



RSB Service Bulletin
No. RSB-E4-003/12

Austro Engine GmbH
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RECOMMENDED SERVICE BULLETIN

No. RSB-E4-003/12
SUPERSEDES SB No. RSB-E4-003/11

1. BASIC INFORMATION

1.1. SUBJECT

Software and Hardware Versions of the E4 Engine.

1.2. ENGINES AFFECTED

Type: E4 Engine
Serial numbers: all

1.3. REASON

According to the Type Certificate Data Sheet (TCDS) No. E.200, Chapter VI – Note 1, this SB declares the approved software and hardware versions for the Electronic Engine Control Unit (EECU).

With optional software version VC33_x_05_16_D a return fuel heating feature is provided, which is activated below +8°C feeding fuel temperature at HPP and deactivated as soon as +13°C feeding fuel temperature at the HPP is reached. This enables easier operation with Diesel fuel at lower ambient outside temperatures.

NOTE: Corresponding bulletins of the aircraft manufacturer have to be regarded.

1.4. TIME OF COMPLIANCE

None.

NOTE: Prior compliance with MSB E4-003, MSB E4-003/1, MSB E4-003/2, MSB E4-003/3, MSB E4-003/4, MSB E4-003/5, MSB E4-003/6, RSB-E4-003/7, RSB-E4-003/8, RSB-E4-003/9, RSB-E4-003/10 and RSB-E4-003/11 does not preclude compliance with this RSB.

1.5. CONCURRENT DOCUMENTS / REFERENCES

Maintenance Manual – Doc. No.: E4.08.04, latest effective issue
Operation Manual – Doc. No.: E4.01.01, latest effective issue

1.6. OTHER PUBLICATIONS AFFECTED

None.

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2. TECHNICAL DETAILS

2.1. ACCOMPLISHMENT / INSTRUCTIONS

Make sure that the EECU software version of your engine S/N complies with the software version shown in Table 1. For the read-out-procedure of your EECU software version see engine Maintenance Manual Doc. No. E4.08.04 chapter 05-20-05 – EECU Read Out.

If the EECU software version of your engine does not comply with a valid version as listed in Table 1 it is mandatory to be updated with the version shown in Table 1.

It is always recommended to update the software with the latest valid version relevant for your engine serial number.

Update the software according to the Maintenance Manual chapter 76-00-11.

Within the MM all necessary steps for performing a successful software update are described.

For software updates please contact Austro Engine GmbH service partner.

For the time of compliance see chapter 1.4 of this RSB.

General: **VCaa_b_cc_dd_e**
aa Main software version
b HW variant / A/C variant
cc Sub software version
dd Dataset version
e Indicator for optional software version

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	Model	Engine S/N	Eligibility	Software Version	Hardware Version
Latest valid SW / HW Versions	E4-A	E4-A-00001 and subsequent	DA 40 NG	VC33_1_05_16 (E4A-92-200-000-140)	E4A-92-100-000-02()*
	E4-B	E4-B-00001 and subsequent	DA 42 NG	VC33_0_05_16 (E4B-92-200-000-050)	E4A-92-100-000-02()*
	E4-C	E4-C-00001 and subsequent	DA 42 NG	VC33_2_05_16 (E4C-92-200-000-000)	E4A-92-100-000-02()*
Optional valid SW / HW Versions	E4-A	E4-A-00001 and subsequent	DA 40 NG**	VC33_1_05_16_D (E4A-92-300-000-000)	E4A-92-100-000-02()*
	E4-B	E4-B-00001 and subsequent	DA 42 NG**	VC33_0_05_16_D (E4B-92-300-000-000)	E4A-92-100-000-02()*
	E4-C	E4-C-00001 and subsequent	DA 42 NG**	VC33_2_05_16_D (E4C-92-300-000-000)	E4A-92-100-000-02()*
Valid SW / HW Versions	E4-A	E4-A-00001 and subsequent	DA 40 NG	VC33_1_05_11 (E4A-92-200-000-090)	E4A-92-100-000-02()*
				VC33_1_05_12 (E4A-92-200-000-100)	
				VC33_1_05_14 (E4A-92-200-000-120)	
				VC33_1_05_15 (E4A-92-200-000-130)	
	E4-B	E4-B-00001 and subsequent	DA 42 NG	VC33_0_01_04 (E4A-92-200-000-030)	E4A-92-100-000-02()*
				VC33_0_03_07 (E4A-92-200-000-060)	
				VC33_0_05_09 (E4A-92-200-000-070)	
				VC33_0_05_10 (E4A-92-200-000-080)	
				VC33_0_05_11 (E4B-92-200-000-000)	
				VC33_0_05_12 (E4B-92-200-000-010)	
VC33_0_05_13 (E4B-92-200-000-020)					
VC33_0_05_14 (E4B-92-200-000-030)					
VC33_0_05_15 (E4B-92-200-000-040)					
E4-C	E4-C-00001 and subsequent	DA 42 NG	VC33_1_05_13 (E4A-92-200-000-110)	E4A-92-100-000-02()*	
			VC33_1_05_14 (E4A-92-200-000-120)		
			VC33_1_05_15 (E4A-92-200-000-130)		

Table 1: Valid E4 Software / Hardware Versions

* **NOTE:** The last digit of the Hardware part number is a placeholder "()". This digit is not service relevant.

****NOTE:** Corresponding bulletin of the aircraft manufacturer has to be regarded.

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Details of software:

Software version **VC33_x_05_13** improves boost pressure regulation and enables to conduct an engine self-test at or above 34°C gearbox oil temperature.

Software version **VC33_x_05_14** introduces an enhanced caution indication for defective fuel-, coolant- or oil- temperature sensor.

Software version **VC33_x_05_15** corrects erroneous governor mechanical jam indications (DTC failure error code 1C03, error type MAX).

Software version **VC33_x_05_16** includes a softer shut-off behavior and an increased tolerance of the boost pressure governor monitoring at low loads for all engine configurations. For the E4-A engine the maximum torque applied during the self-test procedure is increased for cold ambient conditions. As this modification of the self-test procedure is not applicable to the E4-C engines, a separate SW version for E4-C engines had to be created.

2.2. ILLUSTRATIONS

None.

2.3. MASS (WEIGHT)

Not affected.

2.4. APPROVAL STATEMENT

The technical content of this document has been approved under the authority of DOA No. EASA.21J.399.

3. PLANNING INFORMATION

3.1. MATERIAL & AVAILABILITY

The software and concurrent documents can be obtained through Austro Engine GmbH.

3.2. SPECIAL TOOLS

- AE300 Wizard at least Version 1.2.0.0
- Qualified-Maintenance USB dongle (order number IPEH-002021-QM).

3.3. LABOR EFFORT

Approximately 15 minutes.

3.4. CREDIT

None.

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4. REMARKS

NOTE:

- All measures must be carried out by a certified engine station and certified engine mechanic.
- The accomplishment of the instructions shown under chapter 2.1 must be confirmed in the respective engine log book.
- The accomplishment of the instructions must be carried out within the time of compliance according chapter 1.4.
- In case of doubt please contact the Austro Engine GmbH – After Sales Support (e-mail: service@austroengine.at; Tel: +43 2622 23000 2525).

5. EXPLANATORY NOTES

5.1. SYMBOL EXPLANATION



WARNING: Disregarding these safety rules can cause personal injury or even death



CAUTION: Disregarding these special instructions and safety measures can cause damage to the engine or other components.



NOTE: Additional note or instruction for better understanding of an instruction

6. APPENDIX

- Execution Report

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EXECUTION REPORT TO SERVICE BULLETIN RSB-E4-003/12

ENGINE DATA

Engine Serial Number: _____

Airplane Registration: _____

SW Version before Update: _____

SW Version after Update _____

Engine operating hours: _____

Date of exchange: _____

Date, Name, Signature

Please send the completed form to Fax No.: +43(0)2622-23000-2709 or e-mail to service@austroengine.at.

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