





# KL-0187-101

# Injector Repair Kit for Direct Injection Petrol Engines















# www.gedore-automotive.com



Breslauer Straße 41 78166 - Donaueschingen Postfach 1329

Postfach 1329

78154 Donaueschingen - GERMANY

⊕ gedore-automotive.com

**(** +49 (0) 771 / 8 32 23-0 = +49 (0) 771 / 8 32 23-90

#### **GEDORE TOOLS, INC.**

Only for USA, Canada & Mexico / Sólo para EE.UU., Canadá y México Seulement pour les USA, le Canada et le Mexique 7187 Bryhawke Circle, Suite 700 North Charleston, SC 29418, USA

**(** +1-843 / 225 50 15 gedore.com

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## **Product information**

(Translation of the product information)



### **Product description**

### KL-0187-101 - Injector repair kit for direct injection petrol engines

Fits universally for passenger cars and vans with direct injection petrol engines with BOSCH, SIEMENS VDO, CONTINENTAL, MAGNETI-MARELLI, and DENSO injectors. Installed for example on VW-Audi, Seat, Škoda (FSI, TSI, TFSI), Alfa Romeo, BMW, Ford, Hyundai, Nissan, Mercedes, Opel, and many more.

For damage-free assembly of combustion chamber sealing rings (Teflon sealing rings), and O-rings (fuel side) on direct injection petrol injectors. Before reinstalling a used injector, replace the sealing rings as specified by the manufacturer. The new sealing rings are simply pushed on the injector via the assembly cone with the aid of the calibration tool. The sealing ring for the combustion chamber is additionally constricted (calibrated) in 2 stages at the seal-seat. A new combustion chamber sealing ring which was not constricted during the installation will most probably be damaged when re-installing the injector.

Alternative tools: VW T10133, T10133/5, T10133/6, T10133/7, T10133/8; BOSCH 0986616097; BMW 130280, 130281, 130282, 130283, 130190, 130192, 130193, 130194, 130195; Opel / Vauxhall EN-48266, 48266-1, 48266-2; Ford 310-128; Hyundai 09353-2B000; NISSAN / INFINITI KV101197S0

Recommended Accessories: KL-0187-100 E - Injector extractor kit for direct injection petrol engines





## Scope of supply / Single part overview

L-0187-1013	Assembly cone (combustion chamber sealing ring)	1
/I _0197_1012		
L-0167-1012	Assembly cone (O-ring)	-
(L-0187-1011	Calibration tool	1
(L-0187-1090	Foam insert *1/*2	1
(L-4990-9274	Plastic case (without insert) *1	1
	(L-0187-1090 (L-4990-9274	CL-0187-1011 Calibration tool  CL-0187-1090 Foam insert *1/*2  CL-4990-9274 Plastic case (without insert) *1  Calibbration tool

## **Specifications**



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(Translation of the product information)

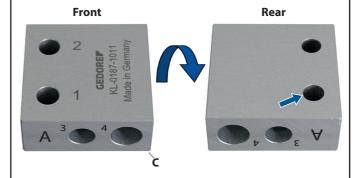
**© 1:** Remove the corresponding sealing rings on the injector.



**© 2:** Pre-stretch the combustion chamber sealing ring.



**3:** Align the calibration tool [C] with the back of the bore [1].



**4:** Mount the combustion chamber sealing ring on the mounting cone [A].





## **▲**Safety instructions and regulations

- **▼** Read and understand this product information of the special tool and observe all safety instructions for safe use!
- **▼**Please note that maintenance work and repairs on motor vehicles must be carried out by trained specialists in specialist automotive workshops, taking into account occupational safety and accident prevention!
- **▼** Before each use, check the special tool for damage and replace damaged or worn parts before use!
- The specified vehicle-specific data is given with reservationsalways observe vehicle-specific application procedures in the vehicle manufacturer's repair manual!

## **Typical application**

This typical application describes the assembly of a combustion chamber sealing ring and a fuel-side O-ring on a petrol direct injection injector.

1. For the following work, remove the corresponding sealing rings on the injector according to the manufacturer's instructions. (for example with needle-nose pliers or tweezers) 1

### Installation of the combustion chamber sealing ring

#### CAUTION

The combustion chamber may be damaged!

- **▼**Handle the combustion chamber sealing ring with care during the assembly!
- ▼ Always adhere to the <u>manufacturer's specifications!</u>
- 1. The combustion chamber sealing ring must first be slightly pre-stretched. Push the combustion chamber sealing ring on **by hand** at least once up to over halfway on the assembly cone [A]. 62
- 2. Align the calibration tool [C] with the back of the hole [1]. **©**3
- **3.** Insert the assembly cone [A] together with the combustion chamber sealing ring in the correct position on the back of the bore [1] on the calibration tool [C]. 24A

Now push the combustion chamber sealing ring completely onto the mounting cone [A] using the calibration tool [C]. **©** 4B

(i) If the combustion chamber sealing ring slips when pushed into the bore on the calibration tool [C], stretch it once more (repeat step 1)!

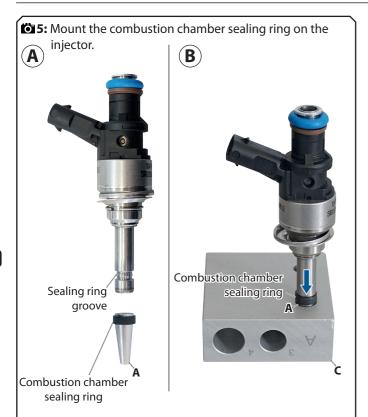


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**6:** Narrow the combustion chamber gasket in **two** stages. Combustion chamber sealing ring **B** 

4. Place the injector in a straight line on the mounting cone [A] on 65A and use the calibration tool [C] to slide the combustion chamber sealing ring over the back of the bore [1] onto the injector's sealing ring groove. 65B

5. Remove the mounting cone [A] from the back of the calibration tool [C].

### CAUTION

The combustion chamber may be damaged!

- **▼**Handle the combustion chamber sealing ring with care during the assembly!
- **▼** Always adhere to the <u>manufacturer's specifications!</u>
- **6.** For narrowing the combustion chamber sealing ring **6A**, mount the calibrating tool [C] onto the the injector via the front side of the bore [1]. 66B

Now push the calibration tool [C] with light circular movements carefully and as far as possible over the combustion chamber sealing ring. Repeat this procedure also with the bore [2] on the calibration tool [C]. 66C

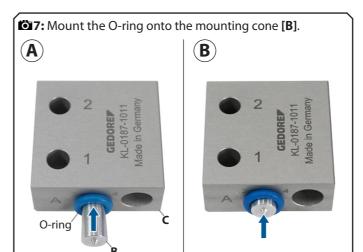
ilf the combustion chamber sealing ring slips out of the sealing ring groove on the injector when narrowing, fix it slightly with your fingertips!

7. Remove the calibration tool [C] and carry out further work according to the manufacturer's instructions.

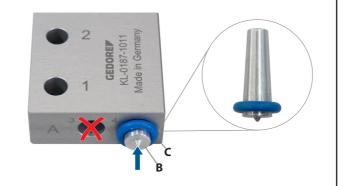
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**©8:** Reposition the mounting cone [**B**] on the calibration tool [C].



**© 9:** Mount the O-ring onto the injector.



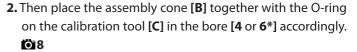
### Mounting the O-ring on the fuel side

#### CAUTION

The O-ring chamber may be damaged!

- **▼** Handle the O-ring with care during the assembly!
- **▼** Always adhere to the manufacturer's specifications!
- 1. Insert the assembly cone [B] together with the O-ring in the correct position into the bore [3] on the calibration tool [C].

Now push the O-ring completely onto the mounting cone [B] using the calibration tool [C]. 107B



\* Depending on the diameter at the injector.

- 3. Place the injector in a straight line on the mounting cone [B] on **©9A**, and use the calibration tool [C] to slide the O-ring over the back of the bore [4 or 6\*] onto the O-ring groove on the injector. 1 9B
  - \* Depending on the diameter at the injector.

**4.** Remove the calibration tool **[C]** and carry out further work according to the manufacturer's instructions.



# **Product information**

(Translation of the product information)

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## GEDORE-Werkzeugfabrik GmbH & Co. KG

Remscheider Straße 149 42899 - Remscheid Postfach 120361 47873 Remscheid GERMANY

#### **Vertrieb DEUTSCHLAND**

**L** +49 (0) 2191 / 596-0

**49** (0) 2191 / 596-230

www.gedore.com

### Sales INTERNATIONAL

**L** +49 (0) 2191 / 596-910

<del>4</del> +49 (0) 2191 / 596-911

info@gedore.com
 www.gedore.com

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Only for USA, Canada & Mexico Sólo para EE.UU., Canadá y México Seulement pour les USA, le Canada et le Mexique 7187 Bryhawke Circle, Suite 700, North Charleston, SC 29418, USA **\** +1-843 / 225 50 15 **\** +1-843 / 225 50 20 **\** info@gedoretools.com **\** www.gedoretools.com

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#### **GEDORE Automotive GmbH**

Breslauer Straße 41 78166 - Donaueschingen Postfach 1329 78154 Donaueschingen GERMANY

#### **Vertrieb DEUTSCHLAND**

L +49 (0) 771 / 8 32 23-0
 □ +49 (0) 771 / 8 32 23-90
 □ info.gam@gedore.com
 □ gedore-automotive.com







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