




B17	AH00.00-X-1000Z	General notes	30.6.99
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AH15.10-P-0002-01B	Notes on avoiding damage to the ignition system	Engine 111 with PEC fuel injection and ignition system	C17
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C17	AH15.10-P-000Z-01B	Notes on avoiding damage to the ignition system	Engine 111 with PEC fuel injection and ignition system	
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- In order to avoid damage to the control module, the two connectors at the control module must not be disconnected or connected unless the ignition is switched off.
- Terminal 1 of the ignition coils must not be short-circuited to ground, e.g. anti-theft protection.
- Install only genuine components of the ignition system.
- Do not operate ignition system at starter speed unless all of the ignition cables are completely connected.
- At starter speed or when the engine is running, it is not permitted to carry out any tests, for example holding the ignition cable 4 close to ground, unplugging a spark plug connector or pulling cable 4 out of the ignition coils.
- The load applied to each high voltage circuit must be at least 2 k Ω (spark plug connector).

- If it is necessary to test the ignition spark when providing breakdown assistance, this must only be done with a spark plug at a cylinder ignition cable. Ensure good ground contact of the spark plug.
- Before carrying out work at starter speed, e.g. testing compression pressure, switch off ignition and unplug connector of crankshaft position sensor at the control module.

Use of test equipment

- Do not connect or disconnect a secondary measured value pickup to the appropriate ignition cables unless the engine is not running and the ignition is switched off.
- If the short-circuit protection (cylinder comparison) is operated and the engine stops, it is not possible to carry out the test with this tester.

D17 AH15.10-P-0002-01C	Notes on avoiding damage to the ignition system	Engine 104, 111 with HFM-SFI fuel injection and ignition system	
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- In order to avoid damage to the control module, the two connectors at the control module must not be disconnected or connected unless the ignition is switched off.
- Terminal 1 of the ignition coils must not be short-circuited to ground, e.g. anti-theft protection.
- Install only genuine components of the ignition system.
- Do not operate ignition system at starter speed unless all of the ignition cables are completely connected.
- At starter speed or when the engine is running, it is not permitted to carry out any tests, for example holding the ignition cable 4 close to ground, unplugging a spark plug connector or pulling cable 4 out of the ignition coils.
- The load applied to each high voltage circuit must be at least 2 k Ω (spark plug connector).

- If it is necessary to test the ignition spark when providing breakdown assistance, this must only be done with a spark plug at a cylinder ignition cable. Ensure good ground contact of the spark plug.
- Before carrying out work at starter speed, e.g. testing compression pressure, switch off ignition and unplug connector "2" the control module.

Use of test equipment


- Do not connect or disconnect a secondary measured value pickup to the appropriate ignition cables unless the engine is not running and the ignition is switched off.
- If the short-circuit protection (cylinder comparison) is operated and the engine stops, it is not possible to carry out the test with this tester.
- Do not connect a test lamp to terminal 1 and 15 of the ignition coils.


E17


AH15.10-P-0002-01D

Notes on avoiding damage to the ignition system



- In order to avoid damage to the control module, the two connectors at the control module must not be disconnected or connected unless the ignition is switched off.
 - Terminal 1 of the ignition coils must not be short-circuited to ground, e.g. anti-theft protection.
 - Install only genuine components of the ignition system.
 - Do not operate ignition system at starter speed unless all of the ignition cables are completely connected.
 - At starter speed or when the engine is running, it is not permitted to carry out any tests, for example holding the ignition cable 4 close to ground, unplugging a spark plug connector or pulling cable 4 out of the ignition coils.
 - The load applied to each high voltage circuit must be at least 2 k Ω (spark plug connector).
 - If it is necessary to test the ignition spark when providing breakdown assistance, this must only be done with a spark plug at a cylinder ignition cable. Ensure good ground contact of the spark plug.
 - Before carrying out work at starter speed, e.g. testing compression pressure, switch off ignition and unplug connector "2" the control module.
-  Engine 120 has two fuel injection and ignition systems.
- #### Use of test equipment
- Do not connect or disconnect a secondary measured value pickup to the appropriate ignition cables unless the engine is not running and the ignition is switched off.
 - If the short-circuit protection (cylinder comparison) is operated and the engine stops, it is not possible to carry out the test with this tester.
 - Do not connect a test lamp to terminal 1 and 15 of the ignition coils.



F17	AH15.10-P-0002-01E	Notes on avoiding damage to the ignition system	Engine 103, 104, 119 with CFI fuel injection system	
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- In order to avoid damage to the control module, the two connectors at the control module must not be disconnected or connected unless the ignition is switched off.
- Terminal 1 of the ignition coils must not be short-circuited to ground, e.g. anti-theft protection.
- Install only genuine components of the ignition system.
- Do not operate ignition system at starter speed unless all of the ignition cables are completely connected.
- At starter speed or when the engine is running, it is not permitted to carry out any tests, for example holding the ignition cable 4 close to ground, unplugging a spark plug connector or pulling cable 4 out of the ignition coils.
- The load applied to each high voltage circuit must be at least 2 k Ω (spark plug connector).
- If it is necessary to test the ignition spark when providing breakdown assistance, this must only be done with a spark plug at a cylinder ignition cable. Ensure good ground contact of the spark plug.
- Before carrying out work at starter speed, e.g. testing compression pressure, switch off ignition and unplug connector(s) of crankshaft position sensor at the DI control module.
- The DI control module is installed with heat conducting paste at the wheel housing to improve heat dissipation. If replaced, the protective sheeting must not be removed. It does not impair the heat dissipation.

Use of test equipment

- Do not connect or disconnect a secondary measured value pickup to the appropriate ignition cables unless the engine is not running and the ignition is switched off.
- If the short-circuit protection (cylinder comparison) is operated and the engine stops, it is not possible to carry out the test with this tester.
- Do not connect a test lamp to terminal 1 and 15 of the ignition coils.

G17 AH15.10-P-0002-01F	Notes on avoiding damage to the ignition system	Engine 104, 119, 120 with LH-SFI fuel injection system	
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- In order to avoid damage to the control module, the two connectors at the control module must not be disconnected or connected unless the ignition is switched off.
 - Terminal 1 of the ignition coils must not be short-circuited to ground, e.g. anti-theft protection.
 - Install only genuine components of the ignition system.
 - Do not operate ignition system at starter speed unless all of the ignition cables are completely connected.
 - At starter speed or when the engine is running, it is not permitted to carry out any tests, for example holding the ignition cable 4 close to ground, unplugging a spark plug connector or pulling cable 4 out of the ignition coils.
 - The load applied to each high voltage circuit must be at least 2 k Ω (spark plug connector).
 - If it is necessary to test the ignition spark when providing breakdown assistance, this must only be done with a spark plug at a cylinder ignition cable. Ensure good ground contact of the spark plug.
 - Before carrying out work at starter speed, e.g. testing compression pressure, switch off ignition and unplug connector(s) of crankshaft position sensor at the DI control module.
- Engine 120 has two fuel injection and ignition systems.
- The DI control module is installed with heat conducting paste at the wheel housing to improve heat dissipation. If replaced, the protective sheeting must not be removed. It does not impair the heat dissipation.
- #### Use of test equipment
- Do not connect or disconnect a secondary measured value pickup to the appropriate ignition cables unless the engine is not running and the ignition is switched off.
 - If the short-circuit protection (cylinder comparison) is operated and the engine stops, it is not possible to carry out the test with this tester.
 - Do not connect a test lamp to terminal 1 and 15 of the ignition coils.