

Removing and installing turbocharger 1 control unit -J724- - vehicles with 3.0 ltr. engine

Special tools and workshop equipment required

t Tester -VAS 6395/1-

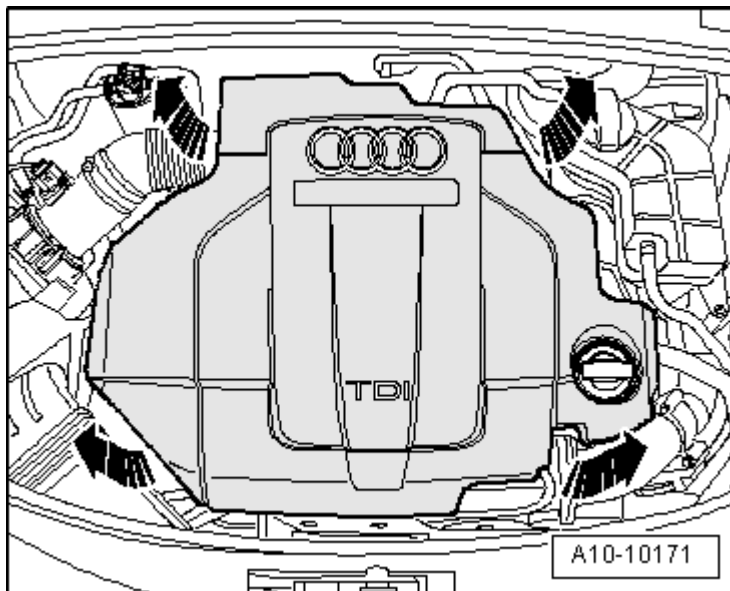
t Connection lead -VAS 6395/4-2-

t Open-end spanner, 10 mm (90 mm long) -VAS 6395/4-3-

Removing

Proceed as follows:

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

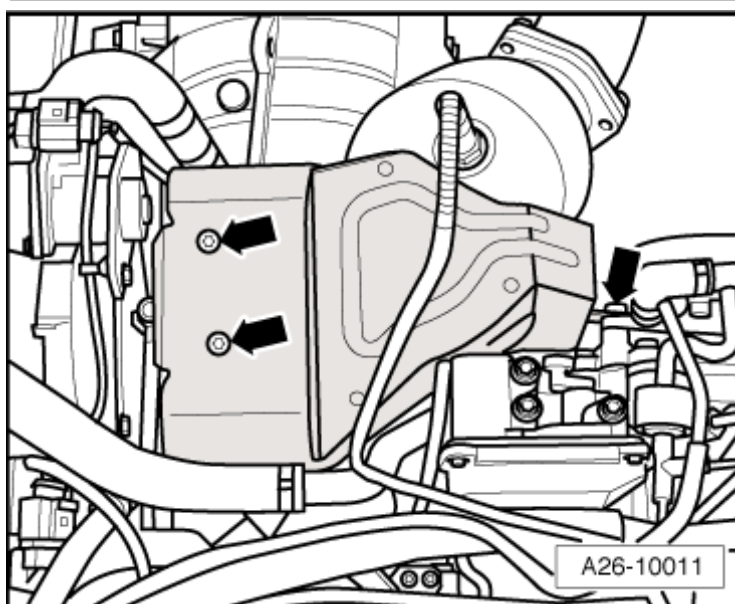


- Remove bolts -arrows- and detach heat shield for turbocharger.

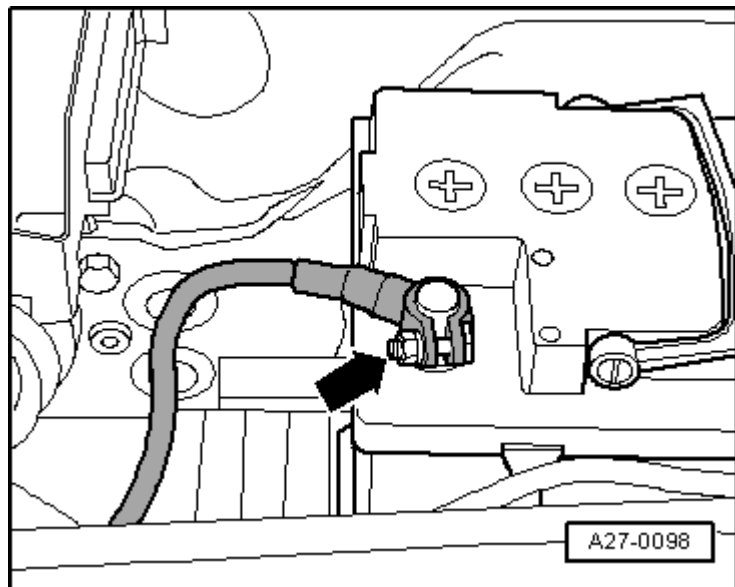


Note

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



- Connect tester -VAS 6395/1- with connecting wire -VAS 6395/2- to positive battery terminal -arrow- and negative battery terminal.



Checking software version of tester - 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:

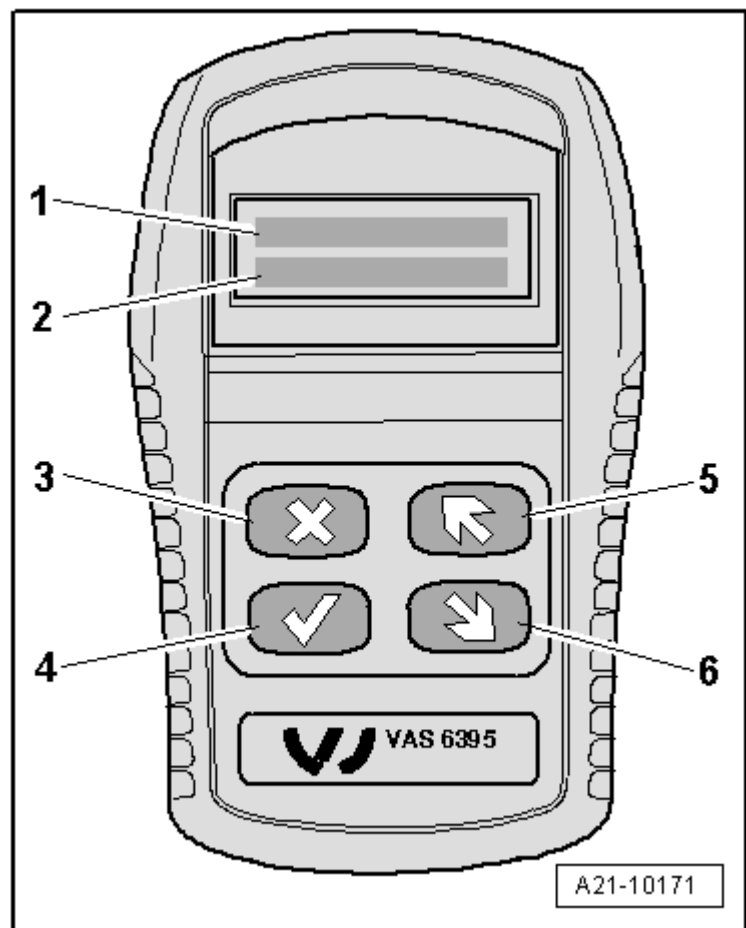
t 1. START

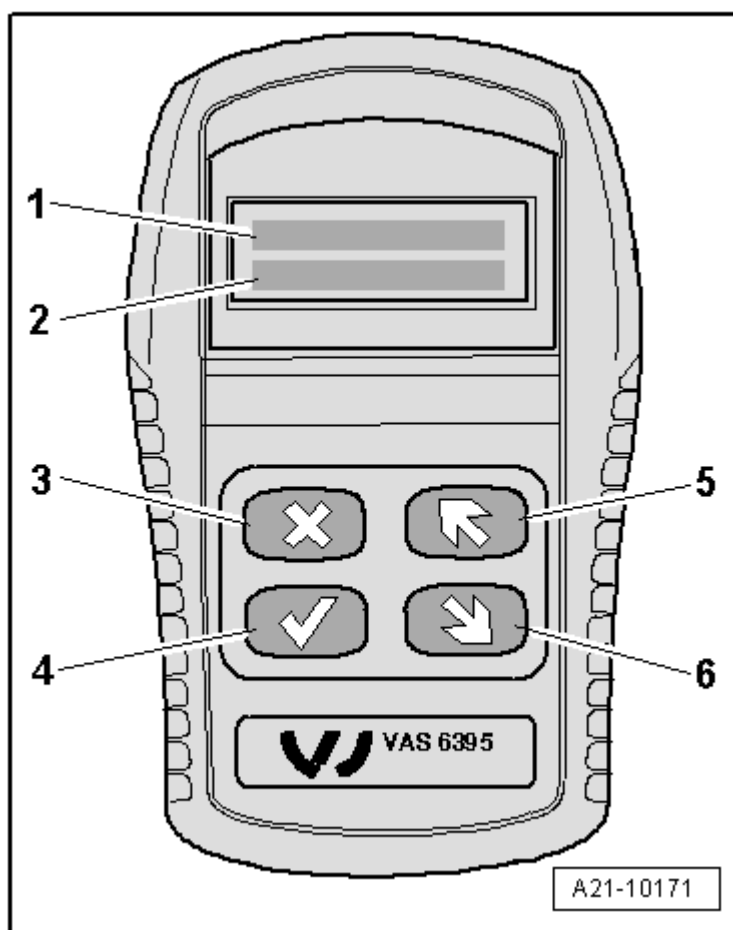
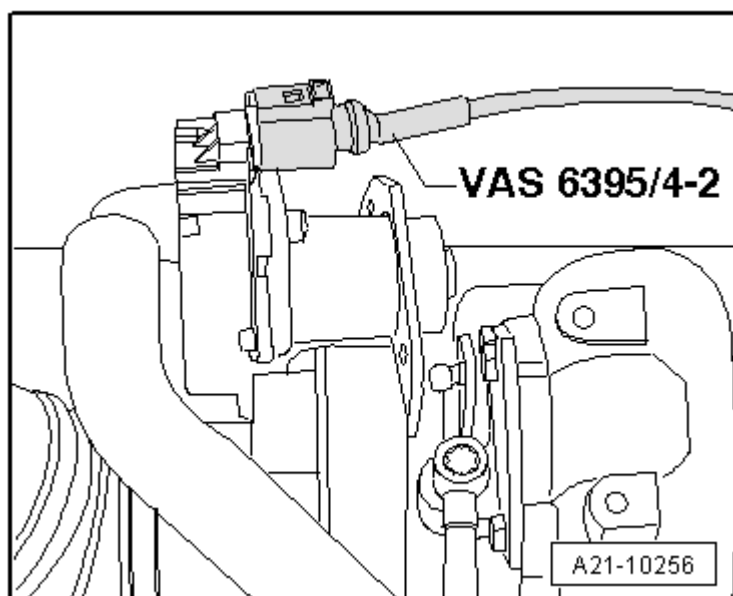
t 2. NEXT [>]

If this is the case, download the correct software version from the „Audi ServiceNet“ under „Workshop Equipment“.

Continuation of procedure:

- 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 6395/1-.





Display on -VAS 6395/1-:

1 - >TEST

2 - LEARN

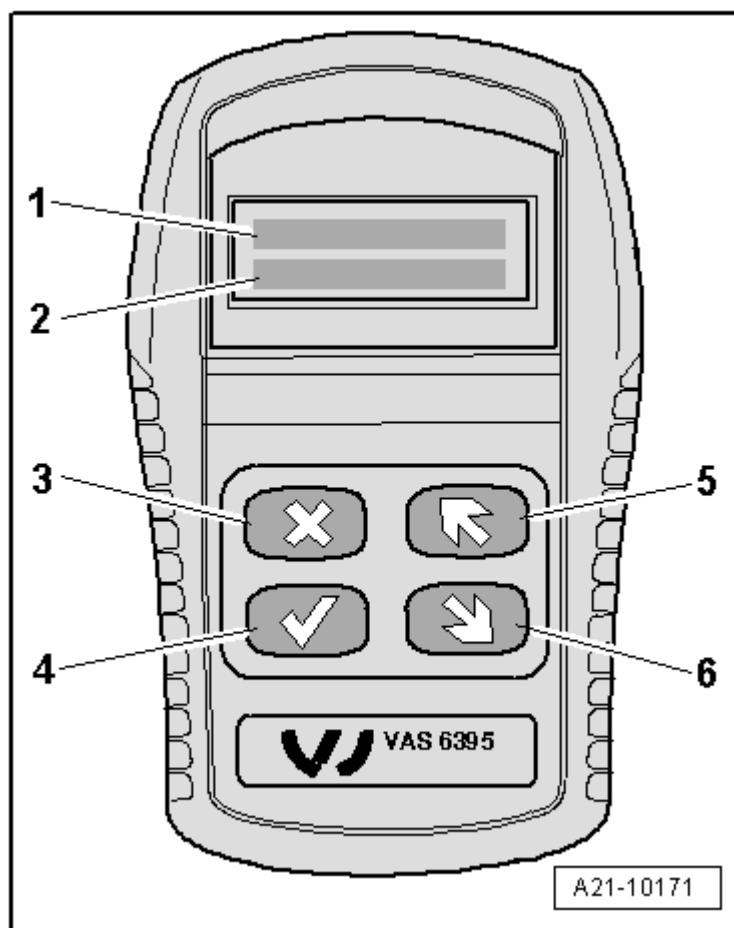
– To continue, press v button -item 4
–

Display on -VAS 6395/1-:

1 - CHECK

2 - S: XX % I: XX %

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



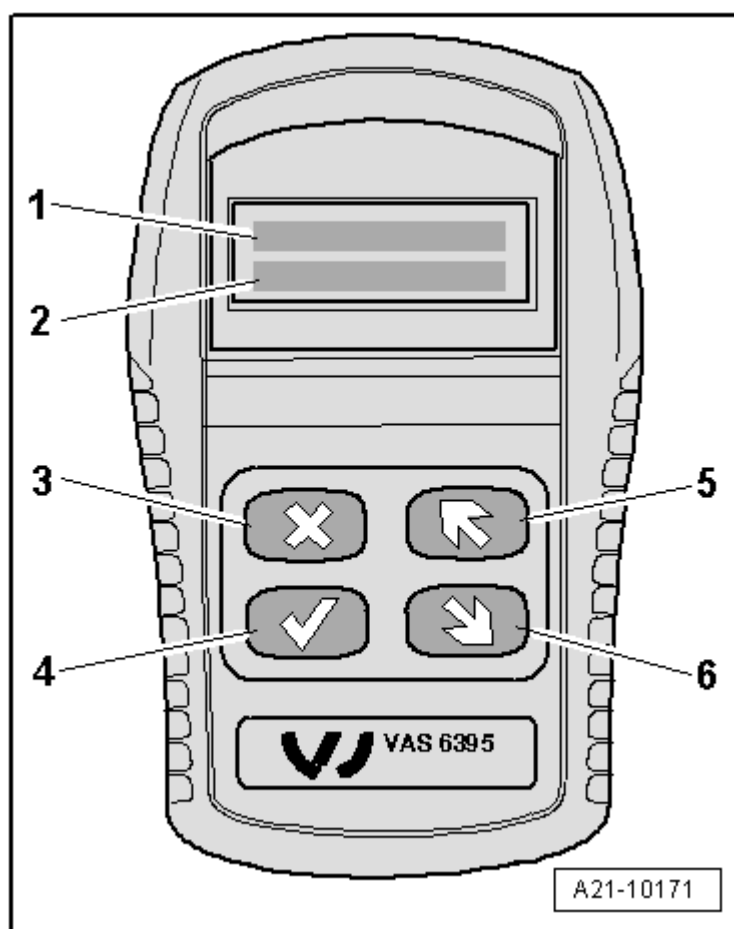
Display on -VAS 6395/1- if turbocharger 1 control unit -J724- is OK:

1 - ACTUATOR OK

1 The test is completed.

– Unplug electrical connectors for tester -VAS 6395/1-.

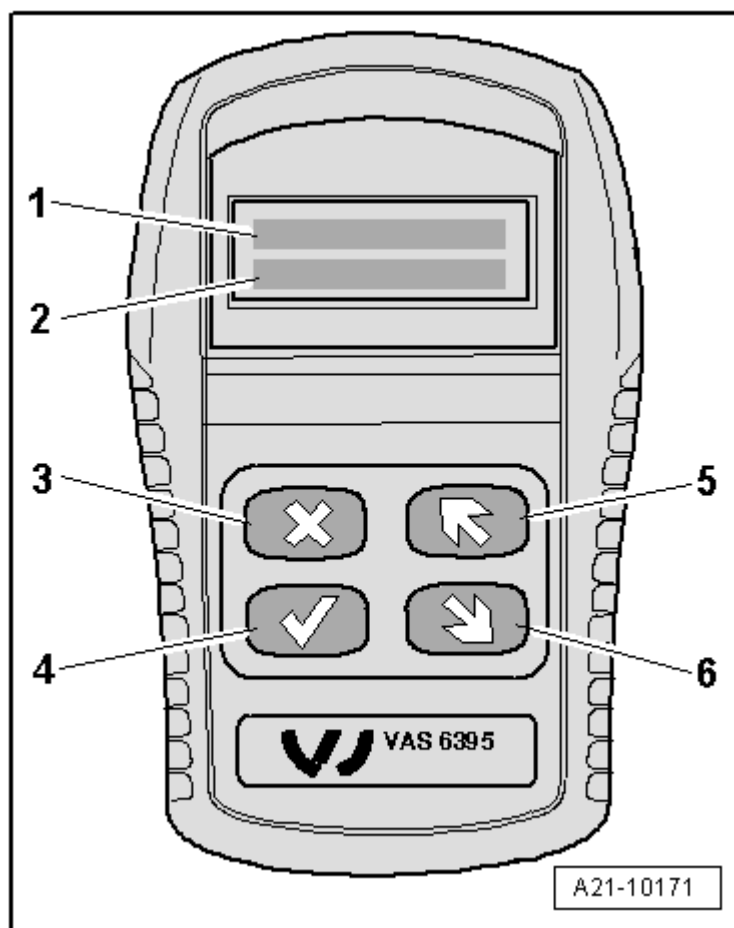
Assemble in reverse order.



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

1 - PROBLEM

1 Renew turbocharger 1 control unit -J724-.



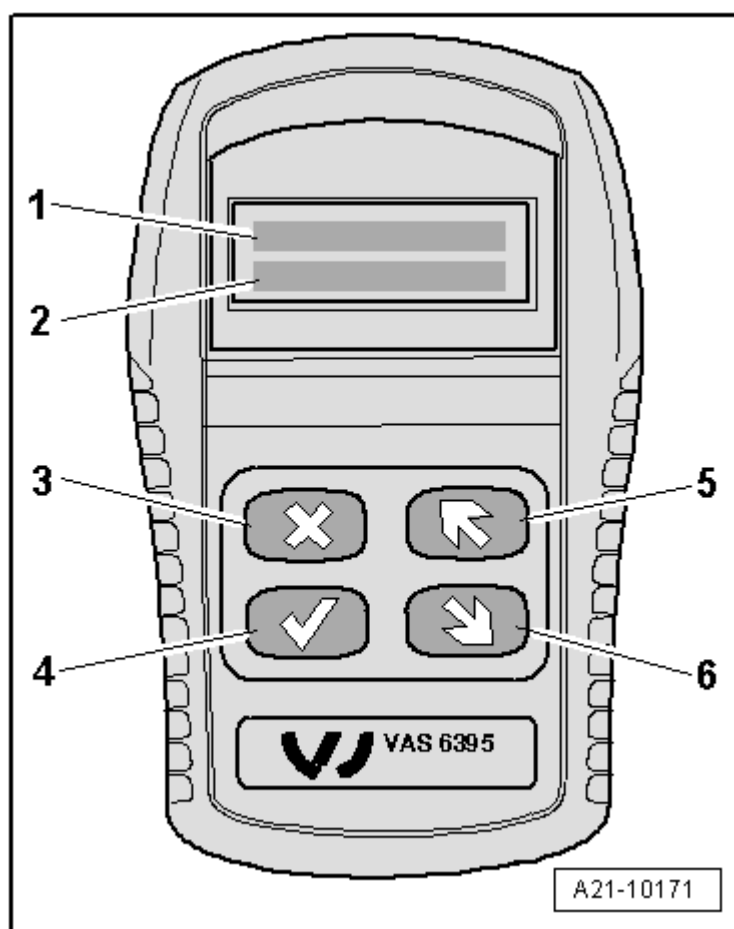
- To do so, proceed as follows:
- To continue, press v button -item 4-

Display on -VAS 6395/1-:

1 - >TEST

2 - LEARN

- Press ↓ button -item 6-.

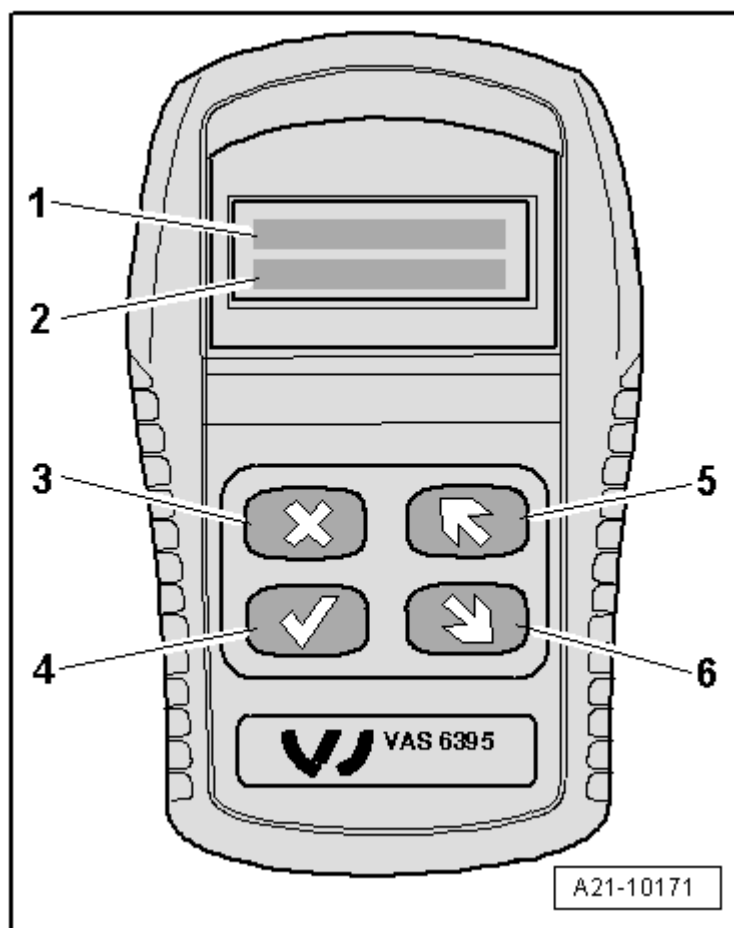


Display on -VAS 6395/1-:

1 - TEST

2 - >LEARN

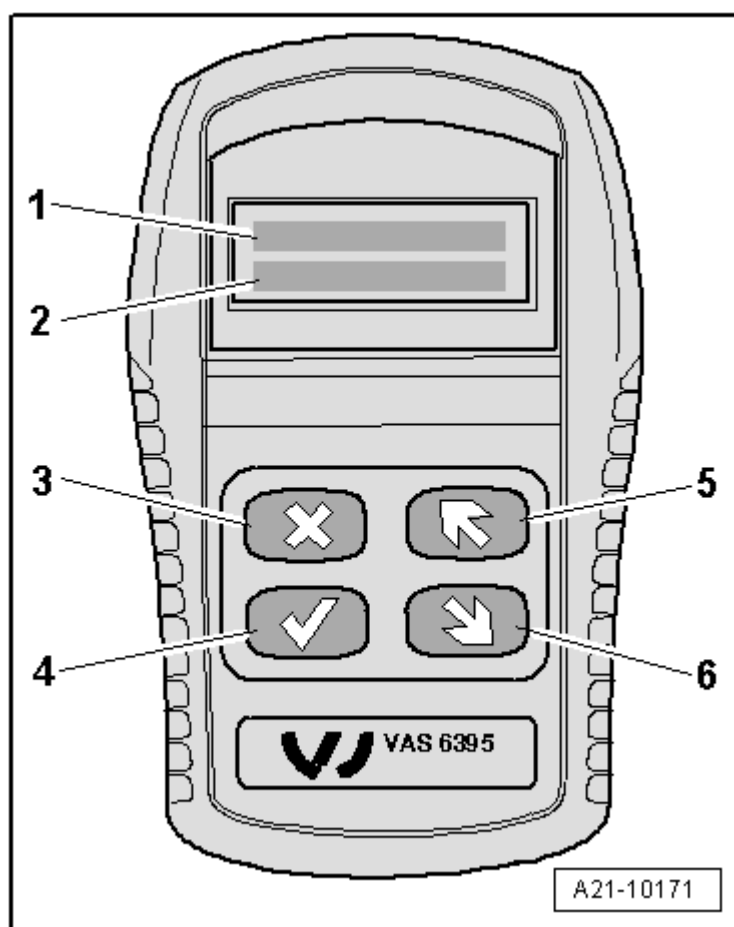
– To continue, press v button -item 4 -.



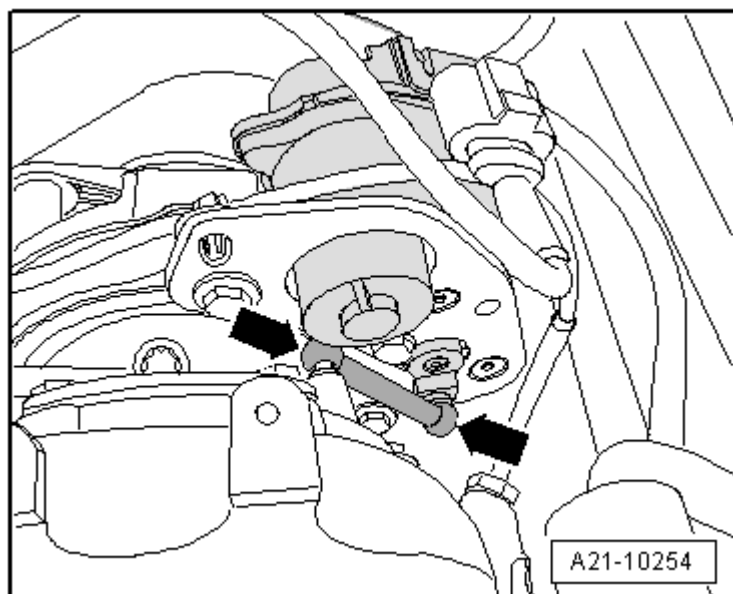
Display on -VAS 6395/1-:

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.



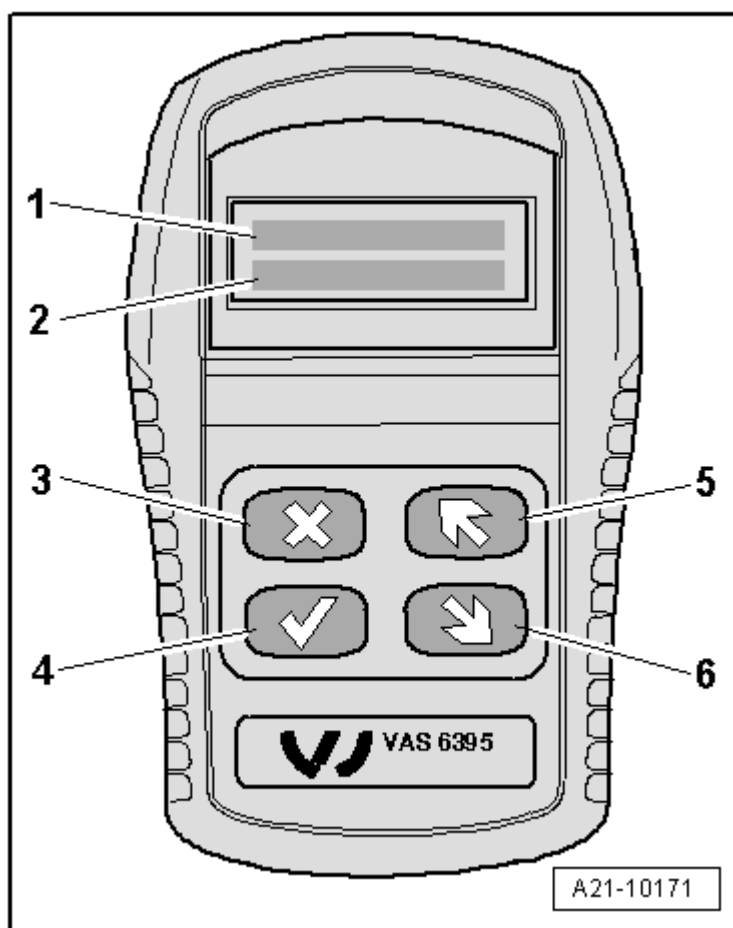
- Unclip coupling rod -arrows- and dispose of it.



- To continue, press v button -item 4-

Display on -VAS 6395/1-:

1 - STEP 2

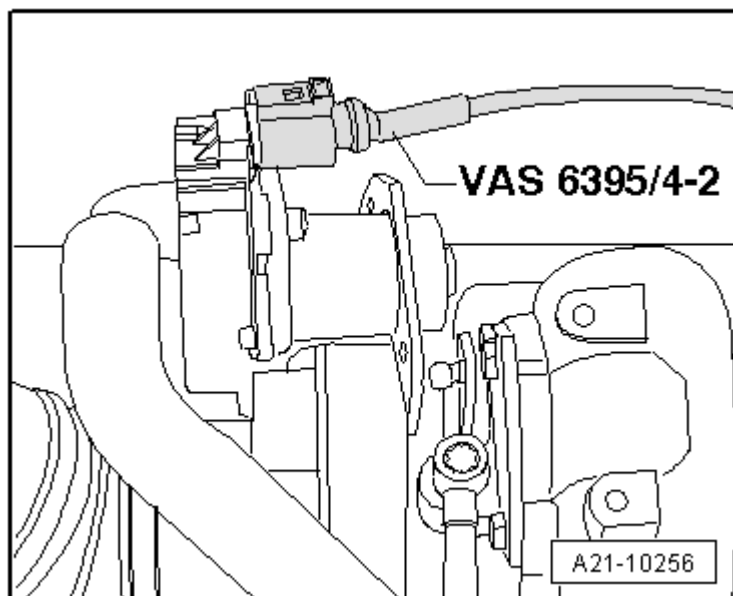


- Disconnect connection lead -VAS 6395/4-2- from turbocharger 1 control unit -J724-.



Caution

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



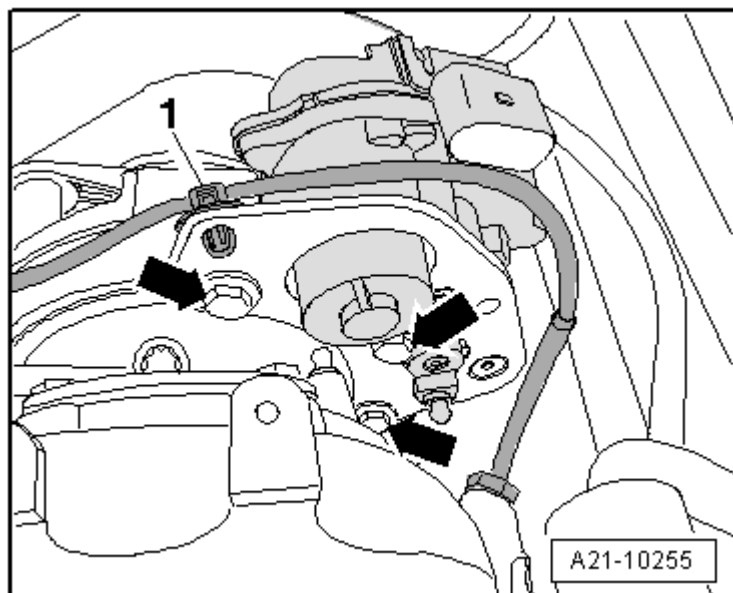
- Unclip retaining clip -1- for electrical wire.

Remove bolts -arrows-; use open-end spanner, 10 mm (90 mm long) -VAS 6395/4-3- for bolts at centre and bottom.

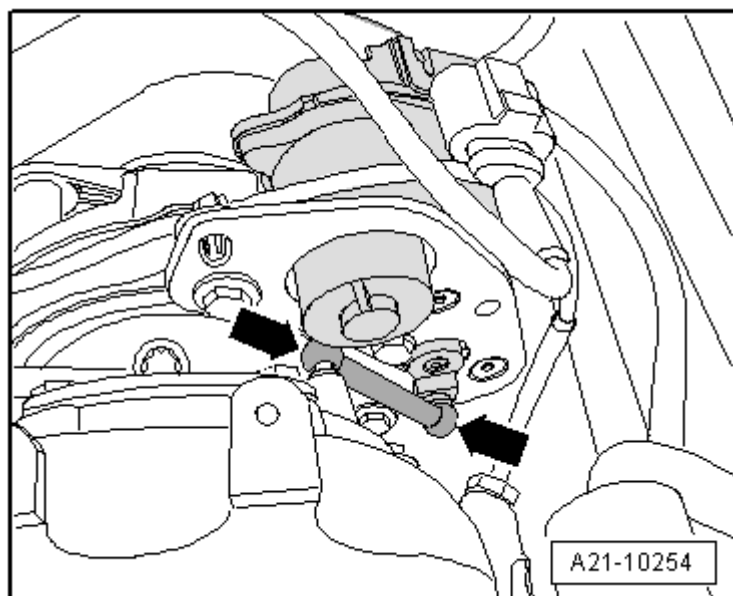
- Remove old turbocharger 1 control unit -J724- and dispose of it.

Install new turbocharger 1 control unit -J724- in reverse order of removal, tighten bolts -arrows- only hand-tight.

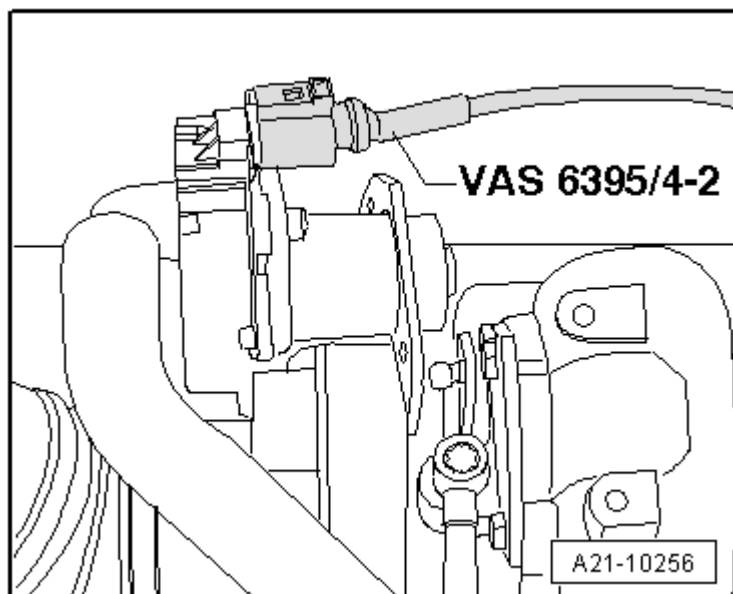
- Turbocharger 1 control unit -J724- must rest on retaining plate so there is no play; it must still be possible to move control unit by hand.



- Clip on new coupling rod -arrows-.



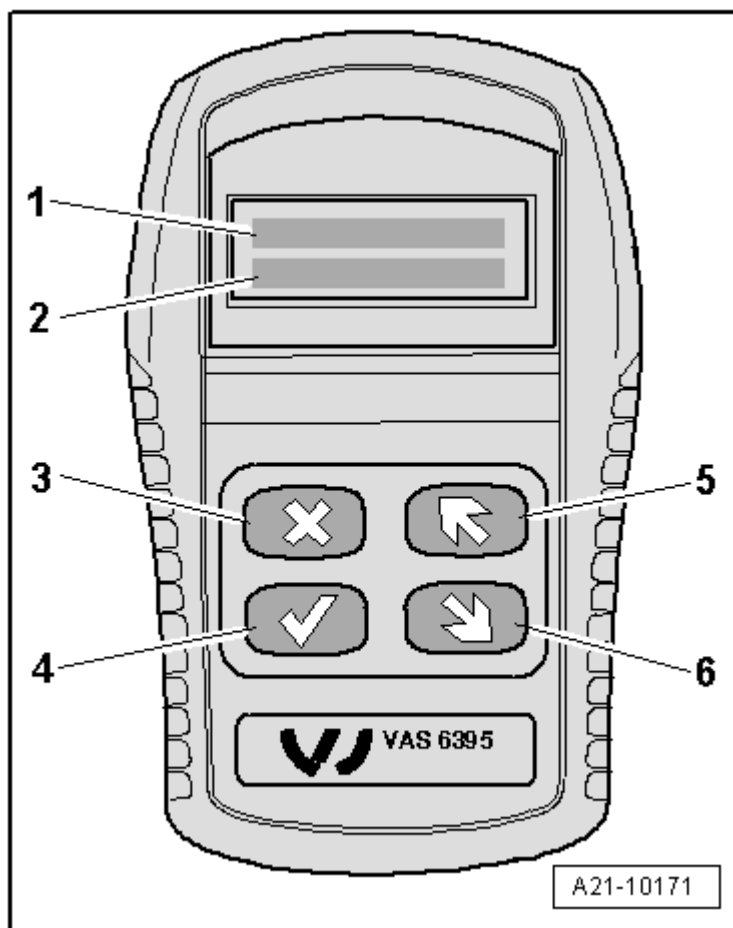
- Connect connection lead -VAS 6395/4-2- to turbocharger 1 control unit -J724-.



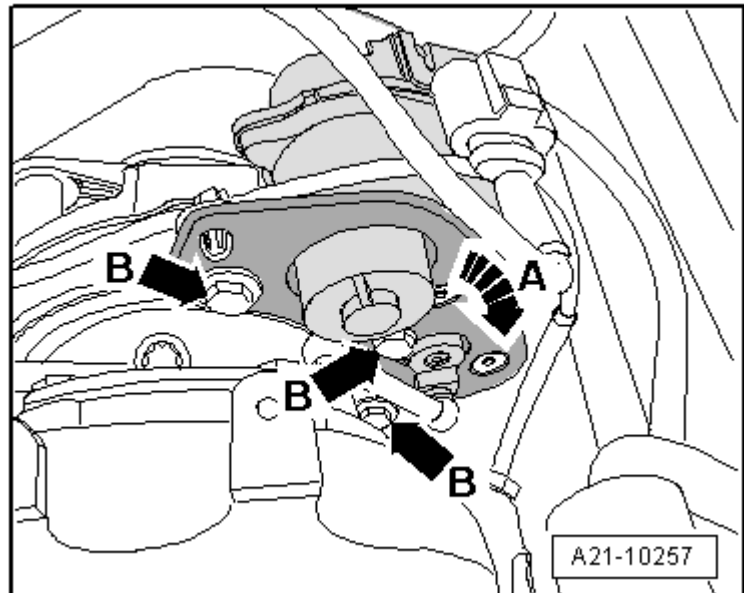
- To continue, press v button -item 4 -.

Display on -VAS 6395/1-:

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 v button -item 4-

Display on -VAS 6395/1-:

- 1 - WARNING
- 2 - LEARNING



Caution

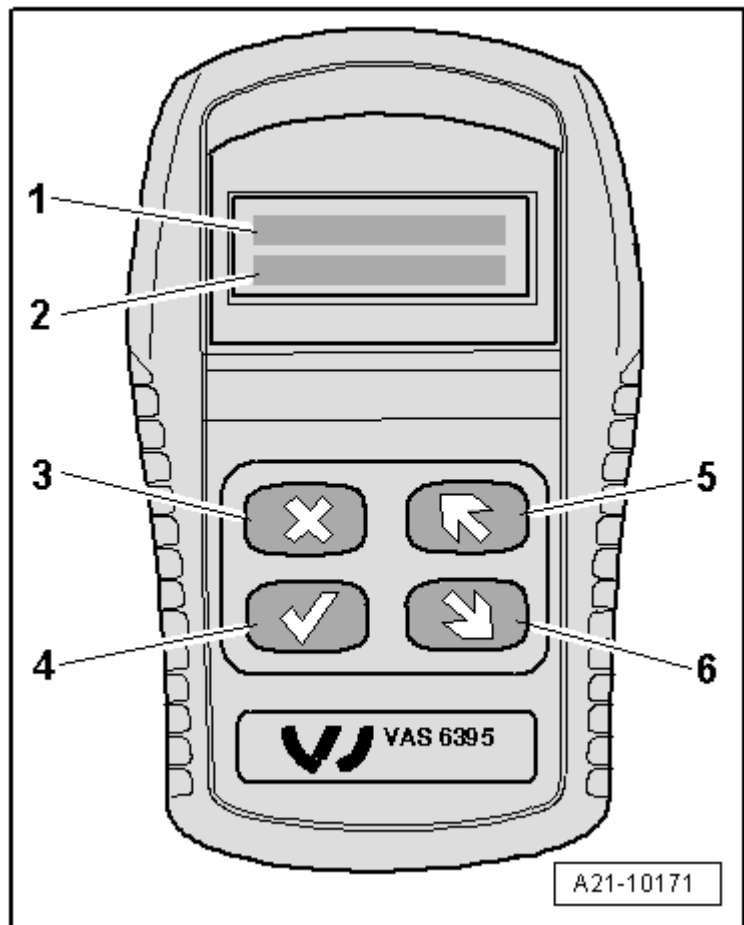
Now check correct installation of turbocharger 1 control unit -J724-; from the next step of the programme onwards (confirmed by the v button -item 4-) the turbocharger 1 control unit -J724- learns the limit positions of the adjustment travel once only. If the limit positions are not stored correctly 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 x button -item 3- and the start the procedure again.

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

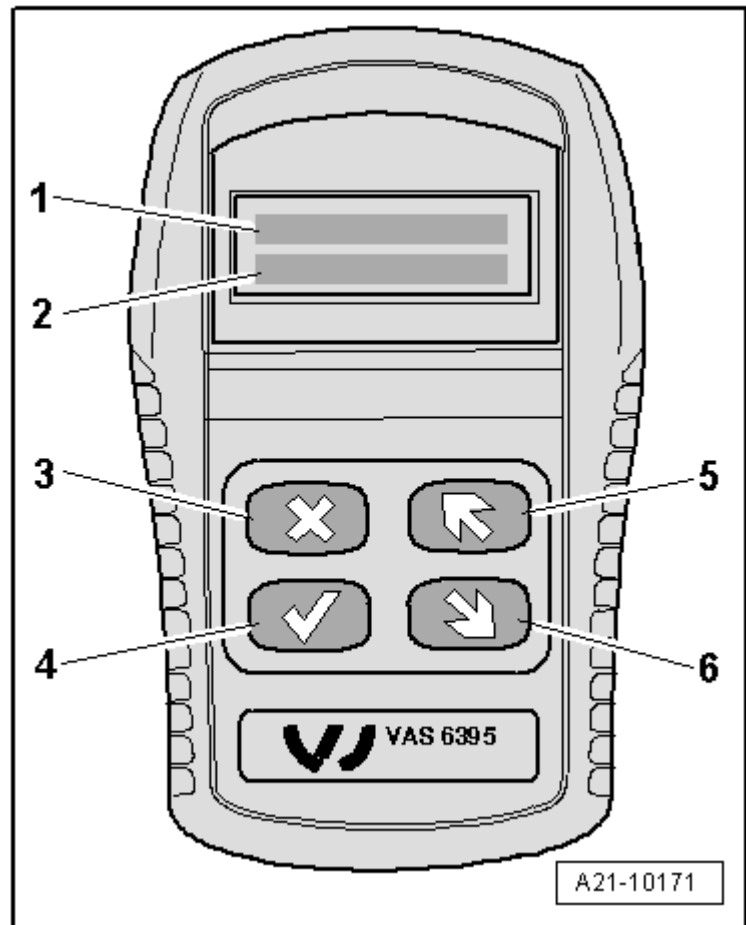
Display on -VAS 6395/1-:

- 1 - TEST 1



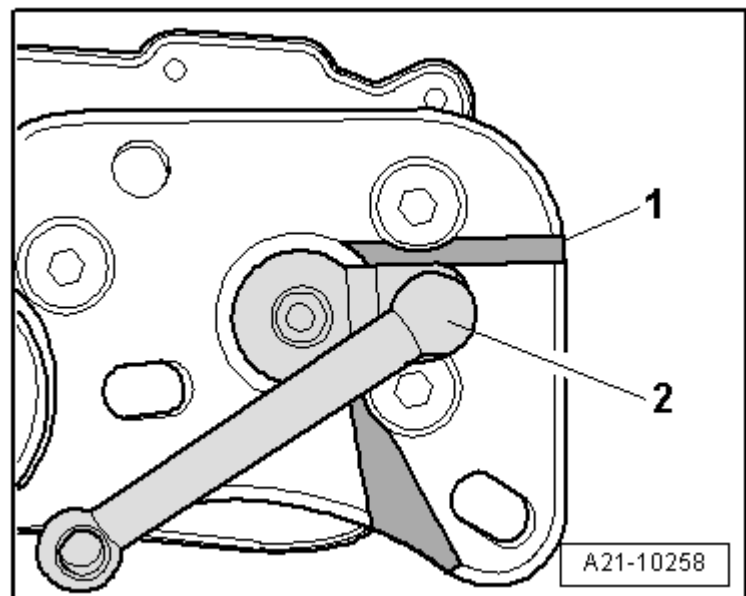
2 - S: 80.0 % I: XX %

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 v button -item 4 -.

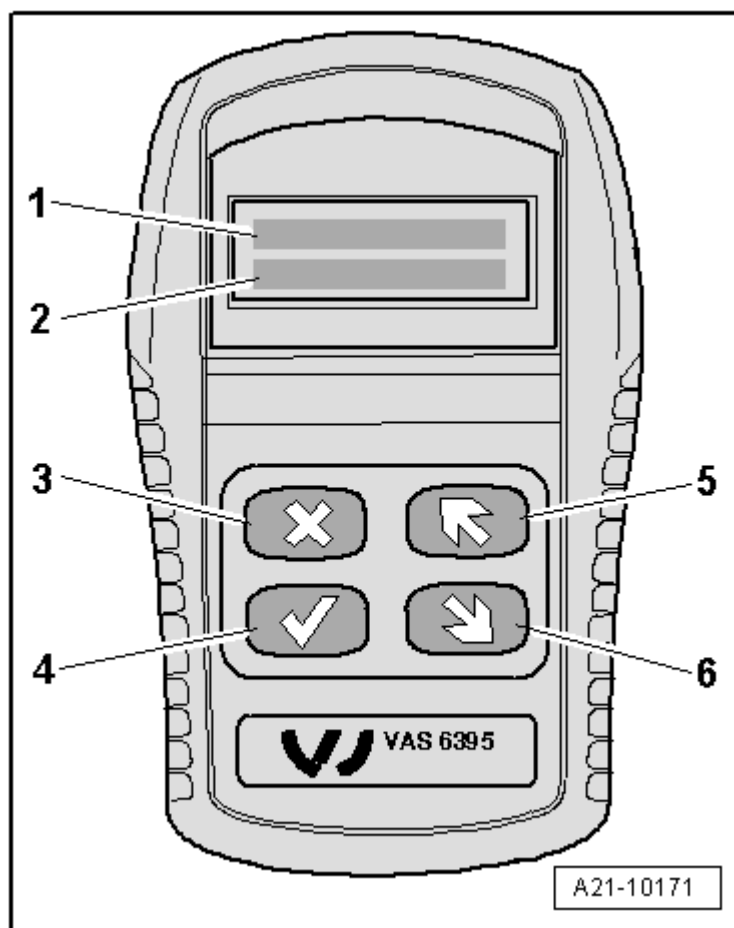
Display on -VAS 6395/1-:

1 - TEST 2

2 - S: 16.0 % I: XX %

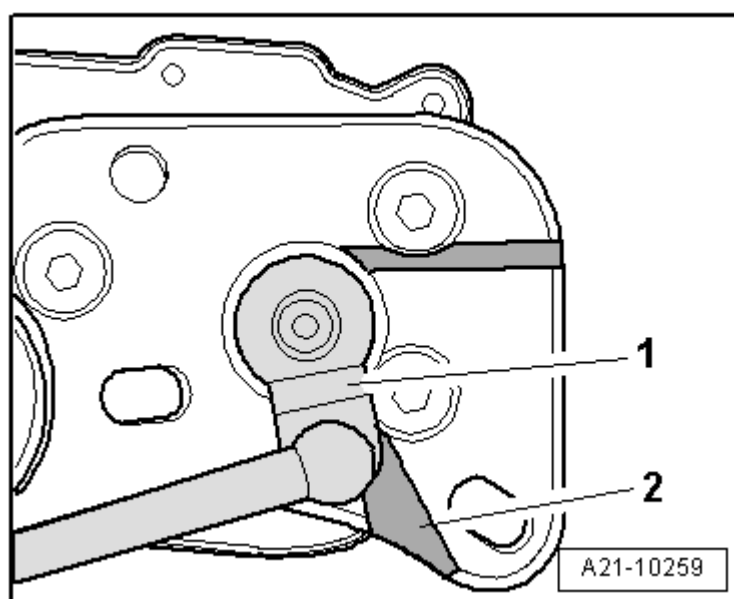
Specification: I = 16 %, successful learning is confirmed by the

display „LEARNING“ in display zone -1-.



– At the same time, check position of adjustment lever at turbocharger 1 control unit -J724-:

1 The edge of adjustment lever -1- must be within marking -2-.



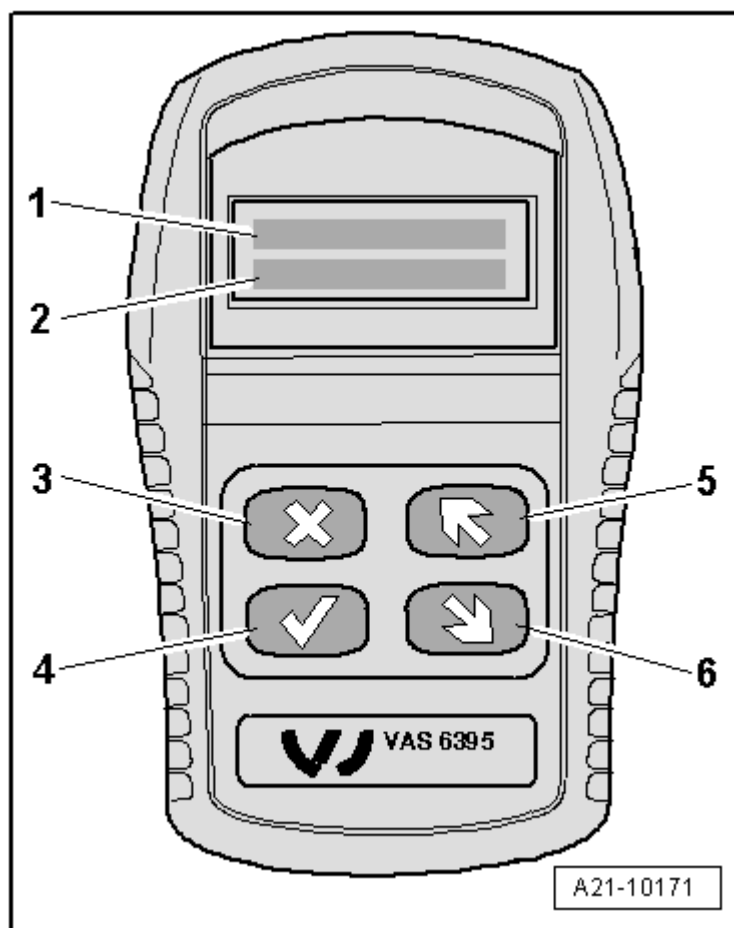
– To continue, press v button -item 4 -.

Display on -VAS 6395/1-:

1 - TEST 3

2 - S: 55.0 % I: XX %

1 Check of centre position is now performed.



- To continue, press v button -item 4-

Display on -VAS 6395/1-:

1 - OK

- To confirm, press v button -item 4-

1 Adjustment is completed.

- Unplug electrical connectors for tester -VAS 6395/1-.

Assemble in reverse order.

