Service Instruction SI-0004

Technical Portions FAA Approved

Epic Aircraft, LLC ◆ 22590 Nelson Road ◆ Bend OR 97701
Phone: 541-318-8849 ◆ Fax: 541-382-5125 ◆ Web: www.epicaircraft.com

Subject: SPS Transducer Heater Calibration

ATA-Code: 31-20

Labor: 4.0

Effectivity: K010

Affected Model(s): E1000

Due: Before the next flight.

Compliance: Recommended ☐ Mandatory ☒

Recurrence: No

1 BACKGROUND AND PURPOSE:

It has been found that the left “stall heat fail” RAW PNT 1 limit of 3.6 +/-0.5 cannot be met on E1000, SN K010.

This Service Instruction gives instructions for testing the system to ensure proper function when the tolerance limit cannot be met for RAW PNT 1 or RAW PNT 2.

2 REFERENCES:

Epic E1000 Airframe Maintenance Manual, PN SK05000000
Epic E1000 Wiring Manual, PN SK05000002

3 WARRANTY:

For aircraft under warranty, parts and labor will be covered by Epic Aircraft, LLC if the work is performed within the compliance period and at an Authorized E1000 Service Center.

4 TOOLS:

No.	Description	Qty	Epic Aircraft Supplied	Customer Supplied
1.	Common Hand Tools		☐	☒

5 PARTS/MATERIALS:

No.	Part Number	Description	Qty	Epic Aircraft Supplied	Customer Supplied
1.	N/A			☐	☐

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6 INSTRUCTIONS:

A) Gain access to the left and/or right wing lift transducers (refer to the Epic E1000 Airframe Maintenance Manual, PN SK05000000, Chapter 31-20)

NOTE: This procedure may be performed on the left or right side as needed.

B) Check the following resistances (refer to figure 1):

1) Check Case Heater Resistance from 1/2P423-A to 1/2P423-B. Make sure it is 31.11 to 50.91 ohms.

2) Check Vane Heater Resistance from 1/2P423-C to 1/2P423-D. Make sure it is 31.11 to 50.91 ohms.

3) Check Plate Heater 1 Resistance from 1/2P425-A to 1/2P423-D. Make sure it is 7.57 to 11.20 ohms.

4) Check Plate Heater 2 Resistance from 1/2P425-B to 1/2P425-C. Make sure it is 7.57 to 11.20 ohms.

C) Perform the stall heater annunciation test as follows:

1) Begin this sequence with aircraft weight ON wheels and the following CBs pulled out: L STALL HEAT, R STALL HEAT, L PITOT HEAT and R PITOT HEAT.

2) Set up the Left or Right Stall Heaters to be able to induce a failure of each individual heater (Pins 1/2P423-A, 1/2P423-C, 1/2P425-A and 1/2P425-C).

3) Press the Pitot Stall HT switch to the ON position.

CAUTION: To prevent damage, ensure ground heat is on no longer than 5 MIN.

4) Push in the CB labeled L STALL HEAT. Verify there is no L STALL HEAT FAIL CAS. One at a time fail each individual heater, verify loss of each heater individually activates the L STALL HEAT FAIL CAS. Pull the L STALL HEAT CB. Actuate the left and right weight on wheels switches to simulate weight OFF wheels**.**

CAUTION: To prevent damage, ensure in air heat is on no longer than 20 SEC. It may require cycling the power between each heater test to ensure the time limit is not exceeded. If power has to be cycled, ensure the heater has time to cool down before turning the power back on.

5) Push in the CB labeled L STALL HEAT. Verify there is no L STALL HEAT FAIL CAS. One at a time fail each individual heater, verify loss of each heater individually activates the L STALL HEAT FAIL CAS. Pull the L STALL HEAT CB.

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6) Push in the CB labeled R STALL HEAT. Verify there is no R STALL HEAT FAIL CAS. One at a time fail each individual heater, verify loss of each heater individually activates the R STALL HEAT FAIL CAS. Pull the R STALL HEAT CB. Actuate the left and right weight on wheels switches to simulate weight OFF wheels**.**

CAUTION: To prevent damage, ensure in air heat is on no longer than 20 SEC. It may require cycling the power between each heater test to ensure the time limit is not exceeded. If power has to be cycled, ensure the heater has time to cool down before turning the power back on.

7) Push in the CB labeled R STALL HEAT. Verify there is no R STALL HEAT FAIL CAS. One at a time fail each individual heater, verify loss of each heater individually activates the R STALL HEAT FAIL CAS. Pull the R STALL HEAT CB.

8) Reset the weight on wheels switches to the on-ground position.

9) Press the Pitot Stall HT switch to the OFF position.

D) Reinstall removed access panels (refer to the Epic E1000 Airframe Maintenance Manual, PN SK05000000, Chapter 31-20).

E) If the resistance values are met and the stall heater verification test is successful, the aircraft may be returned to service.

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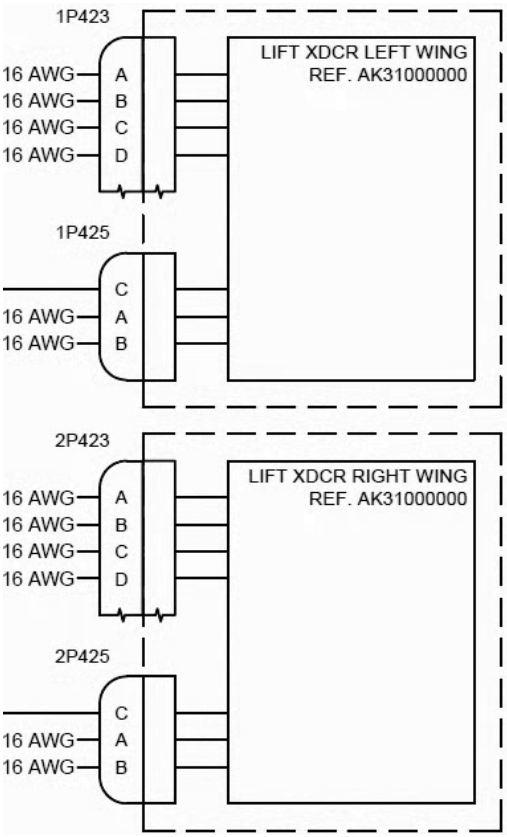
Figure 1: SPS Transducer Heater Calibration



7 WEIGHT AND BALANCE:

N/A

8 PUBLICATIONS AFFECTED:

N/A

9 RECORD COMPLIANCE:

Make appropriate entry in airplane maintenance records.

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Appendix A: Compliance Letter

Please complete and mail this form to Customersupport@epicaircraft.com

This is to certify that I have completed the work in accordance with the Epic Aircraft, LLC Service Instruction.

Aircraft Owner Information:
Date: _____ Aircraft Serial Number: _____ Aircraft Reg. Number: _____ Owner's Name: _____
Maintenance Entity Information
Name of Shop Performing the work: _____ Name of Person(s) Performing inspection and/or work: _____ Phone Number: _____ Email: _____