

SERVICE BULLETIN

NUMBER: SB 500-28-001
MODEL: Eclipse EA500
SUBJECT: Fuel Gauging Probes Replacement

1. Planning Information

A. Effectivity

(1) Aircraft

Aircraft Serial Numbers 000001 through 000023.

(2) Spares

Fuel gauging probes part numbers 62257-1, 62257-2, 62257-3, 62257-4, 62257-5, 62257-6, 62257-7 that do not have the Quality Assurance inspector's stamp as specified in this Service Bulletin (SB) must be returned to EAC Customer Service for disposition.

B. Reason

This SB remedies a manufacturing anomaly that might lead to erroneous fuel quantity indications.

C. Description

This SB replaces the current fuel gauging probes with correctly manufactured probes.

D. Relevant Publications

Aircraft Maintenance Manual, PN 06-117751, latest Rev.

E. Compliance

Eclipse Aviation Corporation considers this to be a mandatory part replacement that *must* be accomplished within 30 days of the issuance of this SB.

F. Approval

This SB is based on engineering data that is FAA-approved, and this part replacement returns the aircraft to its intended Type Design configuration.

G. Weight and Balance Change

None.

H. Electrical Load Data Change

None.

I. Software Accomplishment Summary

Not Applicable.

J. References

Aircraft Maintenance Manual (AMM), P/N 06-117751, latest Rev.

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2. Material Information

A. Materials

The following parts and/or kits are required for this Service Bulletin.

Part Number	Description	Qty Required
62257-1	Fuel Gauging Probe	2
62257-2	Fuel Gauging Probe	2
62257-3	Fuel Gauging Probe	2
62257-4	Fuel Gauging Probe	2
62257-5	Fuel Gauging Probe	2
62257-6	Fuel Gauging Probe	2
62257-7	Fuel Gauging Probe	2

B. Tooling

The following special tooling/support equipment is required to accomplish this Service Bulletin.

Nomenclature	Part Number	Use
Ground Power Unit (GPU)	Allstar 450, AllStar G.S.E., Hobart GPU-400, Hobart GPU-600, or Bycan PS-28100 or equivalent.	Supplies electrical power to airplane.
Avio Maintenance Computer (AMC)	EAC 20-120576-1001 With Software version 1.3.60 or higher.	Simulates Weight-on-Wheels (WOW) and adjusts Vapor Cycle System (VCS) doors.
USB to Ethernet adapter	SMC2209	Serves as interface to connect Ethernet cable to copilot's arm rest.
Ethernet Crossover Cable	EAC 87-120877-1001	Connects AMC to aircraft.
USB Flash Drive Assembly	EAC 20-121580-1001	Saves aircraft data (memory).

C. Interchangeability/Intermixability of Parts

None.

D. Part Re-identification

None.

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3. Accomplishment Instructions

A. Procedure

WARNING: PROPER VENTILATION AND FIRE FIGHTING EQUIPMENT ARE REQUIRED BEFORE STARTING THIS PROCEDURE. NO SPARKS OR FLAMES ARE PERMITTED WITHIN 100 FT OF THE AIRCRAFT. ENSURE AIRCRAFT AND ALL FUEL EQUIPMENT ARE PROPERLY GROUNDED.

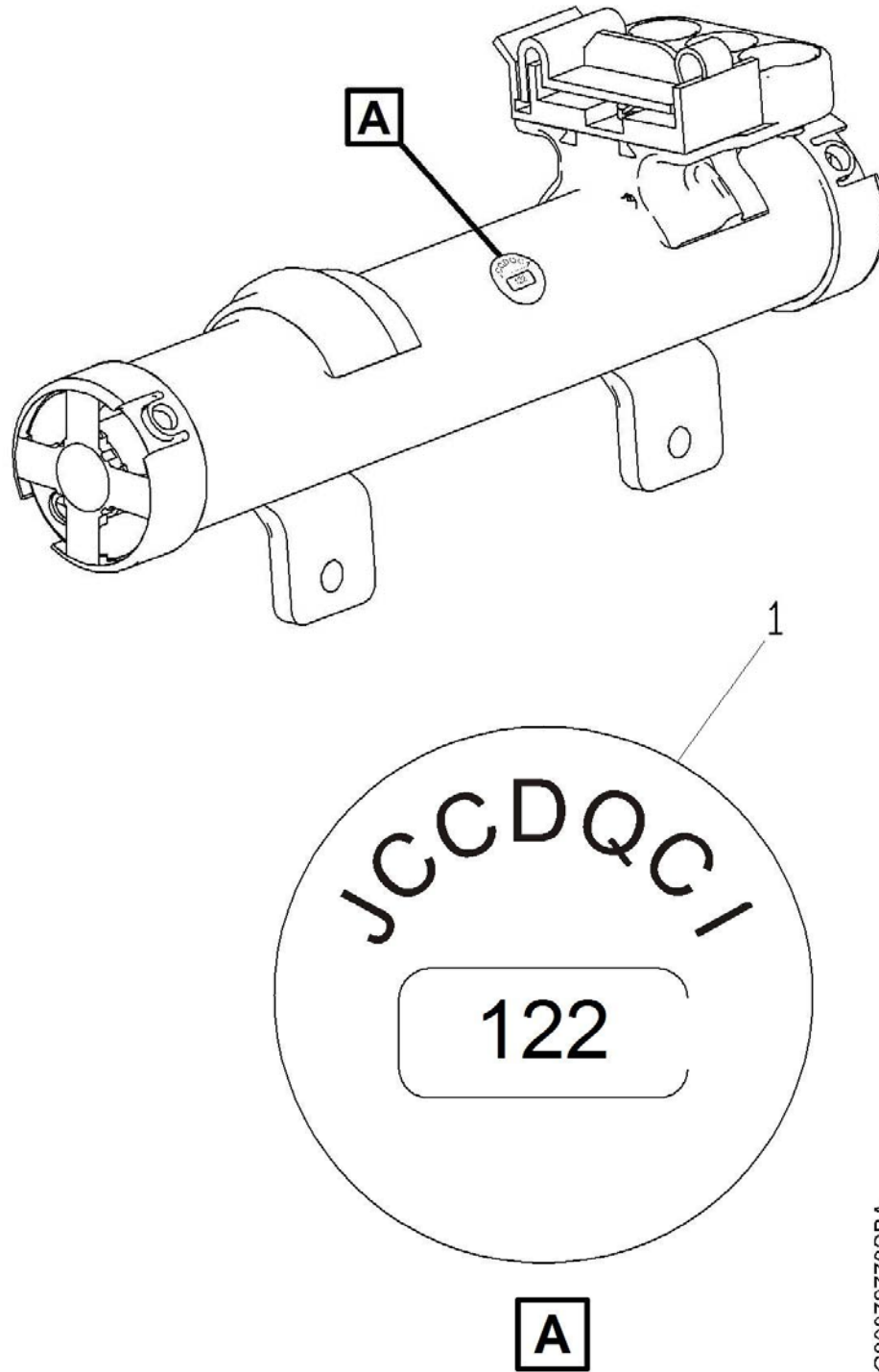
- (1) Make aircraft safe for maintenance. Refer to AMM 20-00-01-051-921-001.
- (2) Make aircraft safe for fuel system maintenance. Refer to AMM 28-00-00-051-921-001.
- (3) Remove the following access panels to defuel the aircraft (Refer to AMM 06-50-00-051-A-871-001):
 - (a) 251 EL – Left Lower Wing-to-Body Fairing
 - (b) 252 EL – Right Aft Wing-to-Body Fairing
- (4) Defuel aircraft. Refer to AMM 12-10-01-611-001.
- (5) Remove the following panels to access the left wing fuel gauging probes (Refer to AMM 06-50-00-051-A-871-004):
 - (a) 511 AB – Wing Access Panel, Bay 1
 - (b) 511 DB - Wing Access Panel, Bay 4
 - (c) 511 EB - Wing Access Panel, Bay 4
 - (d) 521 CB - Wing Access Panel, Bay 7
 - (e) 521 EB - Wing Access Panel, Bay 9
 - (f) 531 CB - Wing Access Panel, Bay 12
- (6) Remove the following panels to access the right wing fuel gauging probes (Refer to AMM 06-50-00-051-A-871-005):
 - (a) 612 AB - Wing Access Panel, Bay 1
 - (b) 612 DB - Wing Access Panel, Bay 4
 - (c) 612 EB - Wing Access Panel, Bay 4
 - (d) 622 CB - Wing Access Panel, Bay 7
 - (e) 622 EB - Wing Access Panel, Bay 9
 - (f) 632 CB - Wing Access Panel, Bay 12
- (7) Remove fuel tank filler cap from right and left wings. Refer to AMM 28-10-10-001-A-011-001.
- (8) Remove fuel filler adapter assembly from right and left wings. Refer to AMM 28-10-11-001-B-921-001.
- (9) Remove fuel gauging probes P/N 62257-1, 62257-2, 62257-3, 62257-4, 62257-5, 62257-6, 62257-7 from both left and right wings. Refer to AMM 28-40-10-001-A-011-001.

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WARNING: ENSURE FUEL GAUGING PROBES TO BE INSTALLED ARE MARKED WITH PROPER INSPECTION STAMP (1, FIGURE 1). FAILURE TO INSTALL CORRECT PROBE MAY RESULT IN ERRONEOUS FUEL QUANTITY INDICATIONS.

- (10) Install new fuel gauging probes P/N 62257-1, 62257-2, 62257-3, 62257-4, 62257-5, 62257-6, 62257-7 with the proper inspection stamp (1, Figure 1). Refer to AMM 28-40-10-041-A-921-001 and AMM 28-40-10-041-A-411-001.
- (11) Remove all tools, equipment, and unwanted material from work area.
- (12) Install the following panels on the left wing (Refer to AMM Refer to AMM 06-50-00-051-A-871-004):
 - (a) 511 AB – Wing Access Panel, Bay 1
 - (b) 511 DB - Wing Access Panel, Bay 4
 - (c) 511 EB - Wing Access Panel, Bay 4
 - (d) 521 CB - Wing Access Panel, Bay 7
 - (e) 521 EB - Wing Access Panel, Bay 9
 - (f) 531 CB - Wing Access Panel, Bay 12
- (13) Install the following panels on the right wing (Refer to AMM 06-50-00-051-A-871-005):
 - (a) 612 AB - Wing Access Panel, Bay 1
 - (b) 612 DB - Wing Access Panel, Bay 4
 - (c) 612 EB - Wing Access Panel, Bay 4
 - (d) 622 CB - Wing Access Panel, Bay 7
 - (e) 622 EB - Wing Access Panel, Bay 9
 - (f) 632 CB - Wing Access Panel, Bay 12
- (14) Install fuel filler adapter assembly from right and left wings. Refer to AMM 28-10-12-041-A-921-001.
- (15) Install fuel tank filler cap on right and left wings. Refer to AMM 28-10-10-041-B-921-001.
- (16) Install the following access panels (Refer to AMM 06-50-00-051-A-871-001):
 - (a) 251 EL – Left Lower Wing-to-Body Fairing
 - (b) 252 EL – Right Aft Wing-to-Body Fairing
- (17) Remove the following panels (Refer to AMM):
 - (a) 231 HZ – APC/PDC Cover Panel
 - (b) 231NZ – Floor Panel, Baggage Compartment

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Figure 1. Fuel Gauge With Proper Inspection Stamp

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Note: The following test must be done with Weight on Wheels (WOW). If aircraft is on jacks, connect the AMC to the aircraft to simulate WOW.

CAUTION: WHEN AIRCRAFT IS ON JACKS, SET TRANSPONDER TO STBY ON THE PFD AFTER APPLYING ELECTRICAL POWER. IF TRANSPONDER IS NOT SET TO STBY, THE AIRCRAFT WILL CAUSE NUISANCE TRANSPONDER TRANSMISSIONS TO THE LOCAL AIRFIELD AND OTHER AIRCRAFT.

- (18) Apply external electrical power to aircraft. Refer to AMM 24-40-00-051-921-001.
- (19) Do an adjustment/test of the fuel indicating system. Refer to the following tasks:
 - (a) Fuel Probe Dry Calibration – AMM 28-40-00-071-701-001
 - (b) Fuel Probe Acceptance Test (ATP) Data Entry Procedure - AMM 28-40-00-071-701-002
 - (c) Fuel Gauging (Wet) Test - AMM 28-40-00-071-701-003
 - (d) Sump Temperature Sensor Test - AMM 28-40-00-071-701-004
- (20) If all other maintenance is complete, return aircraft to service. Refer to AMM 20-00-02-051-921-001.

B. Cost

This Service Bulletin will be accomplished at and by one of the Eclipse Aviation Service Centers.

Parts and Labor will be supplied at no charge to the aircraft owner by Eclipse Aviation Corporation.

C. Parts Disposition

Fuel gauging probes (quantity: 14) that are removed during this SB **must** be returned to EAC Customer Service for disposition.



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4. Record of Compliance

Upon completion of this Service Bulletin, make an appropriate maintenance-record entry specifying the Service Bulletin number (including part number and serial number, if applicable).

5. Notifying Eclipse Aviation

On completing this service bulletin, the operator/maintainer shall complete the attached *Compliance Record* and send it to Eclipse Aviation via regular mail, fax, or e-mail.

Mailing Address: Eclipse Aviation Corporation
ATTN: Customer Care
2503 Clark Carr Loop SE
Albuquerque, NM 87106

Fax: 1-505-241-8802

E-mail: customercare@EclipseAviation.com

