Components used to control and regulate air conditioner (in passenger compartment)
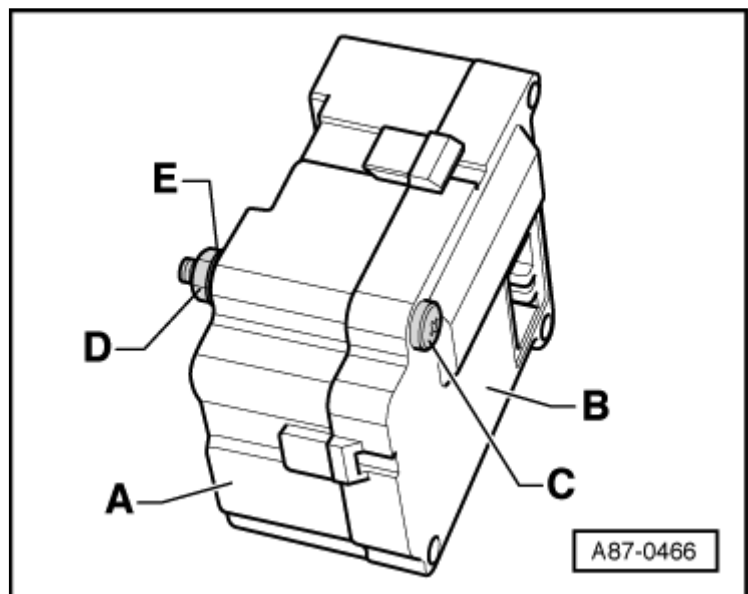Removing and installing centre vents control motors (-V102, -V110 and -V111)

Notes:

- ☐ When removing, mark the motor/flap connecting element (this will prevent it from being mixed up with the connecting elements of other control motors).
- ☐ If the "Adaption limit exceeded" fault occurs, check the motor/flap connecting element. There must not be any clearance between the control motor shaft and the connecting element.
- ☐ Replace the control motor if it emits cracking or rattling noises at regular intervals (approx. every 7 min.).

- – These noises are emitted from the control motor gearing when the control motor is actuated by the -E87.
- – The control motor is actuated to hold the flap/motor securely at a stop limit.

- – To determine which control motor is causing the noises, the various control motors must be connected in sequence (using the test box V.A.G 1598 and wires from the adapter set V.A.G 1594A) to the 12 V vehicle voltage (positive socket "E5" and negative socket "E9") until each control motor has reached a stop limit. The control motor is moved to the other stop limit by swapping over positive and negative. Connecting the test box sockets to the various control motors => Page 01-194 Electrical test, test step 6.3 to 6.10 and

=> Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder

- ☐ → All replacement control motors will eventually only be available with the additional bolt -C- on the housing.

=> Parts List

- – The bolt is intended to prevent the cover -B- from lifting off and the drive shaft in housing -A- from slipping.
- – Depending on the fitting location of the control motor on the air conditioner unit, it may be necessary to remove the bolt -C- (the above-described function of the bolt -C- is then performed by the bolt which secures the control motor to the air conditioner unit).

- – → Depending on the fitting location of the control motor on the air conditioner, it may be necessary to shorten the web for the third mounting point on the air conditioner unit so that the control motor can be securely fitted without the bolt -C- or nut -

A87-0466

D- making contact with the air conditioner unit (the control motor is not bolted at this point).

- – If a replacement control motor is supplied, the bolt -C- (M3 x 30) can be retrofitted with an appropriate shim -E- and nut -D-.

Left control motor -V110/right control motor -V111

Removing

- – Remove dash panel:

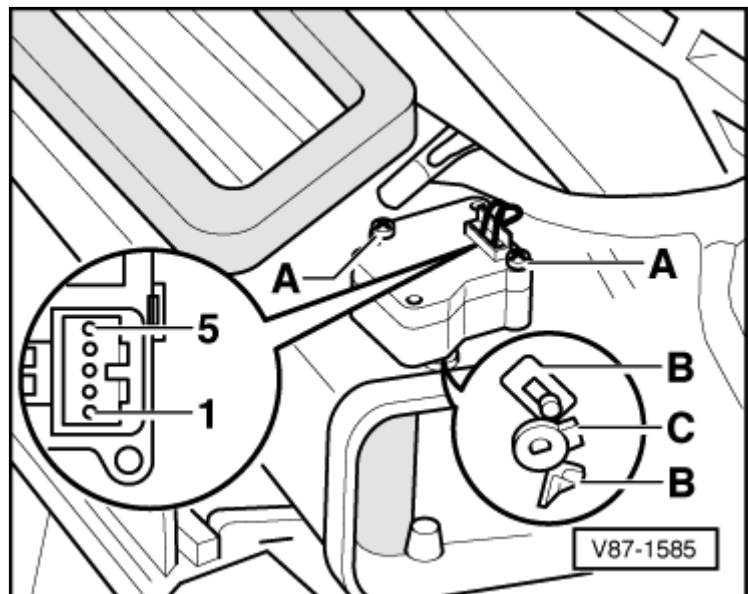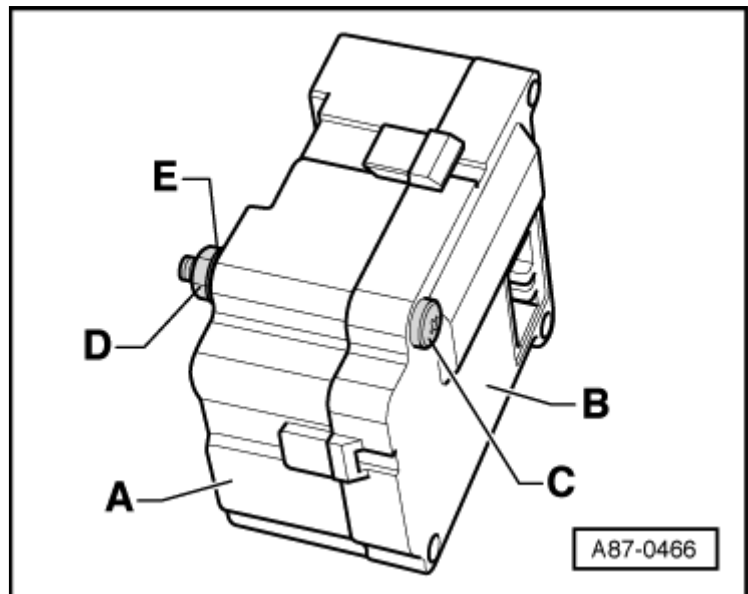- – → Screw out bolts -A-.
- – Remove control motor.

Note:

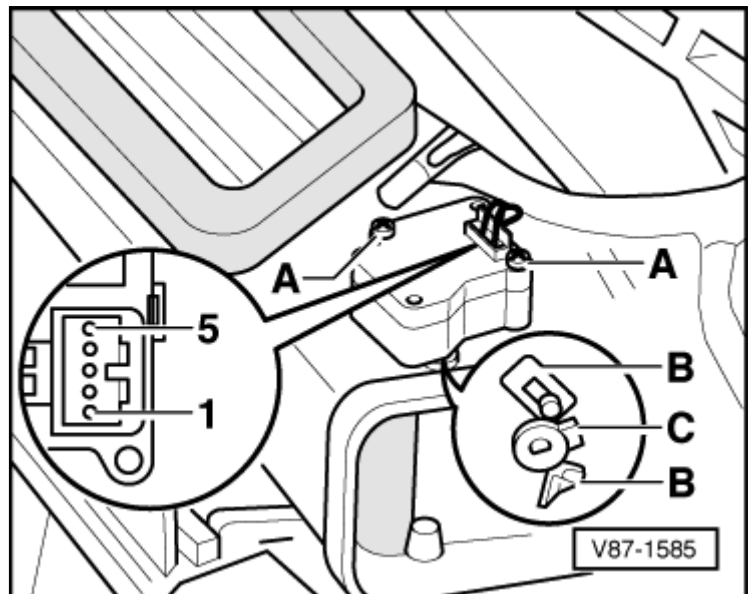The illustration shows the control motor -V111.

Installing

- – Before installing control motor, check mounting of flap.
  - – Lug -C- must be between stops -B-
- – Install control motor.
- – If the position of the shaft prevents the motor from being installed, use the test lead from V.A.G 1594 A to connect contact 4 and 5 of the control motor to a 12 V battery via a 5 A fuse.

- – Allow the control motor to turn until it has reached a position which will permit installation. The direction of rotation can be reversed by swapping positive and negative.
- – → Hand-tighten securing bolts -A- (4 Ncm).
- – Interrogate fault memory => Page 01-101.
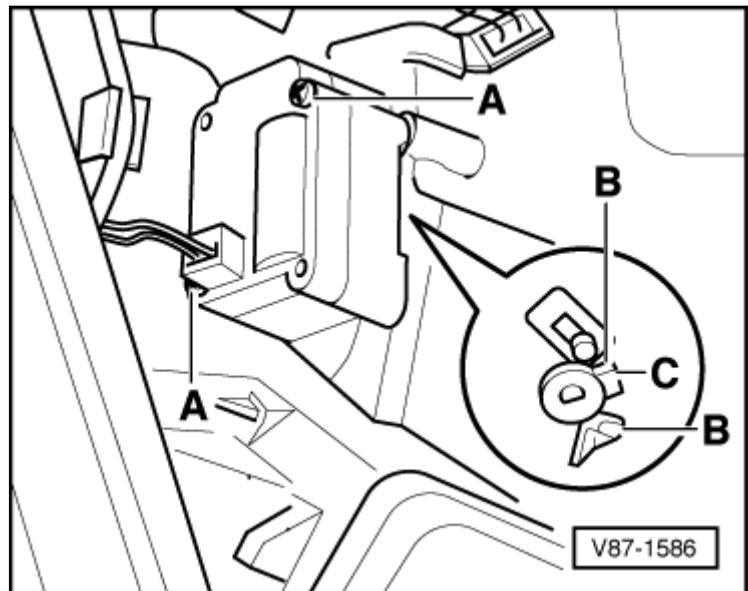
Control motor -V102

Removing

V87-1585

- – Remove driver's storage compartment and side trim of centre console:

=> General Body Repairs, Interior; Repair Group 70

- – → Screw out bolts -A-.
- – Remove control motor from air conditioner unit.

V87-1586

Installing

- – Before installing control motor, check mounting of flap.

  o – → Lug -C- must be between stops -B-
- Install control motor.
- If the position of the shaft prevents the motor from being installed, use the test lead from V.A.G 1594 A to connect contact 4 and 5 of the control motor to a 12 V battery via a 5 A fuse.
- Allow the control motor to turn until it has reached a position which will permit installation. The direction of rotation can be reversed by swapping positive and negative.
- Hand-tighten securing bolts -A- (4 Ncm).
- Interrogate fault memory => Page 01-101.

V87-1586