

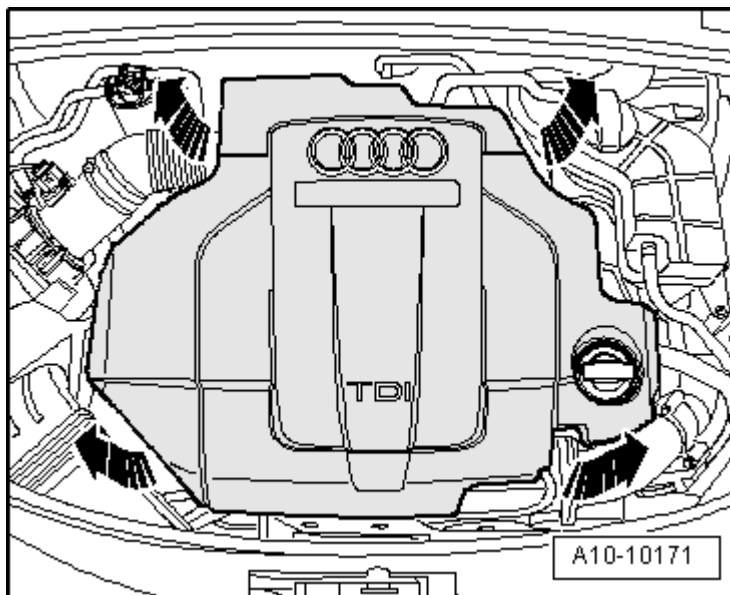
Removing and installing turbocharger 1 control unit -J724- - vehicles with 2.7 ltr. engine up to 12.2005 and 3.0 ltr. engine

Special tools and workshop equipment required

- ♦ Tester -VAS 6395-
- ♦ Connection lead -VAS 6395/4-2-
- ♦ Open-end spanner, 10 mm (90 mm long) -VAS 6395/4-3-

Removing

- Carefully pull engine cover panel off four retaining pins one after the other -arrows-.

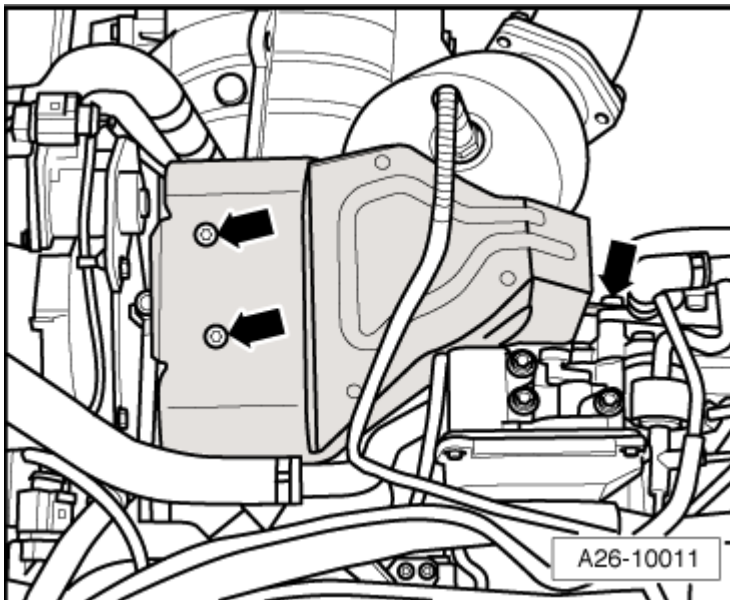


- Remove bolts -arrows- and detach heat shield for turbocharger.



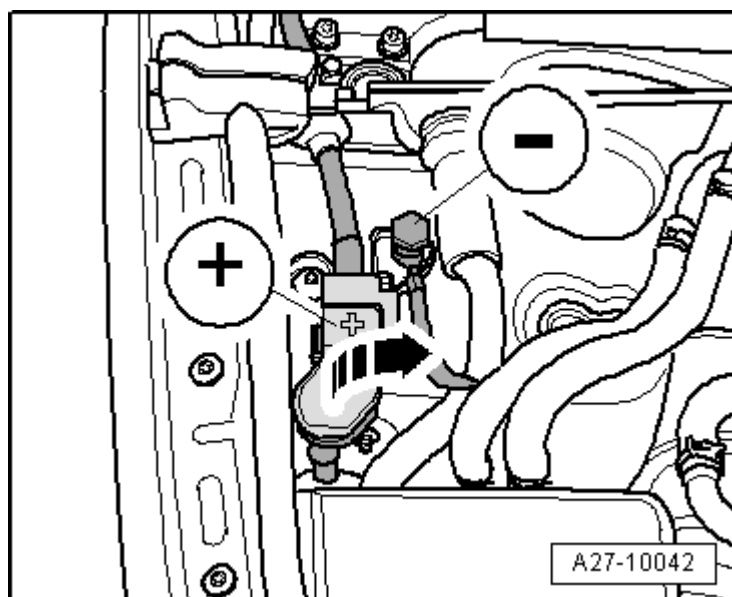
Note




The bottom bolt -right arrow- does not have to be completely removed.



- Open cover -arrow- above positive terminal.
- Connect tester -VAS 6395- with connection lead -VAS 6395/4-2- to positive terminal „+“ and negative terminal „-“.

Procedure for tester for E-positioner -VAS 6395A/1-:

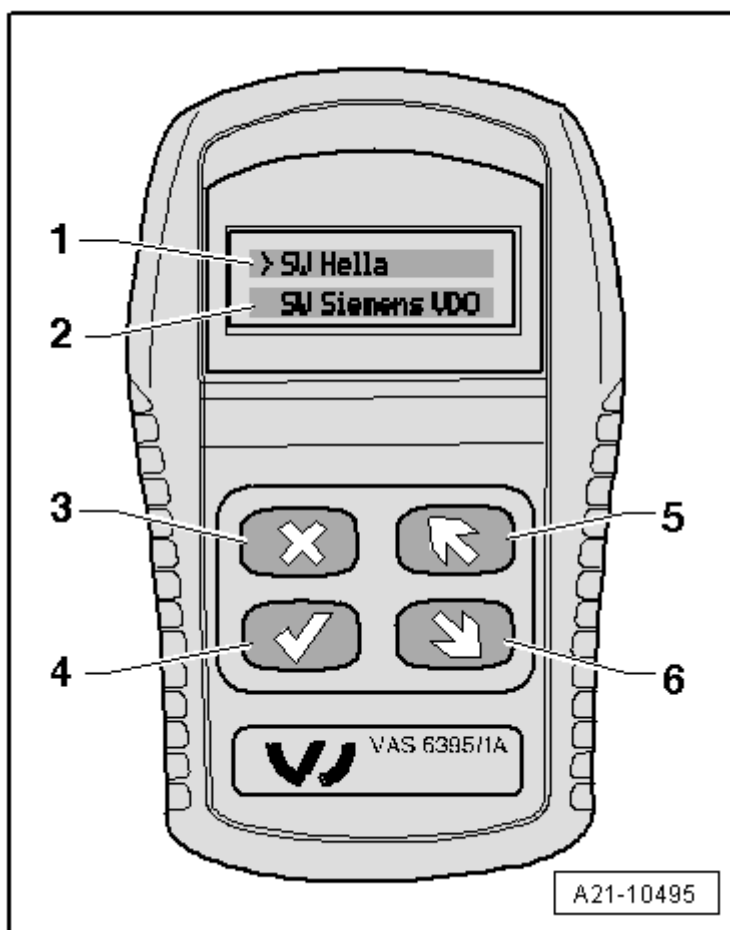


- Select software version with buttons  - item 5- and  - item 6-.
- To confirm software version, press  button - item 4-.



Note

In this example, software version Hella -item 1- is selected.



Procedure for tester for E-positioner - VAS 6395/1-:



Caution

Risk of damage to turbocharger 1 control unit -J724-.

Before continuing, check whether the correct software version is loaded in

the tester -VAS 6395/1-. To do so, proceed as follows:

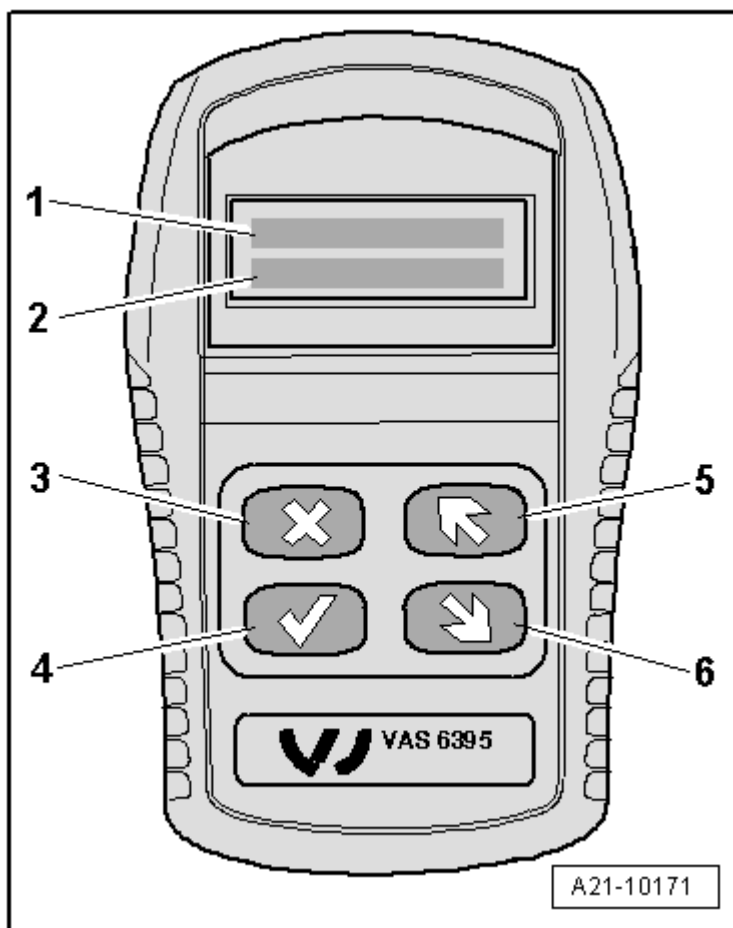
Display on -VAS 6395/1- (2 seconds after connecting to power supply) if correct software version is loaded:

- 1 - >TEST
- 2 - LEARN



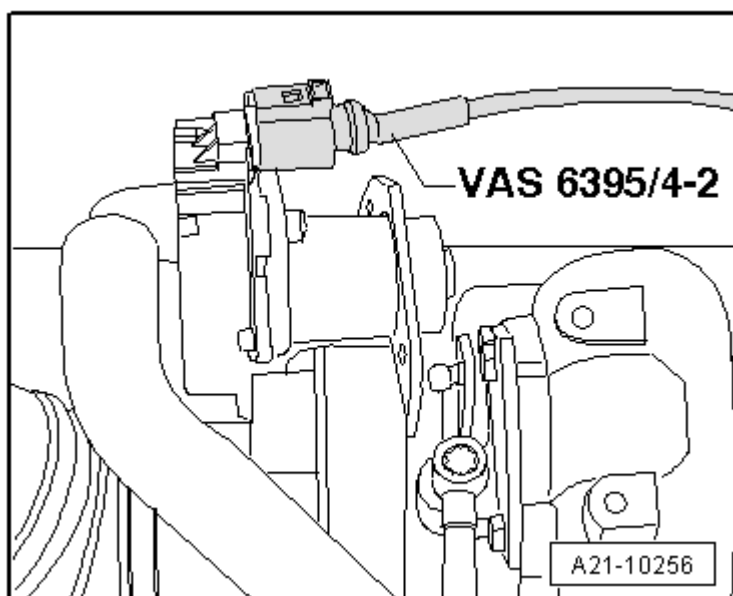
Note

- ♦ If the following appears on the display, an incorrect software version has been loaded:
- ♦ 1. START
- ♦ 2. NEXT [>]
- ♦ If this is the case, download the correct software version from the „Audi ServiceNet“ under „Workshop Equipment“.



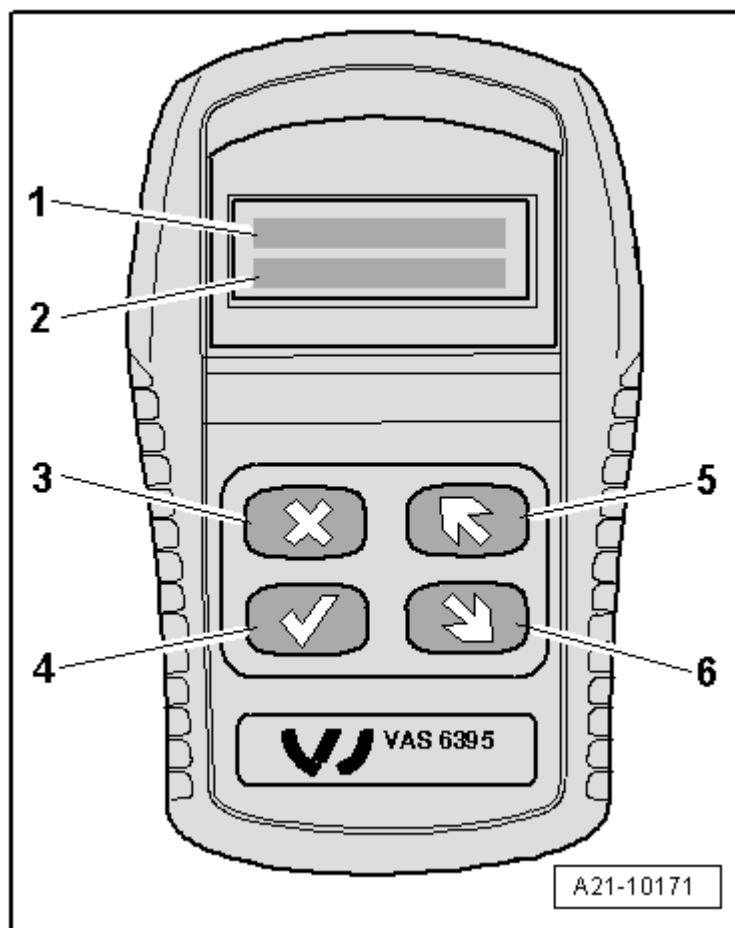
Continued for both testers for E-positioner:

- Unplug electrical connector for turbocharger 1 control unit -J724-.
- Connect connection lead -VAS 6395/4-2- to turbocharger 1 control unit -J724- and to tester -VAS 6395-.



Display on -VAS 6395/1-:

- 1 - >TEST
- 2 - LEARN
- To continue, press ☐ button -item 4-.

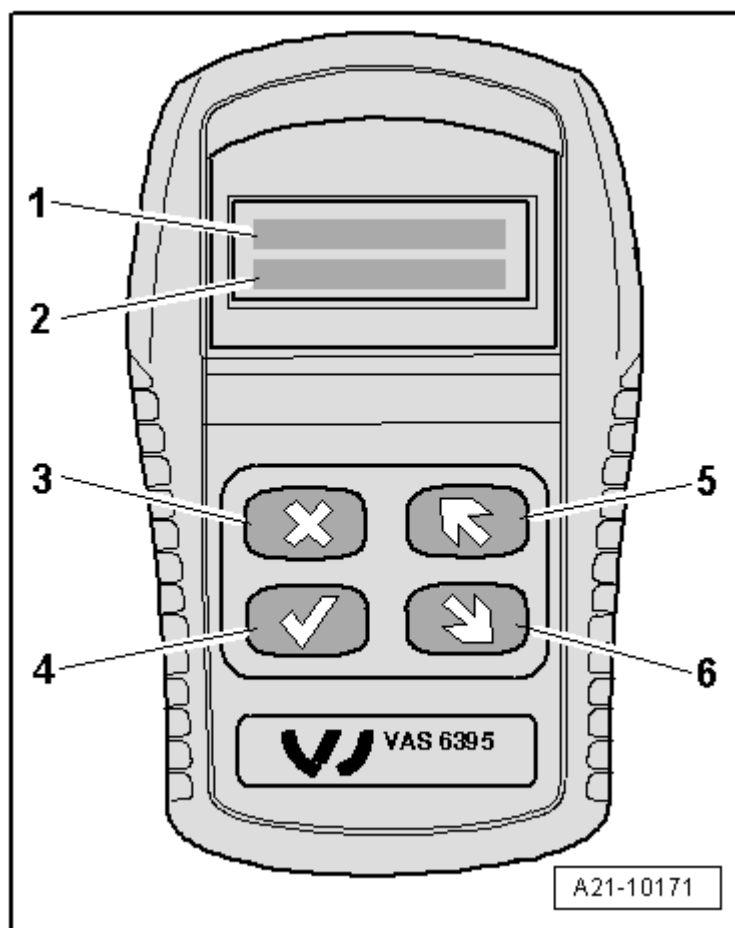


Display on -VAS 6395-:

1 - CHECK

2 - S: XX % I: XX %

- The tester -VAS 6395- runs through the adjustment range of the turbocharger 1 control unit -J724- and checks the feedback of the positions.

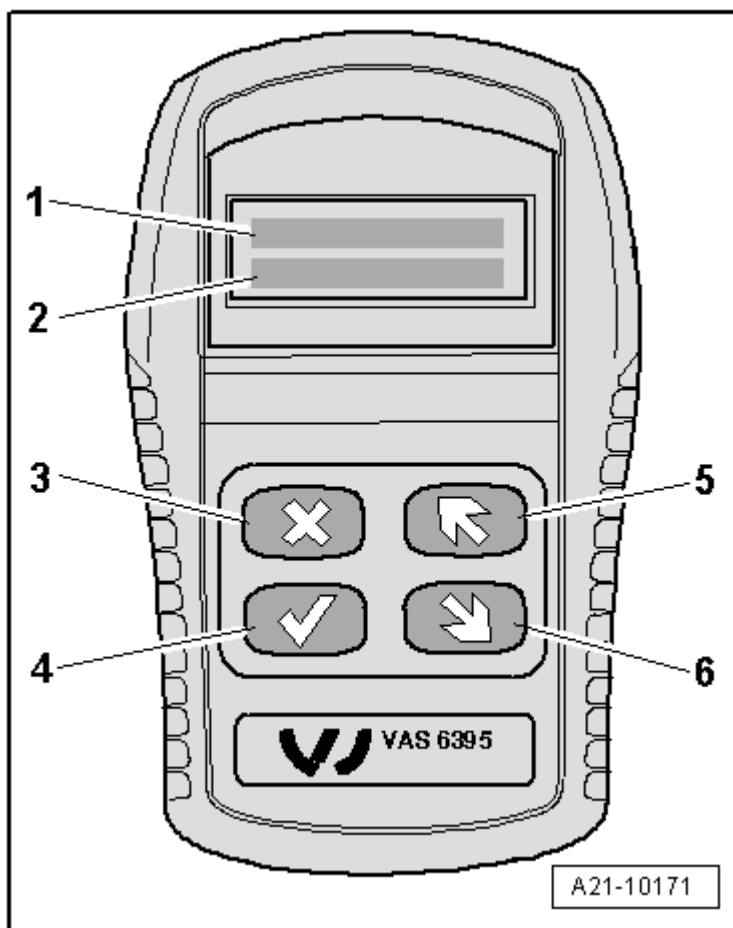


Display on -VAS 6395- if turbocharger 1 control unit -J724- is OK:

1 - ACTUATOR OK

- The test is completed.
- Unplug electrical connectors for tester - VAS 6395-.

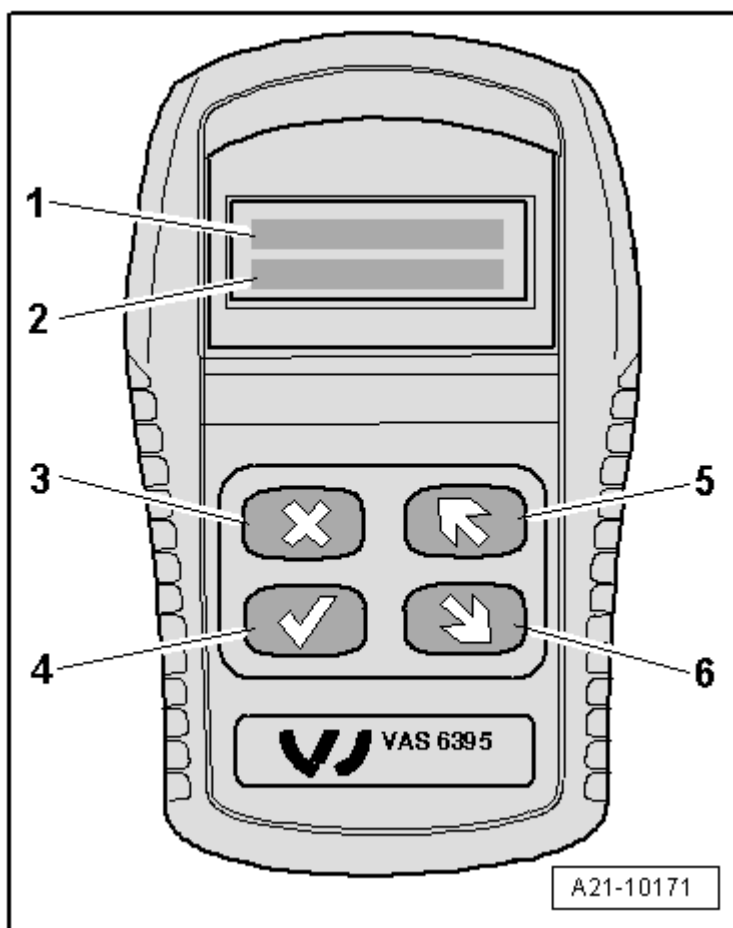
Assemble in reverse order.



Display on -VAS 6395- if turbocharger 1 control unit -J724- is not OK:

1 - PROBLEM

- Renew turbocharger 1 control unit -J724-.

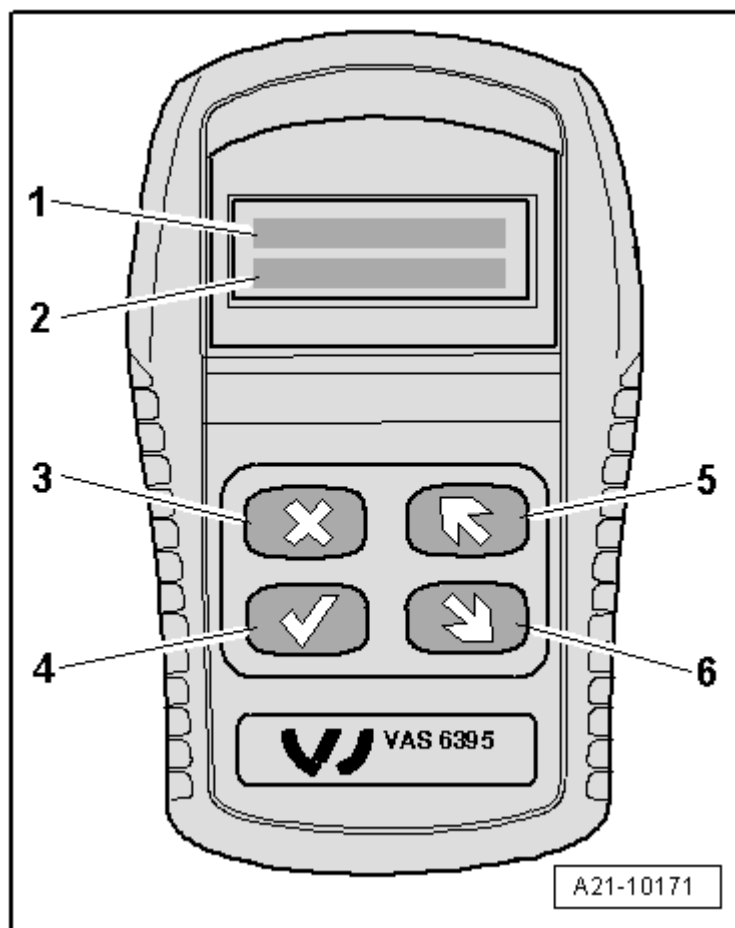


- To do so, proceed as follows:
- To continue, press ☐ button -item 4-.

Display on -VAS 6395-:

- 1 - >TEST
- 2 - LEARN

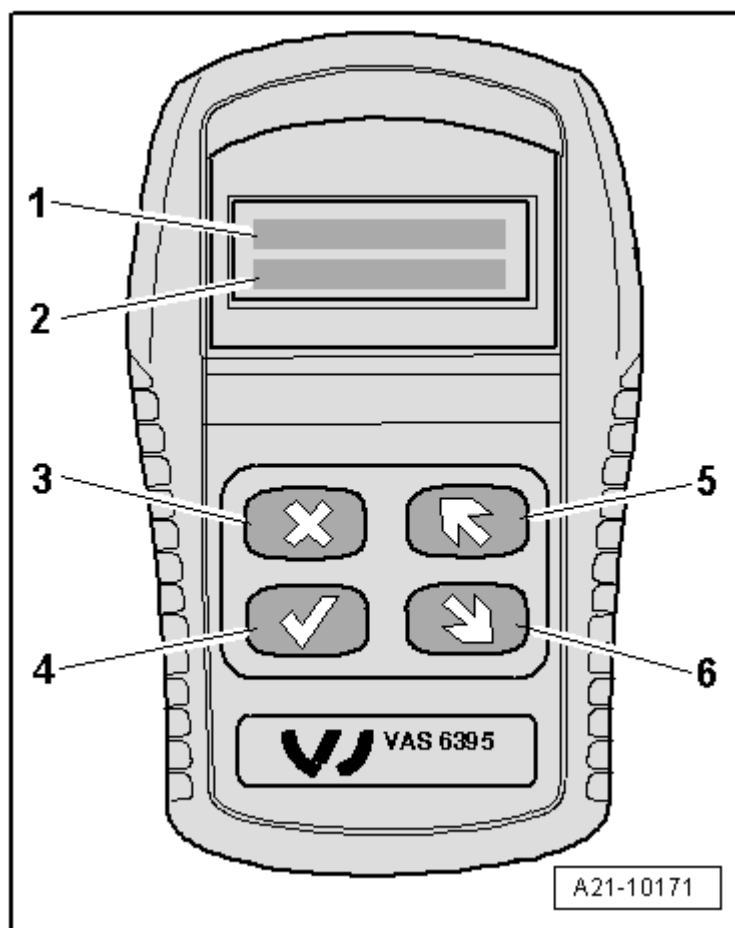
- Press ☐ button -item 6-.



Display on -VAS 6395-:



- 1 - TEST
- 2 - >LEARN

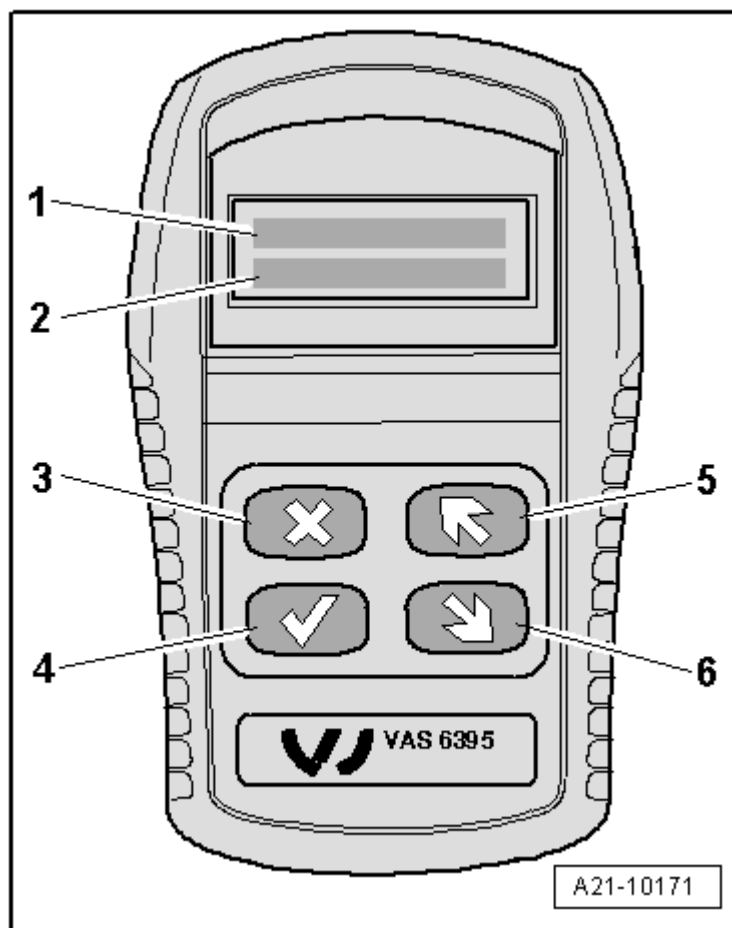
- To continue, press ☐ button -item 4-.



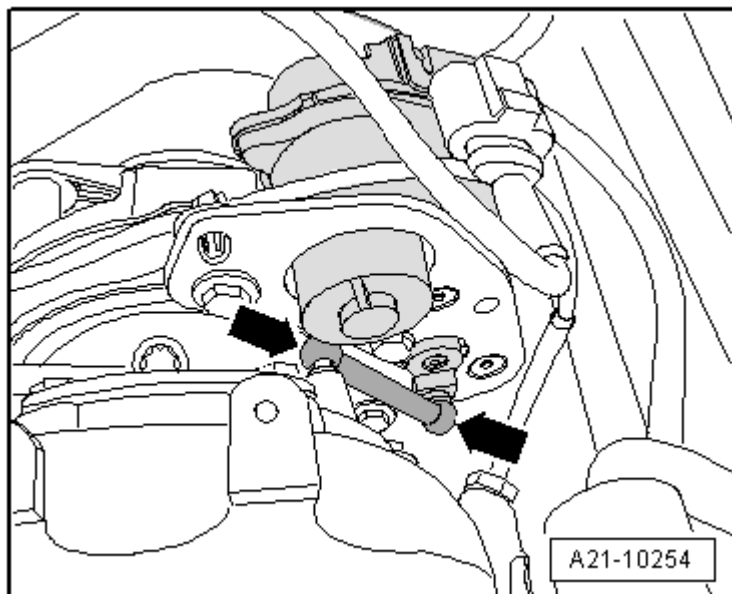
Display on -VAS 6395-:


1 - STEP 1

- By pressing buttons -item 5- and -item 6-, adjust turbocharger 1 control unit -J724- so that coupling rod can be accessed easily for removal.



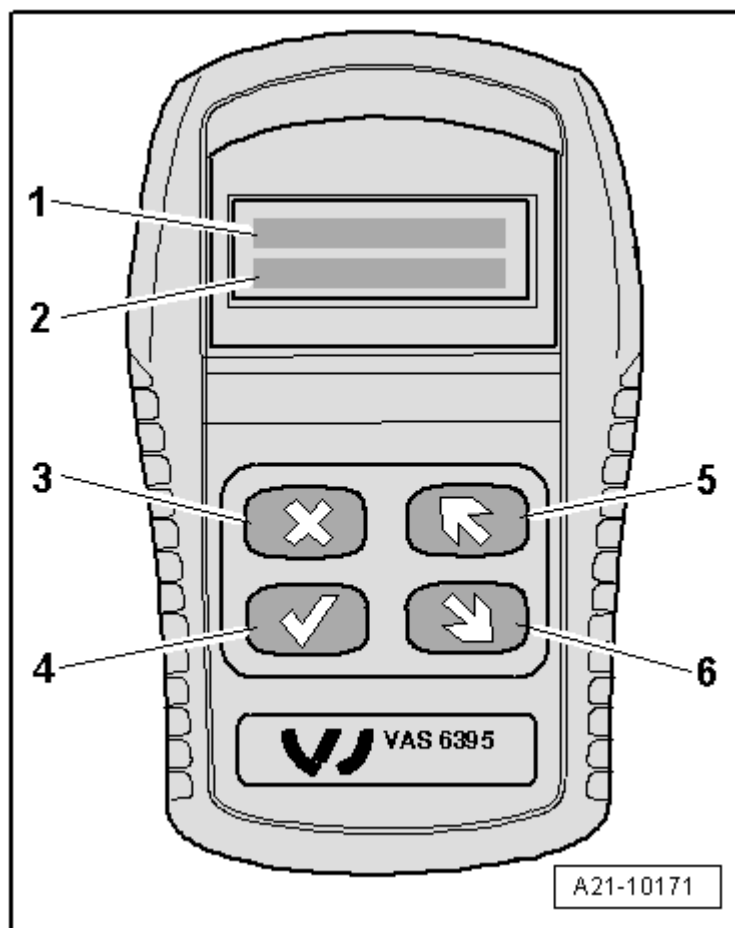
- Unclip coupling rod -arrows- and dispose of it.



- To continue, press  button -item 4-.

Display on -VAS 6395-:

1 - STEP 2

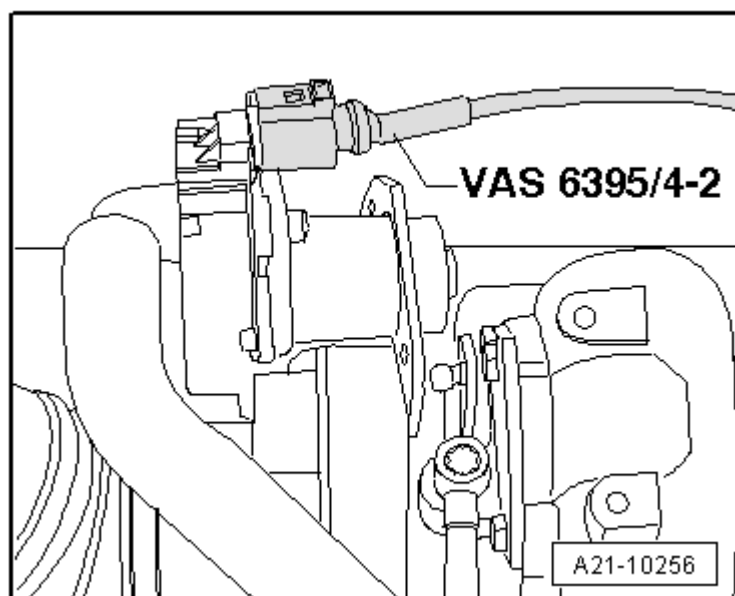


- Disconnect connection lead -VAS 6395/4-2- from turbocharger 1 control unit -J724-.



Caution

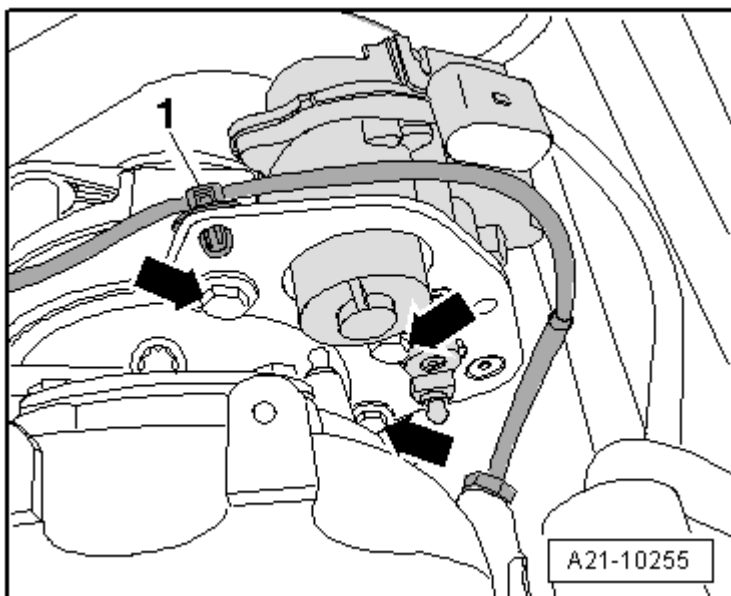
Power supply for tester -VAS 6395/1- must remain connected.



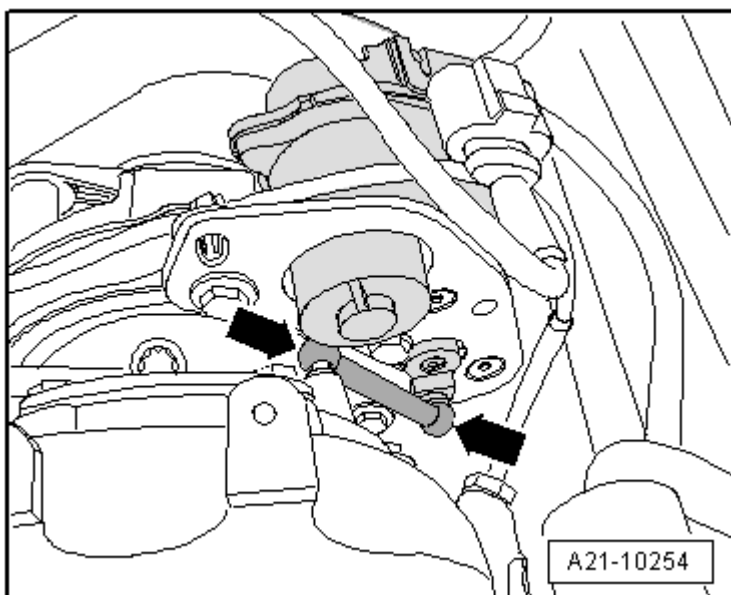
- Unclip retaining clip -1- for electrical wire.
- Remove bolts -arrows-; use open-end spanner, 10 mm (90 mm long) -VAS 6395/4-3- for bolts at centre and bottom.
- Remove old turbocharger 1 control unit -J724- and dispose of it.
- Install new turbocharger 1 control unit -

J724- in reverse order of removal, tighten bolts -arrows- only hand-tight.

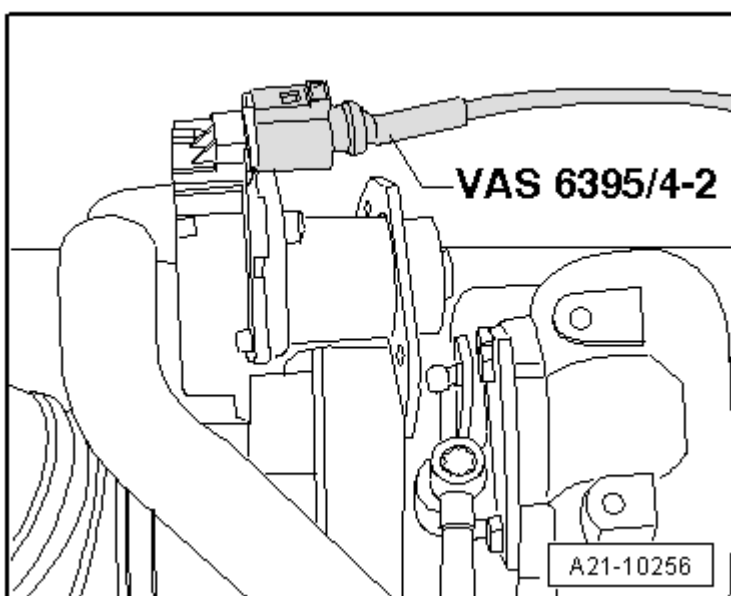
- Turbocharger 1 control unit -J724- must rest on retaining plate so there is no play; it must still be possible to move control unit by hand.



- Clip on new coupling rod -arrows-.



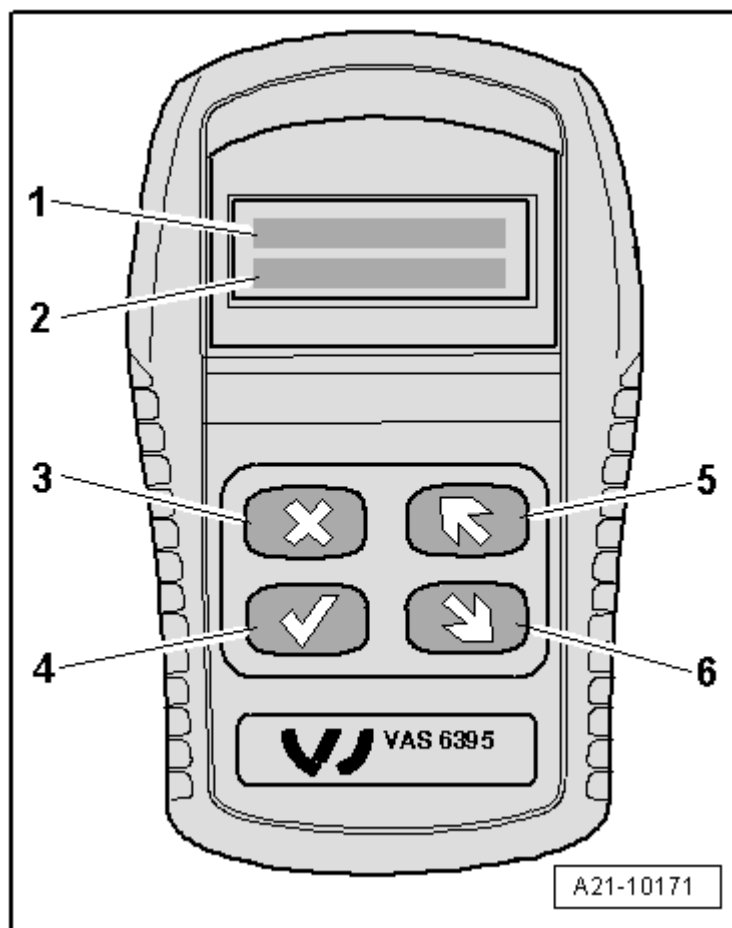
- Connect connection lead -VAS 6395/4-2- to turbocharger 1 control unit -J724-.



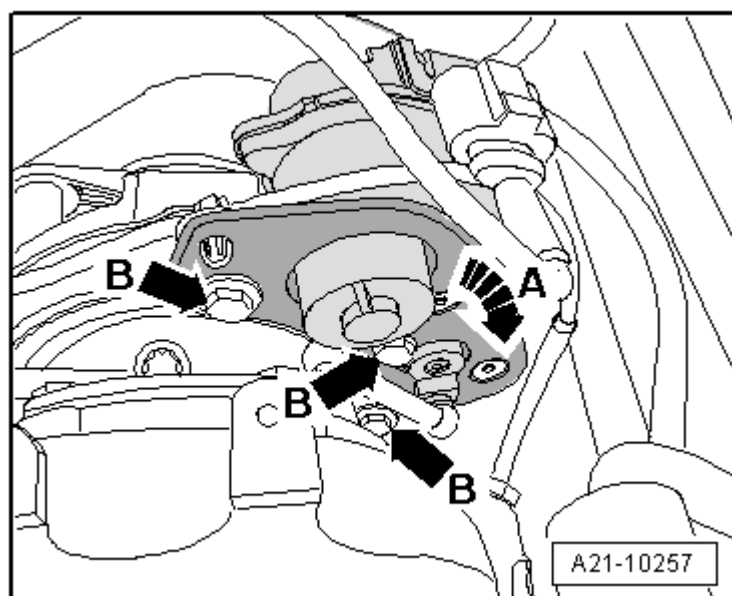
- To continue, press ☐ button -item 4-.

Display on -VAS 6395-:

1 - STEP 3



- Press turbocharger 1 control unit -J724- downwards and towards rear using moderate pressure -arrow A-, at the same time tighten bolts -arrows B- to 10 Nm using open-end spanner, 10 mm (90 mm long) -VAS 6395/4-3- for centre and bottom bolts.





- To continue, press ☐ button -item 4-.

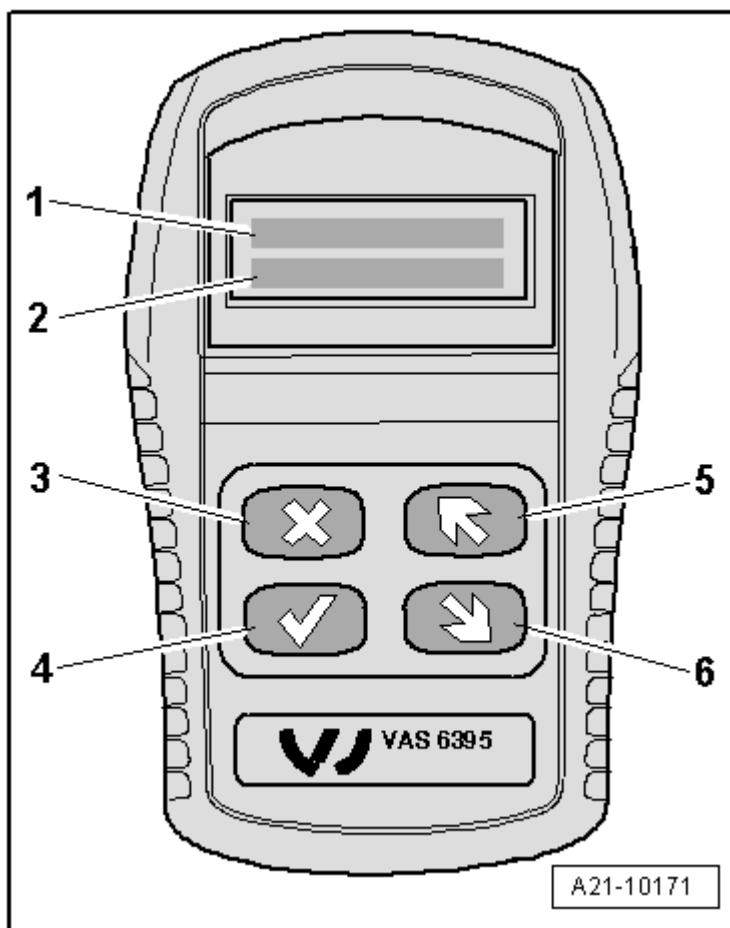
Display on -VAS 6395-:


1 - WARNING
2 - LEARNING



Caution

- ◆ **Now check correct installation of turbocharger 1 control unit -J724-; from the next step of the programme onwards (confirmed by the  button -item 4-) the turbocharger 1 control unit -J724- learns the limit positions of the adjustment travel once only. If the limit positions are not stored correctly due to an incorrect installation position, the learning procedure of turbocharger 1 control unit -J724- cannot be repeated and the control unit must be renewed.**
- ◆ **If you are not certain that the installation position is correct, you can terminate the procedure by pressing the  button -item 3- and the start the procedure again.**

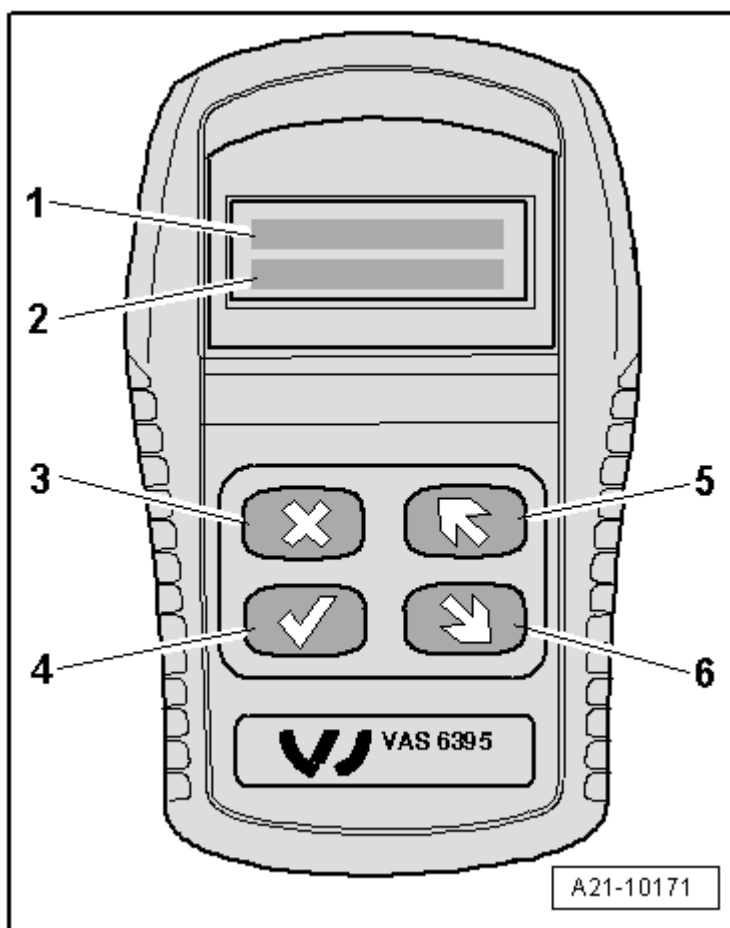


- To confirm that the new turbocharger 1 control unit -J724- has been correctly installed, press  button -item 4-.

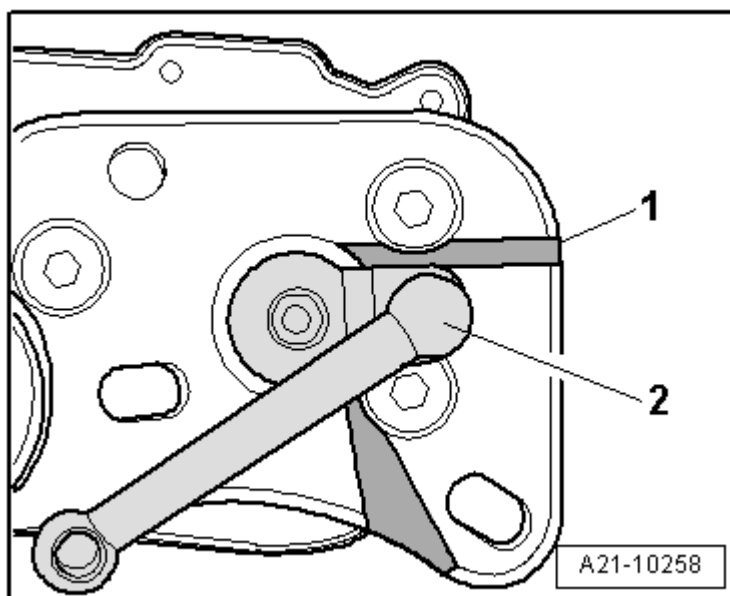
Display on -VAS 6395-:

- 1 - TEST 1
- 2 - S: 80.0 % I: XX %

- Specification: I = 80 %, successful learning is confirmed by the display „LEARNING“ in display zone -1-.



- At the same time, check position of adjustment lever at turbocharger 1 control unit -J724-:
- The edge of adjustment lever -2- must be within marking -1-.



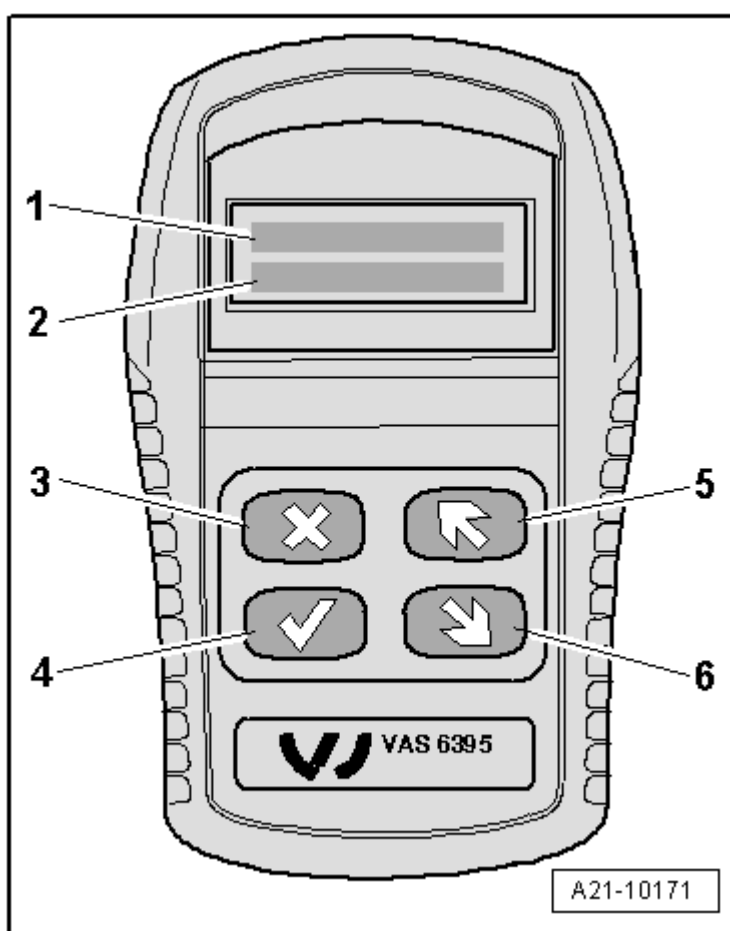
- To continue, press ☐ button -item 4-.

Display on -VAS 6395-:

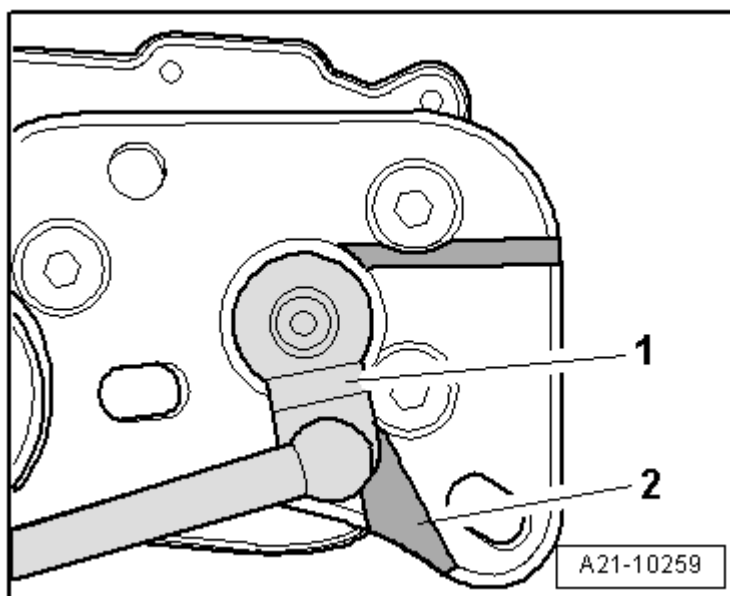
1 - TEST 2

2 - S: 16.0 % I: XX %

- Specification: I = 16 %, successful learning is confirmed by the display „LEARNING“ in display zone -1-.



- At the same time, check position of adjustment lever at turbocharger 1 control unit -J724-:
- The edge of adjustment lever -1- must be within marking -2-.



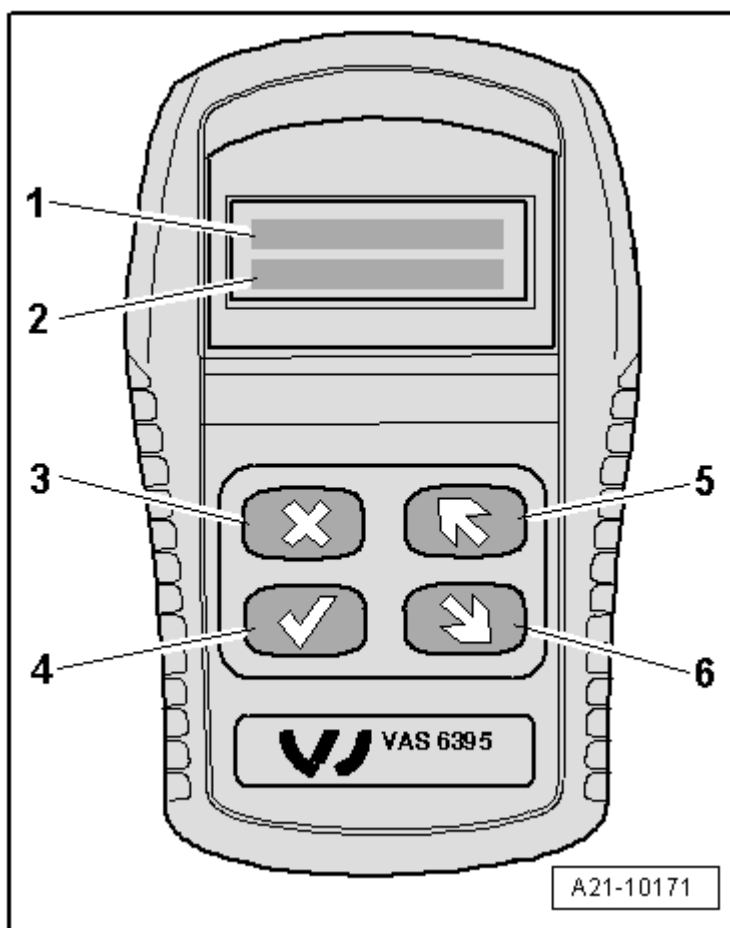
- To continue, press ☐ button -item 4-.

Display on -VAS 6395-:

1 - TEST 3

2 - S: 55.0 % I: XX %

- Check of centre position is now performed.



- To continue, press ☐ button -item 4-.

Display on -VAS 6395-:

1 - OK

- To confirm, press ☐ button -item 4-.

- Adjustment is completed.
- Unplug electrical connectors for tester -

VAS 6395-

Assemble in reverse order.

