

REMOVING - REFITTING : VARIABLE TIMING ACTUATORS

1. Location

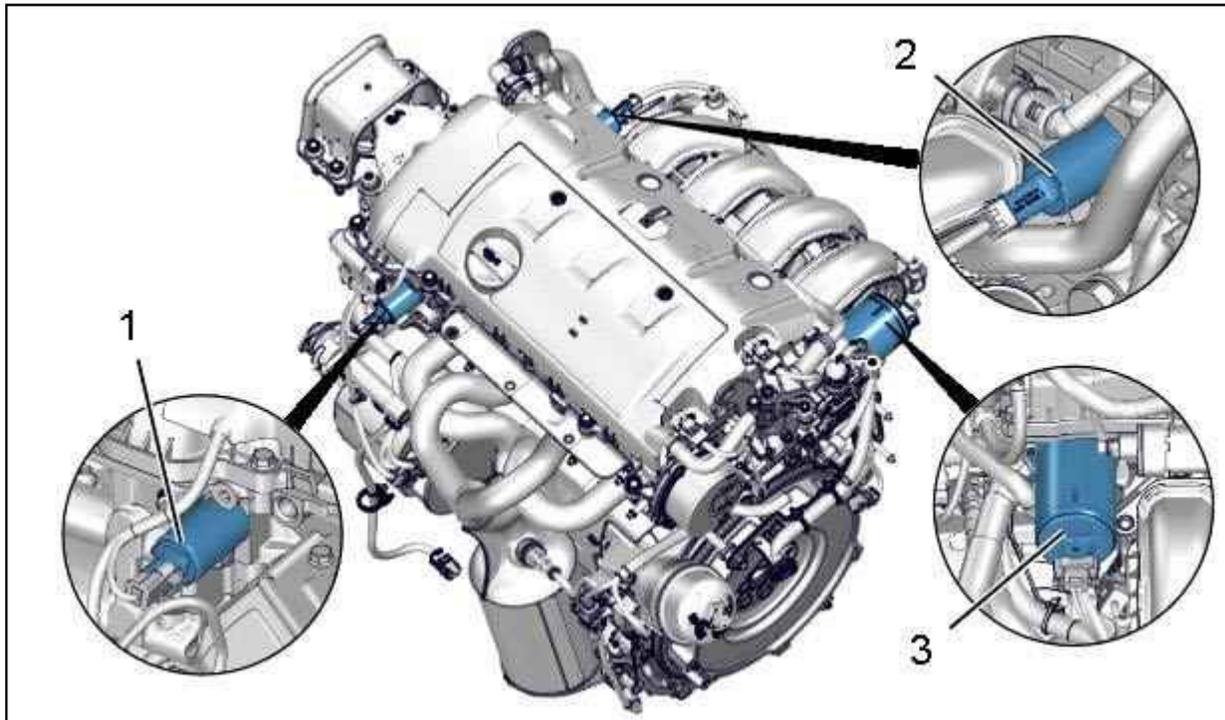


Figure : B1BM0DRD

- (1) Variable timing electrovalve (I) (Exhaust).
- (2) Variable timing electrovalve (I) (Inlet).
- (3) Eccentric shaft actuator .

N.B. : Removal of the electrovalve (2) or of the actuator (3) requires removal of the air filter housing.

2. Variable timing electrovalve (1) (Exhaust)

2.1. Removing

CAUTION : After switching off the ignition: wait 15 minutes before disconnecting the battery, to ensure that the initialisations of the various ECUs are memorised.

Disconnect the battery.

CAUTION : Allow the exhaust line to cool.

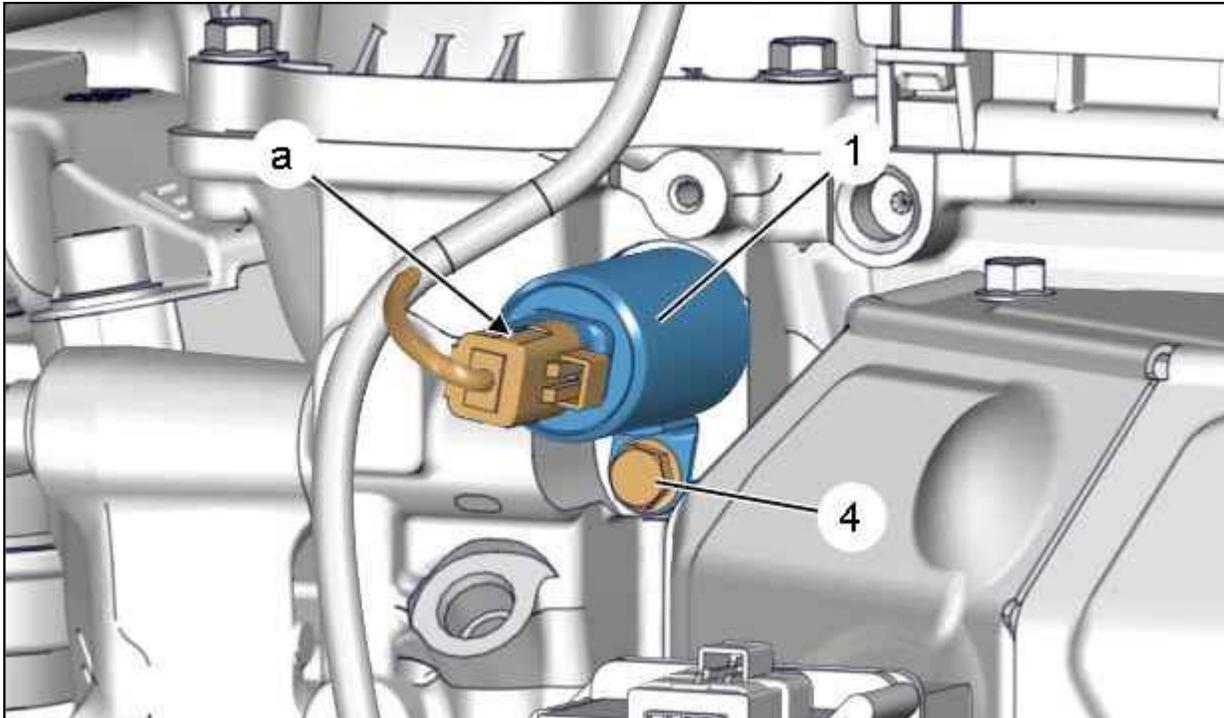


Figure : B1EM044D

Disconnect the connector (at "a").

N.B. : Protect the surrounding area using a cloth on removal to absorb the oil which flows out of the opening.

Remove :

- The (4) bolt
- The solenoid valve (1)

2.2. Refitting

N.B. : Clean the sensor sealing zone and check that it is free of knocks and scratches.

Fit :

- The solenoid valve (1) (equipped with a new seal)
- The (4) bolt ; Tighten to $0,9 \pm 0,1$ daN.m

Connect the connector (at "a").

Connect the battery.

Check the oil level.

3. Variable timing electrovalve (2) (Inlet)

3.1. Removing

Disconnect the battery.

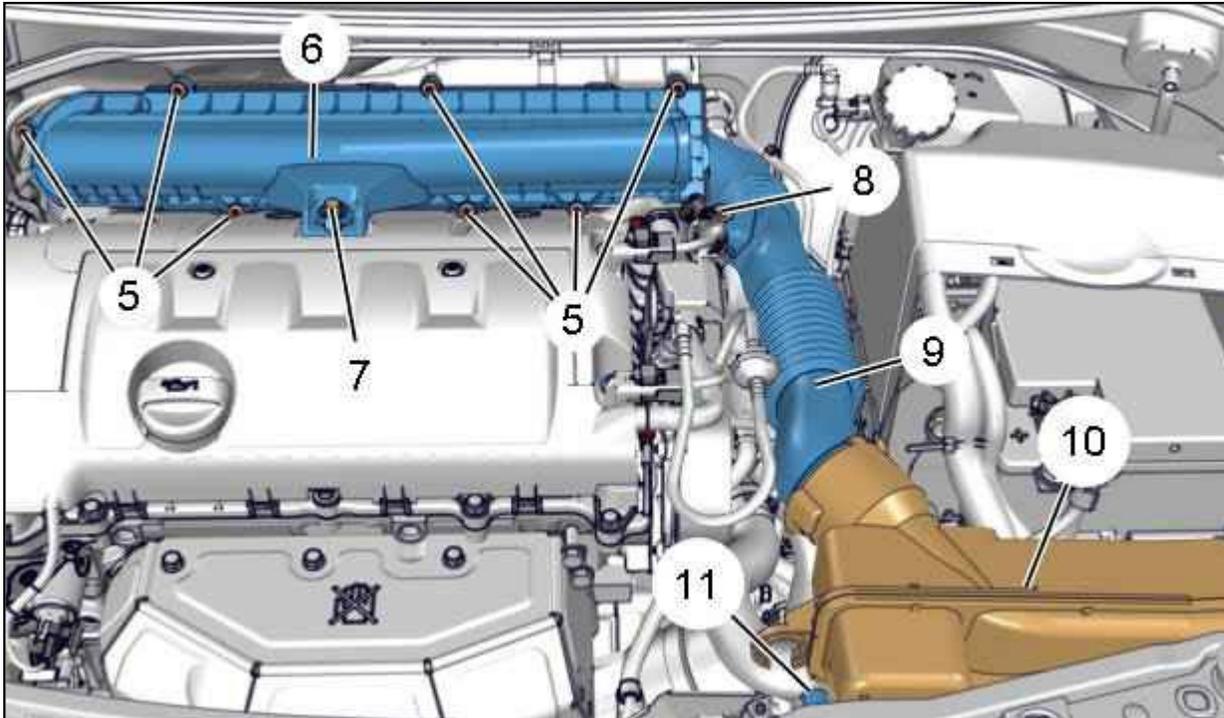


Figure : B1EM04GD

Unscrew :

- The bolts (5)
- The (7) bolt

Remove :

- The air filter cover (6)
- The filter element
- The (8) bolt
- The air union (9)
- The fixing (11)
- The resonator (10)

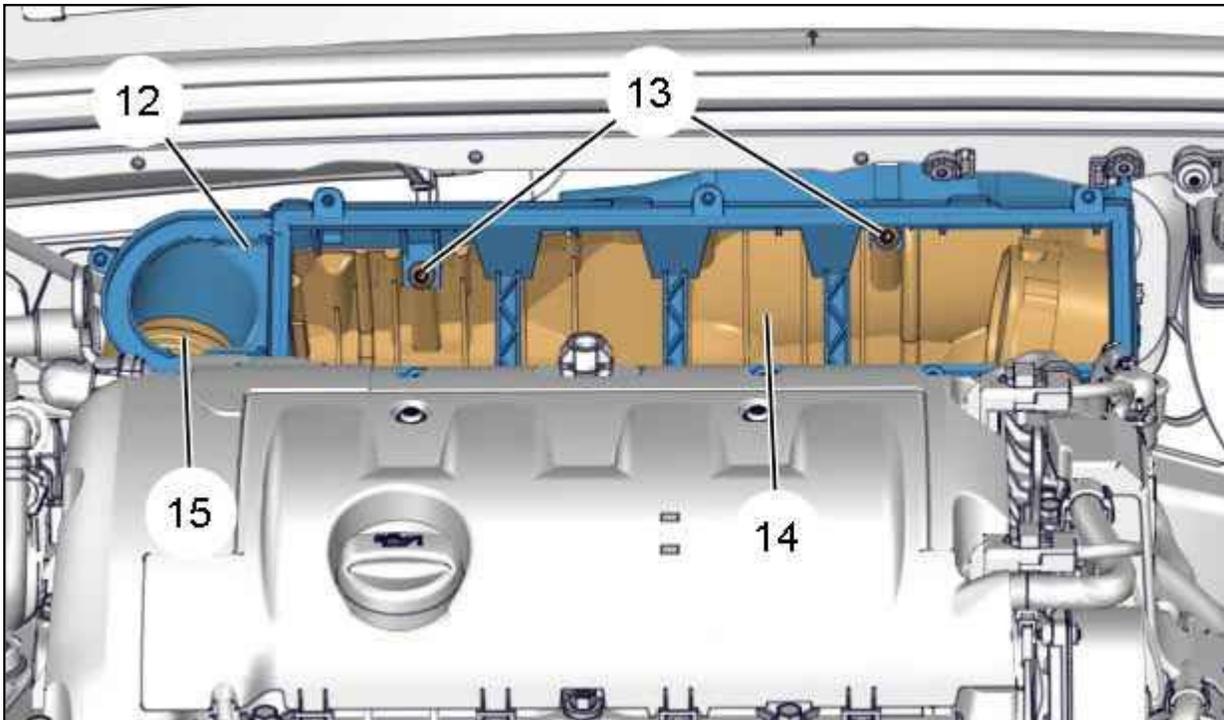


Figure : B1EM046D

Remove :

- The bolts (13)
- The intermediate filter support (12)
- The air filter housing (14)
- The inlet air union (15)

N.B. : Remove the air filter housing between the battery and the engine.

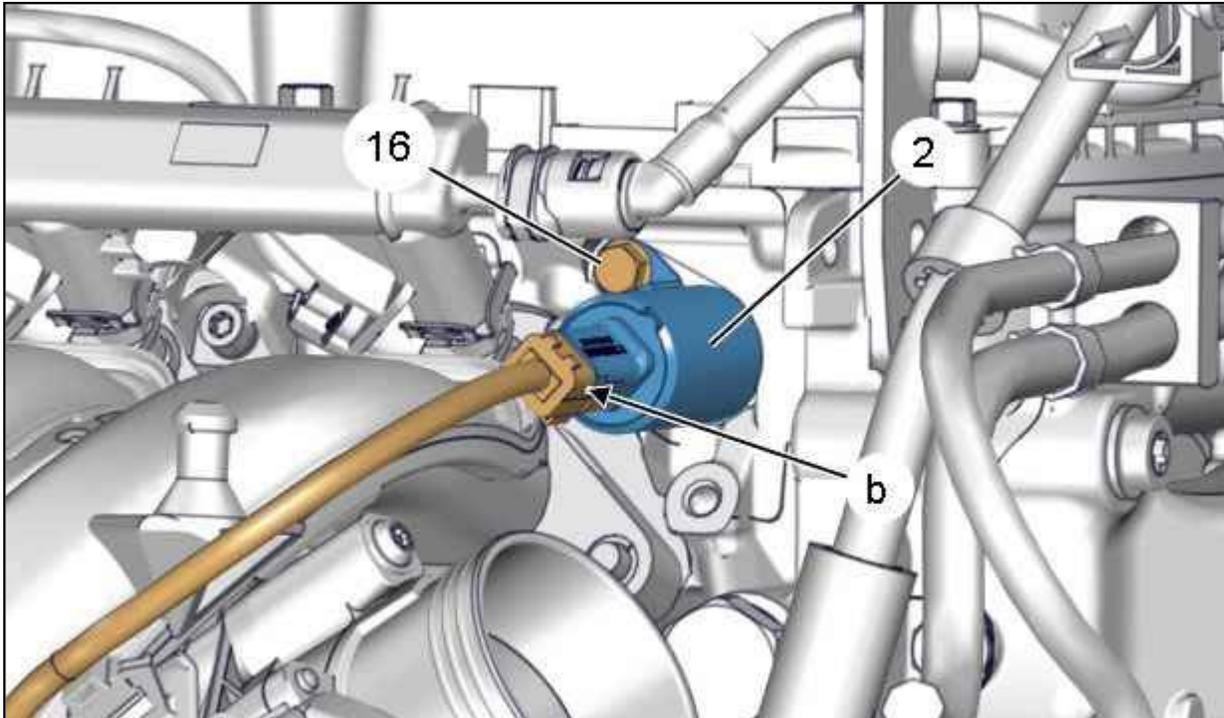


Figure : B1EM047D

Disconnect the connector (at "b").

N.B. : Protect the surrounding area using a cloth on removal to absorb the oil which flows out of the opening.

Remove :

- The (16) bolt
- The solenoid valve (2)

3.2. Refitting

N.B. : Clean the sensor sealing zone and check that it is free of knocks and scratches.

Fit :

- The solenoid valve (2) (equipped with a new seal)
- The (16) bolt ; Tighten to $0,9 \pm 0,1$ daN.m

Connect the connector (at "b").

Fit :

- The inlet air union (15)
- The air filter housing (14)
- The intermediate filter support (12)
- The bolts (13)
- The filter element
- The air filter cover (6)

Tighten :

- The bolts (5)
- The (7) bolt

Fit :

- The air union (9)
- The (8) bolt ; Tighten to $0,8 \pm 0,1$ daN.m
- The resonator (11)
- The air deflector (10)

Connect the battery.
Check the oil level.

4. Eccentric shaft actuator (3)

URGENT : Never supply the actuator directly: risk of injury. The actuator must only be supplied by the engine management ECU with the original connector, following correct fitting on the cylinder head.

4.1. Removing

Disconnect the battery.

Unscrew :

- The bolts (5)
- The (7) bolt

Remove :

- The air deflector (10)
- The resonator (11)
- The (8) bolt
- The air union (9)
- The air filter cover (6)
- The filter element

Remove :

- The bolts (13)
- The intermediate filter support (12)
- The air filter housing (14) (Remove the air filter housing between the battery and the engine)

N.B. : Remove the air filter housing between the battery and the engine.

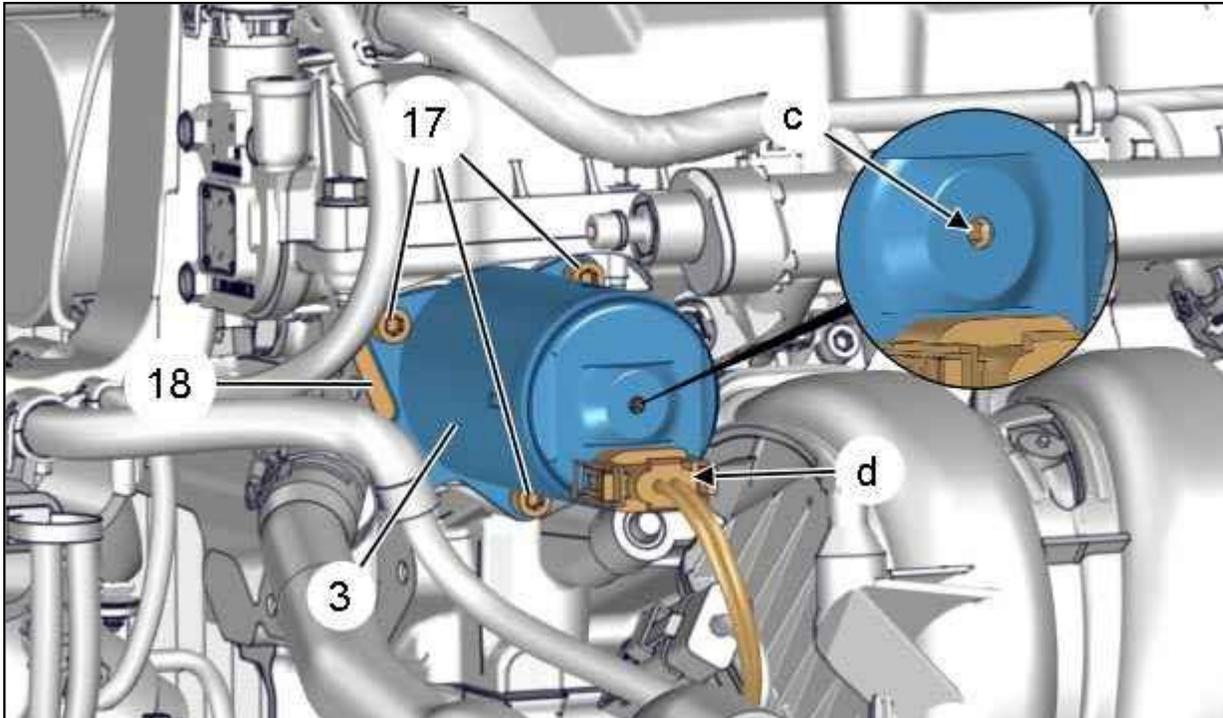


Figure : B1EM048D

Unplug : The actuator connector (at "c").

N.B. : Protect the surrounding area using a cloth on removal to absorb the oil which flows out of the opening.

Remove :

- The bolts (17)
- The eccentric shaft actuator (3), by turning the pin (at "c") ; Using a size 4 allen key (anti clockwise)
- The seal (18)

4.2. Refitting

N.B. : Clean the sensor sealing zone and check that it is free of knocks and scratches.

Fit :

- The seal (18) (New)
- The eccentric shaft actuator (3), by turning the pin (at "c") ; Using a size 4 allen key (clockwise)
- The bolts (17) ; Tighten to $0,8 \pm 0,1$ daN.m

Connect : The actuator connector (at "c").

Fit :

- The inlet air union (15)
- The air filter housing (14)
- The intermediate filter support (12)
- The bolts (13)
- The filter element
- The air filter cover (6)

Tighten :

- The bolts (5)
- The (7) bolt

Fit :

- The air union (9)
- The (8) bolt ; Tighten to $0,8 \pm 0,1$ daN.m
- The resonator (11)
- The air deflector (10)

Connect the battery.

Check the oil level.