker<br>Beechcraft | D17R              | TC 638                           | Aero Bulletin TA   | Installation of any of the identified products excluding #s 12, 24 & 25 | Installation of any of the identified products excluding #s 12, 24 & 25 | 5200-FMS Rev 1.0<br>12/02/2009  | 10/10/2012         |
| 90   | Hawker<br>Beechcraft | E17B, SE17B, E17L | TC 641                           | Aero Bulletin TA   | Installation of any of the identified products excluding #s 12, 24 & 25 | Installation of any of the identified products excluding #s 12, 24 & 25 | 5200-FMS Rev 1.0<br>12/02/2009  | 10/10/2012         |
| 91   | Hawker<br>Beechcraft | F17D, SF17D       | TC 669                           | CAR 4a   | Installation of any of the identified products excluding #s 12, 24 & 25 | Installation of any of the identified products excluding #s 12, 24 & 25 | 5200-FMS Rev 1.0<br>12/02/2009  | 10/10/2012         |
| 92   | Hawker<br>Beechcraft | D17A              | TC 713                           | CAR 4a   | Installation of any of the identified products excluding #s 12, 24 & 25 | Installation of any of the identified products excluding #s 12, 24 & 25 | 5200-FMS Rev 1.0<br>12/02/2009  | 10/10/2012         |
| 93   | Hawker<br>Beechcraft | G17B              | TC 776                           | Aero Bulletin TA &<br>CAR 4a                             | Installation of any of the identified products excluding #s 12, 24 & 25 | Installation of any of the identified products excluding #s 12, 24 & 25 | 5200-FMS Rev 1.0<br>12/02/2009  | 10/10/2012         |

Page 17 of 37

## FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010

Amended Date: October 10, 2012

| ITEM | AIRCRAFT MODEL                 | AIRCRAFT MODEL   | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERATION (As defined in TCDS) | INSTALLATION INSTRUCTIONS   |   | APM SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|------|--------------------------------|--|----------------------------------|---|---|---|--------------------------------|--------------------|
|      |                                |  |                                  |   | NOTE NUMBER   | REVISION NO. AND DATE   |                                |                    |
| 94   | Helio                          | H-250, H-295, HT-295, H291, H291B, H-295, H-395A, H-700, H-800 | 1A8                              | CAR 3   | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 95   | Helio                          | 15A  | 3A3                              | CAR 4a  | Installation of any of the identified products excluding #s 12, 24 & 25 | Installation of any of the identified products excluding #s 12, 24 & 25 | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 96   | Helio                          | 20   | 3A3                              | CAR 4a  | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 97   | Helio                          | 500  | A36A                             | CAR 3   | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 98   | Interceptor                    | 200, 200A, 200B, 200C, 200D                                    | 3A18                             | CAR 3   | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 99   | Loachhead Aircraft Corporation | 400-2  | 3A11                             | CAR 3   | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |

Page 18 of 37

## FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010

Amended Date: October 10, 2012

| ITEM   | AIRCRAFT MODEL         | AIRCRAFT MODEL                        | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERATION (As defined in TCDS) | INSTALLATION INSTRUCTIONS   |   | APM SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|--------|------------------------|---------------------------------------|----------------------------------|---|---|---|--------------------------------|--------------------|
|        |                        |                                       |                                  |   | NOTE NUMBER   | REVISION NO. AND DATE   |                                |                    |
| 99-1-a | Leite Argentina S.A.   | PA-25, PA-25-25B, PA-25-280           | 3A18                             | CAR 3   | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 99-1-b | Leite Argentina S.A.   | PA-25, PA-25-25B, PA-25-280           | 3A8                              | CAR 3   | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 100    | Lucasme Aircraft Corp. | A, SA, SB, SC, SD, SE, SF, T, SF      | A-891                            | CAR 4a  | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 101    | Lucasme Aircraft Corp. | Lucasme Phantom I, Lucasme Phantom 1B | TC 902                           | Aero Bulletin 7A  | Installation of any of the identified products excluding #s 12, 24 & 25 | Installation of any of the identified products excluding #s 12, 24 & 25 | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 102    | Lucasme Aircraft Corp. | Lucasme A, 3 PCLM                     | TC 907                           | Aero Bulletin 7A  | Installation of any of the identified products excluding #s 12, 24 & 25 | Installation of any of the identified products excluding #s 12, 24 & 25 | 5200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |

Page 19 of 37

FAA APPROVED MODEL LIST (AML) NO. SA02225MY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010  
Amended Date: October 10, 2012

| ITEM | AIRCRAFT MAKE | AIRCRAFT MODEL  | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERNATION (As defined in TCR) | INSTALLATION INSTRUCTIONS                                     |   | AFIS SUPPLEMENT NUMBER AND DATE | AML APPROVEMENT DATE |
|------|---------------|---|----------------------------------|---|---|---|---------------------------------|----------------------|
|      |               |   |                                  |   | NOTE NUMBER   | REVISION NO. AND DATE   |                                 |                      |
| 103  | Boeing        | Bee One M-4, M-4, M-4C, M-4S, M-4T, M-4-180C, M-4-180S, M-4-190T, M-4-215, M-4-210C, M-4-210S, M-4-210T, M-4-225, M-4-220C, M-4-220S, M-4-220T, M-5-210C, M-5-225C<br><br>M-5-180C, M-5-200, M-5-210TC, M-5-235C, M-5-180, M-5-225, M-7-235, M-7-225, M-7-190, M-7-235, M-7-235, M-7-190, M-7-190, M-7-190, M-7-190, M-7-190A, M-7-190A, M-7-225A, M-7-235A, M-7-235C, M-7-190C<br><br>M-7-280, M-7-280, M-7-280C, M-7-190C, M-7-190C | SA23                             | CAR 3<br><br>CAR 3 & FAR 23<br><br>FAR 23               | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2008     | 10/10/2012           |
| 104  | Micro, Meyers | MAC-125C, MAC-143<br><br>MAC-145A, MAC-145B   | SA1                              | CAR 4a<br><br>CFR Part 23 & CFR Part 36                 | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2008     | 10/10/2012           |
| 105  | Moroney       | M02, A,B,C,D,E,F,G<br><br>M05U,K,L,M,R<br><br>M05S, TH  | SA3                              | CAR 3<br><br>CAR 3 & FAR 23<br><br>FAR 23               | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2008     | 10/10/2012           |

FAA APPROVED MODEL LIST (AML) NO. SA02225MY

AEROSPACE LOGIC INC. - 300 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010  
Amended Date: October 10, 2012

| ITEM | AIRCRAFT MAKE       | AIRCRAFT MODEL   | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERNATION (As defined in TCR) | INSTALLATION INSTRUCTIONS                                     |   | AFIS SUPPLEMENT NUMBER AND DATE | AML APPROVEMENT DATE |
|------|---------------------|--|----------------------------------|---|---|---|---------------------------------|----------------------|
|      |                     |  |                                  |   | NOTE NUMBER   | REVISION NO. AND DATE   |                                 |                      |
| 106  | Moroney             | M02  | ABBW                             | CAR 3   | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2008     | 10/10/2012           |
| 107  | Moroney             | M-18L, M-18C, M-18LA, M-18C 2S   | A-803                            | CAR 3   | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2008     | 10/10/2012           |
| 108  | Moroney<br>Sensiter | M05 B02B, M05 B05, M05 B04A, M05 B03A, M05 B03A-12B, M05 B02C-12B, M05 B03E, M05 B04E, P025a 1022, P025a 1027, P025a 1025T, P025a 225E, P025a 225C | TA14                             | CAR 3 & CAR 10  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2008     | 10/10/2012           |
| 109  | Moroney             | ZLN 903L   | A305U                            | FAR 23 & FAR 25   | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2008     | 10/10/2012           |
| 110  | Moroney             | ZLN Z-303L, Z-143L   | A305U                            | FAR 23  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2008     | 10/10/2012           |

## FAA APPROVED MODEL LIST (AAML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010  
Amended Date: October 10, 2012

| ITEM | AIRCRAFT SERIES      | AIRCRAFT MODEL  | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERNATE (As defined in TSOs) | INSTALLATION INSTRUCTIONS                                     |   | AFS SUPPLEMENT NUMBER AND DATE | AAL AMENDMENT DATE |
|------|----------------------|---|----------------------------------|--|---|---|--------------------------------|--------------------|
|      |                      |   |                                  |  | NOTE NUMBER   | REVISION NO. AND DATE   |                                |                    |
| 111  | Navion               | Navion G, 17A, Navion A, L, 17B, G, 17C, Navion B, Navion D, Navion E, Navion F, Navion G, Navion H | A-782                            | CAR 3  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0 12/02/2008    | 10/10/2012         |
| 112  | Planus               | PC-6, PC-6-H1, PC-6-H2, PC-6/350, PC-6/350-H1, PC-6/350-H2  | 1A15                             | CAR 3 & CAR 16   | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0 12/02/2008    | 10/10/2012         |
| 113  | Piper Aircraft, Inc. | PA-16, PA-16S   | 1A1                              | CAR 3  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0 12/02/2008    | 10/10/2012         |
| 114  | Piper Aircraft, Inc. | PA-23, PA-23-180, PA-23-235, PA-23-290, PA-23-250/Navy UO-1, PA-23-290                              | 1A10                             | CAR 3  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0 12/02/2008    | 10/10/2012         |
| 115  | Piper Aircraft, Inc. | PA-34, PA-34-250, PA-34-260, PA-34-400  | 1A15                             | CAR 3  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0 12/02/2008    | 10/10/2012         |

Page 22 of 37

## FAA APPROVED MODEL LIST (AAML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010  
Amended Date: October 10, 2012

| ITEM | AIRCRAFT SERIES      | AIRCRAFT MODEL   | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERNATE (As defined in TSOs) | INSTALLATION INSTRUCTIONS                                     |   | AFS SUPPLEMENT NUMBER AND DATE | AAL AMENDMENT DATE |
|------|----------------------|--|----------------------------------|--|---|---|--------------------------------|--------------------|
|      |                      |  |                                  |  | NOTE NUMBER   | REVISION NO. AND DATE   |                                |                    |
| 116  | Piper Aircraft, Inc. | PA-16, PA-16S, PA-16 "100" (Special), PA-16S "100" (Special), PA-16A, PA-16 "120" (Army L-21A), PA-16S "120", PA-16AS "120", PA-16 "130" (Army L-21B), PA-16A "130", PA-16S "130", PA-16AS "130", PA-16 "150", PA-16A "150", PA-16S "150", PA-16AS "150", PA-16 (Army L-18C), PA-16S | 1A2                              | CAR 3  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0 12/02/2008    | 10/10/2012         |
| 117  | Piper Aircraft, Inc. | PA-20, PA-20S, PA-20 "112", PA-20S "112", PA-20 "130", PA-20S "130"  | 1A4                              | CAR 3  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0 12/02/2008    | 10/10/2012         |
| 118  | Piper Aircraft, Inc. | PA-22, PA-22-100, PA-22-135, PA-22S-135, PA-22-150, PA-22S-150, PA-22-200, PA-22S-200  | 1A8                              | CAR 3  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | 5200-FMS Rev 1.0 12/02/2008    | 10/10/2012         |

Page 23 of 37

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010  
Amended Date: October 10, 2012

| ITEM | AIRCRAFT MAKE       | AIRCRAFT MODEL  | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERATION (As defined in T008) | INSTALLATION INSTRUCTIONS                                     |   | AFM SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|------|---------------------|---|----------------------------------|---|---|---|--------------------------------|--------------------|
|      |                     |   |                                  |   | NOTE NUMBER   | REVISION NO. AND DATE   |                                |                    |
| 119  | Piper Aircraft, Inc | PA-28-140, PA-28-150, PA-28-160, PA-28-180, PA-28-235, PA-28S-180, PA-28S-180, PA-28R-180, PA-28R-200, PA-28-151, PA-28-161, PA-28-181, PA-28R-201, PA-28R-201T, PA-28-236, PA-28RT-201, PA-28RT-201T, PA-28-201T | 2A13                             | CAR 3 & FAR 23  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 120  | Piper Aircraft, Inc | PA-38-112   | A1850                            | FAR 23  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 121  | Piper Aircraft, Inc | PA-44-180, PA-44-180T   | A1950                            | FAR 23  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 122  | Piper Aircraft, Inc | PA-30, PA-36, PA-40   | A1EA                             | CAR 3 & FAR 23  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 123  | Piper Aircraft, Inc | PA-31, PA-31-300, PA-31-325, PA-31-350.   | A2050                            | CAR 3 & FAR 23  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010  
Amended Date: October 10, 2012

| ITEM | AIRCRAFT MAKE       | AIRCRAFT MODEL   | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERATION (As defined in T008) | INSTALLATION INSTRUCTIONS                                     |   | AFM SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|------|---------------------|--|----------------------------------|---|---|---|--------------------------------|--------------------|
|      |                     |  |                                  |   | NOTE NUMBER   | REVISION NO. AND DATE   |                                |                    |
| 124  | Piper Aircraft, Inc | PA-46-310P, PA-46-350P, PA-46R-350T  | A2590                            | FAR 23  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 125  | Piper Aircraft, Inc | PA-32-301XTC, PA-32-301FT, PA-32S-300, PA-32-280<br><br>PA-32-300, PA-32R-300, PA-32RT-300, PA-32RT-300T, PA-32R-301(S/P), PA-32R-301(H/P), PA-32R-301T, PA-32-301 | A380                             | CAR 3<br><br>CAR 3 & FAR 23                             | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 126  | Piper Aircraft, Inc | J3C-60, J3C-60, J3C-60S, J3C-65, J3C-65S, PA-11, PA-11S  | A-661                            | CAR 4a  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 127  | Piper Aircraft, Inc | J3F-60, J3F-60S, J3F-60, J3F-60S, J3F-65 (Army L-4C), J3F-65S  | A-662                            | CAR 4a  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 128  | Piper Aircraft, Inc | J3L, J3L-S, J3L-65 (Army L-4C), J3L-65S  | A-666                            | CAR 4a  | Installation of any of the identified products excluding # 12 | Installation of any of the identified products excluding # 12 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |

## FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010

Amended Date: October 10, 2012

| ITEM | AIRCRAFT MAKE        | AIRCRAFT MODEL                    | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERATION (As defined in TCDS) | INSTALLATION INSTRUCTIONS   |   | AFM SUPPLEMENT NUMBER AND DATE | AFL ASSIGNMENT DATE |
|------|----------------------|-----------------------------------|----------------------------------|---|---|---|--------------------------------|---------------------|
|      |                      |                                   |                                  |   | NOTE NUMBER   | REVISION NO. AND DATE   |                                |                     |
| 129  | Piper Aircraft, Inc. | J4, J4A, J4A-5                    | A-703                            | CAR 4a  | Installation of any of the identified products excluding #s 12, 24 & 25 | Installation of any of the identified products excluding #s 12, 24 & 25 | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012          |
| 130  | Piper Aircraft, Inc. | J4E (Army L-4E)                   | A-740                            | CAR 4a  | Installation of any of the identified products excluding #s 12, 24 & 25 | Installation of any of the identified products excluding #s 12, 24 & 25 | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012          |
| 131  | Piper Aircraft, Inc. | PA-34-200, PA-34-200T, PA-34-220T | A750                             | FAR 23  | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012          |
| 132  | Piper Aircraft, Inc. | PA-15                             | A-800                            | CAR 3   | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012          |
| 133  | Piper Aircraft, Inc. | PA-17                             | A-805                            | CAR 3   | Installation of any of the identified products excluding # 10 - 14      | Installation of any of the identified products excluding # 10 - 14      | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012          |

Page 26 of 37

## FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010

Amended Date: October 10, 2012

| ITEM | AIRCRAFT MAKE        | AIRCRAFT MODEL  | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERATION (As defined in TCDS) | INSTALLATION INSTRUCTIONS   |   | AFM SUPPLEMENT NUMBER AND DATE | AFL ASSIGNMENT DATE |
|------|----------------------|---|----------------------------------|---|---|---|--------------------------------|---------------------|
|      |                      |   |                                  |   | NOTE NUMBER   | REVISION NO. AND DATE   |                                |                     |
| 134  | Piper Aircraft, Inc. | PA-31P  | AMEA                             | CAR 3 & FAR 23  | Installation of any of the identified products excluding # 10 - 14        | Installation of any of the identified products excluding # 10 - 14        | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012          |
| 135  | Piper Aircraft, Inc. | PA-36-285, PA-36-300, PA-36-375   | ABSO                             | FAR 23  | Installation of any of the identified products excluding # 12             | Installation of any of the identified products excluding # 12             | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012          |
| 136  | Piper Aircraft, Inc. | PA-18A (Restricted), PA-18A "135" (Restricted), PA-18A "150" (Restricted) | J4-7                             | CAR 8   | Installation of any of the identified products excluding # 12             | Installation of any of the identified products excluding # 12             | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012          |
| 137  | Piper Aircraft, Inc. | Cub E-2   | ATC 455                          | Aero Bulletin 7A  | Installation of any of the identified products excluding # 10-14, 24 & 25 | Installation of any of the identified products excluding # 10-14, 24 & 25 | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012          |
| 138  | Piper Aircraft, Inc. | Cub F-2   | ATC 525                          | Aero Bulletin 7A  | Installation of any of the identified products excluding # 10-14, 24 & 25 | Installation of any of the identified products excluding # 10-14, 24 & 25 | S200-FMS Rev 1.0<br>12/02/2009 | 10/10/2012          |

Page 27 of 37



FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010

Amended Date: October 10, 2012

| ITEM | AIRCRAFT MAKE        | AIRCRAFT MODEL | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERATION (As defined in TDSB) | INSTALLATION INSTRUCTIONS   |   | AFIS SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|------|----------------------|----------------|----------------------------------|---|---|---|---------------------------------|--------------------|
|      |                      |                |                                  |   | NOTE NUMBER   | REVISION NO. AND DATE   |                                 |                    |
| 139  | Piper Aircraft, Inc. | J-2            | ATC 595                          | Aero Bulletin 7A  | Installation of any of the identified products excluding # 10-14, 24 & 25 | Installation of any of the identified products excluding # 10-14, 24 & 25 | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012         |
| 140  | Piper Aircraft, Inc. | J-3, 2 PCL-5M  | ATC 660                          | Aero Bulletin 7A  | Installation of any of the identified products excluding # 10-14, 24 & 25 | Installation of any of the identified products excluding # 10-14, 24 & 25 | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012         |
| 141  | Piper Aircraft, Inc. | J3P            | TC 895                           | Aero Bulletin 7A  | Installation of any of the identified products excluding # 10-14, 24 & 25 | Installation of any of the identified products excluding # 10-14, 24 & 25 | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012         |
| 142  | Piper Aircraft, Inc. | J4B            | TC 708                           | Aero Bulletin 7A  | Installation of any of the identified products excluding # 10-14, 24 & 25 | Installation of any of the identified products excluding # 10-14, 24 & 25 | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012         |
| 143  | Piper Aircraft, Inc. | J4F            | TC 721                           | CAR 4a  | Installation of any of the identified products excluding # 10-14, 24 & 25 | Installation of any of the identified products excluding # 10-14, 24 & 25 | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012         |

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010

Amended Date: October 10, 2012

| ITEM | AIRCRAFT MAKE                 | AIRCRAFT MODEL   | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERATION (As defined in TDSB) | INSTALLATION INSTRUCTIONS   |   | AFIS SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|------|-------------------------------|--|----------------------------------|---|---|---|---------------------------------|--------------------|
|      |                               |  |                                  |   | NOTE NUMBER   | REVISION NO. AND DATE   |                                 |                    |
| 144  | Prop-Jet, Inc.                | 200, 200A, 200B, 200C, 200D  | 3A18                             | CAR 3   | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012         |
| 145  | Quest Mountain Aerospace Inc. | 11A, 11E   | A-804                            | CAR 3   | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012         |
| 146  | Revo, Inc.                    | Colonial C-1, Colonial C-2, Lake LA-4, Lake LA-4A, Lake LA-4P, Lake LA-4-200<br>Lake Model 250 | 1A13                             | CAR 3<br>FAR 23   | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012         |
| 147  | Rockwell International        | NOMAD MA-280   | 1A18                             | CAR 3   | Installation of any of the identified products excluding #s 12, 24 & 25 | Installation of any of the identified products excluding #s 12, 24 & 25 | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012         |
| 148  | Sky International Inc.        | A-1, A-1A, A-1B, A-1C-180, A-1C-200  | A229M                            | FAR 21, FAR 23 & FAR 38                                 | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012         |
| 149  | Socata                        | TB 8, TB 10, TB 20, TB 21, TB 200  | A51EU                            | FAR 23  | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | S200-FMS Rev 1.0 12/02/2009     | 10/10/2012         |

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010  
Amended Date: October 10, 2012

| ITEM | AIRCRAFT MAKE                     | AIRCRAFT MODEL  | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERATION (As defined in TCDS) | INSTALLATION INSTRUCTIONS   |   | AFS SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|------|-----------------------------------|---|----------------------------------|---|---|---|--------------------------------|--------------------|
|      |                                   |   |                                  |   | NOTE NUMBER   | REVISION NO. AND DATE   |                                |                    |
| 150  | Symphony Aircraft Industries Inc. | OMF-100-150, SA 150   | A48CE                            | FAR 23  | Installation of any of the identified products excluding # 12             | Installation of any of the identified products excluding # 12             | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 151  | Taylorcraft 2000, LLC             | 19, F19, F21A, F21B, F21, F22A, F22B, F22C  | 1A9                              | CAR 3 & FAR 23  | Installation of any of the identified products excluding # 12             | Installation of any of the identified products excluding # 12             | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 152  | Taylorcraft 2000, LLC             | BC-65, BC12-65, BC12-D1, BC12-D, BC12D-4-65, BC12D-45, BCS-65, BCS12-65, BCS12-D1, BCS12-D, BCS12D-4-65, BCS12D-45, BCS, BC | A-696                            | CAR 4   | Installation of any of the identified products excluding # 12             | Installation of any of the identified products excluding # 12             | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 153  | Taylorcraft, Inc.                 | A   | A-643                            | Aero Bulletin 7A  | Installation of any of the identified products excluding # 10-14, 24 & 25 | Installation of any of the identified products excluding # 10-14, 24 & 25 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 154  | Taylorcraft, Inc.                 | BF-60, BFS, BFS-60, BF-65, BFS-65, BFS12-65, BF   | A-699                            | CAR 4a  | Installation of any of the identified products excluding # 10-14, 24 & 25 | Installation of any of the identified products excluding # 10-14, 24 & 25 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010  
Amended Date: October 10, 2012

| ITEM    | AIRCRAFT MAKE                     | AIRCRAFT MODEL  | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERATION (As defined in TCDS) | INSTALLATION INSTRUCTIONS   |   | AFS SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|---------|-----------------------------------|---|----------------------------------|---|---|---|--------------------------------|--------------------|
|         |                                   |   |                                  |   | NOTE NUMBER   | REVISION NO. AND DATE   |                                |                    |
| 155     | Taylorcraft, Inc.                 | BL, BLS, BL-65, BLS-65, BL12-65, BLS12-65               | A-700                            | CAR 4a  | Installation of any of the identified products excluding # 10-14, 24 & 25 | Installation of any of the identified products excluding # 10-14, 24 & 25 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 155-1-e | The King's Engineering Fellowship | Model 44  | A2W                              | FAR 23  | Installation of any of the identified products excluding # 12             | Installation of any of the identified products excluding # 12             | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 156     | True Flight Holding LLC           | AA-1, AA-1A, AA-1B, AA-1C                               | A11EA                            | FAR 23  | Installation of any of the identified products excluding # 12             | Installation of any of the identified products excluding # 12             | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 157     | True Flight Holding LLC           | AA-5, AA-5A, AA-5B, AQ-5B                               | A18EA                            | FAR 23  | Installation of any of the identified products excluding # 12             | Installation of any of the identified products excluding # 12             | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 158     | Twin Commander Aircraft Corp.     | 590-F, 590, 680E, 690F, 690FL, 690FL(P), 695, 720       | 2A4                              | CAR 3   | Installation of any of the identified products excluding # 12             | Installation of any of the identified products excluding # 12             | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 159     | Twin Commander Aircraft Corp.     | 500, 500-A, 500-B, 500-U, 500-S, S20, 580, 590-A, 590-E | 5A1                              | CAR 3   | Installation of any of the identified products excluding # 12             | Installation of any of the identified products excluding # 12             | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010  
Amended Date: October 10, 2012

| ITEM    | AIRCRAFT MAKE                | AIRCRAFT MODEL  | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERATION (As defined in TDSB) | INSTALLATION INSTRUCTIONS   |   | AFS SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|---------|------------------------------|---|----------------------------------|---|---|---|--------------------------------|--------------------|
|         |                              |   |                                  |   | NOTE NUMBER   | REVISION NO. AND DATE   |                                |                    |
| 180     | Yeh Commander Aircraft Corp. | 700   | A129W                            | FAR 23  | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 181     | Univar                       | 108, 108-1, 108-2, 108-3, 108-5   | A-787                            | CAR 3   | Installation of any of the identified products excluding #s 12, 24 & 25 | Installation of any of the identified products excluding #s 12, 24 & 25 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 181-1-a | Univar                       | 415-D, E, G, F-1, F-1A, A-2, A2-A, M1   | A-787                            | CAR 3   | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 182     | Viking Air Limited           | DHC-3   | A-815                            | CAR 3 & CAR 10  | Installation of any of the identified products excluding #s 12, 24 & 25 | Installation of any of the identified products excluding #s 12, 24 & 25 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 183     | Vulcanair S.p.A              | P 88, P88 "Observer Z"<br>P 88B, P 88C, P 88 "Observer", P88TC "Observer", P 88C-TC | A31EU                            | FAR 23<br>FAR 23 & FAR 36                               | Installation of any of the identified products excluding # 12           | Installation of any of the identified products excluding # 12           | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |
| 184     | WACO Aircraft Company        | WACO YMF  | ATC 542                          | Aero Bulletin 7A  | Installation of any of the identified products excluding #s 12, 24 & 25 | Installation of any of the identified products excluding #s 12, 24 & 25 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010  
Amended Date: October 10, 2012

| ITEM | AIRCRAFT MAKE | AIRCRAFT MODEL | ORIGINAL TYPE CERTIFICATE NUMBER | CERTIFICATION BASIS FOR ALTERATION (As defined in TDSB) | INSTALLATION INSTRUCTIONS   |   | AFS SUPPLEMENT NUMBER AND DATE | AML AMENDMENT DATE |
|------|---------------|----------------|----------------------------------|---|---|---|--------------------------------|--------------------|
|      |               |                |                                  |   | NOTE NUMBER   | REVISION NO. AND DATE   |                                |                    |
| 185  | Zenith        | Z-6-A          | TC 2-288                         | Aero Bulletin 7A  | Installation of any of the identified products excluding #s 12, 24 & 25 | Installation of any of the identified products excluding #s 12, 24 & 25 | S200-FMS Rev 1.0 12/02/2009    | 10/10/2012         |

## INSTALLATION INSTRUCTION NOTES

| NOTE | INSTRUMENT AND/OR ACCESSORY(-) PART NUMBER   | DESCRIPTION   | INSTALLATION DOCUMENT   |  |
|------|--|---|---|--|
|      |  |   | DOCUMENT NUMBER   | REVISION AND ISSUE DATE  |
| 1    | A200-DDC   | Lighting Controller   | S200-DDC-002  | Rev 1.1 - 12/02/2009   |
| 2    | CA200X<br>• A200-TSA   | Clock OAT & Annunciator<br>Outside Air Temperature Sensor   | S200-CA200X-002<br>A200-TSA-002   | Rev 1.2 - 05/25/2010<br>Rev 1.1 - 12/02/2009   |
| 3    | CO200X<br>• A200-TSA   | Clock & Outside Air Temperature<br>Outside Air Temperature Sensor   | S200-CO200X-002<br>A200-TSA-002   | Rev 1.2 - 05/25/2010<br>Rev 1.1 - 12/02/2009   |
| 4    | CT200XX<br>• A200-TCB<br>• A200-TCR-12/14/18   | Cylinder Head Temperature<br>CHT Bayonet Probe<br>CHT Ring Probe  | S200-CT200XX-002<br>A200-TCB-002<br>A200-TCR-002                                    | Rev 1.2 - 05/25/2010<br>Rev 1.1 - 12/02/2009<br>Rev 1.1 - 12/02/2009   |
| 5    | ET200XX<br>• A200-TEB<br>• A200-TEC-15/20/25   | Exhaust Gas Temperature<br>EGT Bayonet Probe<br>EGT Clamp Probe   | S200-ET200XX-002<br>A200-TEB-002<br>A200-TEC-002                                    | Rev 1.2 - 05/25/2010<br>Rev 1.1 - 12/02/2009<br>Rev 1.1 - 12/02/2009   |
| 6    | ECT204XXXX<br>• A200-TCB<br>• A200-TCR-12/14/18<br>• A200-TEB<br>• A200-TEC-15/20/25 | Exhaust Gas and Cylinder Head<br>Temperature<br>CHT Bayonet Probe<br>CHT Ring Probe<br>EGT Bayonet Probe<br>EGT Clamp Probe | S200-ECT204XXXX-002<br>A200-TCB-002<br>A200-TCR-002<br>A200-TEB-002<br>A200-TEC-002 | Rev 1.0 - 10/10/2012<br>Rev 1.1 - 12/02/2009<br>Rev 1.1 - 12/02/2009<br>Rev 1.1 - 12/02/2009<br>Rev 1.1 - 12/02/2009 |
| 7    | FA200XX<br>• A200-PSF<br>• A200-HAS  | Fuel Pressure & Ammeter<br>Fuel Pressure Sensor<br>Current Shunt  | S200-FA200XX-002<br>A200-PSF-002<br>A200-HAS-002                                    | Rev 1.2 - 05/25/2010<br>Rev 1.1 - 12/02/2009<br>Rev 1.1 - 12/02/2009   |

| NOTE | INSTRUMENT AND/OR ACCESSORY(-) PART NUMBER | DESCRIPTION  | INSTALLATION DOCUMENT                                 |  |
|------|--|--|---|--|
|      |  |  | DOCUMENT NUMBER                                       | REVISION AND ISSUE DATE  |
| 8    | FF200X<br>• A200-201A-6<br>• A200-201B-6   | Single Fuel Flow<br>Flow Sensor 1-30 GPH<br>Flow Sensor 2-60 GPH             | S200-FF200X-002<br>A200-201A-6-002<br>A200-201B-6-002 | Rev 1.0 - 09/19/2011<br>Rev 1.0 - 09/19/2011<br>Rev 1.0 - 09/19/2011 |
| 9    | FF202X<br>• A200-201A-6<br>• A200-201B-6   | Dual Fuel Flow<br>Flow Sensor 1-30 GPH<br>Flow Sensor 2-60 GPH               | S200-FF202X-002<br>A200-201A-6-002<br>A200-201B-6-002 | Rev 1.0 - 09/19/2011<br>Rev 1.0 - 09/19/2011<br>Rev 1.0 - 09/19/2011 |
| 10   | FL2X1                                      | Single Tank Fuel Level   | S200-FL2X1-002  | Rev 1.0 - 09/17/2011   |
| 11   | FL20X                                      | Fuel Level - Resistive   | S200-FL20X-002  | Rev 1.2 - 05/25/2010   |
| 12   | FL202G                                     | Fuel Level - Cirrus Aircraft   | S200-FL202G-002                                       | Rev 1.0 - 10/10/2012   |
| 13   | FL21X                                      | Fuel Level - 0v to 1v  | S200-FL21X-002  | Rev 1.2 - 05/25/2010   |
| 14   | FL25X                                      | Fuel Level - 0v to 5v  | S200-FL25X-002  | Rev 1.2 - 05/25/2010   |
| 15   | FM200XX<br>• A200-PSF<br>• A200-PMP        | Fuel & Manifold Pressure<br>Fuel Pressure Sensor<br>Manifold Pressure Sensor | S200-FM200XX-002<br>A200-PSF-002<br>A200-PMP-002      | Rev 1.2 - 05/25/2010<br>Rev 1.1 - 12/02/2009<br>Rev 1.1 - 12/02/2009 |
| 16   | FP202XX<br>• A200-PSF                      | Dual Fuel Pressure<br>Fuel Pressure Sensor                                   | S200-FP202XX-002<br>A200-PSF-002                      | Rev 1.2 - 05/25/2010<br>Rev 1.1 - 12/02/2009                         |

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010

Amended Date: October 10, 2012

| NOTE | INSTRUMENT AND/OR ACCESSORY(-) PART NUMBER                     | DESCRIPTION   | INSTALLATION DOCUMENT   |  |
|------|--|---|---|--|
|      |  |   | DOCUMENT NUMBER   | REVISION AND ISSUE DATE  |
| 17   | MF200X<br>• A200-PMP<br>• A200-201A-6<br>• A200-201B-6         | Manifold Pressure & Fuel Flow<br>Manifold Pressure Sensor<br>Flow Sensor 1-30 GPH<br>Flow Sensor 2-60 GPH   | S200-MF200X-002<br>A200-PMP-002<br>A200-201A-6-002<br>A200-201B-6-002           | Rev 1.0 - 09/19/2011<br>Rev 1.1 - 12/02/2009<br>Rev 1.0 - 09/19/2011<br>Rev 1.0 - 09/19/2011                         |
| 18   | MP200X<br>• A200-PMP   | Single Manifold Pressure<br>Manifold Pressure Sensor  | S200-MP200X-002<br>A200-PMP-002   | Rev 1.0 - 09/17/2011<br>Rev 1.1 - 12/02/2009   |
| 19   | MP202XX<br>• A200-PMP  | Dual Manifold Pressure<br>Manifold Pressure Sensor  | S200-MP202XX-002<br>A200-PMP-002  | Rev 1.2 - 05/25/2010<br>Rev 1.1 - 12/02/2009   |
| 20   | MT200X<br>• A200-PMP<br>• A200-HMB<br>• A200-HMS<br>• A200-HMR | Manifold Pressure & Tachometer<br>Manifold Pressure Sensor<br>Tachometer Sensor - Bendix<br>Tachometer Sensor - Stick<br>Tachometer Sensor - Ring | S200-MT200X-002<br>A200-PMP-002<br>A200-HMB-002<br>A200-HMS-002<br>A200-HMR-002 | Rev 1.1 - 12/19/2011<br>Rev 1.1 - 12/02/2009<br>Rev 1.1 - 12/02/2009<br>Rev 1.1 - 12/02/2009<br>Rev 1.0 - 12/19/2011 |
| 21   | OP202XX<br>• A200-PSO  | Dual Oil Pressure<br>Oil Pressure Sensor  | S200-OP202XX-002<br>A200-PSO-002  | Rev 1.2 - 05/25/2010<br>Rev 1.1 - 12/02/2009   |
| 22   | OPT200XX<br>• A200-PSO<br>• A200-TSO                           | Oil Pressure & Temperature<br>Oil Pressure Sensor<br>Oil Temperature Sensor   | S200-OPT200XX-002<br>A200-PSO-002<br>A200-TSO-002                               | Rev 1.2 - 05/25/2010<br>Rev 1.1 - 12/02/2009<br>Rev 1.1 - 12/02/2009   |
| 23   | OT202XX<br>• A200-TSO  | Dual Oil Temperature<br>Oil Temperature Sensor  | S200-OT202XX-002<br>A200-TSO-002  | Rev 1.2 - 05/25/2010<br>Rev 1.1 - 12/02/2009   |

Page 36 of 37

FAA APPROVED MODEL LIST (AML) NO. SA02825NY

AEROSPACE LOGIC INC. - 200 SERIES INSTRUMENTS

Original Issue Date: July 28, 2010

Amended Date: October 10, 2012

| NOTE | INSTRUMENT AND/OR ACCESSORY(-) PART NUMBER       | DESCRIPTION  | INSTALLATION DOCUMENT   |  |
|------|--|--|---|--|
|      |  |  | DOCUMENT NUMBER   | REVISION AND ISSUE DATE  |
| 24   | TM200X<br>• A200-HMB<br>• A200-HMS<br>• A200-HMR | Tachometer<br>Tachometer Sensor - Bendix<br>Tachometer Sensor - Stick<br>Tachometer Sensor - Ring      | S200-TM200X-002<br>A200-HMB-002<br>A200-HMS-002<br>A200-HMR-002 | Rev 1.2 - 05/25/2010<br>Rev 1.1 - 12/02/2009<br>Rev 1.1 - 12/02/2009<br>Rev 1.0 - 12/19/2011 |
| 25   | TM202X<br>• A200-HMB<br>• A200-HMS<br>• A200-HMR | Dual Tachometer<br>Tachometer Sensor - Bendix<br>Tachometer Sensor - Stick<br>Tachometer Sensor - Ring | S200-TM202X-002<br>A200-HMB-002<br>A200-HMS-002<br>A200-HMR-002 | Rev 1.1 - 12/19/2011<br>Rev 1.1 - 12/02/2009<br>Rev 1.1 - 12/02/2009<br>Rev 1.0 - 12/19/2011 |
| 26   | VA200X<br>• A200-HAS                             | Voltsmeter & Ammeter<br>Current Sheet  | S200-VA200X-002<br>A200-HAS-002                                 | Rev 1.2 - 05/25/2010<br>Rev 1.1 - 12/02/2009   |
| 27   | VA202X<br>• A200-HAS                             | Voltsmeter & Dual Ammeter<br>Current Sheet   | S200-VA202X-002<br>A200-HAS-002                                 | Rev 1.2 - 05/25/2010<br>Rev 1.1 - 12/02/2009   |

FAA Approved: 

Gaetano Sciorino  
Manager, New York Aircraft Certification Office

Page 37 of 37



Department of Transport

### Supplemental Type Certificate

This approval is issued to:

Aerospac Logix Inc.  
180 James Street South, Suite 305  
Hamilton, Ontario  
Canada L8P 4Y1

Number: SA09-96

Issue No.: 1  
Approval Date: December 24, 2009  
Issue Date: December 24, 2009

Responsible Office:

OTM/OT

Approval/Type of Model:

"See eligibility list" - Document # S200-CBL, Rev 1.2 dated 12/31/2009 Transport Canada approved 21 Dec, 2009 or later Transport Canada approved revisions.

Condition Type Certificate or Supplement:

As per eligibility list Document # S200-CBL, Rev 1.2 dated 12/31/2009 Transport Canada approved 21 Dec, 2009 or later Transport Canada approved revisions.

Description of Type Design Change:

Aerospac Logix Aircraft Instruments as per Document # S200-CPL, Rev 1.0 dated 11/01/2009 or later Transport Canada approved revisions.

Installation/Operating Data:

Required Equipment and Limitations:

Installation as primary or secondary, new or replacement instruments must be in accordance with Aerospac Logix Certified Installation List - Document # S200-CIL, Rev 1.0, dated 11/01/2009, Transport Canada approved 14 Dec, 2009, or later Transport Canada approved revisions.

Operation of instruments utilizing an intensity control mode must be done in accordance with Aerospac Logix - Document # S200-FMS, Rev 1.0, dated 11/01/2009, Transport Canada approved 14 Dec 2009, or later Transport Canada approved revisions.

Installation Restrictions must be observed in accordance with Aerospac Logix Installation Limitation Statements - Document # S200-ILS, Rev 1.0, dated 11/01/09, Transport Canada approved 14 Dec 2009, or later Transport Canada approved revisions.

Conditions: This approval is only valid for the purpose of unrecalled product specific issues. For all unrecalled issues, the holder shall maintain full responsibility for the safety of the design and any other modifications requested will not remain valid for the duration of the approval period.



James Wilson Palmer  
Minister of Transport

Canada



(Continuation Sheet)

Number: SA09-96 Issue 1

NOTE: THIS ADDENDUM SHALL REMAIN PART OF THE CERTIFICATE REFERRED TO THEREIN.

Maintenance must be in accordance with Aerospac Logix Instructions for Continued Airworthiness - Document # S200-ICA, Rev 1.0 dated 11/01/2009, Transport Canada accepted 14 Dec 2009 or later Transport Canada accepted revisions.

- End -



| SR | APPROVAL NAME | APPROVAL NUMBER | DATE OF ISSUE | ISSUE TYPE | ISSUE DATE | ISSUE STATUS | ISSUE EXPIRES |
|----|---------------|-----------------|---------------|------------|------------|--------------|---------------|
| 1  | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 2  | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 3  | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 4  | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 5  | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 6  | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 7  | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 8  | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 9  | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 10 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 11 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 12 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 13 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 14 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 15 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 16 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 17 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 18 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 19 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 20 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 21 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 22 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 23 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 24 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 25 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 26 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 27 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 28 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 29 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 30 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 31 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 32 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 33 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 34 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 35 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 36 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 37 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 38 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 39 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 40 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 41 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 42 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 43 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 44 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 45 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 46 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 47 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 48 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 49 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 50 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |

| SR | APPROVAL NAME | APPROVAL NUMBER | DATE OF ISSUE | ISSUE TYPE | ISSUE DATE | ISSUE STATUS | ISSUE EXPIRES |
|----|---------------|-----------------|---------------|------------|------------|--------------|---------------|
| 1  | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 2  | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 3  | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 4  | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 5  | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 6  | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 7  | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 8  | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 9  | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 10 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 11 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 12 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 13 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 14 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 15 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 16 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 17 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 18 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 19 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 20 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 21 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 22 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 23 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 24 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 25 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 26 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 27 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 28 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 29 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 30 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 31 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 32 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 33 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 34 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 35 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 36 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 37 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 38 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 39 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 40 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 41 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 42 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 43 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 44 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 45 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 46 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 47 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 48 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 49 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |
| 50 | ...           | ...             | ...           | ...        | ...        | ...          | ...           |

TC Approved  
12-06-02





| ITEM | ACQUISITION NUMBER | ACQUISITION SOURCE               | PAID TO / | DATE TO / | DATE | DATE RECEIVED & DATE    |
|------|--------------------|----------------------------------|-----------|-----------|------|-------------------------|
| 106  | 106                | U.S. COAST & GEOD. SURV. (MAY 7) | 570       | A-201     |      | Nov 10 May 24, 2000     |
| 107  | 107                | 107                              | 2000      |           |      | Nov 10 December 1, 2000 |
| 108  | 108                | 108                              | A-200     |           |      | Nov 10 February 1, 2000 |
| 109  | 109                | 109                              | 1010      | A-100     |      | Nov 10 March 1, 2000    |
| 110  | 110                | 110                              | 2000      |           |      | Nov 10 June 1, 2000     |
| 111  | 111                | 111                              | A-100     |           |      | Nov 10 August 1, 2000   |
| 112  | 112                | 112                              | 1010      |           |      | Nov 10 May 1, 2000      |
| 113  | 113                | 113                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 114  | 114                | 114                              | 1010      |           |      | Nov 10 February 1, 2000 |
| 115  | 115                | 115                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 116  | 116                | 116                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 117  | 117                | 117                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 118  | 118                | 118                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 119  | 119                | 119                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 120  | 120                | 120                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 121  | 121                | 121                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 122  | 122                | 122                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 123  | 123                | 123                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 124  | 124                | 124                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 125  | 125                | 125                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 126  | 126                | 126                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 127  | 127                | 127                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 128  | 128                | 128                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 129  | 129                | 129                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 130  | 130                | 130                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 131  | 131                | 131                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 132  | 132                | 132                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 133  | 133                | 133                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 134  | 134                | 134                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 135  | 135                | 135                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 136  | 136                | 136                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 137  | 137                | 137                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 138  | 138                | 138                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 139  | 139                | 139                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 140  | 140                | 140                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 141  | 141                | 141                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 142  | 142                | 142                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 143  | 143                | 143                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 144  | 144                | 144                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 145  | 145                | 145                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 146  | 146                | 146                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 147  | 147                | 147                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 148  | 148                | 148                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 149  | 149                | 149                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 150  | 150                | 150                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 151  | 151                | 151                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 152  | 152                | 152                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 153  | 153                | 153                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 154  | 154                | 154                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 155  | 155                | 155                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 156  | 156                | 156                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 157  | 157                | 157                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 158  | 158                | 158                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 159  | 159                | 159                              | 1010      |           |      | Nov 10 August 1, 2000   |
| 160  | 160                | 160                              | 1010      |           |      | Nov 10 August 1, 2000   |

TC Approved  
DEC 1 2002

| ITEM | ACQUISITION NUMBER | ACQUISITION SOURCE | PAID TO / | DATE TO / | DATE | DATE RECEIVED & DATE  |
|------|--------------------|--------------------|-----------|-----------|------|-----------------------|
| 159  | 159                | 159                | A-200     |           |      | Nov 10 June 1, 2000   |
| 160  | 160                | 160                | A-201     |           |      | Nov 10 June 1, 2000   |
| 161  | 161                | 161                | A-200     |           |      | Nov 10 August 1, 2000 |
| 162  | 162                | 162                | A-200     |           |      | Nov 10 August 1, 2000 |
| 163  | 163                | 163                | A-200     |           |      | Nov 10 August 1, 2000 |
| 164  | 164                | 164                | A-200     |           |      | Nov 10 August 1, 2000 |
| 165  | 165                | 165                | A-200     |           |      | Nov 10 August 1, 2000 |
| 166  | 166                | 166                | A-200     |           |      | Nov 10 August 1, 2000 |
| 167  | 167                | 167                | A-200     |           |      | Nov 10 August 1, 2000 |
| 168  | 168                | 168                | A-200     |           |      | Nov 10 August 1, 2000 |
| 169  | 169                | 169                | A-200     |           |      | Nov 10 August 1, 2000 |
| 170  | 170                | 170                | A-200     |           |      | Nov 10 August 1, 2000 |
| 171  | 171                | 171                | A-200     |           |      | Nov 10 August 1, 2000 |
| 172  | 172                | 172                | A-200     |           |      | Nov 10 August 1, 2000 |
| 173  | 173                | 173                | A-200     |           |      | Nov 10 August 1, 2000 |
| 174  | 174                | 174                | A-200     |           |      | Nov 10 August 1, 2000 |
| 175  | 175                | 175                | A-200     |           |      | Nov 10 August 1, 2000 |
| 176  | 176                | 176                | A-200     |           |      | Nov 10 August 1, 2000 |
| 177  | 177                | 177                | A-200     |           |      | Nov 10 August 1, 2000 |
| 178  | 178                | 178                | A-200     |           |      | Nov 10 August 1, 2000 |
| 179  | 179                | 179                | A-200     |           |      | Nov 10 August 1, 2000 |
| 180  | 180                | 180                | A-200     |           |      | Nov 10 August 1, 2000 |
| 181  | 181                | 181                | A-200     |           |      | Nov 10 August 1, 2000 |
| 182  | 182                | 182                | A-200     |           |      | Nov 10 August 1, 2000 |
| 183  | 183                | 183                | A-200     |           |      | Nov 10 August 1, 2000 |
| 184  | 184                | 184                | A-200     |           |      | Nov 10 August 1, 2000 |
| 185  | 185                | 185                | A-200     |           |      | Nov 10 August 1, 2000 |
| 186  | 186                | 186                | A-200     |           |      | Nov 10 August 1, 2000 |
| 187  | 187                | 187                | A-200     |           |      | Nov 10 August 1, 2000 |
| 188  | 188                | 188                | A-200     |           |      | Nov 10 August 1, 2000 |
| 189  | 189                | 189                | A-200     |           |      | Nov 10 August 1, 2000 |
| 190  | 190                | 190                | A-200     |           |      | Nov 10 August 1, 2000 |
| 191  | 191                | 191                | A-200     |           |      | Nov 10 August 1, 2000 |
| 192  | 192                | 192                | A-200     |           |      | Nov 10 August 1, 2000 |
| 193  | 193                | 193                | A-200     |           |      | Nov 10 August 1, 2000 |
| 194  | 194                | 194                | A-200     |           |      | Nov 10 August 1, 2000 |
| 195  | 195                | 195                | A-200     |           |      | Nov 10 August 1, 2000 |
| 196  | 196                | 196                | A-200     |           |      | Nov 10 August 1, 2000 |
| 197  | 197                | 197                | A-200     |           |      | Nov 10 August 1, 2000 |
| 198  | 198                | 198                | A-200     |           |      | Nov 10 August 1, 2000 |
| 199  | 199                | 199                | A-200     |           |      | Nov 10 August 1, 2000 |
| 200  | 200                | 200                | A-200     |           |      | Nov 10 August 1, 2000 |

TC Approved  
DEC 1 2002

Approved by: [Signature]

| ITEM | ISSUANT NAME                           | ISSUANT ADDRESS                                  | ISS. TYPE | ISS. DATE | ISS. EXPIRES | ISS. STATUS |
|------|--|--|-----------|-----------|--------------|-------------|
| 101  | Thompson, Inc.                         | 21, N.E. 21st, A. B. 20<br>DADE COUNTY, FL 33135 | A-100     | 1/1/80    | 1/1/85       | 1           |
| 102  | The Kings Engineering<br>Company, Inc. | Box 41<br>Miami, FL 33156                        | A-100     | 1/1/80    | 1/1/85       | 1           |
| 103  | The Kings Engineering<br>Company, Inc. | Box 41<br>Miami, FL 33156                        | A-100     | 1/1/80    | 1/1/85       | 1           |
| 104  | The Kings Engineering<br>Company, Inc. | Box 41<br>Miami, FL 33156                        | A-100     | 1/1/80    | 1/1/85       | 1           |
| 105  | The Kings Engineering<br>Company, Inc. | Box 41<br>Miami, FL 33156                        | A-100     | 1/1/80    | 1/1/85       | 1           |
| 106  | The Kings Engineering<br>Company, Inc. | Box 41<br>Miami, FL 33156                        | A-100     | 1/1/80    | 1/1/85       | 1           |
| 107  | The Kings Engineering<br>Company, Inc. | Box 41<br>Miami, FL 33156                        | A-100     | 1/1/80    | 1/1/85       | 1           |
| 108  | The Kings Engineering<br>Company, Inc. | Box 41<br>Miami, FL 33156                        | A-100     | 1/1/80    | 1/1/85       | 1           |
| 109  | The Kings Engineering<br>Company, Inc. | Box 41<br>Miami, FL 33156                        | A-100     | 1/1/80    | 1/1/85       | 1           |
| 110  | The Kings Engineering<br>Company, Inc. | Box 41<br>Miami, FL 33156                        | A-100     | 1/1/80    | 1/1/85       | 1           |
| 111  | The Kings Engineering<br>Company, Inc. | Box 41<br>Miami, FL 33156                        | A-100     | 1/1/80    | 1/1/85       | 1           |
| 112  | The Kings Engineering<br>Company, Inc. | Box 41<br>Miami, FL 33156                        | A-100     | 1/1/80    | 1/1/85       | 1           |
| 113  | The Kings Engineering<br>Company, Inc. | Box 41<br>Miami, FL 33156                        | A-100     | 1/1/80    | 1/1/85       | 1           |
| 114  | The Kings Engineering<br>Company, Inc. | Box 41<br>Miami, FL 33156                        | A-100     | 1/1/80    | 1/1/85       | 1           |
| 115  | The Kings Engineering<br>Company, Inc. | Box 41<br>Miami, FL 33156                        | A-100     | 1/1/80    | 1/1/85       | 1           |
| 116  | The Kings Engineering<br>Company, Inc. | Box 41<br>Miami, FL 33156                        | A-100     | 1/1/80    | 1/1/85       | 1           |
| 117  | The Kings Engineering<br>Company, Inc. | Box 41<br>Miami, FL 33156                        | A-100     | 1/1/80    | 1/1/85       | 1           |
| 118  | The Kings Engineering<br>Company, Inc. | Box 41<br>Miami, FL 33156                        | A-100     | 1/1/80    | 1/1/85       | 1           |
| 119  | The Kings Engineering<br>Company, Inc. | Box 41<br>Miami, FL 33156                        | A-100     | 1/1/80    | 1/1/85       | 1           |
| 120  | The Kings Engineering<br>Company, Inc. | Box 41<br>Miami, FL 33156                        | A-100     | 1/1/80    | 1/1/85       | 1           |

NOTES:  
 1. Issuance of this type certificate is subject to the approval of the FAA.  
 2. This type certificate is valid only in the State of Florida.  
 3. This type certificate is valid only in the State of Florida.

TC Approved  
 01-1980



US Department  
of Transportation  
Federal Aviation  
Administration

## MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved  
OMB No. 2120-0020  
2/28/2011

Electronic Tracking Number  
**2016000693**

For FAA Use Only

Electronically Submitted 337

**INSTRUCTIONS:** Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

|                    |   |  |        |
|--------------------|---|--|--------|
| <b>1. Aircraft</b> | Nationality and Registration Mark<br><p style="text-align: center;">N 1948B</p> | Serial No.<br><p style="text-align: center;">177RG0564</p> |        |
|                    | Make<br><p style="text-align: center;">CESSNA</p>                               | Model<br><p style="text-align: center;">177RG</p>          | Series |

|                 |   |  |                       |
|-----------------|---|--|-----------------------|
| <b>2. Owner</b> | Name (As shown on registration certificate)<br>AERONAUT LLC | Address (As shown on registration certificate) |                       |
|                 |   | Address 473 S RIVER RD STE 370                 | State UT              |
|                 |   | City SAINT GEORGE                              | Country UNITED STATES |
|                 |   | Zip 847902150                                  |                       |

### 3. For FAA Use Only

|                              |                               |
|------------------------------|-------------------------------|
| Inspector<br>Signature _____ | Designee<br>Signature _____   |
| _____                        | Authorization<br>Number _____ |

| 4. Type                  |                                     | 5. Unit Identification |              |                                |            |
|--------------------------|-------------------------------------|------------------------|--------------|--------------------------------|------------|
| Repair                   | Alteration                          | Unit                   | Make         | Model                          | Serial No. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | AIRFRAME               | _____        | (As described in item 1 above) | _____      |
| <input type="checkbox"/> | <input type="checkbox"/>            | POWERPLANT             |              |                                |            |
| <input type="checkbox"/> | <input type="checkbox"/>            | PROPELLER              |              |                                |            |
| <input type="checkbox"/> | <input type="checkbox"/>            | APPLIANCE              | Type         |                                |            |
|                          |                                     |                        | Manufacturer |                                |            |

### 6. Conformity Statement

|   |   |
|---|---|
| <b>A. Agency's Name and Address</b><br>Name ERIC HUSTEAD<br>Address 4196 S AIRPORT PKWY UNIT 2D<br>City ST GEORGE State UT<br>Zip 84790 Country UNITED STATES | <b>B. Kind of Agency</b><br><input checked="" type="checkbox"/> U. S. Certificated Mechanic<br><input type="checkbox"/> Foreign Certificated Mechanic<br><input type="checkbox"/> Certificated Repair Station<br><input type="checkbox"/> Certificated Maintenance Organization<br>Manufacturer<br><b>C. Certificate No.</b><br>27077211A |
|---|---|

**D.** I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

|  |   |  |
|--|---|--|
| Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/> | Signature/Date of Authorized Individual<br><p style="text-align: center; font-size: 1.2em;">Eric Husted</p> | Digitally signed by Eric Husted<br>Date: 2016.11.03 16:58:50 -06'00' |
|--|---|--|

### 7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  Approved  Rejected

|    |                              |                |  |  |
|----|------------------------------|----------------|--|--|
| BY | FAA Fit. Standards Inspector | Manufacturer   | Maintenance Organization                                     | Persons Approved by Canadian Department of Transport |
|    | FAA Designee                 | Repair Station | <input checked="" type="checkbox"/> Inspection Authorization | Other (Specify)                                      |

|   |   |  |
|---|---|--|
| Certificate or Designation No.<br>27077211A | Signature/Date of Authorized Individual<br><p style="text-align: center; font-size: 1.2em;">Eric Husted</p> | Digitally signed by Eric Husted<br>Date: 2016.11.03 17:00:15 -06'00' |
|---|---|--|

**NOTICE**

*Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.*

**8. Description of Work Accomplished**

*(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)*

N 1948B

11/03/2016

Nationality and Registration Mark

Date

INSTALLED AEROSPACE LOGIC INC. FL202D FUEL LEVEL INDICATOR IAW STC SA02825NY

**ICA INFORMATION:**

See Aerospace Logic, Inc. Document No. S200-ICA Rev 1.3 (Or later revision). This document has been placed with the permanent aircraft documents.

**NOTE: THE SERIAL NUMBERED AND/OR PART NUMBERED ITEMS LISTED MAY BE REPLACED WITH FAA APPROVED EXCHANGE OR UPGRADED ITEMS AT ANY FUTURE DATE.**

**SYSTEM GROUND CHECKED WITH NO AFFECT TO OTHER AIRCRAFT SYSTEMS.**

**\*\*\*LAST\*\*\***

Additional Sheets Are Attached



U.S. Department of Transportation  
Federal Aviation Administration

## MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved  
OMB No. 2120-0007  
2/26/2011

Electronic Tracking Number

For FAA Use Only

**INSTRUCTIONS:** Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

|                    |   |                                |  |
|--------------------|---|--------------------------------|--|
| <b>1. Aircraft</b> | Nationality and Registration Mark<br><b>N1948B</b>                  | Serial No.<br><b>177RG0564</b> |  |
|                    | Make<br><b>Cessna</b>   | Model<br><b>177RG</b>          | Series<br><b>177</b>   |
| <b>2. Owner</b>    | Name (As shown on registration certificate)<br><b>Aeronaut, LLC</b> |                                | Address (As shown on registration certificate)   |
|                    |   |                                | <b>473 South River Road Suite 370</b><br>City <b>Saint George</b> State <b>UT</b><br>Zip <b>84790</b> Country <b>USA</b> |

3. For FAA Use Only

| 4. Type                  |                                     | 5. Unit Identification |              |                                |               |
|--------------------------|-------------------------------------|------------------------|--------------|--------------------------------|---------------|
| Repair                   | Alteration                          | Unit                   | Make         | Model                          | Serial Number |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <b>AIRFRAME</b>        | _____        | (As described in item 1 above) | _____         |
| <input type="checkbox"/> | <input type="checkbox"/>            | <b>POWERPLANT</b>      |              |                                |               |
| <input type="checkbox"/> | <input type="checkbox"/>            | <b>PROPELLER</b>       |              |                                |               |
| <input type="checkbox"/> | <input type="checkbox"/>            | <b>APPLIANCE</b>       | Type         |                                |               |
|                          |                                     |                        | Manufacturer |                                |               |

**6. Conformity Statement**

|   |  |
|---|--|
| <b>A. Agency's Name and Address</b><br>Name <b>SpanaFlight - Matt Selstad</b><br>Address <b>16705 103<sup>rd</sup> Ave CLE</b><br>City <b>Puyallup</b> State <b>WA</b><br>Zip <b>98374</b> Country <b>USA</b> | <b>B. Kind of Agency</b><br><input checked="" type="checkbox"/> U.S. Certified Mechanic <input type="checkbox"/> Manufacturer<br><input type="checkbox"/> Foreign Certified Mechanic <input type="checkbox"/> Certificate No.<br><input type="checkbox"/> Certified Repair Station <b>AP3648024</b><br><input type="checkbox"/> Certified Maintenance Organization |
|---|--|

**D.** I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

|  |   |
|--|---|
| Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/> | Signature/Date of Authorized Individual<br>12-18-15 |
|--|---|

**7. Approval for Return to Service**

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  **APPROVED**  **REJECTED**

|           |   |   |  |  |
|-----------|---|---|--|--|
| <b>BY</b> | <input type="checkbox"/> FAA FT Standards Inspector | <input type="checkbox"/> Manufacturer   | <input type="checkbox"/> Maintenance Organization            | <input type="checkbox"/> Person Approved by Canadian Department of Transport |
|           | <input type="checkbox"/> FAA Designee               | <input type="checkbox"/> Repair Station | <input checked="" type="checkbox"/> Inspection Authorization | Other (Specify)  |

|  |   |
|--|---|
| Certificate or Designation No.<br><b>3648024IA</b> | Signature/Date of Authorized Individual<br>12-18-15 |
|--|---|

**NOTICE**

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

**8. Description of Work Accomplished**

*(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)*

N1948B

12-18-15

Nationality and Registration Mark

Date

Removed original Cessna spinner and installed a composite spinner in accordance with installation instructions from TCB Composite Company per STC SA01164AT and TCB instructions "Installation procedures and parts list for Cessna 177RG, composite spinner" Revision N.C. dated 7-12-96.

Weight and balance amended

Additional Sheets Are Attached

United States of America  
Department of Transportation -- Federal Aviation Administration  
**Supplemental Type Certificate**

*Number* SA01164AT

*This certificate issued to* TCB Composite Co.  
3811 South Airport Road  
Ogden, UT 84405

*certifies that the change in the type design for the following product with the limitations and conditions therefor as specified herein meets the airworthiness requirements of Part 23 of the Federal Aviation Regulations.*

*Original Product - Type Certificate Number:* A20CE  
*Make:* Cessna  
*Model:* 177 RG

*Description of Type Design Change:* Installation of Composite Spinner in accordance with TCB Composite Company "Installation Procedures and Parts List for Cessna 177RG, Composite Spinner", Revision N.C., dated July 12, 1996; or later FAA approved revision.

*Limitations and Conditions:* This approval should not be extended to other airplanes of this model on which other previously approved modifications are incorporated unless it is determined by the installer that the interrelationship between this change and any of those other previously approved modifications will introduce no adverse effect upon the airworthiness of that aircraft. Composite Spinner, Part Number TCB0752637-16, is a replacement for Cessna Part Number 0752637-16.

*This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.*

*Date of application:* August 14, 1996

*Date received:*

*Date of issuance:* October 02, 1996

*Date amended:* April 22, 1997; September 14, 1998;  
October 13, 2000



*By direction of the Administrator*  
  
(Signature)  
Paul C. Sconyers  
Associate Manager  
Atlanta Aircraft Certification Office

*Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 1 year, or both.*



**PARTS LIST:**

| <u>Nomenclature</u>                  | <u>Quantity</u> |
|--------------------------------------|-----------------|
| Composite Spinner, p/n TCB0752637-16 | 1               |
| Washer, type NAS1515H3L              | 10              |

**Removal of the Metal Spinner and installation of TCB Spinner Assembly**

- A. Refer to the maintenance manual for the particular type aircraft
- B. Ensure that the magneto switches are OFF.
- C. Remove and discard metal spinner and its attaching screws.

**-NOTE-**

(If composite spinner holes align with OEM bulkhead holes, proceed with step G).  
 If the spinner bulkhead is made of (OEM) alloy with .191 holes and fixed anchor nuts, complete steps D through F and continue. If floating anchor nuts are already present, proceed with step G.

- D. Drill out and remove all existing anchor nuts.
- E. Drill out screw openings from .191 to .228 in metal bulkhead.
- F. Install ten(10) floating anchor nuts p/n MS21059L3.
- G. Install the composite spinner, p/n TCB0752637-16, (wrap propeller hub with chafe tape provided to acquire firm fit of fwd bulkhead in spinner) and mount screws as per torque table below.

**Torque Table**

| <u>Description</u>       | <u>Required Torque</u> |
|--------------------------|------------------------|
| Spinner Attaching Screws | 30 to 35 in/lbs        |

- H. Prior to releasing the aircraft for flight, perform a brief run up of the engine, watching the spinner for signs of imbalance or looseness.

**Weight and Balance Information:**

Note: Consult equipment list of specific aircraft. All figures include hardware.

| <u>Assembly</u>            | <u>Weight</u> | <u>Arm</u> |
|----------------------------|---------------|------------|
| Remove metal bulkhead      | 2.6 lbs       | -15.5      |
| Install composite bulkhead | 2.4 lbs       | -15.5      |

**NOTE: SUBMIT FAA FORM 377. MAKE ENTRIES TO WEIGHT AND BALANCE AND EQUIPMENT LISTS.**





# INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

Document Number: TCB-0100 Revision A, Date 4-03-2013

## For Aircraft Components Manufactured by TCB Composite LLC per FAR 43 App.D

1. Frequency of inspection: To be performed during annual or 100 hour inspection.
2. Gain access to the components.
3. Inspect the component using the following methods:
  - a. *Visual Inspection.* Inspect the component for cracks, scratches, blisters, dents, peeling, pitting, air bubbles, and surface wrinkles.
  - b. *Sonic Testing.* "Coin tapping" is a common technique used for detecting delaminations in composite components. When tapping any area, a coin or other similar object may be used. When this technique is used, a clear, sharp ringing sound is indicative of a well-bonded, solid structure, while a dull, hollow sound or thud indicates a possible delamination. Automated sonic devices that produce a consistent tapping rate and force are also available and can be used to perform the test.

4. Replace loose or broken anchor nuts (nut plates) or rivets per AC 43.13-1 B.

### Note

**There are no other authorized field repairs for TCB Composite LLC products.**

5. If the test described in paragraph above reveals any discrepancies other than those noted in item 4, remove the component and replace with a new item.

6. Cosmetic Maintenance:
  - a. Surface paint can be sanded using 180 and finished with 220-grit sandpaper.


### CAUTION

#### **DO NOT SAND INTO THE COMPONENT**

- b. Body fillers and surface sealers may be used to attain a smooth surface prior to priming and finish painting.
  - c. All new primed or repainted spinners **require** a quality aircraft or automotive two (2) component paint or equivalent, for maximum protection.
7. Removing the component requires reinstallation per aircraft maintenance instructions.

### **End of Document**

11/20/15

|   |  |  |                            |
|---|--|--|----------------------------|
| <br>U.S. Department of Transportation<br>Federal Aviation Administration | <b>MAJOR REPAIR AND ALTERATION</b><br><b>(Airframe, Powerplant, Propeller, or Appliance)</b> | Form Approved<br>OMB No. 2125-0025<br>20090511 | Electronic Tracking Number |
|   | For FAA Use Only   |  |                            |

INSTRUCTIONS: Print or type all entries. See Title 14, CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty for each such violation (49 U.S.C. §46301(a)).

|             |   |   |                       |
|-------------|---|---|-----------------------|
| 1. Aircraft | Nationality and Registration Mark<br><b>N1948B</b>                  | Serial No<br><b>177RG0564</b>   |                       |
|             | Make<br><b>Cessna</b>   | Model<br><b>177RG</b>   | Series<br><b>177</b>  |
| 2. Owner    | Name (As shown on registration certificate)<br><b>Aeronaut, LLC</b> | Address (As shown on registration certificate)<br><b>473 South River Road Suite 370</b> |                       |
|             |   | City<br><b>Saint George</b>   | State<br><b>UT</b>    |
|             |   | Zip<br><b>84790</b>   | Country<br><b>USA</b> |

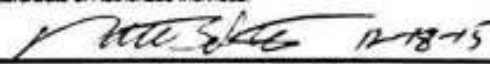
3. For FAA Use Only

| 4. Type                  |                                     | 5. Unit Identification |              |                                |               |
|--------------------------|-------------------------------------|------------------------|--------------|--------------------------------|---------------|
| Repair                   | Alteration                          | Unit                   | Make         | Model                          | Serial Number |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | AIRFRAME               | _____        | (As described in item 1 above) | _____         |
| <input type="checkbox"/> | <input type="checkbox"/>            | POWERPLANT             |              |                                |               |
| <input type="checkbox"/> | <input type="checkbox"/>            | PROPELLER              |              |                                |               |
| <input type="checkbox"/> | <input type="checkbox"/>            | APPLIANCE              | Type         |                                |               |
|                          |                                     |                        | Manufacturer |                                |               |

6. Conformity Statement

|   |                    |  |                                       |
|---|--------------------|--|---------------------------------------|
| A. Agency's Name and Address                  |                    | B. Kind of Agency  |                                       |
| Name <b>SpanaFlight - Matt Selstad</b>        |                    | <input checked="" type="checkbox"/> U.S. Certificated Mechanic | <input type="checkbox"/> Manufacturer |
| Address <b>16705 103<sup>rd</sup> Ave ClE</b> |                    | <input type="checkbox"/> Foreign Certificated Mechanic         | C. Certificate No                     |
| City <b>Puyallup</b>                          | State <b>WA</b>    | <input type="checkbox"/> Certificated Repair Station           | <b>AP3648024</b>                      |
| Zip <b>98374</b>                              | Country <b>USA</b> | <input type="checkbox"/> Certificated Maintenance Organization |                                       |


D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

|   |  |
|---|--|
| Extended range fuel per 14 CFR Part 43 App B <input type="checkbox"/> | Signature/Date of Authorized Individual<br> 12-18-15 |
|---|--|

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  APPROVED  REJECTED

|    |  |   |  |  |
|----|--|---|--|--|
| BY | <input type="checkbox"/> FAA Fit Standards Inspector | <input type="checkbox"/> Manufacturer   | <input type="checkbox"/> Maintenance Organization            | <input type="checkbox"/> Person Approved by Canadian Department of Transport |
|    | <input type="checkbox"/> FAA Designee                | <input type="checkbox"/> Repair Station | <input checked="" type="checkbox"/> Inspection Authorization | Other (Specify)  |

|   |  |
|---|--|
| Certificate or Designation No<br><b>3648024IA</b> | Signature/Date of Authorized Individual<br><b>12-18-15</b><br> |
|---|--|

**NOTICE**

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

**8. Description of Work Accomplished**

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

N1948B

12-18-15

Nationality and Registration Mark

Date

Removed original Cessna sun visors and installed NSA sun visor system for the pilot and copilot in accordance with FAA approved Rosen drawings RCS-00 A-DL revision H, dated 12-11-14 as listed on the AML and per STC SA4964NM

Weight and balance amended

Additional Sheets Are Attached



Corporate:  
 Rosen Sunvisor Systems, LLC  
 86365 College View Road  
 Eugene, Or 97405  
 Phone: (541) 747-0034

Manufacturing:  
 Rosen Sunvisor Systems, LLC  
 4884 Franklin Blvd.  
 Eugene, OR 97403  
 Phone: (541) 747-0034

## Certificate of Conformance

Materials furnished on this order have been manufactured in accordance with all applicable instructions and specifications.

|   |           |
|---|-----------|
| <b>Sales Order/Acknowledgement Number</b> | 113035    |
| <b>Customer Purchase Order</b>            | 129680    |
| <b>Part Number</b>                        | RCS-300-5 |
| <b>Reference Part Number</b>              |           |

**Status** NEW **Quantity** 1

**Serial Numbers**

SERIAL NO M156206



|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**Inspected By** Barbara O'Neal **Stamp**

**Signature** *Barbara O'Neal* **Date** Dec 10, 2015

# Rosen®

SUNVISOR SYSTEMS

December 7, 2015

To \_\_\_\_\_  
(PURCHASER)

Rosen Sunvisor Systems, LLC authorizes installation of this product in compliance with the Federal Aviation Administration Supplemental Type Certificate SA4964NM.

This installation may require an FAA form 337. Please contact your mechanic and/or local FSDO for specific documentation requirements.

This letter provides compliance with 14 CFR 21.120 and 14 CFR 91.403(d).

Respectfully,



Eric Albert  
Director of Business Development  
Phone: 541-685-0438 ext. 115  
Email: ealbert@rosenvisor.com

United States of America  
Department of Transportation—Federal Aviation Administration  
**Supplemental Type Certificate**

*Number* SA4964NM

*This certificate, issued to* **Rosen Sunvisor Systems  
86365 College View Road  
Eugene, OR 97405**

*certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 21 of the Federal Aviation Regulations.*

*Original Product—Type Certificate Number:* \*See attached FAA Approved Model List (AML)  
*Make:* No. SA4964NM for list of approved airplane  
*Model:* models and applicable airworthiness regulations

*Description of the Type Design Change:* Installation of an NSA sunvisor system for the pilot and copilot in accordance with FAA approved Rosen Drawings as listed on the FAA AML of this STC, or later FAA approved revisions.

*Limitations and Conditions:* Approval of this change in type design applies to the above model aircraft only. This approval should not be extended to other aircraft of this model on which other previously approved modifications are incorporated unless it is determined that the interrelationship between this change and any other previously approved modifications, including changes in type design, will introduce no adverse effect upon the airworthiness of that aircraft. A copy of this Certificate and AML SA4964NM, dated October 5, 1990, or later FAA approved revision, shall be maintained as part of the permanent records for the modified aircraft.

If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

*This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.*

*Date of application:* March 30, 1990

*Date of issuance:* October 5, 1990

*Date reissued:* March 24, 2003

*Date amended:* March 24, 2003

*By direction of the Administrator*

(Signature)  
Acting Manager, Seattle Aircraft  
Certification Office  
(Title)



*Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.*

*This certificate may be transferred in accordance with FAR 21.47.*

**FAA APPROVED MODEL LIST (AML) SA4964NM  
FOR  
INSTALLATION OF ROSEN SUNVISOR SYSTEMS NSA SUNVISOR SYSTEM**

ISSUE DATE: October 5, 1990

| ITEM | AIRPLANE<br>MAKE | AIRPLANE<br>MODEL | TYPE<br>CERTIFICATE<br>NUMBER | CERTIFICATION<br>BASIS FOR<br>ALTERATION | FAA APPROVED DRAWING<br>LIST |                          | AML<br>AMENDED<br>DATE |
|------|------------------|-------------------|-------------------------------|--|------------------------------|--------------------------|------------------------|
|      |                  |                   |                               |  | NUMBER                       | REVISION NO.<br>AND DATE |                        |
| 1.   | Cessna           | 177, 177A, 177B   | A13CE                         | FAR 23, dated 2/1/65                     | RCS-00 A-DL                  | Revision NC,<br>3/90     | 3/24/03                |
| 2.   | Cessna           | 177RG             | A20CE                         | FAR 23, dated 2/1/65                     | RCS-00 A-DL                  | Revision NC,<br>3/90     | 3/24/03                |

FAA APPROVED:

*Richard J. [Signature]*  
Acting Manager, Seattle Aircraft  
Certification Office

REISSUED: March 24, 2003  
AMENDED: March 24, 2003

# Rosen®

SUNVISOR SYSTEMS

**Cessna 177 Cardinal**  
**Sunvisor System**

| Date     | Revision | Approved |
|----------|----------|----------|
| 12/11/14 | H        | GH       |

Drawing List  
RCS-00 A-DL

Doc. #9050-0118-019

| Kit 1180005-x |    |    | Drawing       | Replaces   | Description                 | Rev. |
|---------------|----|----|---------------|--|-----------------------------|------|
| -0            | -1 | -2 |               |  |                             |      |
| 1             | 1  | 1  | 1180005       | R1180000-005<br>1180400-009<br>1180400-010<br>RCS-300-5, -5P,<br>-5C | Complete Assembly           | B    |
|               | 1  |    | 1180100-008   | R1180100-008   | Mounting Assembly, Pilot    | E    |
|               |    | 1  | 1180100-009   | R1180100-009   | Mounting Assembly, Co-Pilot | E    |
| 2             | 1  | 1  | 1180106       | R1180106-001<br>R1180106-002   | Mounting Bracket            | H    |
| 2             | 1  | 1  | 1180107       | R1180107   | Swivel Mount                | F    |
| 2             | 1  | 1  | 1180108       | R1180108   | Cessna 177 Mount Adjust     | E    |
| 2             | 1  | 1  | 1160202       |  | Duke Style Swivel           | G    |
| 2             | 1  | 1  | 1020001       | R1020001   | Original Block              | G    |
| 2             | 1  | 1  | 1010000-5     |  | Complete Slide Assembly     | E    |
| 2             | 1  | 1  | 1010001-5     |  | Female Slide, Universal     | L    |
| 2             | 1  | 1  | 1010002-3     |  | Male Slide, Universal       | L    |
| 2             | 1  | 1  | 1180301-001   | R1180301-001<br>RCS-200-1  | Cessna Standard Lens        | D    |
| 2             | 1  | 1  | 1010003       |  | Lens Strip                  | D    |
|               |    |    | 9051-0118-019 |  | Cessna 177 Cardinal CMM     | E    |



**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly  
(p/n R1180005-0)**

This ICA must be followed when the R1180005 Sunvisor system is installed in accordance with Supplemental Type Certificate, (STC) No. SA4964NM, dated October 5, 1990, amended March 24, 2003.

The information contained in this document supplements or supersedes the basic manual only in those areas listed herein. For limitations, procedures, and performance information not contained in this manual, consult the basic aircraft ICA or Maintenance Manual.

**STATEMENT OF Rev E CERTIFICATION**

This manual complies with Federal Aviation Association (FAA) Airworthiness Requirements Part 23

FAA Acceptance: R. Thomas ANM-100D Date: 2/12/2015

The above certification does not apply to revisions or amendments made after the date of initial certification by other Approved Organizations. Revisions or amendments made by other Approved Organizations must be separately certified and recorded on separate record sheets

**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly  
(p/n R1180005-0)**

**Record of Revisions**

| Rev | Description                             | Date    | Approved |
|-----|---|---------|----------|
| E   | Update to CMM/IPC format. Correct typos | 9/19/14 | GH       |

**Table of Contents**

|   |              |
|---|--------------|
| <u>Record of Revisions</u>                      | <u>3</u>     |
| <u>Introduction</u>                             | <u>4</u>     |
| <u>General</u>                                  | <u>4</u>     |
| <u>Revision Service</u>                         | <u>4</u>     |
| <u>Fault Isolation</u>                          | <u>5</u>     |
| <u>Product Description</u>                      | <u>6</u>     |
| <u>Installation Instructions</u>                | <u>6</u>     |
| <u>Removal</u>                                  | <u>6</u>     |
| <u>Weight and Balance</u>                       | <u>9</u>     |
| <u>Repair</u>                                   | <u>10</u>    |
| <u>Instructions for Continued Airworthiness</u> | <u>10</u>    |
| <u>Airworthiness Limitations</u>                | <u>10</u>    |
| <u>System Images</u>                            | <u>11-12</u> |
| <u>Parts List</u>                               | <u>13</u>    |

**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly  
(p/n R1180005-0)**

**Introduction**

**1. General**

- a. This Rosen Component Maintenance Manual provides use, maintenance and supplemental airworthiness instructions for the cockpit Sunvisor system used on the Cessna Cardinal (Cessna model 177) aircraft.
- b. Rosen reserves the right to revise this document for changed procedures, improved parts or changes to the system or components.
- c. All technical support, spare sales, repairs or modifications are to be directed directly to Rosen Sunvisor Systems LLC. RSS must be contacted for future revision of this document as it is possible this does not contain the latest revisions.

**2. Revision Service**

Current revision status and revisions to this document may be obtained from Rosen Sunvisor Systems' website: [www.rosenvisor.com](http://www.rosenvisor.com). We recommend that you periodically check to make sure you are using the most current version.

**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly  
(p/n R1180005-0)**

**Fault Isolation**

**1. General**

- a. This section identifies Probable Causes and Corrections for possible faults.

| <b>Problem</b>                                   | <b>Probable Cause</b>                    | <b>Corrective Action</b>         |
|--|--|----------------------------------|
| Visor does not extend on arm                     | Tension Thumb knob too tight             | Loosen knob and slide using knob |
| Lens does not rotate smoothly on vertical axis   | Vertical pivot tension incorrectly set   | Re-tension vertical pivot        |
| Lens does not rotate smoothly on horizontal axis | Horizontal pivot tension incorrectly set | Re-tension horizontal pivot      |

**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly  
(p/n R1180005-0)**

**Product Description**

**General**

- a. The Rosen Sunvisor System consists of two visor assemblies which have been designed to improve pilot comfort during standard cockpit operations. The visor assemblies are fastened to the airframe in the same mounting positions as the factory installed visors.

**Installation Instructions**

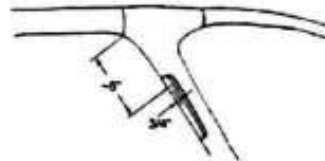
This is an FAA STC'd Installation requiring a log book entry upon completion.

**Hardware (included):**

- |                    |   |
|--------------------|---|
| (4) MS16996-14BP   | #10-32x1 Socket Head Cap Screw                    |
| (4) AS-10          | #10-32 Black Washer                               |
| (4) A10K80         | #10-32 Rivnut (for cockpits without handle grips) |
| (1) 5/32 Allen Key |   |
| (1) 9/64 Allen Key |   |

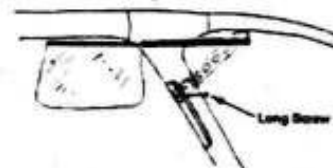
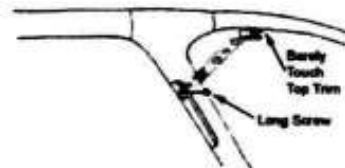
Installation should take approximately 4 to 6 hours.

- Remove the old auto style visors by pulling them outboard.
- Most Cardinals have hand grips on the door posts and your unit is designed to pick up the top #10 fastener from this grip. Aircraft without this handgrip will need to install an A10K80 rivnut (provided). Figures to the right illustrate the handgrip and location for rivnut if needed.



**Aircraft with Handgrips**

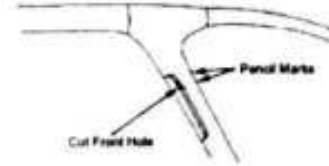
- First, remove the small metal cover over the handgrip screws. This can be done using a small common screwdriver and prying or popping them off.
- Remove the two #10 screws that secure the handgrip.
- Take the Pilot's NSA visor and using the long #10 screw provided (MS16996-14B), put it through the slot in the bottom of the bracket and temporarily install it in the top handgrip screw hole as shown. The top of the arm should barely touch the top trim.
- Position the visor towards the rear of the aircraft and extend the sliding arm. The top of the visor should be parallel to the top of the door frame with the door open. Use a pencil to mark either side of the bracket on the door frame liner.
- Rotate the visor to the front. The visor arm should just fit under the center overhead console while the bracket



**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly  
(p/n R1180005-0)**

is still between the pencil marks. The flat surface of the bracket should be parallel with the flat surface of the door post where the screw is attached.

- Check your marks very carefully by going through the above steps several times to assure a perfect fit.
- The trim pieces should be marked as shown.
- Remove the top royalite trim piece that runs around the top of the pilot's window.



- Remove the royalite trim piece that covers the door post. Be aware that the royalite may be very brittle from sitting in the sun and extreme care should be used when removing and installing it. If it has been cracked, or gets a small crack, you may want to consider using duct tape on the back side as reinforcement. We have seen this done on different Cessna trim pieces with good results.
- Use a 3/16" drill or smaller to drill through the trim between the marks as shown.

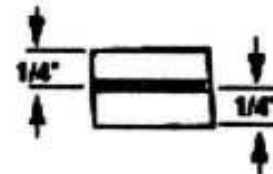
- Trim the hole so the 3/4" by 1" bracket will pass through the hole.
- Using a long wood pencil, aligned with the pencil marks and flush with the flat surface on the front side, mark the opposite side of the Royalite as shown.



- The pencil should have left marks that you can see from the other side. Drill through these and square out a small slot with a file.
- Slide a 1" rule through the slot and align it with the pencil marks. Enlarge the back hole as necessary until the rule slides through as shown.



- Because of the blocking plate that is on the back of the bracket, the back hole in the royalite will need to be approximately 1/2" by 1". It is important to use the rule on the flat surface so that the back hole can be proportioned correctly and in the right plane. The figure shows a view if you could look from the back side of the royalite with the rule protruding. Again take your time and make sure the trim is cut correctly.



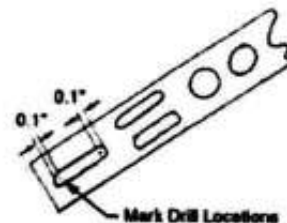
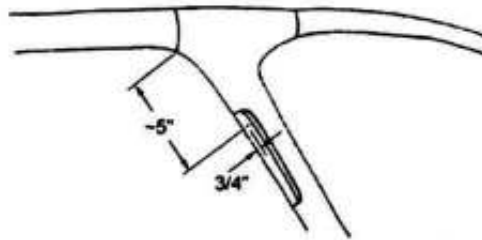
- When the pilot's visor bracket with the backing bar can slide into the trim with the slots you have just cut, re-install the top piece of trim that runs around the top of the window and into the center control.

**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly  
(p/n R1180005-0)**

- Now mount the visor and bracket without the door post trim. You may need to cut a small piece of the insulation to get the bracket to fit tight against the door post. This will allow you to adjust the backing bar to the contour of the door post and keep the bracket from turning.
- Adjust the bracket so the top just barely hits the top trim and the extended visor is parallel to the top of the door frame (door open) when it is rotated and extended to the rear. Tighten the backing bar against the door post with the hex key provided.
- Your Pilot side mounting bracket is now in place. Remove the visor arm and mounting block from the vertical mounting post.
- Remove the overhead trim piece.
- Now slip the visor bracket through the slots in the door post trim and carefully re-install the door post trim. Align the small trim screw holes and then install the bottom handgrip fastener and install the MS16996-14B screw provided in the top location.
- Check to insure the top of the visor bracket is not hitting the windscreen. If it does loosen the visor bracket and reposition it to provide clearance and retighten.
- Replace the top trim piece and erase any pencil marks that might be left on the trim.
- Replace the visor arm assembly and retaining screw and tension to provide tension that is free but not loose.
- Repeat for the co-pilot's side.
- Place the FAA STC and AML (if appropriate) in the Aircraft Maintenance Log and make an installation entry.

**Aircraft without Handgrips**

- This installation is easier in that no special work on the trim needs to be done, but rivnuts need to be installed in the door post to secure the bracket. (This is the same type of rivnut and location Cessna uses for the hand grip installation.)
- Use a pencil to mark the approximate location for the fastener as shown.
- Hold the bracket of the pilots visor assembly against the door post so you can see the mark in the slot and angle the bracket so that it just hits the overhead trim.
- Holding the bracket stationary swivel the visor to the rear and make sure the unit is parallel and inline with the door line (door open).
- As with the handgrip instructions, pencil mark the outside of the bracket on the trim.
- When swiveled forward the visor should just miss the center overhead console.
- When the front and side criteria are met, make a pencil mark



**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly  
(p/n R1180005-0)**

in the center of the bottom bracket slot

- Adjust the blocking plate so that it rides on the side of the door post
- Mark the front and rear of the bracket bottom slot then make a mark 0.1" in from either end as shown.
- When you are sure of the bracket location and your slot marks are centered and correct, drill a 1/8" hole through the trim and door post. **Be careful not to drill into the outer skin of the aircraft!**
- Remove the door post trim (you may need to remove the front overhead trim piece as well)
- Install the A10K80 rivnuts into the 1/8" holes using appropriate tooling
- Re-install the trim
- Using the #10-32 Socket head cap screws provided install the pilot's visor.
- Repeat for the co-pilot's side.
- Place the FAA STC and AML (if appropriate) in the Aircraft Maintenance Log and make an installation entry.

**Removal**

- a. Reverse installation procedure.

**Weight and Balance**

Because operators calculate Weight and Balance differently the actual station number must be determined by the installer's calculations.

With the visor located in the stow position (in forward position and folded up) this system adds 1.06 lbs. located at the mount point of the visor. When the original visors are removed they must be weighed and removed from the calculation.



**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly  
(p/n R1180005-0)**

**Repair**

**General**

- a. All components that do not meet the requirements for continued use must be replaced.

**Instructions for Continued Airworthiness**

- **(On the ground only)**
  - Periodically clean the lenses with a soft cloth, mild soap and water or Rosen Cleaner, Polisher and Protectant. Do not use abrasives on the lens.
  - Periodically adjust the pivot tensions on the visor assemblies.
  - Periodically clean slide with a no residue alcohol based cleaner and inspect for wear and damage.

**Airworthiness Limitations**

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 FAA approved.

There are no airworthiness limitations associated with this installation.

Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly  
(p/n R1180005-0)

Illustrations and IPC

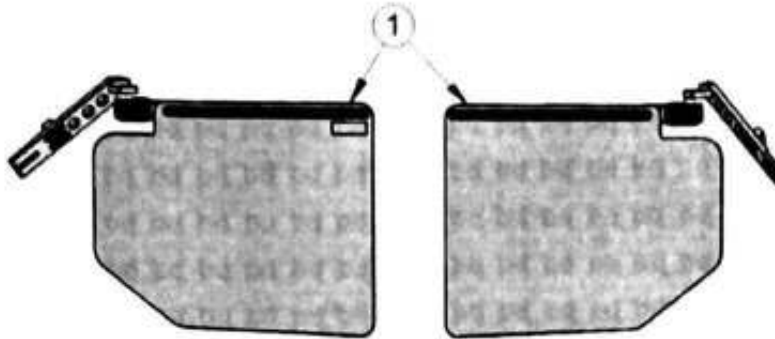


Fig 1

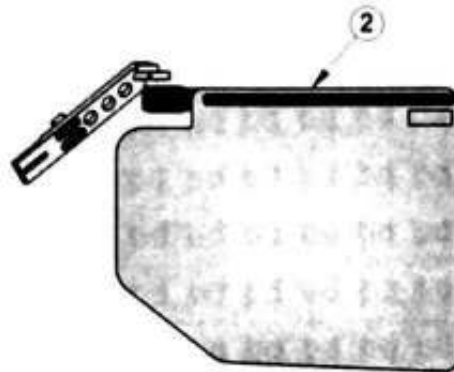


Fig 2



Fig 3

Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly  
(p/n R1180005-0)

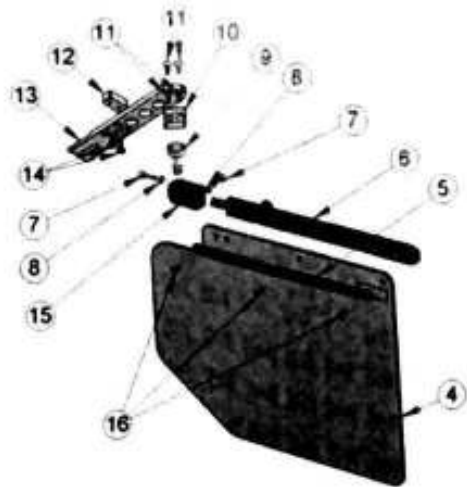


Fig 4

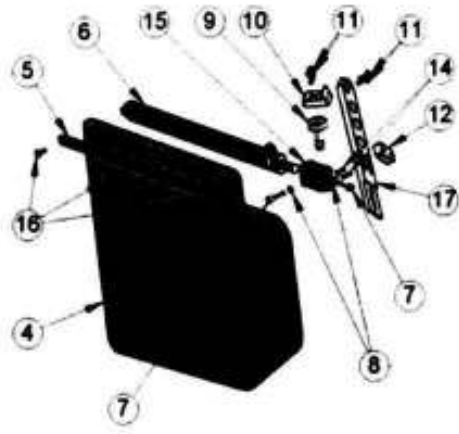


Fig 5

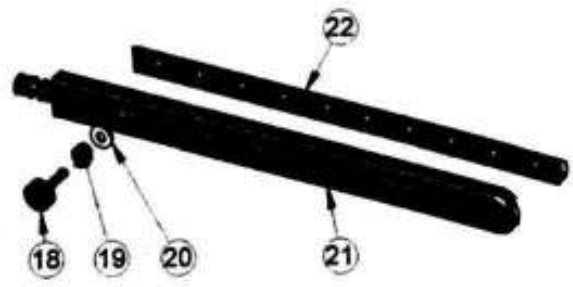


Fig 6

**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly  
(p/n R1180005-0)**

**Part List**

| <b>Fig. No</b> | <b>Fig. Item</b> | <b>Part Number</b> | <b>Description</b>                        | <b>Reference</b> | <b>Eff</b> | <b>QTY</b> |
|----------------|------------------|--------------------|---|------------------|------------|------------|
| 1              | 1                | R1180005-0         | Complete Assembly Cessna 177              |                  |            | 1          |
| 2              | 2                | 1180005-1          | Complete Assembly, Pilot Side             |                  |            | 1          |
| 3              | 3                | 1180005-2          | Complete Assembly, Copilot Side           |                  |            | 1          |
| 4              | 4,5              | 1180301-001        | Lens                                      |                  |            | 2          |
| 5              | 4,5              | 1010003            | Lens Strip                                |                  |            | 2          |
| 6              | 4,5              | 1010000-5          | Slide Assembly – Universal                |                  |            | 2          |
| 7              | 4,5              | MS16995-27B        | Scr #8-32 X .625 HEX SHCS SST BLK         |                  |            | 4          |
| 8              | 4,5              | 8HCLW              | Wshr #8 Lock High Collar Stl Blk          |                  |            | 4          |
| 9              | 4,5              | 1160202            | Swivel, Duke Style                        |                  |            | 2          |
| 10             | 4,5              | 1180107            | Swivel Mount                              |                  |            | 2          |
| 11             | 4,5              | 832X716FSHCSSBP    | Scr #8-32 X 437 Flh Hx Sh 82 Sst Blk P    |                  |            | 8          |
| 12             | 4,5              | 1180108            | Mount Adjust                              |                  |            | 2          |
| 13             | 4                | 1180106-001        | Mounting Bracket Pilot                    |                  |            | 1          |
| 14             | 4,5              | MS24671-14BP       | Scr #8-32 X .50 Flh Scs 82 Sst Blk P      |                  |            | 4          |
| 15             | 4,5              | 1020001            | Block, Original                           |                  |            | 2          |
| 16             | 4,5              | 7YH905             | Scr #8-32 X .375 Flh Phil 100 Sst Blk P   |                  |            | 6          |
| 17             | 5                | 1180106-002        | Mounting Bracket Copilot                  |                  |            | 1          |
| 18             | 6                | 99-701             | ½ Dia Knurled Red Knob #8-32 x 7.5        |                  |            | 2          |
| 19             | 6                | B-19679            | Compression Spring                        |                  |            | 2          |
| 20             | 6                | 90295A110          | Nylon Washer .06 X .405 OD – .175 ID      |                  |            | 2          |
| 21             | 6                | 1010001-5          | Female Slide - Universal                  |                  |            | 2          |
| 22             | 6                | 1010002-3          | Male Slide - Universal                    |                  |            | 2          |
| 23             |                  | MS16996-14B        | Scr #10-32 X 1.00 Shcs Ss Blk – Not Shown |                  |            | 4          |
| 24             |                  | AS-10              | Washer #10 Backup Blk – Not Shown         |                  |            | 4          |
| 25             |                  | A10K80             | Rivnut #10-32 – Not Shown                 |                  |            | 4          |
| 26             |                  | Magnalube-G        | PTFE/Petroleum Grease – Not Shown         |                  |            | AR         |



U.S. Department of  
Transportation  
Federal Aviation  
Administration

## MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved  
OMB No. 2120-0020

For FAA Use Only  
Office Identification

**INSTRUCTIONS:** Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act 1958)

|                    |   |   |
|--------------------|---|---|
| <b>1. Aircraft</b> | Make<br>CESSNA  | Model<br>177RG                              |
|                    | Serial No.<br>177RG60564  | Nationality and Registration Mark<br>N1948B |
| <b>2. Owner</b>    | Name (As shown on registration certificate)<br>BESOLA, MARK L.  |   |
|                    | Address (As shown on registration certificate)<br>1107 67 <sup>TH</sup> AVE CT E<br>TACOMA, WA. 98424 |   |

3. For FAA Use Only

| 4. Unit Identification |                                |       |            | 5. Type |            |
|------------------------|--------------------------------|-------|------------|---------|------------|
| Unit                   | Make                           | Model | Serial No. | Repair  | Alteration |
| AIRFRAME               | (As described in Item 1 above) |       |            |         | X          |
| POWERPLANT             |                                |       |            |         |            |
| PROPELLER              |                                |       |            |         |            |
| APPLIANCE              | Type                           |       |            |         |            |
|                        | Manufacturer                   |       |            |         |            |

6. Conformity Statement

|   |   |  |
|---|---|--|
| <b>A. Agency's Name and Address</b><br>CURT GUTTROMSON<br>SPANAFLIGHT<br>16715 MERIDIAN ST E<br>PUYALLUP, WA. 98375 | <b>B. Kind of Agency</b><br><input checked="" type="checkbox"/> U.S. Certificated Mechanic<br><input type="checkbox"/> Foreign Certificated Mechanic<br><input type="checkbox"/> Certificated Repair Station<br><input type="checkbox"/> Manufacturer | <b>C. Certificate No.</b><br>A&P 539607576 |
|---|---|--|

D. I certify that the repair and/or alteration made to the unit(s) identified in Item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

|                          |   |
|--------------------------|---|
| <b>Date</b><br>4-15-2005 | <b>Signature of Authorized Individual</b><br> |
|--------------------------|---|

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in Item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  APPROVED  REJECTED

|   |                            |  |   |   |                 |
|---|----------------------------|--|---|---|-----------------|
| <b>BY</b>   | FAA FR Standards Inspector | Manufacturer   | X | Inspection Authorization                                | Other (Specify) |
|   | FAA Designee               | Repair Station                                       |   | Person Approved by Transport Canada Airworthiness Group |                 |
| <b>Date of Approval or Rejection</b><br>4-15-2005 |                            | <b>Certificate or Designation No.</b><br>539607576IA |   | <b>Signature of Authorized Individual</b><br>           |                 |

**NOTICE**

~~Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.~~

**NOTICE**

**B. Description of Work Accomplished**

*(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)*

Inspected installation of Bracket induction filter assembly PN 5710 as installed previously by persons and dates unknown. Found installation conforms to STC SA71GL and AML no. SA71GL.

WT. change negligible. Equipment list amended

Additional Sheets Are Attached

United States Of America  
Department of Transportation - Federal Aviation Administration

Supplemental Type Certificate

Number SA71GL

The Certificate issued to BRACKETT AERO FILTERS, INC.  
7032 Government Way  
Kingman, Arizona 86401

certifies that the changes in the type design for the following product with the limitations and conditions described as specified herein meet the airworthiness requirements of Part 21 of the Regulations.

Original Aircraft Type Certificate: *None* \* See attached Approved Model List (AML)

Model: \*AMLI No. SA71GL for list of approved aircraft

Model: \*models and applicable airworthiness regulations

Change of Type Design Change: Installation of air filters in accordance with AML No. SA71GL dated April 17, 1995, or later FAA approved revision.

Limitations and Conditions: Approval of this change in the design applies to the above aircraft models only. This approval should not be extended to aircraft of this model in which other type design approved modifications are incorporated unless it is determined that the incorporation of these other change and any of those other previously approved modifications will not adversely affect the airworthiness of that aircraft. A copy of this Certificate and FAA Approved Model List (AML) No. SA71GL, dated April 17, 1995, or later FAA approved revision must be maintained as part of the permanent records for the modified aircraft.

This certificate and the supporting data which is the basis for approval shall remain in effect until superseded, amended, or terminated as a consequence of an action authorized by the Administrator of the Federal Aviation Administration.

Date of application: January 9, 1975 Date received: March 2, 1983, June 20, 2009

Date of issuance: February 21, 1975 Date amended: April 17, 1995



By *Frederic J. Peltola*  
Manager, Tech and Admin Support Sect  
Los Angeles Aircraft Certification Office

Any alteration of the certificate is prohibited by 14 CFR 21.61. For a complete explanation of this regulation, refer to 14 CFR 21.61. This certificate may be inspected at the address listed below.

FAA APPROVED MODEL LIST (AML) NO. SA71GL  
BRACKETT AERO FILTERS, INC.  
FOR  
INSTALLING AIR FILTERS

Issue Date: April 17, 1995

| ITEM | AIR FILTER MODEL NUMBER | TOP DRAWING |                 | AIRCRAFT MAKE       | AIRCRAFT MODEL               | ORIGINAL TYPE CERTIFICATE NUMBER | CERT BASIS | AERIAL AMENDMENT DATE |
|------|-------------------------|-------------|-----------------|---------------------|------------------------------|----------------------------------|------------|-----------------------|
|      |                         | NUMBER      | REVISION & DATE |                     |                              |                                  |            |                       |
| 34   | BA-5110                 | BA-5110     | H<br>5/5/95     | Cessna              | 170A/B                       | A-799                            | CAR 3      | 7/12/95               |
|      |                         |             |                 | Cessna              | 172A/B/C/D/E/F/G/H/K/L/M     | 3A12                             | CAR 3      | 7/12/95               |
|      |                         |             |                 | Mooney Mite         | M-18C                        | A-803                            | CAR 3      | 7/12/95               |
|      |                         |             |                 | Reims Aviation      | (Cessna) F172D/E/F/G/H/K/L/M | A4EU                             | CAR 10     | 7/12/95               |
|      |                         |             |                 | *** END OF DATA *** |                              |                                  |            |                       |
| 35   | BA-5110A                | BA-5110A    | D<br>5/5/95     | Cessna              | 172N, P                      | 3A12                             | CAR 3      | 7/12/95               |
|      |                         |             |                 | Reims Aviation      | (Cessna) F172N, P            | A4EU                             | CAR 10     | 7/12/95               |
|      |                         |             |                 | *** END OF DATA *** |                              |                                  |            |                       |
| 36   | BA-5210                 | BA-5210     | MC<br>7/23/88   | Cessna              | T360                         | A3ACE                            | FAR 23     | ---                   |
|      |                         |             |                 | *** END OF DATA *** |                              |                                  |            |                       |
| 37   | BA-5710                 | BA-5710     | C<br>8/3/88     | Cessna              | 177A/B                       | A13CE                            | FAR 23     | ---                   |
|      |                         |             |                 | Cessna              | 177RG                        | A20CE                            | FAR 23     | ---                   |
|      |                         |             |                 | Reims Aviation      | (Cessna) F177RG              | A28EU                            | FAR 23     | ---                   |
|      |                         |             |                 | *** END OF DATA *** |                              |                                  |            |                       |

United States of America  
 Department of Transportation - Federal Aviation Administration  
**Supplemental Type Certificate**

*Number* SA800EA

*This certificate issued to* Whelen Engineering Company, Inc.  
 Route 145; Winthrop Road  
 Chester, Connecticut 06412-0684

*certifies that the change in the type design for the following product with the limitations and conditions therefor as specified herein meets the airworthiness requirements of Part 3, 6 of the Civil Air Regulations, 23, 27 of the Federal Aviation*

*Original Product - Type Certificate Number* See Attached Eligibility List  
*Make* Dated November 22, 1993  
*Model*

*Description of Type Design Change*  
 Installation of Aviation White Anti-Collision Strobe Lights Whelen Models A429, A430, A434, A450, A470-R/W (Red/White), A470-W/W (Red/White), A500, A625, or A650 and associated power supplies or Model SA Strobe Light System in accordance with Whelen Installation and Service Manual dated January 1, 1985, or later FAA approved revision.

*Limitations and Conditions*  
 1. The Aviation White Anti-Collision Lights listed under Description of Type Design Change meet the requirements of FAR 23 and the similarly numbered sections of FAR 27 as follows:  
 a. 23.1397(c), 23.1401(c), (d), (e), effective August 11, 1971;  
 b. 23.1401(f) in effect on August 10, 1971 (See STC Continuation Sheet)

*This certificate and the supporting data which is the basis for approval shall remain in effect until suspended, rescinded, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration*

*Date of application* May 2, 1969  
*Date of issuance* November 14, 1969

*Date issued* 11/20/69, 4/23/70, 12/10/70, 5/26/71  
*Date amended* 9/14/71, 5/18/72, 9/22/72, 11/7/72  
 7/21/76, 7/30/76, 12/30/77, 2/21/78  
*By direction of the Administrator* 10/4/78, 5/17/79  
 3/26/81, 8/5/81  
*(Signature)* 8/25/81, 5/21/82  
 7/16/91, 11/22/93



Ronald L. Vavrucka  
 Manager, Boston Aircraft Certification Office  
 (T-16)

*Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.*  
*This certificate may be transferred in accordance with FAR 21.67.*

FAA Form 8130-2 (10-80)

**CONTINUED PAGE 2 AND 3.**

- c. A40BW and 470W with power supplies approved under STC SA618EA meet FAR 23.1401 (f) effective August 11, 1971.
  - d. A650 or A625 with power supplies producing a minimum of 20 joules per flash meets FAR 23.1401 (f) effective August 11, 1971.
  2. To complete the approval of those lights as anti-collision light systems, the installation on individual aircraft must be checked to show compliance with FAR 23.1401(b) (Field of Coverage); unless the "Installation and Service Manual for Whelen Anti-Collision Strobe Light Systems", dated 28 September 1978 specifically indicates that a particular installation has been checked for compliance with the aforementioned sub-section (Example: Bell 206A with lights installed at the specified location).
- NOTE: The aforementioned installation and Service Manual contains an acceptable method for checking the adequacy of coverage when using two lights (wing-tip) or three lights (wing tip and tail lights). For some other acceptable methods see Advisory Circular AC 43.13-2 Chapter 4 Paragraph 4802. Installation made in accordance with STC SA800EA Amendments prior to 9/14/71 need only be checked for obstructed visibility to meet anti-collision light requirements.

3. Install the following placard, Whelen Part No. A421-1, or other FAA approved equivalent, in view of the pilot:

"WARNING TURN OFF STROBE LIGHTS WHEN FLYING IN VICINITY OF OTHER AIRCRAFT OR DURING FLIGHT THROUGH CLOUDS, FOG OR HAZE. STANDARD POSITION LIGHTS TO BE ON FOR ALL NIGHT OPERATIONS."

4. On all helicopter installations, install the following placard in view of the pilot:  
 "THE WHITE STROBE LIGHT MUST BE TURNED OFF DURING ALL NIGHT TAKEOFFS AND LANDINGS."
5. The modification approved by this STC can be installed in conjunction with those approved by STC SA618EA or STC SA738EA as delineated in the "Installation and Service Manual for Whelen Anti-collision Strobe Light Systems".
6. On Mitsubishi MU-2B, MU-2B-10, -20, -15, -30 aircraft Whelen's "Mitsubishi MU-2B, -10, -20, -15, -30 Wing Tip and Tail Strobe Light Installation Procedure", dated 19 February 1971, is required in addition to the "Installation and Service Manual for Whelen Anti-Collision Strobe Light System".
7. This approval should not be incorporated in any aircraft of these specific models on which other approved modifications are incorporated, unless it is determined that the interrelationship between this change and any of those previously incorporated approved modifications will not involve any adverse effect upon the airworthiness of the aircraft. This determination should include a night flight check as specified in AC 43.13-2 Chapter 4, Paragraph 42A.

NOTE: Aircraft whose application for type certification was made before April 1, 1967, may but need not, comply with the field of coverage requirements of FAR 23.1401(b). Compliance with FAR 21.30(c) may be shown provided the light installation is in accordance with data approved prior to August 11, 1971, and applicable criteria of Advisory Circular 43.13-2 are met.



**MAJOR REPAIR AND ALTERATION**  
(Airframe, Powerplant, Propeller, or Appliance)

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form.

|             |  |  |
|-------------|--|--|
| 1. AIRCRAFT | MAKE<br><b>CESSNA</b>  | MODEL<br><b>177RG</b>  |
|             | SERIAL NO.<br><b>177RG0564</b>   | NATIONALITY AND REGISTRATION MARK<br><b>N2164Q</b>   |
| 2. OWNER    | NAME (As shown on registration certificate)<br><b>Kenneth Burkhart</b> | ADDRESS (As shown on registration certificate)<br><b>270B Wolf Road<br/>Oswego, IL 60543</b> |

3. FOR FAA USE ONLY

| 4. UNIT IDENTIFICATION |  |       |            | 5. TYPE |            |
|------------------------|--|-------|------------|---------|------------|
| UNIT                   | MAKE                                       | MODEL | SERIAL NO. | REPAIR  | ALTERATION |
| AIRFRAME               | ***** (As described in item 1 above) ***** |       |            |         | X          |
| POWERPLANT             |  |       |            |         |            |
| PROPELLER              |  |       |            |         |            |
| APPLIANCE              | TYPE                                       |       |            |         |            |
|                        | MANUFACTURER                               |       |            |         |            |

6. CONFORMITY STATEMENT

|  |   |                    |
|--|---|--------------------|
| A. AGENCY'S NAME AND ADDRESS                                     | B. KIND OF AGENCY   | C. CERTIFICATE NO. |
| <b>Tufts-Edgcombe Inc.<br/>P.O. Box 557<br/>Elgin, IL. 60120</b> | <input type="checkbox"/> U.S. CERTIFICATED MECHANIC             | <b>C.R.S. 3250</b> |
|  | <input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC          |                    |
|  | <input checked="" type="checkbox"/> CERTIFICATED REPAIR STATION |                    |
|  | <input type="checkbox"/> MANUFACTURER                           |                    |

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

|                         |  |
|-------------------------|--|
| DATE<br><b>04-14-83</b> | SIGNATURE OF AUTHORIZED INDIVIDUAL<br><i>Richard C. Warm</i> |
|-------------------------|--|

7. APPROVAL FOR RETURN TO SERVICE

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  APPROVED  REJECTED

|  |  |  |  |                 |
|--|--|--|--|-----------------|
| BY   | FAA FLT. STANDARDS INSPECTOR                     | MANUFACTURER   | INSPECTION AUTHORIZATION                               | OTHER (Specify) |
|  | FAA DESIGNEE <input checked="" type="checkbox"/> | REPAIR STATION   | CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT |                 |
| DATE OF APPROVAL OR REJECTION<br><b>04-14-83</b> | CERTIFICATE OR DESIGNATION NO.<br><b>3250</b>    | SIGNATURE OF AUTHORIZED INDIVIDUAL<br><i>Richard C. Warm</i> |  |                 |

## NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. DESCRIPTION OF WORK ACCOMPLISHED (If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

Installed Automatic Flight System model AK379 consisting of a Century IIB Autopilot according to F.A.A. approved bulletin #500, Revision 4 dated 10/03/73 and master drawing list 87A604, Revision D, dated 01/24/73 and in accordance with STC SA1510SW. Existing directional and horizon gyros removed and replaced with new autopilot gyros. Revised A/C equipment list and updated aircraft weight and balance data. Logbooks entry dated 04/14/83.

END

ADDITIONAL SHEETS ARE ATTACHED

United States of America  
Department of Transportation - Federal Aviation Administration  
**Supplemental Type Certificate**

*Number* 3A1510 SW

*This certificate, issued to:* Mitchell Industries, Inc. dba  
EDO-AIRE MITCHELL  
P. O. Box 610  
Mineral Wells, Texas 76067

*certifies that the change in the type design for the following product with the limitations and conditions  
therefor as specified hereon meets the airworthiness requirements of Part 23 of the Federal Aviation  
Regulations.*

*Original Product — Type Certificate Number:* A20CE  
*Make:* Cessna  
*Model:* 177RG

*Description of Type Design Change:* Installation of Mitchell Automatic Flight System Model AK379 consisting of Century IIB Autopilot with optional Radio Coupler according to Bulletin No. 500, Revision (4) dated 10/3/73 and Master Drawing List 87A604, Revision D, dated 1/24/73. Installation of Mitchell Radio Coupler Model 1C388-3 according to Bulletin 611, Revision (1) dated 4/16/74 and Master Drawing List 87A708, Revision A, dated 4/16/74.

*Limitations and Conditions*

FAA Approved Placard 13A689-379 is required with installation of Century IIB Autopilot.

FAA Approved Autopilot Flight Manual Supplement P/N 68S168 dated April 16, 1974, is required for Mitchell Radio Coupler Model 1C388-3.

*This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.*

*Date of application:* May 24, 1972

*Date issued:* 7/31/73; 4/16/74  
Revision 2

*Date of issuance:* September 8, 1972

*Date amended:*



*By Direction of the Administrator*  
*Don P. Watson*  
(Signature)

Don P. Watson  
Acting Chief, Engineering and Manufacturing Branch

(Title)

*Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.*

*This certificate may be transferred in accordance with FAR 21.47*

United States of America  
Department of Transportation Federal Aviation Administration  
**Supplemental Type Certificate**

Number SA2344CE

This certificate, issued to Air Plains Services Incorporation  
P. O. Box 541  
Wellington Airport  
Wellington, Kansas 67152

certifies that the change in the type design for the following product with the limitations and conditions  
therefor as specified herein meets the airworthiness requirements of Part 23 of the Federal Aviation  
Regulations.

Original Product — Type Certificate Number A20CE  
Make Cessna  
Model 177RG

Description of Type Design Change: Installation of fuel strainer quick drain  
provisions. Data Required: Air Plains Services Corporation Installation  
Instructions dated December 22, 1987, and Installation Drawing dated December 22,  
1987, or later "FAA Approved" revisions.

Limitations and Conditions: This approval should not be extended to other  
specific airplanes of this model on which other previously approved modifications  
are incorporated, unless it is determined that the interrelationship between this  
change and any of these other previously approved modifications will introduce no  
adverse effect upon the airworthiness of that airplane.

This certificate and the supporting data which is the basis for approval shall remain in effect until sus-  
pended, annulled, revoked, or a termination date as otherwise established by the Administrator of the  
Federal Aviation Administration.

Date of application December 22, 1987

Date received

Date of issuance December 22, 1987

Date amended

By direction of the Administrator

*Lawrence A. Heron*  
(Signature)

Robert A. Gambrill, Jr., Manager  
Wichita Aircraft Certification Office



Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 1 year, or both.

This certificate may be transferred in accordance with FAR 21.47

**MAJOR REPAIR AND ALTERATION**  
(Airframe, Powerplant, Propeller, or Appliance)

FOR FAA USE ONLY  
OFFICE IDENTIFICATION

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form.

|             |  |  |
|-------------|--|--|
| 1. AIRCRAFT | MAKE<br>CESSNA   | MODEL<br>177RG   |
|             | SERIAL NO.<br>177RG0564  | NATIONALITY AND REGISTRATION MARK<br>N2164Q  |
| 2. OWNER    | NAME (As shown on registration certificate)<br>AVIATION TRAINING ENTERPRISES, INC. | ADDRESS (As shown on registration certificate)<br>5245 W. 55th STREET<br>CHICAGO, ILLINOIS 60638 |

3. FOR FAA USE ONLY

| 4. UNIT IDENTIFICATION |  |       |            | 5. TYPE |            |
|------------------------|--|-------|------------|---------|------------|
| UNIT                   | MAKE                                       | MODEL | SERIAL NO. | REPAIR  | ALTERATION |
| AIRFRAME               | ***** (As described in item 1 above) ***** |       |            | X       |            |
| POWERPLANT             |  |       |            |         |            |
| PROPELLER              |  |       |            |         |            |
| APPLIANCE              | TYPE                                       |       |            |         |            |
|                        | MANUFACTURER                               |       |            |         |            |

6. CONFORMITY STATEMENT

|   |  |                                   |
|---|--|-----------------------------------|
| A. AGENCY'S NAME AND ADDRESS<br>GUS COZZI<br>5245 W. 55th STREET<br>CHICAGO, ILLINOIS 60638 | B. KIND OF AGENCY<br><input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC<br><input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC<br><input type="checkbox"/> CERTIFICATED REPAIR STATION<br><input type="checkbox"/> MANUFACTURER | C. CERTIFICATE NO.<br>A & P 17059 |
|---|--|-----------------------------------|

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

|                     |   |
|---------------------|---|
| DATE<br>MAY 1, 1975 | SIGNATURE OF AUTHORIZED INDIVIDUAL<br><i>Gus L. Cozzi</i> |
|---------------------|---|

7. APPROVAL FOR RETURN TO SERVICE

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  APPROVED  REJECTED

|  |   |  |  |                 |
|--|---|--|--|-----------------|
| FAA FLT. STANDARDS INSPECTOR                 | MANUFACTURER                              | X  | INSPECTION AUTHORIZATION                               | OTHER (Specify) |
| FAA DESIGNEE                                 | REPAIR STATION                            |  | CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT |                 |
| DATE OF APPROVAL OR REJECTION<br>MAY 1, 1975 | CERTIFICATE OR DESIGNATION NO.<br>1406583 | SIGNATURE OF AUTHORIZED INDIVIDUAL<br><i>Nicholas P. Selig</i> |  |                 |

## NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. DESCRIPTION OF WORK ACCOMPLISHED (If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

THE FOLLOWING PARTS REPLACED WITH FACTORY NEW PARTS: (SEE CESSNA PARTS MANUAL P502-12 DATED 11/73).

FIGURE NO., INDEX NO., P/N, DESCRIPTION.

19 - 10, 2011000-2, SKIN, CENTER BELLY SECTION.

19 - 53, 2013049-1, GUSSET, LOWER.

79A- 50, 2000010-39, TUBE ASSEMBLY, DRAIN, RH.

79A- 49, 2000010-68, TUBE ASSEMBLY, DRAIN, LH.

18 - 57, 2012020-13, SKIN, LOWER CENTER.

18 - 56, 2012068-1, SKIN, LOWER FWD. CENTER.

18 - 71, 2012061-1, FAIRING, VENT.

54A- 45, 2052011-1, FLAP ASSEMBLY, COWL. LH.

54A- 45, 2052011-2, FLAP ASSEMBLY, COWL. RH.


EXTERNAL REINFORCEMENT ADDED TO FWD. BELLY SKIN, P/N 2013000-2 AT STA. 75.5.

ALL WORK CONFORMS TO CESSNA STRUCTURAL REPAIR MANUAL, AC43-13-1A, AND FAR 43.

- 0 -

ADDITIONAL SHEETS ARE ATTACHED

To mark - keep with other certs. *kc.*

|  |  |   |                                     |  |                 |
|--|--|---|-------------------------------------|--|-----------------|
| <br>U.S. Department of Transportation<br>Federal Aviation Administration  |  | <b>MAJOR REPAIR AND ALTERATION</b><br>(Airframe, Powerplant, Propeller, or Appliance) |                                     | Form Approved<br>OMB No. 2120-0020<br>For FAA Use Only<br>Office Identification                          |                 |
| INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act 1958) |  |   |                                     |  |                 |
| 1. Aircraft  |  | Make <b>Cessna</b><br>Serial No. <b>177RG60564</b>                                    |                                     | Model <b>C-177</b><br>Nationality and Registration Mark<br><b>US N1948B</b>                              |                 |
| 2. Owner   |  | Name (As shown on registration certificate)<br><b>Besola, Mark L.</b>                 |                                     | Address (As shown on registration certificate)<br><b>1107 67 Ave Ct E<br/>         Tacoma, Wa. 98424</b> |                 |
| 3. For FAA Use Only  |  |   |                                     |  |                 |
| 4. Unit Identification   |  |   |                                     | 5. Type  |                 |
| Unit   | Make                                       | Model   | Serial No.                          | Repair   | Alteration      |
| AIRFRAME   | ----- (As described in item 1 above) ----- |   |                                     |  | X               |
| POWERPLANT   |  |   |                                     |  |                 |
| PROPELLER  |  |   |                                     |  |                 |
| APPLIANCE  | Type                                       |   |                                     |  |                 |
|  | Manufacturer                               |   |                                     |  |                 |
| 6. Conformity Statement  |  |   |                                     |  |                 |
| A. Agency's Name and Address   |  | B. Kind of Agency   |                                     | C. Certificate No.   |                 |
| <b>Myron K. Davis</b><br><b>4709-147th Ave. NE</b><br><b>Lake Stevens, Wa. 98258</b>   |  | <input checked="" type="checkbox"/> U.S. Certified Mechanic                           |                                     | <b>1713745</b>   |                 |
|  |  | Foreign Certified Mechanic  |                                     |  |                 |
|  |  | Certified Repair Station  |                                     |  |                 |
|  |  | Manufacturer  |                                     |  |                 |
| D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.             |  |   |                                     |  |                 |
| Date<br><b>07/07/01</b>  |  | Signature of Authorized Individual<br><b>Myron K. Davis</b> <i>Myron K. Davis</i>     |                                     |  |                 |
| 7. Approval for Return To Service  |  |   |                                     |  |                 |
| Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is   |  |   |                                     |  |                 |
| <input checked="" type="checkbox"/> APPROVED                      REJECTED   |  |   |                                     |  |                 |
| BY   | FAA PL Standards Inspector                 | Manufacturer  | <input checked="" type="checkbox"/> | Inspection Authorization   | Other (Specify) |
|  | FAA Designee                               | Repair Station  |                                     | Person Approved by Transport Canada Airworthiness Group  |                 |
| Date of Approval or Rejection<br><b>07/07/01</b>   |  | Certificate or Designation No.<br><b>1713745</b>                                      |                                     | Signature of Authorized Individual<br><b>Myron K. Davis</b> <i>Myron K. Davis</i>                        |                 |

**NOTICE**

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

**8. Description of Work Accomplished**

*(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)*

Installed back-up electric attitude indicator(p/n RCA26AK-3, s/n 1100276) in righthand side of instrument panel. Connected to aircraft buss with circuit breaker(wiring schematic in aircraft records). Weight and balance change noted in aircraft records.

\*\*\*\*\* End Report \*\*\*\*\*

Additional Sheets Are Attached





U.S. Department  
of Transportation  
Federal Aviation  
Administration

## MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved  
OMB No 2120-0020  
**For FAA Use Only**  
Office Identification

**INSTRUCTIONS:** Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act 1958)

|             |   |   |
|-------------|---|---|
| 1. Aircraft | Make<br><b>CESSNA</b>   | Model<br><b>177RG</b>   |
|             | Serial No.<br><b>177RG60564</b>                                       | Nationality and Registration Mark<br><b>N1948B</b>  |
| 2. Owner    | Name (As shown on registration certificate)<br><b>BESOLA, MARK L.</b> | Address (As shown on registration certificate)<br><b>1107 87TH AVE CT E.<br/>TACOMA, WA 98424</b> |

### 3. For FAA Use Only

### 4. Unit Identification

| Unit       | Make                                       | Model | Serial No. | 5. Type |            |
|------------|--|-------|------------|---------|------------|
|            |  |       |            | Repair  | Alteration |
| AIRFRAME   | ----- (As described in item 1 above) ----- |       |            |         | X          |
| POWERPLANT |  |       |            |         |            |
| PROPELLER  |  |       |            |         |            |
| APPLIANCE  | Type                                       |       |            |         |            |
|            | Manufacturer                               |       |            |         |            |

### 6. Conformity Statement

|   |   |   |
|---|---|---|
| <b>A. Agency's Name and Address</b><br>CURT GUTTROMSON<br>SPANAFIGHT, INC.<br>16715 MERIDIAN E. BLDG H<br>PUYALLUP, WA 98375-9616 | <b>B. Kind of Agency</b><br><input checked="" type="checkbox"/> U.S. Certificated Mechanic<br><input type="checkbox"/> Foreign Certificated Mechanic<br><input type="checkbox"/> Certificated Repair Station<br><input type="checkbox"/> Manufacturer | <b>C. Certificate No.</b><br>AP 539607576 |
|---|---|---|

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

|                         |  |
|-------------------------|--|
| Date<br><b>06-22-02</b> | Signature of Authorized Individual<br><i>Curtis Guttromson</i> |
|-------------------------|--|

### 7. Approval for Return To Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  APPROVED  REJECTED

|  |                             |   |  |   |                 |
|--|-----------------------------|---|--|---|-----------------|
| BY   | FAA FTL Standards Inspector | Manufacturer  | X  | Inspection Authorization                                | Other (Specify) |
|  | FAA Designee                | Repair Station  |  | Person Approved by Transport Canada Airworthiness Group |                 |
| Date of Approval or Rejection<br><b>06-22-02</b> |                             | Certificate or Designation No.<br><b>539607576 IA</b> | Signature of Authorized Individual<br><i>Curtis Guttromson</i> |   |                 |

**NOTICE**

*Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.*

**8. Description of Work Accomplished**

*(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)*

Inspected installation of J.P. Instruments EDM701 engine temperature monitoring system. Found system installed per J.P. Instruments drawing list No. 100. This installation is approved by STC SA2586NM.

Weight, balance and equipment list amended.

.....End.....

Additional Sheets Are Attached



TRANSPORT AIRPLANE DIRECTORATE  
AIRCRAFT CERTIFICATION SERVICE  
LOS ANGELES AIRCRAFT CERTIFICATION OFFICE  
3229 EAST SPRING STREET  
LONG BEACH, CA 90806-2425

NOV 10 1992

J P Instruments  
3402-1 West MacArthur  
Santa Ana, California 92704

Gentlemen:

J P Instruments, Temperature Indicator;  
Technical Standard Order C43b

Your application dated August 24, 1992, requesting the issuance of a Technical Standard Order (TSO) authorization in accordance with the procedural requirements of Federal Aviation Regulation (FAR) Part 21, Subpart D, has been reviewed. Based upon your data and statement of conformance certifying your articles have met the requirements of FAR Part 21, Subpart D, and the minimum performance standards of TSO C43b (Ref. FAR 21.305(b)), authorization is hereby granted for the following:

| MODEL/PART NO. | DESCRIPTION                       |
|----------------|-----------------------------------|
| EGT-701( )     | Exhaust Gas Temperature Indicator |

The technical data submitted with your letter, have been accepted as fulfilling the requirements for your TSO authorization and will be retained in our files.

The quality control procedures contained in your quality control manual, currently on file at the Los Angeles Manufacturing Inspection District Office, and your statement that those procedures will be applied to the manufacture of the subject article at the above address, are considered adequate in accordance with FAR 21.142.

Effective this date, you are authorized to use TSO procedures for the subject temperature indicator. You may identify this article with the applicable TSO markings as required by TSO C43b.

As recipient of this TSO authorization, except as provided in FAR 21.3(d), you are required to report any failure, malfunction, or defect in any product or part manufactured by you or your contracted suppliers, and which you have determined has resulted or could result in any of the occurrences listed in FAR 21.3(c). The report should be communicated initially by telephone to the Manager, Technical and Administrative Support Staff,

Form 3360-99 (Rev. 10/80)

Department of Transportation - Federal Aviation Administration

## Supplemental Type Certificate

Number SA2586NM

This Certificate issued to: J P INSTRUMENTS  
PO Box 1022  
Long Beach, CA 90806

certifies that the change in the type design for the following product meets the requirements and conditions thereof as specified herein under the circumstances requirements of Part 21 of the Civil Aviation Regulations, including applicable Amendments as specified in the attached Approved Model List.

Original Product Type Certificate Number: \* See attached FAA Approved J P Instruments

Model: \* Master Eligibility List No. SA2380NM for list

Model: \* of approved aircraft models and applicable TCDS

### Description of Type Design Change

Issuance of J P Instruments temperature monitoring systems in accordance with FAA Approved J P Instrument Drawing List Report No. 100, Revision D, dated December 18, 1990, or later FAA approved revisions, FAA Approved Airplane/Known Flight Manual Supplement No. 1 for EGT-701 temperature indicator, Revision A, dated December 13, 1990, or later FAA approved revisions.

**Limitations and Conditions:** The approval of the change in type design applies to the basic airplane of the specific models that are otherwise unmodified. This approval should not be extended to other specific airplanes of those models on which other previously approved modifications are incorporated, unless it is determined that the interrelationship between this installation and any previously approved configurations will not introduce any adverse effect upon the strength of that airplane. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission. (See continuation sheet) This certificate and the supporting data which is the basis for approval shall remain in effect until superseded, amended, modified or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: December 31, 1984

Date of issuance: August 14, 1992

Date issued:

Date extended: July 13, 1987, November 13, 1992, December 19, 1990, May 15, 1998, June 17, 1999

By signature of the Administrator:

Manager, Propulsion Branch  
Los Angeles Aircraft Certification Office



This document is the property of the FAA. It is loaned to you and is not to be distributed outside your organization. If you have any questions, please contact the FAA. The certificate may be transferred to another aircraft and FAR 21.42.

United States of America  
Department of Transportation - Federal Aviation Administration  
**Supplemental Type Certificate**  
(Continuation Sheet)

Number SA2586NM

**Limitations and Conditions - continued**

Cylinder head, oil, turbine inlet and/or exhaust gas temperature, fuel flow equipment, tachometer instruments, and manifold pressure instruments required by the original type design, or if required by other FAA approval, must remain installed and operable.

Aircraft listed on the FAA approved Master Eligibility List SA2586NM and that have been previously modified with a fuel flow indication system that utilizes the Flowmac Fuel Flow Transducer (PN: 281-A, 281-B, 281-C, or 281) or equivalent as listed on page 4 of the FAA Approved Installation Instructions, Drawing 100) are eligible for installation of the EGT-701 fuel flow option.

This certificate does not constitute installation approval of the fuel flow transducer.

EGT-701 temperature indicator with tachometer (rpm) and manifold pressure options are eligible for the 4 cylinder and 6 cylinder engines listed on the Master Eligibility List (MEL) SA2586NM only.

FAA Approved Airplane/Rotorcraft Flight Manual Supplement No. 1, Revision A, dated December 13, 1996 or later FAA approved revisions, is required with the installation of the EGT-701 system.

Eligible dash numbers for the EGT-701 are listed on MEL SA2586NM.

A copy of this certificate must be maintained as part of the permanent records of the modified aircraft.

-END-

Any alteration of the aircraft is prohibited by a law of the country (14 CFR) or equivalent or operating 1 part, or that  
the FAA has jurisdiction over it or 1. The aircraft may be required to maintain and EAS/ED

FAA APPROVED

MASTER ELIGIBILITY LIST J.P. INSTRUMENTS

SPORT: SA 2586NM  
SHEET 11

NAME

AIRCRAFT MODEL

PN Number  
T.C.D.S. (See P. 8 for Series)

7/9/99

Subject: Permission to use STC.

To Whom It May Concern:

J.P. Instruments holder of STC SA2586NM  
grants to the purchaser of the  
EDM-700 series (PN EGT-701) and the  
Classic Scanner (PN EGT-100)  
permission to use the STC.

Signed



FAA approved AFM Supplement is required with the EGT-701. The EGT-701 is applicable to all EGT-100/200 series RPM and MAP applicable to the PN EGT-701, 4 and 6 cylinder engines only.

FAA APPROVED

MASTER ELIGIBILITY LIST J.P. INSTRUMENTS

REPORT: SA 2586NM SHEET 19

MAKE AIRCRAFT MODEL T.C.D.S. (See P. 9 for Series) Part Number

ELIGIBLE PART NUMBERS for EGT-701 Note (1) suffix "T" designates tests, two instruments required. Note (2) suffix "+" denotes turbocharged engines.

FAA APPROVED



MASTER ELIGIBILITY LIST

NO. SA2586NM

INSTALLATION OF THE EGT 100, 200 SERIES AND 701 SERIES TEMPERATURE

INDICATORS, FOR

EXHAUST GAS, CYLINDER HEAD TEMPERATURE MONITORING SYSTEM.

STC NUMBER: SA2586NM

DATE: AUGUST 14, 1985

FAA APPROVED

MAY 2 2000

LOS ANGELES AIRCRAFT CERTIFICATION OFFICE INITIALS: [Signature]

REV 11 DATE April 18, 2000

0613-00

Table with 8 columns: 4 Cylinder with RPM & MAP, 4 Cylinder, 6 Cylinder with RPM & MAP, 6 Cylinder, 7 Cylinder, 8 Cylinder, 9 Cylinder, TIT. Rows list various part numbers like EGT-701, AC, ACORW, etc.

ELIGIBLE PART NUMBERS for EGT-100 ( ) and EGT-200 ( ) Note (1) suffix "T" designates EGT-200 ( ) series for tests. Note (2) suffix "+" denotes turbocharged engines.

Table with 5 columns: A 4 cylinder, B 6 cylinder, C 7 cylinder, D 8 cylinder, E 9 cylinder, TIT. Rows list part numbers like EGT-100, AC, ACORW, etc.

Example see page 1 Cases 200 (RT) S = any PM in this column except + items in TIT column T = Requires two instruments + = Includes TIT (turbocharged only)

FAA approved APM Supplement is required with the EGT-701. The EGT-701 is applicable to all EGT-100/200 series. RPM and MAP applicable to the PM EGT-701, 4 and 6 cylinder engines only.

REVISION LOG  
TO FAA APPROVED MASTER ELIGIBILITY  
REPORT NO. SA2386H

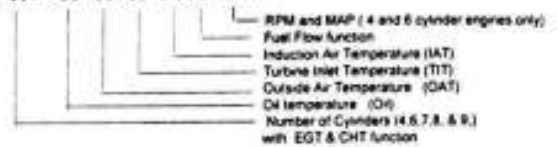
| REVISION DATE NO. APPROVED | REVISION DESCRIPTION  | SHEET 2 |
|----------------------------|---|---------|
| NC 8-14-85                 | Initial Release: <span style="float: right;">Sheet 1 of 3</span>  |         |
| -1 8-25-85                 | Addition of: Cessna Models 320, 336, 340 and Piper Models PA-32, PA-44, PA-60 series. Sheet 6 Format changes and typing corrections. Division of "Approval Date" column on sheet 6 and subsequent sheets.   |         |
| -2 7-22-86                 | Addition of: Gulfstream American 112, 114, AA-5, 960 and 980 Beech 50, 50, 45, 76 Series; Bellanca 14-13 and 14-18 Series; Cessna 180, 180 and 321 Series; Moyle M-4, M-5 and 91.8 Series; Piper PA-22, PA-32-361 Series; Republic RC-3, Swift GC-1A and GC-1B Series. Sheets 5, 6 and 7.   |         |
| -3 7-13-87                 | Addition of: Piper PA-44-310P (Malibu); PA-31P (Navajo); Suffix (S) added to instrument part number indicating Oh temperature PMA ID probe. P/N 405502 L, C. Applicable to all Lycoming and Continental OHIO drive piston engines. Suffix (T) added to instrument part number indicating turbine inlet temperature with probe P/N 36-111 Parastroke (S) added to any instrument part number, will indicate "None, Any or AT" if the option in parenthesis are applicable. Reorganized. <span style="float: right;">Sheet ALL</span> |         |
| -4 5-23-90                 | Addition of: Eurocopter Helicopter F-28, 28A, 28C, 28P, 28Q, 28R, Hughes Helicopter 288A, 288A-1, 288B, 288C, Robinson Helicopter R22, R22-Alpha, R22-Beta, R22-Helmer, Mooney Aircraft M20L, M20M, Sea-Machines S-205-16P, -16R, -20P, -20R, S-208, S-208A, P-280, P-280B, P-280C, S-D C.A.T.A. T819, T825, T821; Panthera Construction P86, P88B, P88C, P88C-TC, P88TC; AirMTP-200 Piper PA-46-230P. Sheets 2, 3, 4, 5.   |         |
| -5 11-11-92                | Addition of: EGT-701 (series) approved aircraft having 4 or 6 cylinder engines only. Deleted aircraft model. Beech 40 Series. Piper PA-315, -317, -3172, -3173. <span style="float: right;">Sheet 2, 3, 7</span>  |         |
| -6 11-26-93                | Addition of: GENERAL AVIA Construction aeronautique F218, F21R, F22C & F20; Mooney M20R; Air Tractor AT-300, -301; Aviat Corp. 8055-30 S-2R, S2R A1240; Aviat Pave P12-90. <span style="float: right;">Sheet 3, 6</span>  |         |
| -7 12-19-96                | Addition of: Added sheet 8 & 10 model designation system and Engine Part Numbers. Revised all Part Numbers, all sheets. Added Fuel Flow suffix to P/N. Removed note "EGT-701 approved for 4 & 6 cylinder engines only". Added Cessna 172 A, B, 172R, Bellanca 17-30A series, AERO COMMANDER 5-1, 5-1A, De Havilland DHC-2 Mk series, North American T-28A series, WinCO series and Beech 41 series. <span style="float: right;">Sheet ALL</span>  |         |
| -8 03-14-98                | Addition of: Enox EA-300, S, L, EA-3000W; Hawley HX-1-18C, HDT-1-18B, M-1-201, A, B, C, M-1-240, M-1-240; Cessna 182S, 204H Sea-Machines P-240, P, P, Piper PA-315. <span style="float: right;">Sheet 4, 5, 8</span>  |         |
| -9 01-13-98                | Addition of: Hayers (PROP-JETS) HX1300, 200A, B, C, D; Gulfstream American GA-7; Beech Model D17S, S017S, D17R, D17A, C17R, G17S; Piper PA-18 Series; Robinson R44 VARGA Series; Guzman G21; Certified P/N. Was EGT-710 to EGT-701. <span style="float: right;">Sheet 5, 6, 7, 8</span>   |         |
| -10 08-17-99               | Addition of: RPM & MAP to identification for EGT-701. <span style="float: right;">Sheet ALL</span>  |         |
| -11 05-00                  | Addition of: American Champ INCAB, TCCBC, TECA, TCCBA, TCCAA, TCCAB; Beech 40-58, Cessna T206H, Gulfstream American 114 B, TC, Moyle MXT-7-180 A, B, Moyle (Rocket Conv. Per STC SA 20472SE & STC SA 28979M) M20L, M20P; P/N (what 5-15, 5-17, 5-2, 5-2A, Chisum (Aviat) A-1, 5-20; Moyle M-32, -W35; Johnson Comp GDA-15P; Westbury 820, A, B, Thompson Newton C, Cessna 1120BA, B, C, D, E, F, G (conv. Per STC 2123HM). <span style="float: right;">Sheet 2, 3, 6, 7, 8</span>   |         |

FAA APPROVED  
MAY 2 2000  
LOS ANGELES  
AIRCRAFT REGISTRATION OFFICE  
ENTERTAINMENT CENTER

FAA APPROVED MASTER ELIGIBILITY LIST J.P. INSTRUMENTS REPORT: SA 2386H SHEET 1  
Number  
MAYE AIRCRAFT MODEL T.C.D.S. (See P. 8 for Series)

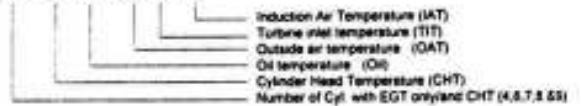
Model designation system by part number for EGT-701

EGT-701-[ ] [C] - [ ] - [A] [ ] - [T] [ ] [ ] + [ ] [ ] [P] - [ ] [RM]



Model designation system by part number for EGT-100

EGT-100- [ ] - [C] [ ] - [ ] - [A] [ ] - [T] [ ] [ ] [ ]



Example: EGT-701 - (MOD) RM is indicated as such on the TSO label

EGT-701 - 9C - 0 (4) - A (4) - T [ ] [ ] - P [ ] - RM (4)

- EGT 701 Model
- 4 Cylinder
  - Oil Temperature function
  - OAT, Outside Air function
  - IAT, Induction Air function
  - RPM & MAP function

FAA approved AFM Supplement is required with the EGT-701. The EGT-701 is applicable to all EGT-100/200 series. RPM and MAP applicable to the P/N EGT-701, 4 and 6 cylinder engines only.

| MAKE                      | AIRCRAFT MODEL   | Part Number<br>T.C.D.S. (See P. 9 for Series) | FAI        |
|---------------------------|--|---|------------|
| Piper                     | PA-22S-150, 23-180, 22S-180  | SA10  | (AT), (AT) |
|                           | PA-23, 23-180  | SA10  | (BT), (BT) |
| Piper                     | PA-23-23S, PA-23H, E23-250, 23-250   | SA15  | (A), (A)   |
|                           | PA-24  | SA15  | (B), (B)   |
|                           | PA-24-250, -24-260   | SA15  | (B), (D)   |
| Piper                     | PA-24-400  | SA15  | (B), (D)   |
|                           | PA-25  | SA8   | (A), (A)   |
| Piper                     | PA-25-235, -260  | SA8   | (B), (B)   |
|                           | PA-28-140, -150, -151, -160, -161, PA-28-180, -185-180, PA-28S-180, -28S-180, -26-161, PA-28R-200, PA-28-234, -28-235, PA-28R-201, -28R-201T, -28-201T, PA-28RT-201, -28RT-201T, -28-201 | SA13  | (B), (B)   |
| Piper                     | PA-30, PA-32, PA-40  | A16A  | (AT), (AT) |
| Piper                     | PA-31, -31-200, -31-32S, -31-350   | A20SD   | (BT), (BT) |
| Piper                     | PA-31P, 31P-350  | A88A  | (BT), (BT) |
| Piper                     | PA-32-260, -32-300, -32S-300   | A3SD  | (B), (B)   |
|                           | PA-32R-300, -32RT-300, -32RT-300T, PA-32R-301, -32R-301T, PA-32-305, -32-301T  | A3SD  | (B), (B)   |
| Piper                     | PA-34-200  | A7SD  | (AT), (AT) |
|                           | PA-34-200T, -320T  | A7SD  | (BT), (BT) |
| Piper                     | PA-38-112  | A18SD   | (A), (A)   |
| Piper                     | PA-44-140, -44-180T  | A18SD   | (AT), (AT) |
| Piper                     | PA-49-310P, -330P  | A25SD   | (BT), (BT) |
| Piper                     | PA-60-600, -60-601, -60-700P, A, CR, PA-60-601P, PA-60-601P, PA-60-650   | A17WE   | (BT), (BT) |
| Reynolds                  | RC-7   | 768   | (S), (S)   |
| Robinson-helicopter       | R22, R22 ALPHA, R22 BETA, R22 WARRIOR, R44   | R10WE   | (A), (A)   |
|                           |  | R11WE   | (S), (S)   |
| Sukhoi                    | S-200-10P, -10R, -200P, -200R, -200L, S-200, S200A   | AR6U  | (A), (A)   |
| S.G.C.A.T.A. Aerospaciale | F 260, F 280B, F 280C, F 280D, F 280E, F 280F, F 280G  | A10BU   | (B), (B)   |
|                           | T89.10   | A31BU   | (A), (A)   |
|                           | T820, T821, 200  | A31BU   | (BT), (BT) |
| Swift                     | GC-1A  | 768   | (A), (A)   |
| Swift                     | GC-1B  | 768   | (B), (B)   |
| Thomson                   | Navion, A, B, C, D, E, F, G, H   | A382  | (A), (A)   |
| UGCA                      | 2150, 2150A, 2180  | A41B  | (A), (A)   |
| Augustor, Inc.            |  |   |            |
| YMC                       | YMC, YMC-B, YMC-4, 24S-B, QFF-7, WFF-7   | A7CS42  | (T), (C)   |
|                           |  | A-533   | (T), (C)   |
|                           |  | A-642   | (T), (C)   |
| WITS (AYSA)               | S-15, S-17, S-2, S-3A, S-2B, S-2B  | AR50  | (A), (A)   |
| Whitby Inc Ltd            |  |   | (B), (B)   |
| Whitby (AYSA)             | A-1, A, B  | A22NM   | (A), (A)   |
| Whitby Inc / Sky Inc      |  |   |            |
| Whitby                    | A26, A, B  | A26WE   | (B), (B)   |

FAA approved AFM Supplement is required with the EGT-701. The EGT-701 is applicable to all EGT-100/200 series. RPM and MAP applicable to the PAI EGT-701, 4 and 6 cylinder engines only.

| MAKE                            | AIRCRAFT MODEL   | Part Number<br>T.C.D.S. (See P. 9 for Series) | FAI        |          |
|---------------------------------|--|---|------------|----------|
| Air France                      | A1-300,A1-300  | A35W  | (B), (B)   |          |
| Avanti Pavesi Rubin             | R2140  | A48EU   | (B), (A)   |          |
| Ayres Corp                      | 400 S-1D, S-1R, 50R, R1140, S2R-835  | A35W  | (B), (B)   |          |
| AERO COMMANDER                  | B-1, B-7A  | Lycoming IO-720-A1A                           | ARWE       | (B), (C) |
| American Champion Aircraft Corp | 800AB  | A27CB   | (A), (A)   |          |
| American Champion Aircraft Corp | 700BC, 700CA, 700CBA, 700CAA, 700CAB   | A-75A   | (A), (A)   |          |
| Beach                           | D19L, D19C, E19S, C-430, TC-410, C-41R, TC-41R, TC-430 w/DC-410 (DNR-1), RC-451 (DNR-1P), E19L-4700, G19S, J8B-6, J9, S94A, J74A, P74W Waqo II           | A-76S   | (B), (E)   |          |
| Beach                           | Model D17S, S017S, D17R, D17A, C17R (Army UC-43R), G17S  | A-54B   | (B), (E)   |          |
|                                 |  | A7C-713                                       | (B), (E)   |          |
|                                 |  | A7C-719                                       | (B), (E)   |          |
| Beach                           | 73, A23, A23A, A23-19, 19A, B19, A19A, A23-24, B23, C23, A24, A24R, B24R, C24R   | A7CB  | (A), (A)   |          |
| Beach                           | 177, 144S, T-144, 2-416441 (E-340) D45, Com E-315-3  | 1A3   | (B), (B)   |          |
| Beach                           | 35, A35, B35, C35, D35, E35, F35, G35, 35M   | A-777   | (B), (B)   |          |
| Beach                           | H35, J35, K35, M35, N35, P35, S35, V35, W35A, V35B, 35-33, 35-A33, 35-333, 38-C33, 39-C33A, E33, E33A, E33C, F33, F33A, F33C, G33, 34, A34, A34TC, B34TC | SA15  | (B), (B)   |          |
| Beach                           | 50, 50E, 50E-A, B, C, E, E-1000, 500, F, G, H, J   | SA4   | (BT), (BT) |          |
| Beach                           | 58P, 58PA, 58TC, 58TCA   | A23CE   | (BT), (BT) |          |
| Beach                           | 60, 60B, 60C   | A12CE   | (BT), (BT) |          |
| Beach                           | 65, 65-80, 65-AB, 65-ABD, 65-ABD-6800, 65-66, 65-66A, 66, 66A, 6200, 70  | SA20  | (BT), (BT) |          |
| Beach                           | 80, 80B, 80SA, 80SA, 80S   | SA18  | (BT), (AT) |          |
| Beach                           | 85, 85, A15, 85S, 85SA, -C55, -C55A, D55, D55A, E55, E55A, 56TC, A56TC, 58, 58A, 58-28   | SA18  | (BT), (BT) |          |
| Bellanca                        | 14-13, 14-13-2, 2, 30P   | A773  | (B), (B)   |          |
| Bellanca                        | 14-18, 19-2, -3, -3A, 17-30-A, 17-31-A, 17-31TC, -A  | 1A3   | (B), (B)   |          |
| Beech                           | B55, E75, A75, A75L300, B75A, B75M1, A75L1, A75M1, B75M1, D75M1  | A-743   | (B), (B)   |          |
| Beech                           | B75, E75, A75, A75L300, B75A, B75M1, A75L1, A75M1, B75M1, D75M1  | SA18  | (A), (A)   |          |
| Cessna                          | 170, A, B, C, D, E, F, G, H, J, K, A150K, 150L, A150M, 150N, A150M, 152, A152  | A-743   | (T), (C)   |          |
| Cessna                          | 170, 170A, 170B  | A-79B   | (B), (B)   |          |
| Cessna                          | 172, 172A, B, C, D, E, F, G, H   | SA12  | (B), (B)   |          |

FAA approved AFM Supplement is required with the EGT-701. The EGT-701 is applicable to all EGT-100/200 series. RPM and MAP applicable to the PAI EGT-701, 4 and 6 cylinder engines only.

FAA APPROVED

MASTER ELIGIBILITY LIST J.P. INSTRUMENTS

REPORT: SA 2589NM  
SHEET 4

| MAKE  | AIRCRAFT MODEL   | Part Number<br>T.C.D.S. (See P. 9 for Series) |                      |
|---|--|---|----------------------|
| Cessna  | 172, XL, M, X, P, Q, R   | 3A12  | (H), (A)             |
| Cessna  | 172RG, P172D   | 3A17  | (H), (A)             |
| Cessna  | R172E, F, G, H, J, K, 175, 175A, B, C  | 3A17  | (H), (B)             |
| 25. Cessna  | 177, 177A, 177B  | A13CE   | (H), (A)             |
| Cessna  | 177RG  | A20CE   | (H), (A)             |
| 26. Cessna  | 180, 180A, B, C, D, E, F, G, H, J, K   | 3A8   | (H), (B)             |
| Cessna  | 182, 182A, B, C, D, E, F, G, H, J, K, 182L, M, X, P, Q, R, S, R182, T182, TR182  | 3A13  | (H), (B)             |
| 27. Cessna  | 182 Series STC SA06152H  | 3A13  | (H), (B)             |
| 28. Cessna  | 185, 185A, B, C, D, E, A185E, A185F  | 3A24  | (H), (B)             |
| 29. Cessna  | 188, 188A, 188B, A188A, 188A, A188B, T188C   | ARC2  | (H), (B)             |
| 30. Cessna  | 185, 195A, 195B, 196   | A-190 (7), (C)<br>A-190 (8), (E)              |                      |
| 31. Cessna  | 208, P208, P208A, B, C, D, E, H<br>T208A, B, C, D, E,<br>U208, U208A, B, C, D, E, F, G,<br>T208A, B, C, D, E, F, G<br>T208H  | ARC2  | (H), (B)             |
| 32. Cessna  | U298, U298A, B, C, D, E, F, G, (Conv. Per STC 2123 NM)   | ARC2  | (H), (B)             |
| 33. Cessna  | 207, 207A, T207, T207A   | A19CE   | (H), (B)             |
| 34. Cessna  | 210, 210A, B, C, D, E, F,<br>210-S, 210-SA, T210F, 210G,<br>T210G, 210H, T210H, 210J, T210J,<br>T210K, 210L, 210L, T210L, 210M,<br>T210M, 210N, P210N, T210N, 210R, P210R, T210R | 3A21  | (H), (B)             |
| 35. Cessna  | 210, 210A, B, C, D, E, F, G, H,<br>E310H, 310J, J, K, L, N, P, Q, R 310J-1, E310J, T310P, Q, R<br>T310Q, 310R, T310R   | 3A10  | (H), (B)             |
| 36. Cessna  | 221  | 3A11  | (H), (B)             |
| 37. Cessna  | 320, A, B, C, D, E, F, 320-1, 335,<br>340, 345A  | 3A25  | (H), (B)             |
| 38. Cessna  | 336  | AJCE  | (H), (B)             |
| 39. Cessna  | 337, 337A, B, C, D, E, F, G, H,<br>T337B, C, D, E, F, G, H,<br>M337B, P337H, T337H-5P  | ARC2  | (H), (B)             |
| 40. Cessna  | 401, 401A, B, 402, 402A, B, C,<br>411, 411A, 414, 414A, 421, 425A,<br>421B, 421C   | A7CE  | (H), (B)             |
| 41. Consolidated<br>Aeronautical                  | LAKE C-1-Z, LA-4, LA-4A, LA-4P,<br>LA-4-200<br>LAKE 250  | 1A13  | (H), (A)             |
| 42. De Havilland                                  | DHC-2 HR 1<br>DHC-2 MR 2<br>DHC-3<br>P/W Mag. 2-1340   | A-806<br>A-805                                | (H), (E)<br>(H), (E) |
| 43. EXTRA FLUGZEUGE GMBH                          | EA-300 EA-300S EA-300L EA-300/200  | A87EU   | (H), (B)             |
| 44. Eurocopter Helicopter                         | F-28, 28A, -28C, -28F, 28G, 289C, 289F   | HICE  | (H), (A)             |
| 45. GENERAL AVIA<br>Ovionovskiy Avionostroitelnyy | F22B, F22R, F22C   | A75EU   | (H), (A)             |

FAA approved AFM Supplement is required with the EGT-701. The EGT-701 is applicable to all EGT-100/200 series. RPM and MAP applicable to the PW EGT-701, 4 and 6 cylinder engines only.

FAA APPROVED

MASTER ELIGIBILITY LIST J.P. INSTRUMENTS

REPORT: SA 2589NM  
SHEET 7

| MAKE   | AIRCRAFT MODEL  | Part Number<br>T.C.D.S. (See P. 9 for Series) |                      |
|--|---|---|----------------------|
|  | F20   | A38EU   | (H), (B)             |
| 46. Grumman  | AA-1, -1A, -1B, -1C   | A11EA   | (H), (A)             |
| Grumman  | AA-5, 5A, -5B, AG-5B  | AN8A  |                      |
| 47. Grumman  | G21, G21A   | 65A   | (H), (E)             |
| 48. Gulfstream American  | 112, 112TC, 112B, 112TCA  | A125D   | (H), (A)             |
| 49. Gulfstream American  | 114, 114A, B, TC  | A125D   | (H), (B)             |
| 50. Gulfstream American<br>American General Aircraft<br>Honey Co | GA-7  | A175D   | (H), (A)             |
| 51. Gulfstream   | AA-5, AA-5A, AA-5B  | A19EA   | (H), (A)             |
| 52. Gulfstream<br>American                                       | 500, 500-A, B, U, S, 520,<br>580, 580A, -E,   | BA1   | (H), (B)             |
| 53. Gulfstream American  | 560F, 680, 680-E, F, 680FL,<br>680-F1 (SP), 685   | 2A4   | (H), (B)             |
| 54. Hughes Helicopter<br>Jobmaster Company                       | 266A, 266A-1, 266B, 269C<br>DGA-18P (Army UC-70, Navy GH-1, GH-2, GH-3, NH-1)   | BA1   | (H), (B)             |
| 55. Maule  | M-5-180C, -200, -210TC<br>M-6-180<br>MT-7-180, A, B, MX-7-180, A, B, C  | 4H12<br>3A23                                  | (H), (A)<br>(H), (A) |
| 57. Maule  | See Draw M-4, M-4, -4C, -43, -4T<br>M-4-210, C, S, T, M-4-220C, S, T<br>M-4-180C, S, T, M-4-220, M-5-210C, 220C, -235C, M-6-235<br>MX-7-235, A, B, C<br>M-7-235, A, B, C, M-7-260, MT-7-260   | 3A23  | (H), (B)             |
| 58. Mooney   | M20, M20A, B, C, D, E, F, G, J  | 2A3   | (H), (A)             |
| 59. Mooney   | M20K, L, M, R, S  | 2A3   | (H), (B)             |
| 60. Mooney<br>Rocket Eng. Conv.                                  | M20K Rocket 305<br>( per STC SA 8891MM)   | 4B5W<br>2A3                                   | (H), (B)<br>(H), (B) |
| 61. Mooney<br>Rocket Eng. Conv.                                  | M20J Missile<br>( per STC SA 06472SE)   | 2A3   | (H), (B)             |
| 62. Moyers<br>PROP-JETS, INC                                     | 206, 200A, B, C, D  | 3A18  | (H), (B)             |
| 63. North American   | A7-6 (SNJ-2, -7), -6A, B, C, D, E, F, T-80<br>NA-360 (USAF T-28A)<br>T-28A, B, C, D, High R-1340-1A,<br>NA-360 (T-28A Conversion)   | A-2-575<br>1A18                               | (H), (E)<br>(H), (E) |
| 64. Paravesia Construcion<br>Aeronautiche                        | P83, P85B, P86C, P86C-TC, P86TC, AP86TF 300   | A31EU   | (H), (B)             |
| 65. Piper  | PA-18, PA-18S, PA-18 "100" (Special, PA-18S "100"<br>(Special PA-18A, PA-18 "125" (Army L-21A)<br>PA-18S "125", PA-18AS "125",<br>PA-18 "135" (Army L-21B),<br>PA-18A "135", PA-18S "135",<br>PA-18AS "135", PA-18 "150",<br>PA-18A "150", PA-18S "150", PA-18AS "150",<br>PA-20 "135", -20S "135"<br>PA-20 "135", -20S "135" | 1A2   | (H), (A)             |
| 66. Piper  | PA-20, -20S, -20 "115", -20S "115"  | 1A4   | (H), (A)             |
| 67. Piper  | PA-22, -22-106, -22-135, -22S-135   | 1A6   | (H), (A)             |

FAA approved AFM Supplement is required with the EGT-701. The EGT-701 is applicable to all EGT-100/200 series. RPM and MAP applicable to the PW EGT-701, 4 and 6 cylinder engines only.



**J.P. INSTRUMENTS  
FAA APPROVED MODEL LIST (AMLL) NUMBER SA404325E  
FOR  
INSTALLATION OF THE EGT 701 SERIES  
FUEL FLOW INSTRUMENT**

| ITEM | AIRCRAFT MAKE                       | AIRCRAFT MODEL  | TYPE<br>CERTIFICATE<br>NUMBER | CERTIFICATE<br>IN EACH<br>FOR<br>ALLOCATION | VAL<br>REV<br>DATE |
|------|-------------------------------------|---|-------------------------------|---|--------------------|
| 66   | Piper                               | PA-28-181, PA-28R-200,<br>PA-28R-201, -28R-201T, -28-201T,<br>PA-28RT-201, -28RT-201T | 2A13                          | CAR 3                                       |                    |
| 68   | Piper                               | PA-28-235, -28-236  | 2A13                          | CAR 3                                       | 6/97               |
| 70   | Piper                               | PA-30, 39, 40   | A16A                          | CAR 3                                       | 6/97               |
| 71   | Piper                               | PA-31-350   | A2050                         | CAR 3<br>FAR 23                             | 6/97               |
| 72   | Piper                               | PA-31-325   | A2050                         | CAR 3                                       | 6/99               |
| 73   | Piper                               | PA-32-300, -32S-300,<br>PA-32R-301, PA32R-300, PA-32-301                              | A350                          | CAR 3                                       |                    |
| 74   | Piper                               | PA-32 RT-300  | A350                          | CAR 3                                       | 6/97               |
| 75   | Piper                               | PA-32-260<br>PA-32RT-300T<br>PA-32R-301T,<br>PA-32-301T                               | A350                          | CAR 3                                       | 6/97               |
| 76   | Piper                               | PA-32R-330  | A350                          | CAR 3                                       | 6/99               |
| 77   | Piper                               | PA-34-200   | A750                          | FAR 23                                      | 6/97               |
| 78   | Piper                               | PA-34-200T, -220T   | A750                          | FAR 23                                      |                    |
| 79   | Piper Twin                          | PA-44-180, -44-180T   | A1650                         | FAR 23                                      | 6/97               |
| 80   | Piper                               | PA-46-350P  | A2550                         | FAR 23                                      | 6/97               |
| 81   | Piper                               | PA-46-310P  | A2550                         | FAR 23                                      |                    |
| 82   | Robinson<br>Helicopter Co.          | R22<br>R22 ALPHA<br>R22 BETA<br>R22 MARINER   | H109E                         | FAR 27                                      | 6/97               |
| 83   | Robinson<br>Helicopter Co.          | R44   | H119M                         | FAR 27                                      | 6/97               |
| 84   | Sky Enterprises<br>(Republic)       | RC-3  | A-789                         | CAR 03                                      | 5/2000             |
| 85   | Pitts (AVIAT)<br>White Inter Ltd    | S-18, S-17, S-2, S-2A,<br>S-25, S-29  | A850                          | FAR 23                                      | 6/97               |
| 86   | Christen (AVIAT)<br>White Inter Ltd | A-1, S-28   | A229H                         | FAR 23                                      | 6/97               |
| 87   | Thompson                            | Nelson, A, B, C, D, E, F, G<br>with IO-520 Series eng.                                | A-782                         | CAR 3                                       | 6/97               |
| 88   | Thompson                            | Nelson, A, B,<br>with IO-470 Series eng.  | A-782                         | CAR 3                                       | 6/97               |
| 89   | Thompson                            | Nelson, B, D, E   | A-782                         | CAR 3                                       | 6/97               |
| 90   | Thompson                            | Nelson, F, G, H   | A-782                         | CAR 3                                       |                    |
| 91   | E.C.C.A.T.A.<br>Aerographite        | T810, T820, T821, 300   | A51EU                         | FAR 21.29                                   | 6/97               |
| 92   | Slat-Method                         | F.280, F.280B, F.280C<br>F.280D, F.280E, F.280F                                       | A10EU                         | FAR 23<br>CAR 10                            | 6/97               |
| 93   | Slat-Method                         | F.20  | A38EU                         | FAR 23<br>CAR 10                            |                    |
| 94   | Duff Museum                         | GC-18 (with continental IO-360 series engine<br>per<br>STC SA439W)                    | 788                           | CAR 4a                                      | 5/2000             |
| 95   | Weatherly                           | 6206  | AJ6WE                         | Far<br>21.25(a)                             | 6/99               |

AMENDED DATE: Jan 1, 2008

FAA Approved   
Acting Manager, Seattle Aircraft  
Certification Office

Rev E Page 4 of 4

Title Page of Issues  
**Department of Transportation - Federal Aviation Administration**  
**Supplemental Type Certificate**

Number SA004325E

This certificate issued to **J. P. Instruments**  
P. O. Box 7033  
Huntington Beach, CA 92646

certifies that the change in the type design for the following product with the limitations and conditions  
described as proposed herein meets the airworthiness requirements of Part 21 of the Federal Aviation  
Regulations.

Approved Product - Type Certificate Number: **See Attached Approved Model List (AMLL)**  
*Sub* **Yes SA004325E for list of approved Aircraft**  
*Sub* **Models and applicable Airworthiness Regulations**

Description of the Type Design Change: Fuel flow transducer installed in accordance with J. P.  
Instruments (JPI) Fuel Flow Installation Manual, Report 8003, Revision B, dated March 14, 1997, and  
manufactured in accordance with JPI Drawing LMI, Report No. 503, Revision B, dated March 14, 1997.

Note: This STC requires the installation of JPI fuel flow instrument via STC SA258694.

Limitations and Conditions: Approval of this change in type design applies to the above model aircraft  
only. This approval should not be extended to other aircraft of the model on which other previously  
approved modifications are incorporated unless it is determined that the relationship between the  
change and any of those other previously approved modifications, including changes in type design,  
will introduce no adverse effect upon the airworthiness of that aircraft.

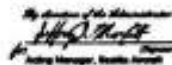
The STC holder will provide a written permission statement to each person it authorizes to use this  
certificate to alter the product.

This certificate and the supporting data which is the basis for approval shall remain in effect until  
renewed, suspended, revoked, or a termination date is otherwise established by the Administrator of the  
Federal Aviation Administration.

Date of application: **January 5, 1997**  
Date of issuance: **May 2, 1997**

Date received:  
Date received:



By Director of the Administration  
  
Acting Manager, Seattle Aircraft  
Certification Office  
Date

This document is available for a fee of one recording (\$1.00), or reproduction not exceeding 2 copies, or both.  
This certificate may be searched in accordance with FAR 21.27

Subject: **Permission to use STC**  
**To Whom It May Concern:**

J.P. Instruments holder of STC SA004325E  
grants to the purchaser of the  
EDM-700 series (PN EGT-701)  
FUEL FLOW INSTALLATION  
permission to use the STC SA004325E

Signed 

J.P. INSTRUMENTS  
 FAA APPROVED MODEL LIST (AHL) NUMBER SAMPLISE  
 FOR  
 INSTALLATION OF THE EGY N1 SERIES  
 FUEL FLOW INSTRUMENT

J.P. INSTRUMENTS  
 FAA APPROVED MODEL LIST (AHL) NUMBER SAMPLISE  
 FOR  
 INSTALLATION OF THE EGY N1 SERIES  
 FUEL FLOW INSTRUMENT

| ITEM | AIRCRAFT MAKE                               | AIRCRAFT MODEL  | TYPE CERTIFICATE NUMBER | CERTIFICATE ON BASIS FOR ALTERATION | AHL REV DATE |
|------|---|---|-------------------------|-------------------------------------|--------------|
| 1.   | Aerostar (Piper)                            | PA-40-800, 801, 901P<br>PA-40-802P, -700P   | A17WE                   | FAR 23                              | 699          |
| 2.   | Aerostar (Piper) Machan Com.                | 850, 880<br>700, ACR<br>STC SA 1859NM   | A17WE                   | FAR 23                              | 699          |
| 3.   | American Champion Aircraft Corp.            | 8KCA8   | A21CE                   | CAR4a                               | 697          |
| 4.   | American Champion Aircraft Corp.            | 7DC8C, 7ECA, 7GC8A, 7GCA, 7KCA8   | A-758                   | CAR4a                               | 697          |
| 5.   | American General Aircraft Holdings, Grumman | AA-5, AA-5A, AA-5B  | A186A                   | FAR 23                              | 697          |
| 6.   | American General Aircraft Holdings, Grumman | AG-56   | A186A                   | FAR 23                              | 697          |
| 7.   | Beech                                       | (T1-34) 43, (T-34A, B-45) A45, (T-34B) D45<br>Cont. E-325-B   | SA3                     | CAR 3                               |              |
| 8.   | Beech                                       | 823, C23  | A1CE                    | CAR 3                               | 697          |
| 9.   | Beech                                       | C24R, B24R  | A1CE                    | CAR 3                               | 50000        |
| 10.  | Beech                                       | 33, A35, B35, C35, D35, E35, F35, G35, 39R  | A-777                   | CAR 3                               |              |
| 11.  | Beech                                       | -325, K35, M35, N35   | SA15                    | CAR 3                               | 697          |
| 12.  | Beech                                       | V35, V35A, V35R, 35-33, 35-A33, 35-B33,<br>35-C33, 35-C33A, 33S, P35, N39, E33, E33A,<br>E33C, F33, F33A, F33C, G33, 36, A36,<br>A36TC, B36TC | SA15                    | CAR 3                               |              |
| 13.  | Beech                                       | 58, 58A   | SA18                    | CAR3                                | 697          |
| 14.  | Beech                                       | 58P, 58PA, 58TC, 58TCA  | A23CE                   | FAR 23                              | 697          |
| 15.  | Beech                                       | 65-55, A55, B55, C55A, C55, C55A, D55,<br>D55A, E55, E55A, 65-58, 58A   | SA18                    | CAR 3                               |              |
| 16.  | Beech                                       | 65, 695   | SA18                    | CAR 3                               | 697          |
| 17.  | Bellanca                                    | 17-30   | 1A3                     | CAR 3                               |              |
| 18.  | Bellanca                                    | 17-31ATC  | 1A3                     | FAR 23                              | 699          |
| 19.  | Boeing Stearman                             | 75, A75, B 75, A75A300, A75, B75, A75W1,<br>A75R  | A-743                   | CAR-4A                              | 697          |
| 20.  | Cessna                                      | 175, 175A, B  | A-799                   | CAR 3                               |              |
| 21.  | Cessna                                      | 172, 172A, B, C, D, E, F, G, H,   | SA12                    | CAR 3                               |              |
|      | Cessna                                      | 172 L, K, L, M, N, P, Q   | SA12                    |                                     |              |
| 22.  | Cessna                                      | 172R  | SA12                    | FAR 23                              | 697          |
| 23.  | Cessna                                      | 172RG   | SA17                    | CAR 3                               | 697          |
| 24.  | Cessna                                      | R172E, F, G, H, J, K, L, M, N, P, Q, R, P172D   | SA17                    | CAR 3                               | 697          |
| 25.  | Cessna                                      | 177, 177A, 177B   | A13CE                   | FAR 23                              | 697          |
| 26.  | Cessna                                      | 177RG   | A20CE                   | FAR 23                              | 697          |
| 27.  | Cessna                                      | 180, 180A, B, C, D, E, F, G, H, J, K  | SA8                     | CAR 3                               |              |
| 28.  | Cessna                                      | 182, 182A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R  | SA13                    | CAR 3                               |              |
| 29.  | Cessna                                      | 182 series Air Planes Corp, STC SA00152W<br>Engine IO-520 and IO-550  | SA13                    | CAR3                                | 50000        |
| 30.  | Cessna                                      | 182S  | SA13                    | FAR 23                              | 697          |
| 31.  | Cessna                                      | R182, T182, TR182   | SA13                    | CAR 3                               | 697          |
| 32.  | Cessna                                      | 185, 185A, B, C, D, E, A185E, A185F   | SA24                    | CAR 3                               |              |
| 33.  | Cessna                                      | 188, 188A, 188B, A188, A188A, A188B,<br>T188C   | ABCE                    | FAR 21                              |              |
| 34.  | Cessna                                      | 195, A, B   | A-790                   | CAR 3                               | 697          |
| 35.  | Cessna                                      | 304, 306, P306A, B, C, D, E, TP306A, B, C,<br>D, E,<br>U306, U306A, B, C, D, E, F, G, TU306A, B, C,<br>D, E, F, G                             | ABCE                    | CAR 3                               |              |

| ITEM | AIRCRAFT MAKE                 | AIRCRAFT MODEL   | TYPE CERTIFICATE NUMBER | CERTIFICATE ON BASIS FOR ALTERATION | AHL REV DATE |
|------|-------------------------------|--|-------------------------|-------------------------------------|--------------|
| 36.  | Cessna                        | T209H  | AACE                    | FAR 23                              | 699          |
| 37.  | Cessna                        | U306A, B, C, D, E, F, G (with Lycoming TIO-540 series engine per STC SA-2123HM)  | AACE                    | CAR3                                | 50000        |
| 38.  | Cessna                        | 307, 307A, T307, T307A   | A18CE                   | FAR 23                              |              |
| 39.  | Cessna                        | 210, 210A, B, C, D, E, F, 210-S, 210-SA,<br>T210F, 210G, T210F, 210H, T210H, 210J,<br>T210J, T210K, 210K, 210L, T210L, 210M,<br>T210M, 210N, P210N, T210N, 210R, P210R,<br>T210R | SA21                    | FAR 23                              |              |
| 40.  | Cessna                        | 310, C, D, E, F, G, H, E310H, 310R, J, K, L, N,<br>P, Q, R 310J-1, E310J, T310P, G, R, T310Q,<br>310R, T310R   | SA10                    | CAR 3                               |              |
| 41.  | Cessna                        | 320, A, B, C, D, E, F, 320-1, 335, 340, 340A   | SA25                    | CAR 3                               |              |
| 42.  | Cessna                        | 330  | AJCE                    | CAR 3                               |              |
| 43.  | Cessna                        | 337, 337A, B, C, D, E, F, G, H, T337B, C, D,<br>E, F, G, H, M337B, P337H, T337H-SP   | ABCE                    | CAR 3                               |              |
| 44.  | Cessna                        | 401, 401A, B, 402, 402A, B, C, 411, 411A,<br>414, 414A, 421, 421A, 421B, 421C  | AJCE                    | CAR 3                               |              |
| 45.  | Commander                     | 112, B, TC, TCA,<br>154, A, B, TC  | A1250                   | FAR 23                              | 697          |
| 46.  | EXTRA                         | EA-300, S, L,<br>EA-300C60   | ABTEU                   | FAR 21.29<br>FAR 23                 | 697          |
| 47.  | GENERAL AVIA                  | F228<br>F230   | A756U                   | FAR 23                              | 697          |
| 48.  | Teem Commander Aircraft Corp. | 500-A,<br>685  | SA1                     | CAR 3                               |              |
| 49.  | Jobmaster Company             | DGA-15P (Army UC-76; Navy OH-1, OH-3, OH-3, OH-1)  | A-717                   | CAR4a                               | 697          |
| 50.  | Made                          | MX-7-180, A, B<br>MX-7-180, A, B,  | SA23                    | CAR 3                               | 697          |
| 51.  | Made                          | M-7-260  | SA23                    | CAR 3                               | 699          |
| 52.  | Made                          | M-4-210, C, S, T,<br>M-5-210C  | SA23                    | CAR 3                               |              |
| 53.  | Made                          | M-5-235C   | SA23                    | FAR 23                              | 699          |
| 54.  | Made                          | M-7-235C   | SA23                    | FAR 23                              | 50000        |
| 55.  | Navo inc.                     | LA-4,<br>LA-4-250<br>Laka Model - 250  | SA13                    | CAR 03<br>FAR 23                    | 697          |
| 56.  | Mooney                        | M20  | SA3                     | CAR 3                               | 697          |
| 57.  | Mooney                        | M20A, B, C, D, O, J, M, H  | SA3                     | CAR 3                               | 697          |
| 58.  | Mooney                        | M20, E, F,<br>M20K   | SA3                     | CAR 3                               |              |
| 59.  | Mooney<br>Rackel Eng. Corp.   | M20K Rackel 305<br>(STC SA 5891HM)   | SA3                     | FAR 23                              | 699          |
| 60.  | Mooney<br>Rackel Eng. Corp.   | M20J Rackel<br>(STC SA 064725E)  | SA3                     | FAR 23                              | 699          |
| 61.  | Mooney                        | M22  | AB5W                    | CAR3                                | 50000        |
| 62.  | Piper                         | PA-20, -20S, 20-115', 20S-115',<br>PA-20-130', -20S-130'   | 1A4                     | CAR 3                               |              |
| 63.  | Piper                         | PA-22, -22-106, -22-138, -22S-138,<br>PA-22S-150, -22-180, -22S-180  | 1A8                     | CAR 3                               |              |
| 64.  | Piper                         | PA-23, 23-160, PA-23S-250, PA-23-250   | 1A10                    | CAR 3                               | 697          |
| 65.  | Piper                         | PA24, 250, 260,  | 1A15                    | CAR 3                               |              |
| 66.  | Piper                         | PA-24-600  | 1A15                    | CAR3                                | 50000        |
| 67.  | Piper                         | PA-28-140, -160, -161, -160, -161,<br>PA-28-180, -28S-180<br>PA-28R-180, 280-180   | SA13                    | CAR 3                               | 697          |

**GENERAL (cont.)**

An alarm causes the digital function to flash as soon as the particular limit is exceeded. Primary set alarm limits for CHT (HWI) and OIL (ZWT) are lower than the actual aircraft limits and can not be set by the pilot. The values may be adjusted to suit individual preferences by a qualified technician. Other factory set alarm limits are "BAT" Voltage 13.5-11.8 or 11.8-10.2 V DC as appropriate, "DEF" (Differential Pressure EGT) 100" H<sub>2</sub>O, "TIT" 1450 °F IN, "OIL" 14-16 °F, "CLIP" (Rate of change of cylinder head temperature in degrees per minute) 40 degrees/minute. The pilot should be aware of the setting of each alarm for his particular aircraft. An alarm is "Cancelled" by holding the stop button for 3 seconds and seeing the word "OFF". Then, only that particular alarm is cancelled. Cancelled alarms will not appear again until the power has been removed and reapplied to the EGT-701. The entire display dims automatically depending on the ambient lighting.

The Cylinder Head with the Gasket probe and oil temperature will indicate generally higher temperatures than instruments provided by the aircraft manufacturer because the EGT-701 sensing thermocouples are not calibrated with the primary instrument sensing probes. Therefore, airplane flight manual limitations based on primary instrument indications take precedence over those of the EGT-701.

**II. OPERATING LIMITATIONS**

- A. The EGT-701 may not replace any existing instrument or indicator required by the aircraft type design or operating limits.
- B. The EGT-701 display may not be used in lieu of, or to supersede, engine operating limitations established by the aircraft or engine manufacturer during certification.

**III. EMERGENCY PROCEDURES**

No change

**IV. NORMAL PROCEDURES**

**C AUTION**  
Comply with manufacturer's Airplane  
Flight Manual starting procedure.  
Do not exceed applicable engine  
or aircraft limitations.

After establishing desired cruise power depress the LF button to activate the Lean Find Mode. As the mixture is leaned, one column on the EGT-701 display will begin flashing, indicating the exhaust gas temperature for that cylinder has peaked showing its digital value along with the fuel flow (gph) at that time. Continue with the leaning procedure as recommended by the aircraft manufacturer while monitoring the primary engine instruments and the EGT-701 display. Once the leaning procedure has been completed, depress the Stop button briefly to exit the Lean Find Mode and enter the Monitor Mode.

FAA APPROVED 6/17/92

FAA APPROVED  
AIRPLANE/ROTORCRAFT FLIGHT MANUAL SUPPLEMENT OR  
SUPPLEMENTAL AIRPLANE FLIGHT MANUAL (INCLUDING POB AND FAA AFM)  
(FOR THOSE AIRCRAFT WITHOUT A BASIC AIRPLANE FLIGHT MANUAL)

EGT-701 TEMPERATURE INDICATOR  
FOR

Single and Twin Reciprocating Engine Powered Aircraft as Listed  
in Master Eligibility List of

STC SA256NM

REG. NO. \_\_\_\_\_

SER. NO. \_\_\_\_\_

This Supplement must be attached to the FAA Approved Airplane/Rotorcraft Flight Manual when the

J.P. Instruments EGT-701 is installed in accordance with Supplemental Type Certificate SA 256NM. For those airplanes without a basic Airplane Flight Manual, the Supplemental AFM must be in the aircraft when the EGT-701 is installed.

The information contained in this Airplane/Rotorcraft Flight Manual Supplement Supplemental Aircraft Flight Manual supplements or supersedes the basic manual/placards only in those areas listed. For limitations, procedures and performance information not contained in this supplement, consult the basic Airplane Flight Manual, Markings and Placards.

FAA APPROVED



Manager, Flight Test Branch, ANM-166L  
Federal Aviation Administration  
Los Angeles Aircraft Certification Office  
Transport Airplane Certification Directorate

Date Nov. 12, 1992

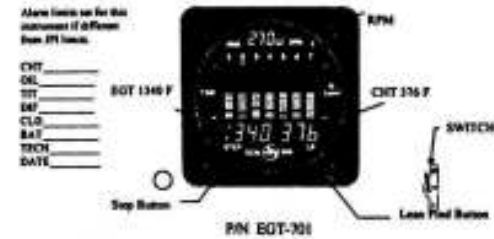
| Revision No. | Description                                   | Affected Pages | Approval  |
|--------------|---|----------------|---|
| Original     | Complete Flight Manual Supplement for EGT-701 | 1 thru 4       | <i>Donald Quinley</i><br>Mgt. Pil. Test Br.<br>ANM-162L<br>FAA, LA ACO<br>Transport Airplane<br>Directorate<br>Date: 11-12-92 |
| A            | Added Fuel Flow Features & Switch             | 1 thru 4       | <i>Donald Quinley</i><br>Mgt. Pil. Test Br.<br>ANM-162L<br>FAA, LA ACO<br>Transport Airplane<br>Directorate<br>Date: 12-12-96 |
| B            | Added RPM and Manifold Pressure Features      | 1 thru 4       | <i>Donald Quinley</i><br>Mgt. Pil. Test Br.<br>ANM-162L<br>FAA, LA ACO<br>Transport Airplane<br>Directorate<br>Date: 6-17-99  |

**I-GENERAL**

The EGT-701 temperature indicator displays temperature digitally and in analog format. The EGT as displayed is based on probes located near the exhaust outlet for each cylinder and the TIT probe, if installed, is adjacent to the turbo charger. These probes are not necessarily collocated with the primary probes therefore, EGT-701 may not indicate the same as the aircraft primary instruments. The analog display is an electronic bar graph (vertical columns, one per cylinder) of EGT & TIT temperatures presented as a percentage of 1650°F. Below the vertical columns the specific values for EGT and CHT are displayed digitally. The dot over the column indicates which cylinder's digital information is presently displayed. The missing bars at the base of the columns indicates the hottest and coldest Cylinder Head temperature trend. During Lean Find mode the leanest cylinder is displayed along with the fuel flow (optional) at that time. Depressing the LF and STEP buttons simultaneously brings up the adjustable scan rate function, OAT in °C or °F. Depress the LF button will change the value of the rate or OAT in °C or °F. Exit by Depressing STEP.

If the EGT-701 buttons are not depressed for 10 minutes the system will start scanning automatically. Depressing the STEP button will stop the automatic scan and index through all the functions available. During constant power cruise, if the LF button is depressed for five seconds the bargraph will level at mid scale. The leveled bars represent the peaks of each column. Each bar represents 10 °F and now acts as an EGT & TIT trend monitor, quickly showing an increase or decrease in temperature. Depress again to return to normal, nothing else is affected. With the fuel flow option there is a three position toggle switch. The positions are: 1) EGT, digital and bargraph display of temperatures, 2) FF, digital display of GPH, RPM and USED Fuel. Temperature bargraph remains. 3) Both, cycles through everything installed. The data port output, sends RS232 serial data every 6-sec.

Options of Fuel Flow, TIT, OAT, IAT (induction air temp), OIL, BAT (voltage) and are only displayed digitally with headlines after the number, as "230 OIL" or "14 GPH". A large value (50+) of "CLD" indicates shock cooling usually associated with rapid descents at low power. Optional functions not installed will not display. RPM is displayed constantly in the upper display with no alarms. MAP is shown in the scan display.





U.S. Department of Transportation  
Federal Aviation Administration

**MAJOR REPAIR AND ALTERATION**  
**(Airframe, Powerplant, Propeller, or Appliance)**

FAA Form No. 337 (10/06)  
E.O. 12151/18  
Facility Tracking Number  
For FAA Use Only

**INSTRUCTIONS:** Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

|             |   |   |
|-------------|---|---|
| 1. Aircraft | Nationality and Registration Mark<br>N1948B                 | Serial No.<br>177RG0564   |
|             | Make<br>Cessna  | Model<br>177RG  |
| 2. Owner    | Name (As shown on registration certificate)<br>Aeronaut LLC | Address (As shown on registration certificate)<br>Address: 473 South River Road Suite 370<br>City: St. George State: UT<br>Zip: 84766-2100 Country: USA |

3. For FAA Use Only

| 4. Type                  |                                     | 5. Unit Identification |                      |                                |            |
|--------------------------|-------------------------------------|------------------------|----------------------|--------------------------------|------------|
| Repair                   | Alteration                          | Unit                   | Make                 | Model                          | Serial No. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | AIRFRAME               | Cessna               | (As described in item 1 above) | 177RG0564  |
| <input type="checkbox"/> | <input type="checkbox"/>            | POWERPLANT             |                      |                                |            |
| <input type="checkbox"/> | <input type="checkbox"/>            | PROPELLER              |                      |                                |            |
| <input type="checkbox"/> | <input type="checkbox"/>            | APPLIANCE              | Type<br>Manufacturer |                                |            |

6. Conformity Statement

|  |  |   |  |                          |  |
|--|--|---|--|--------------------------|--|
| A. Agency's Name and Address   |  | B. Kind of Agency   |  | C. Certificate No.       |  |
| Name: Black Mountain Aviation<br>Address: 1001 Airport Road Suite 100<br>City: Boulder City State: NV<br>Zip: 89002 Country: USA |  | <input type="checkbox"/> U.S. Certified Mechanic<br><input checked="" type="checkbox"/> Foreign Certified Mechanic<br><input checked="" type="checkbox"/> Certified Repair Station<br><input type="checkbox"/> Certified Maintenance Organization |  | Manufacturer<br>LVBR789X |  |

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

|  |  |
|--|--|
| Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/> | Signature/Date of Authorized Individual<br>Gilbert A. Ross <i>Gilbert A. Ross</i> 12/05/2016 |
|--|--|

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  Approved  Rejected

|    |                             |                  |                          |   |
|----|-----------------------------|------------------|--------------------------|---|
| BY | FAA Pt. Standards Inspector | Manufacturer     | Maintenance Organization | Persons Approved by Canadian Department of Transport<br>Other (Specify) |
|    | FAA Designee                | X Repair Station | Inspection Authorization |   |

|  |  |
|--|--|
| Certificate or Designation No.<br>LVBR789X | Signature/Date of Authorized Individual<br>Gilbert A. Ross <i>Gilbert A. Ross</i> 12/05/2016 |
|--|--|

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

**8. Description of Work Accomplished**

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

|                                   |            |
|-----------------------------------|------------|
| N1948B                            | 12/05/2016 |
| Nationality and Registration Mark | Date       |

This FAA form 337 is to document removal of Bendix/King KT-76A and installation of Appareo ESG ADS-B transponder.

Removed Bendix/King KT76A Transponder.

Installed and tested Appareo Stratus ESG ADS-B Compliant Transponder in accordance with Stratus ESG Installation Instructions, Document No. 600840-000032, Revision 1.4 dated June 22, 2016 and FAA Policy Notice No. N8900.362.

This installation is a follow on to STC No. SA04112CH. The installed ADS-B OUT system was shown to meet the equipment performance requirements of 14 CFR part 91.227.

Weight and Balance Data, Equipment List, and Airframe Logs updated to reflect this change this date. Performed an Electrical Load Analysis and found total load does not exceed 80% of rated capacity.

Inserted FAA Approved flight manual supplement, Appareo document number 606586-000075 rev. 1.6 dated July 7, 2016 in the pilot's operating handbook.

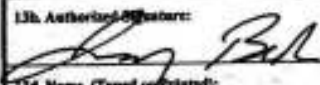
Reference instructions for continued airworthiness, Appareo document number 600845-000025 rev. 1.2 dated June 22, 2016.

All work accomplished under work order number 4828.

Nothing Follows

Additional Sheets Are Attached

| 1. Approving Civil Aviation Authority/Country:<br>FAA/United States   |                              | <b>AUTHORIZED RELEASE CERTIFICATE</b><br>FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG |             |   | 3. Form Tracking Number:<br>10191-012 |
|---|------------------------------|--|-------------|---|---------------------------------------|
| 4. Organization Name and Address:<br>Apparon Systems, LLC 1830 NDSU Research Circle N. Fargo, ND 58102 (PT4000CE / PQ1000CE)  |                              |  |             | 5. Work Order/Contract/Invoice Number:<br>Job: 008950 |                                       |
| 6. Item   | 7. Description               | 8. Part Number   | 9. Quantity | 10. Serial Number                                     | 11. Status/Work                       |
| 1.  | Transponder, Stratus ESG     | 153510-000017  | 10 of 32    | 070934 070943   | NEW                                   |
| 2.  | Install Rack, Stratus ESG    | 153540-000027  | 10 of 32    | N/A   | NEW                                   |
| 3.  | ASSY, Backplate, Stratus ESG | 153510-000015  | 10 of 32    | N/A   | NEW                                   |
| 12. Remarks<br>Produced under PT4000CE for TSOs: TSO-C112a, TSO-C145d, and TSO-C166b<br>SW: 501010-000113 R04<br>ABH: 501010-000109 R04   |                              |  |             |   |                                       |
| 13a. Certify the items identified above were manufactured in conformity to:<br><input checked="" type="checkbox"/> Approved design data and are in a condition for safe operation.<br><input type="checkbox"/> Non-approved design data specified in Block 12.  |                              |  |             |   |                                       |
| 13b. Authorized Signature:<br>   |                              | 13c. Approval/Authorization No.:<br>7807B4950  |             |   |                                       |
| 13d. Name (Typed or Printed):<br>Daniel Promo   |                              | 13e. Date (dd/mm/yyyy):<br>07 OCT 2016   |             |   |                                       |
| <b>User/Installer Responsibilities</b>  |                              |  |             |   |                                       |
| It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.<br>When the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in Block 1.<br>Statements in Blocks 13a and 13e do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown. |                              |  |             |   |                                       |

|  |                   |  |             |                    |  |                                       |
|--|-------------------|--|-------------|--------------------|--|---------------------------------------|
| 1. Approving Civil Aviation Authority/Country:<br>FAA/UNITED STATES  |                   | <b>AUTHORIZED RELEASE CERTIFICATE</b><br>FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG |             |                    |  | 3. Form Tracking Number:<br>160609-03 |
| 4 Organization Name and Address: Antcom Corporation / PT2444NM<br>367 Van Ness Way, Torrance, CA 90501   |                   |  |             |                    | 5. Work Order/Contract/Invoice Number:<br>16PJ001499 |                                       |
| 6. Item:   | 7. Description    | 8. Part Number:  | 9. Quantity | 10. Serial Number: | 11. Status/Work                                      |                                       |
| 1  | L1/L2 GPS Antenna | 42G1215A-XT-1  | 104         | 516260 - 516363    | NEW  |                                       |
| 12. Remarks:<br>Airworthiness Approval - Parts. TSO C144 Authorization.<br>1. ECCN: 7A994<br>2. HTS: 8529104000<br>3. These commodities and technology are from the United States and exportable in accordance with the Export Administration Regulations. Diversion contrary to U.S. law is prohibited.<br>4. 42G15A-XT-1 Is The Same As 42G1215A-XT-1. Antcom Declares Conformity Of 42G15A-XT-1 To 42G1215A-XT-1 By Similarity.   |                   |  |             |                    |  |                                       |
| 13a. Certify the items identified above were manufactured in conformity to:<br><input checked="" type="checkbox"/> Approved design data and are in a condition for safe operation.<br><input type="checkbox"/> Non-approved design data specified in Block 12.   |                   |  |             |                    |  |                                       |
| 13b. Authorized Signature:<br>  |                   | 13c. Approval/Authorization No.:<br>188760074  |             |                    |  |                                       |
| 13d. Name (Typed or Printed):<br>Jerry Brock   |                   | 13e. Date (dd/mm/yyyy):<br>09/JUN/2016   |             |                    |  |                                       |
| <b>User/Installer Responsibilities</b>   |                   |  |             |                    |  |                                       |
| It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.<br>Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in block 1.<br>Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown. |                   |  |             |                    |  |                                       |