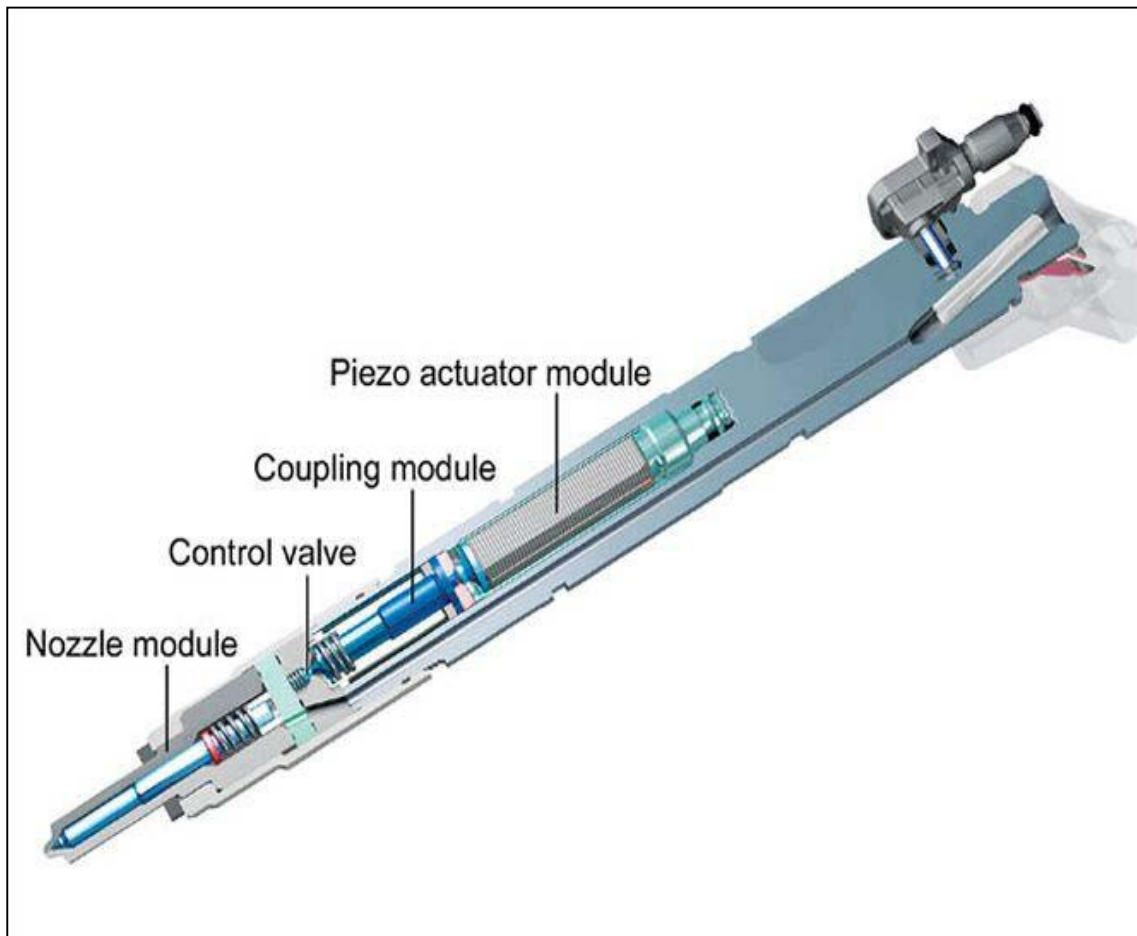
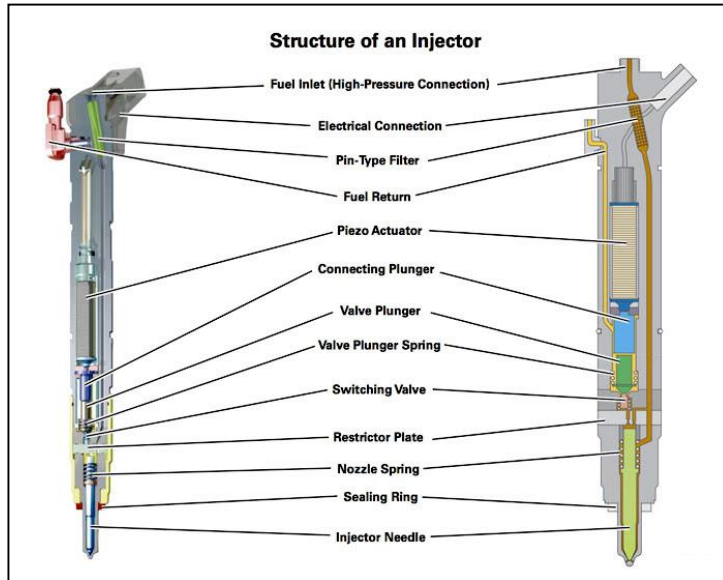


TOOLS FOR COMMON RAIL INJECTORS **BOSCH PIEZO**



COMMON RAIL INJECTORS **BOSCH PIEZO**



**AMPLIFYING PART
 DISMANTLED**



**AMPLIFYING PART +
 PIEZO VALVE**



COMMON RAIL INJECTORS **BOSCH PIEZO**

1. Fix the injector in a vice to disassemble it. For example our code AZ0352-CR.
2. Remove the pulverizer nut and also the pulverizer; continue to dismantle the injector till to remove the spacer with calibrated holes . See photo 1



Photo 1

3. Remove the valve-holder with its spring and valve (Piezo Valve). See photo 2

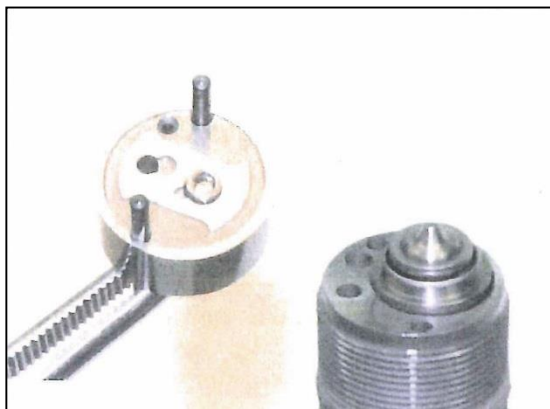


Photo 2

4. Go on and take away the amplifying part and its washer. See photo 3
5. Disassemble the little parts inside the nozzleholder. See photo 4

COMMON RAIL INJECTORS **BOSCH PIEZO**



Photo 3



Photo 4

6. Work now on the valve-holder and remove the Piezo Valve. See photo 5

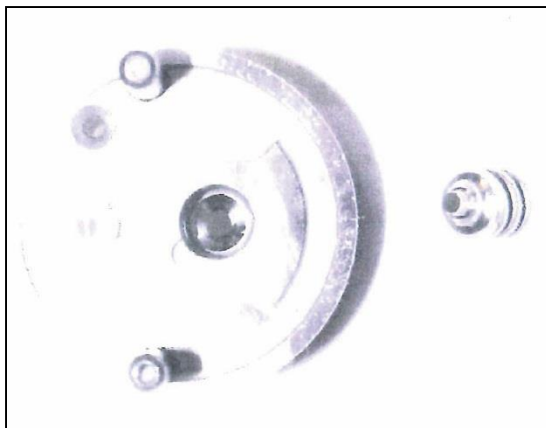


Photo 5

7. We removed all the components inside the nozzleholder. Inside there will be only Piezo Actuator that can not be disassembled. See photo 6
8. Work now on the amplifying part and dismantle it in each single part. See photo 7

COMMON RAIL INJECTORS **BOSCH PIEZO**



Photo 6

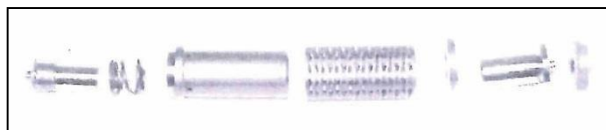


Photo 7

RECHARGE OF THE AMPLIFYING-PART

If you disassemble the amplifying-part of common rail injector Bosch Piezo, to reassemble it you need a prior recharge with testing-oil (ISO oil) inside the piston-room of the amplifying-part so that it can work properly when the injector will be mounted again on the car.

To put back together the amplifying-part we suggest our new tool code: AE0284-CR. See photo 8



CODE:
AE0284-CR

Photo 8

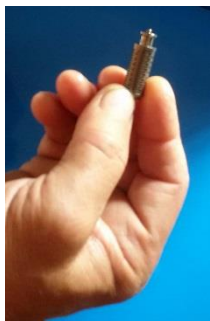


Photo 9

1. Hold the amplifying-part in vertical position with the command-piston (big one) looking down. See photo 9

COMMON RAIL INJECTORS **BOSCH PIEZO**

2. Extract the piston with its spring from its seat into the amplifying-part. See photo 7
3. Pour with the syringe, delivered with AE0284-CR, few drops of oil to fill up the body of amplifying – part. See photo 10



Photo 10



4. Insert gently, rotating with your hand, the little piston with its spring into its seat. See photo 11

Photo 11



5. Overturn the amplifying-part with the command-piston (little one) looking down and fix it on the tool AE0284-CR to close it. Take care to fix it on the tool properly. See photo 12

Photo 12

COMMON RAIL INJECTORS **BOSCH PIEZO**



6. Overturn the amplifying-part with the command-piston (little one) looking down and fix it on the tool AE0284-CR to close it. Take care to fix it on the tool properly. See photo 6

N.B Pay attention to not use too much power to avoid to warp the amplifying-part. It is enough when the big piston is completely inserted inside its seat. See photo 13

Photo 13

FUNCTIONAL TEST OF THE CORRECT ASSEMBLY OF THE AMPLIFYING-PART

If the procedure has been done properly you will not have any air bubble in the area between the two pistons of the amplifying-part, but only few drops of oil that work as hydraulic transmission.

Keeping in your hand the amplifying-part press, with a finger, the piston with the spring; the opposite piston must lift up from its seat. See photo 14



The piston must lift it up !

Photo 14

COMMON RAIL INJECTORS **BOSCH PIEZO**

Assembly the injector and insert the **NEW PIEZO VALVE** (BK0057-PZ). See photo 15.

Value to close pulverizer's nut: **70 Nm**



**PIEZO VALVE CODE:
BK0057-PZ**

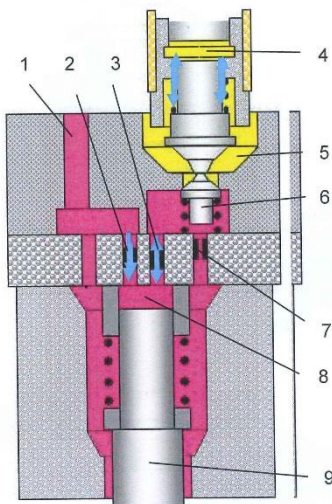
Photo 15

Piezo Valve BK0057-PZ is useful for these Bosch injectors:

0.445.115.XXX
0.445.116.XXX
0.445.117.XXX

Test the injector as usual on the test bench.

INJECTOR PIEZO



1. Rail pressure
2. Inlet bottleneck
3. Back-leak bottleneck
4. Amplifying-part
5. Back-leak
6. Piezo Valve
7. By-pass
8. Control plate
9. Pulverizer

HOW TO TEST A BOSCH PIEZO INJECTOR WITH A HAND TEST INJECTOR (POP-TESTER / TESTMASTER)



1. Connect to the Hand-test injector the pipe with valve for Piezo injector (Sirini AAZ036-CR922 or Bosch 0.986.612.922 or 1.680.712.315 + 1.687.412.004)
2. Connect the pipe with valve to the Piezo injector. (See photo 1)
3. Bring the pressure inside the injector to 20/25 Bar (See photo 2)

In this way you fix the re-charge of the amplifying part inside the Piezo injector.

Photo 1

4. Disconnect the pipe with valve from the Hand-test injector and connect a traditional pipe. Connect the other side of the traditional pipe with the in-let connection of the injector.

Attention: do not disconnect the pipe with valve from the injector!

5. Use a tester that can give impulse to the Piezo injector (ex: Sirini code AZ0134-13, AZ0222-CRR, simulators serie CBCR).
6. Set the tester (10 Hz – 1.0 ms) as in Photo 3
7. Connect the tester to the injector.
8. Bring the pressure inside the injector to 250/300 bar and then try to spray. (see photo 4)



Photo 2



Photo 3



Photo 4



Photo 5

HOW TO TEST A BOSCH PIEZO INJECTOR ON A TEST BENCH

1. Connect the injectors to the test bench as in photo 1 using specific pipes with valves for Piezo injectors (Sirini AAZ036-CR922 or 0.986.612.922 or 1.680.712.315 + 1.687.412.004)
2. Start the test-programme.

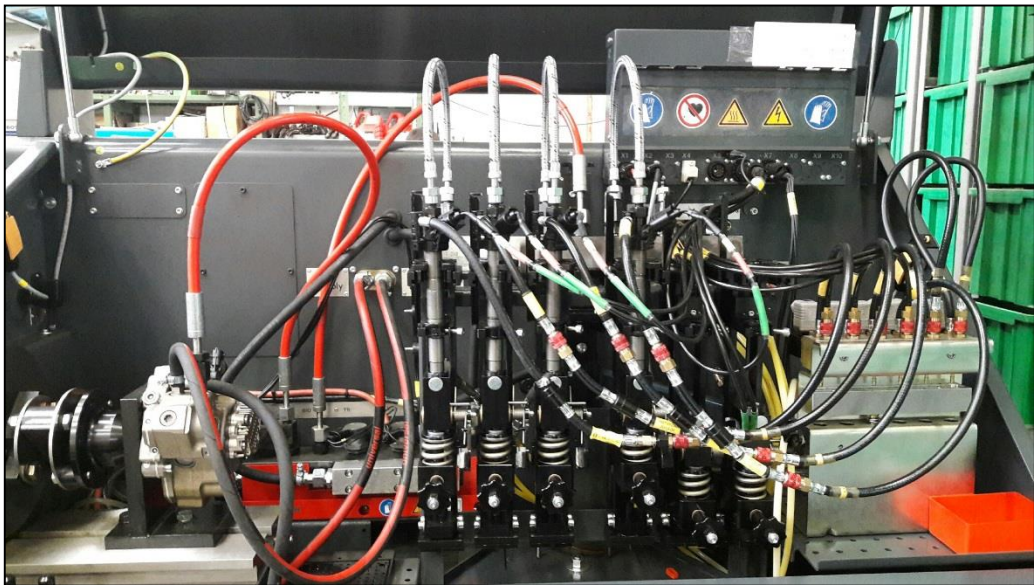


Photo 1

ATTENTION:

One amplifying-part not in perfect working-condition can get empty after few time; on the vehicle is the engine-system (closed) that supplies to the replenishment. During test-bench's tests this doesn't happen. It will be necessary to fill up again the amplifying-part with hand test injector or on the test bench.

TOOL FOR INJECTORS **BOSCH PIEZO**



AE0284-CR

Tools to close amplifying-part of Piezo injectors



BK0057-PZ

Piezo Valve



AAZ010-39

Adaptor for back-leak pipe of Piezo inj.
Connection 14x1,5 for hand test injector
Quick connection for pipes with valve for Piezo inj.



AAZ010-40

Adaptor female 14x1,5 – male 12x1,5 (Long version)



AAZ036-CR922

Pipe with valve for Piezo inj.



AAZ036-CR315

Pipe 1.680.712.315



AAZ036-CR004

Pipe 1.687.412.004

TOOL FOR INJECTORS **BOSCH PIEZO**



AE0289-CR

Fixing-part to block the nozzle during the assembly of the injector. To use to assembly easily the nozzle.

Insert the nut on the nozzle. Fix the tool on the nozzle. Place the nozzle in correct position; pay close attention to two little pins of the injector. Once the nozzle is in the correct position push the tool and screw the nut.



AC0506-16

Wrench to open the nut of common rail injectors
Octagonal: 16mm



AC0506-01

Wrench to open the nut of common rail injectors
Piezo Bosch injectors on BMW
Octagonal: 15mm



AE0402-CR

Adaptor for sliding hammer to pull out Piezo Bosch injectors.

To use with AE0226-00



AE0226-00

Sliding hammer to pull out injectors from the engine.

Please check also all the adapters for the different models of injectors.