

Invented for life



BOSCH

Everything for the diesel service

Diagnosis, Testing and Repair Tools



04 Diesel Service from Bosch

Bosch offers a comprehensive range of professional diagnostics and repair solutions for modern and conventional diesel systems.

05 Service on the vehicle

Bosch offers tools for easy and quick diagnosis of diesel components and for professional component repair on vehicles.



08 Test equipment for components

Bosch boasts a comprehensive range of modern and userfriendly technologies for professional testing of dismantled diesel components.

Common-rail

- 08 **DCI 700**
Common-rail injector test bench
- 10 **DCI 200**
Single common-rail injector test bench
- 14 **EPS 708**
Common-rail pump test bench

Conventional systems

- 16 **EPS 100**

18 Repair tools for components

In addition to expert service, Bosch offers high-quality tools for a professional repair of individual components.

Diesel service from Bosch: **precise, professional and fast**

Many years of experience in diesel technology, workshop equipment and testing technology make Bosch one of the leading suppliers in this field worldwide.

Innovations in development and production have resulted in modern high-pressure systems in recent years. Bosch is pursuing a holistic approach to mobility: solutions are developed for the vehicle and beyond. With the expertise from original equipment, innovative test equipment including the corresponding software is developed in parallel.

Bosch supports workshops holistically – from straight-forward troubleshooting and efficient component testing to the repair of diesel components and systems based on their current value.

Efficient and flexible component testing and repair

Thanks to Bosch testing solutions and numerous retrofit sets, component testing and repair can be carried out according to manufacturer specifications. This ensures that



accurate and reproducible
measured values are
determined.



a **warranty assessment**
is possible **according to the**
manufacturer's specifications.



a contribution is made
to compliance with
emission standards.

Service on the vehicle

Diagnosis

Denoxtronic



Denoxtronic 2 test case
for checking metering
and delivery rate with
Denoxtronic 2.x
📄 0 986 610 450



Denoxtronic PC/LD test case
for exhaust-gas treatment
with Denoxtronic 3.1 and
Denoxtronic 5.x
📄 0 986 613 900



**Upgrade kit from
Denoxtronic 3.1 to 5.x**
upgrade set for Denoxtronic
case (0 986 610 500)
📄 0 986 610 930

Substitute load boxes



CRI substitute load box
for testing the control signal at
solenoid valve CR injectors
(passenger cars only)
📄 0 986 612 745



HFM-7 adapter lead
hot film air flow meter 4-pin
📄 1 684 463 835



PSG-5 test box
for testing the PSG5 input
as well as CAN-L and CAN-H
signals
📄 0 986 612 447

Substitute load boxes	Description	Order number
CRI/CRIN substitute load box	Test device for the control signal at piezo common-rail injectors (passenger cars only): a substitute load is used rather than an installed injector to test the control signal	0 986 612 793
Measuring equipment and accessories	Description	Order number
Sealing parts set	Closure part-set: For return lines pipes made of hard plastic to close these pipes (1 set = 6 pcs) for back flow measuring device 0 986 612 950	0 986 612 900
Connection adapter set	Hydraulic return connection for Bosch injectors of type CRI2-18, -20 for testing the return flow rate	0 986 613 926
Test cable	Description	Order number
HFM7	Adapter lead for testing the HFM7 (hot film air flow meter, 4-pin) in Fiat Group, Ford and Suzuki vehicles	1 684 463 738
HFM7	Adapter lead for testing the HFM7 (hot film air flow meter, 8-pin) in GM Group vehicle	1 684 463 836
Denoxtronic	Description	Order number
Denoxtronic 2.2	A special dosing module must be used to be able to assess the delivery capacity of the Denoxtronic 2.2 supply module	0 986 610 522
Other accessories	Description	Order number
Setting device KDEP 1880	M10x1 setting device, 48 mm long, for precise pump/motor allocation. Enables the pre-stroke or K1-FB measuring point at distributor pumps (VE.E, VE.F)	0 986 612 480

Service on the vehicle

Repair tools

Cleaning tools



Suction device
for cleaning the sealing surface
📄 0 986 613 111

Mounting sleeves



O-ring mounting sleeve
for mounting the common-rail
injector/CRIN-O-ring
📄 0 986 612 930

Measuring devices



Dial gauge
for setting the start of delivery
📄 1 687 233 012

Extraction and removal tools



Impact tool
for CR injectors
📄 0 986 612 727



CRI universal removal tool
CR injector removal tool in
conjunction with 0 986 612 727
or 0 986 611 499
📄 0 986 612 782



CRI extractor claw
CR injector removal tool in
conjunction with 0 986 612 727
or 0 986 611 499 in Mercedes-
Benz and PSA Group vehicles
📄 0 986 612 872

Diesel sets



Diesel test case 2
for CR system venting
📄 0 986 610 234



Workbench
specifically for the repair
of diesel products
📄 0 986 613 300



Denoxtronic 3.1 tool set
for removing the heating
pot from the tank
📄 0 986 610 680



Workshop tip



Diagnosis is carried out with Denoxtronic test case and a KTS device.
This determines which modules are faulty and need to be replaced.

Service on the vehicle

Repair tools

Cleaning tools	Description	Order number
CRI/CRIN cleaning brush	This special wire brush must be used for cleaning the CR injector installation hole. It is also suitable for UI as well as for nozzles. Sealing cones 0 986 612 917 or 0 986 612 909 must be used to close the nozzle opening	0 986 612 729
Puller and extractor tools	Description	Order number
CRI turning device	For CR injectors with HP connection on the side: the injector is loosened by twisting it slightly to make it easier to remove	0 986 611 481
Support wench	Retaining tool for disassembly/assembly of the drive coupling on the CP2 pump	0 986 612 857
Puller	UI extractor from VW Group 1.9l with UIS/PDE diesel engines	0 986 612 750
Mounting sleeves	Description	Order number
O-ring mounting sleeve set	Mounting sleeves for mounting the O-rings on unit injectors (passenger cars) of 1st generation VW Group vehicles (1 set = 3 units)	0 986 613 824
O-ring mounting sleeve set	Mounting sleeves for mounting the O-rings on unit injectors (passenger cars) of 2nd generation VW Group vehicles (1 set = 2 units)	0 986 611 490
O-ring mounting mandrel	Tool for damage-free assembly of the return O-ring at the CR piezo injector	0 986 614 030
Measuring devices	Description	Order number
Start of delivery measuring device	Measuring device for FB adjustment with VP44 (BMW and MAN), included in VPM 844 1 687 00x 844, but not included in 0 986 614 130	1 688 130 237
Delta-phi measuring device	Measuring device for delta-phi with VP29/30 (Opel, Ford), included in VPM 1 687 001 844, but not included in 0 986 614 131	1 688 130 239
Delta-phi measuring device	M10x1 measuring sensor, 48 mm long, for precise pump/engine allocation to enable the pre-stroke or K1-FB measuring point at distributor pumps (VE.E, VE.F)	0 986 612 480

Common-rail injector test bench

DCI 700



DCI 700 400 V, 3 PH, 50/60 Hz

0 683 725 001

DCI 700 200 V, 3 PH, 50/60 Hz

0 683 725 002

Precision and speed

Current emission standards as well as future directives make the accurate testing of common-rail injectors in modern diesel engines increasingly more important. The DCI 700 test bench has advantages for the workshop. Companies benefit equally from the short assembly and testing times as well as its user-friendly operation. The DCI 700 is suitable for workshops with a large daily volume of injector tests.

Advantages at a glance

- Saving time through the fast setup and an average testing time of 15 minutes
- Higher quality, reliability and transparency for Bosch injectors thanks to fast and precise testing – including IMA/IQA coding
- High effectiveness through patented rotating rail concept – no vulnerable high pressure hoses required, lower maintenance cost and easier setup
- Always current through regular online updates
- Ergonomic design with the slanted lower part, allowing closer standing proximity and therefore improved working comfort at the test bench
- Can test common-rail injectors with latest technology such as VCC (Valve Closing Control) and NCC (Needle Closing Control) of EURO 5 and EURO 6 engines
- Modular retrofit kits for Bosch common-rail injectors for commercial and off-highway vehicles
- With automatic back pressure control functionality no additional control items are necessary

Special accessories DCI 700



CRIN Bosch
for testing CRIN1 to CRIN20 L
commercial vehicle injectors from Bosch
☎ 1 687 010 607



CRIN Bosch 4.2
for testing CRIN4-21 to CRIN4-27
commercial vehicle injectors from Bosch
☎ 1 687 010 608



CRIN Expert kit
for additional shot-to-shot
measurement of CRIN injectors
☎ 1 687 010 611



CRI/CRIN 3rd party
for testing CR injectors made
by third-party manufacturers
☎ 1 687 010 609

CRI Bosch
for testing CRI1 to CRI2-25 as well as
CRI3-16 to CRI3-27 injectors from Bosch
☎ **Included in scope of delivery**



CRIN Expert kit

The new expert kit for DCI 700 expands the measurement options of the test bench, making it able to carry out a shot-to-shot measurement of Bosch common-rail injectors.

During an additional test run the measured injection values are compared and evaluated. Larger deviations during the shot-to-shot measurement might show excessive scattering during some injections can be an indication for faulty injectors. The shot-to-shot measurement is an automatic test and will report only a pass or a fail.

A new licensing is not required for this functionality.

Single common-rail injector test bench DCI 200



DCI 200 230 V, 1 PH, 50/60 Hz  0 683 225 001 (Fig. with accessories)

Precision and speed

Current emission standards as well as future directives make the accurate testing of common-rail injectors in modern diesel engines increasingly more important. The DCI 200 test bench has advantages for the workshop. Companies benefit equally from the short assembly and testing times as well as its user-friendly operation. The DCI 200 is suitable for workshops with a low daily volume of injector tests.

Advantages at a glance

- Saving time through the fast setup and an average testing time of less than 15 minutes
- Higher quality, reliability and transparency for Bosch injectors thanks to fast and precise testing – including IMA/IQA coding
- High effectiveness through patented rotating rail concept – no vulnerable high pressure hoses required, lower maintenance cost and easier setup
- Always current through regular online updates
- Ergonomic design with the slanted lower part, allowing closer standing proximity and therefore improved working comfort at the test bench
- Can test common-rail injectors with latest technology such as VCC (Valve Closing Control) and NCC (Needle Closing Control) of EURO 5 and EURO 6 engines
- Modular retrofit kits for Bosch common-rail injectors for commercial and off-highway vehicles
- With automatic back pressure control functionality no additional control items are necessary

Special accessories DCI 200



CRIN Bosch
for testing CRIN1 to CRIN20 L
commercial vehicle injectors from Bosch
📄 1 687 010 207



CRIN Bosch 4.2
for testing CRIN4-21 to CRIN4-27
commercial vehicle injectors from Bosch
📄 1 687 010 209



CRI/CRIN 3rd party
for testing CR injectors made
by third-party manufacturers
📄 1 687 010 208



Swiveling arm and tray
for swiveling the monitor and
storing the keyboard and mouse
📄 1 687 016 221



Shelf
test oil-permeable shelf for
the DCI 200 testing room
📄 1 685 200 650

CRI Bosch
for testing CRI1 to CRI2-25 as well as
CRI3-16 to CRI3-27 injectors from Bosch
📄 **Included in scope of delivery**



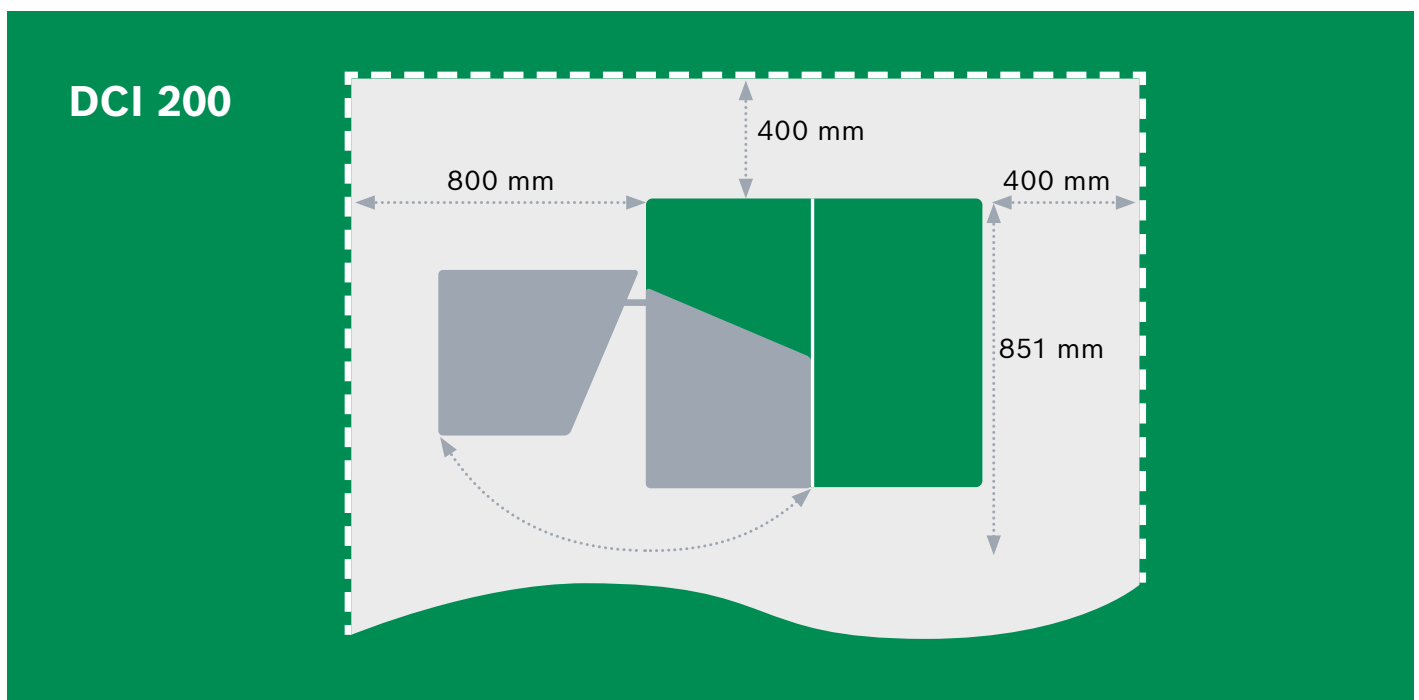
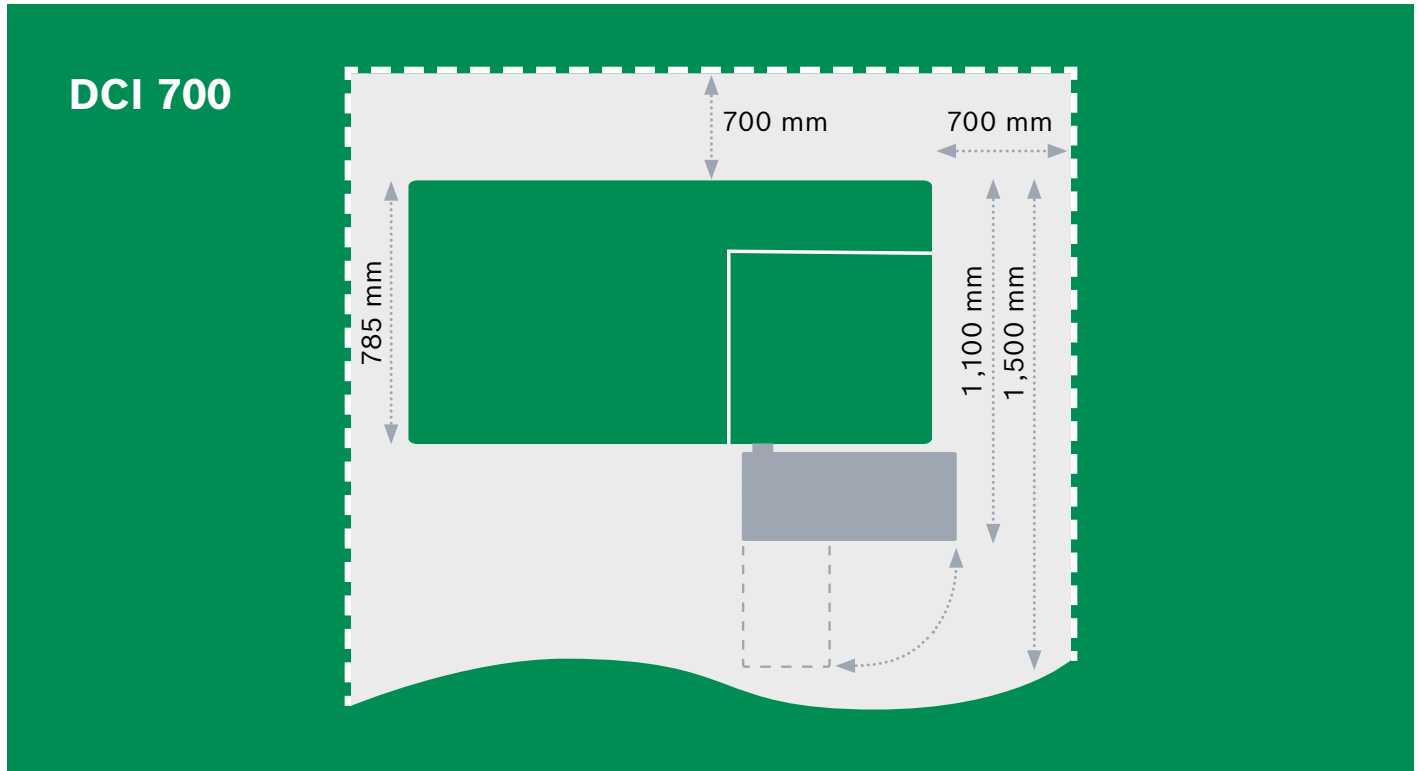
Accessories

DCI 700* / DCI 200

Description	Vehicle-/engine manufacturer	Order number
Adapter A1i	Cummins, Dongfeng	1 685 720 297
Adapter A2i	AGCO Group, Valtra, Fendt, Massey Ferguson Tractors, SISU Power, Deutz, Kirloskar	1 685 720 314
Adapter A3i	Fiat Group, Iveco, CASE New Holland, Cummins, Dongfeng, Tata, GCIC, Yunnei, Quanchai, DCEC, Xinchai	1 685 720 296
Adapter A4i	Renault-Truck, Dongfeng, YamZ, Cummins	1 685 720 316
Adapter A5i	MAN, Liebherr, KamaZ, Kirloskar	1 685 720 300
Adapter A6i	MAN, CNHTC	1 685 720 318
Adapter A7i	Ford Otosan, JMC Otosan	1 685 720 320
Adapter A8i	DHIM, Doosan, Daewoo, Yuchai Machine	1 685 720 322
Adapter A9i	Deutz	1 685 720 324
Adapter A10i	FAW, Yuchai Machine	1 685 720 326
Adapter A11i	Dongfeng, DCD	1 685 720 328
Adapter A12i	MAZ, YamZ, PAZ, AMZ, Ashok Leyland	1 685 720 330
Adapter A13i	CAMC, Renault-Truck, Volvo-Truck, Fendt, Deutz, FAW, Yuchai-Machine, Foton, Weichai-Power, SDEC, TAFE	1 685 720 332
Adapter A14i	MAN, Liebherr, Mahindra, Sany Group, CNHTC, JMC Otosan, Weichai Power, Dongfeng, NAVISTAR, International, MWM, JMCH Long Haul Tractor, AGCO, Doosan, Ford Otosan, Renault Truck	1 685 720 334
Adapter A15i	Weichai Power, Yuchai Machine	1 685 720 336
Adapter A16i	DHIM, Doosan, Yuchai, CAMC	1 685 720 338
Adapter A17i	MAN, NAVISTAR	1 685 720 371
Adapter A18i	FAW	1 685 720 373
Adapter A19i	Scania	1 685 720 377
Adapter A20i	Caterpillar	1 685 720 392
Adapter A21i	VE CV Ltd BS6	1 685 720 395
Adapter A22i	John Deere	1 685 720 415
Adapter A23i	AGCO, Deutz-Allis	1 685 720 423
Adapter A24i	FAW DA	1 685 720 426
Adapter A1e	Deutz, FAW	1 685 720 340
Adapter A2e	Hino, Toyota	1 685 720 342
Adapter A3e	FIAT Group, Iveco, CASE New Holland, International	1 685 720 344
Adapter A4e	Mitsubishi Fuso	1 685 720 346
Adapter A6e	Cummins, Mahindra, Yuchai Power, Yunnei, Yuchai Machine	1 685 720 358
Adapter A7e	FIAT Group, Iveco, CASE New Holland	1 685 720 360
Adapter A8e	Mitsubishi Hino	1 685 720 362
Adapter A9e	MTU	1 685 720 364
Adapter A10e	Catapillar, Perkins, Yuchai Machine, BFCEC, CNHTC, Yunnei, Weichai Power, SFH PT	1 685 720 366

*Adapters are offered as single pieces. Four adapters are required to equip all measurement channels of the DCI 700.

Facility concept DCI 700/DCI 200



Common-rail pump test bench

EPS 708



- | | | |
|----------------|--|---------------|
| EPS 708 | 400 V, 3 PH, 50/60 Hz with cooling system | 0 683 708 020 |
| EPS 708 | 400 V, 3 PH, 50/60 Hz without cooling system | 0 683 708 001 |

Powerful

The EPS 708 diesel test bench made by Bosch specifically for common-rail injection pumps allows testing up to 2,200 bar.

Advantages at a glance

- Measure electronic flow for efficient common-rail component testing
- Electronic inlet pressure control for pump and lubricating oil supply
- Simple pump assembly without coupling cover
- Integrated cooling system reduces water consumption in the workshop (water cooling optionally available)
- Electronic monitoring and display of service intervals (e.g. test oil change)
- Self-diagnosis system indicates necessary filter change

Accessories

EPS 708



CP1/CP1H/CP3 pump kit
for testing CP1/CP3 pumps
📄 1 687 010 346



CP4 pump kit
for testing CP4 pumps
📄 1 687 010 390



CB18 pump kit
for testing CB18 pumps
📄 1 687 010 402



**CP external pump kit
(Delphi, Denso)**
for testing CR pumps made
by other manufacturers
📄 1 687 010 183



VDO pump kit
for testing CR pumps
(Continental)
📄 1 687 010 193



Did you know?

234 million

common-rail pumps have been
produced by Bosch since 1997



Injection nozzle testing device **EPS 100**



EPS 100 📄 0 684 200 704

For efficient and flexible work

The EPS 100 facilitates the reading of the opening pressure of injection nozzles.

Advantages at a glance

- Testing and adjusting the opening pressure of injection nozzles
- Assessment of nozzle with regard to shape and atomization (spray pattern)
- Checking the tightness of the nozzles and the snaring properties for 2-spring nozzle holder, step holder and UI/UP applications
- Reduced total error (+/- 2.4 bar) due to high reading (1 bar) and pressure gauge accuracy
- Engine idle shaking can be avoided through the most precise analysis of the smallest leaks
- Direct extraction of oil mist when testing injection nozzles (only possible in conjunction with EPS 738)

Accessories

EPS 100

For testing the extraction device	Order number
EPS 738 extraction device	0 684 200 702
Nozzle holder combination	Order number
Passenger car nozzle holder combination for Opel with 20 DTH engines	1 683 391 194
Commercial vehicle nozzle holder combination for Mercedes-Benz Actros/Atego/Axor	1 683 391 193
Commercial vehicle nozzle holder combination with M16x1.5 connection thread	1 680 362 047
Commercial vehicle nozzle holder combination with M18x1.5 connection thread	1 680 362 000
Commercial vehicle nozzle holder combination with M22x1.5 connection thread	1 680 362 001
Commercial vehicle nozzle holder combination with M24x1.5 connection thread	1 680 362 044
Commercial vehicle nozzle holder combination with M26x1.5 connection thread	1 680 362 002
Commercial vehicle nozzle holder combination with M27x1.5 connection thread	1 680 362 045
Unit injector nozzle	Order number
UI nozzle for Audi, Seat, Skoda and VW	1 687 001 857
UI nozzle for Nissan	1 681 335 111
UI nozzle for DDC and Iveco with UI-N3 PDE (unit injector system)	1 687 010 338
UI nozzle for Scania, Volvo and Iveco with UI-N1 PDE (unit injector system)	1 687 010 147



Did you know?

950 million

nozzle holder combinations
have been produced by Bosch
since 1997

Repair tools for components

Common-rail injectors



CRR 950
software for repairing
diesel common-rail injector
solenoids
☎ 1 687 P15 137



Stage 3 CRI tool set
for complete repair and
adjustment of CRI incl. the
solenoid valve assembly
☎ 0 986 610 700



CRIN from Japan and
USA production stage 3
☎ 0 986 610 845



Mounting device
for common-rail injector
maintenance/repair
☎ 0 986 613 600



Stage 2 CRI tool set for
maintenance/repair of the
CRI solenoid valve assembly
☎ 0 986 613 650

Denoxtronic



Denoxtronic 2.2
tool set
☎ 0 986 610 561

Common-rail pumps



CP3 tool board (I)
tool set for repairing CR
high-pressure pumps
☎ 0 986 610 360



CP3 tool board (II)
tool set for repairing CR
high-pressure pumps
☎ 0 986 610 370



CP4 tool board
tool set for repairs
☎ 0 986 610 740



CP1/CP1H tool board
tool set for repairing CR
high-pressure pumps
☎ 0 986 614 360



CB18 repair tools
basic set for CB18 repair
☎ 0 986 614 081



CB28 basic tools
basic set for CB28 repair
☎ 0 986 614 082



CB28 Additional tools if no
CB18 basic set is available
☎ 0 986 614 083

Conventional pumps



A-pumps tool board
tool set for repairing Bosch
in-line injection pumps: A (I)
☎ 0 986 614 150



VE-pumps tool board
tool set for repairs (I)
☎ 0 986 614 220



VE-pumps tool board
tool set for repairs (II)
☎ 0 986 614 230



P-pumps tool board
tool set for repairing Bosch
in-line injection pumps
without controller (I)
☎ 0 986 614 240



P-pumps tool board
tool set for repairing Bosch
in-line injection pumps
without controller (II)
☎ 0 986 614 250



P-pumps tool board
tool set for repairing Bosch
in-line injection pumps
without controller (III)
☎ 0 986 614 260



P-pumps tool board
tool set for repairing Bosch
in-line injection pumps
without controller (IV)
☎ 0 986 614 270



H/R/P/M-pumps tool board
tool set for testing and
adjusting H-pumps, R-pumps,
P-pumps and M-pumps with
Electronic Diesel Control (EDC)
☎ 0 986 614 400



H/R/P-pumps tool board
tool set for H-pumps,
R-pumps and P-pumps
without controller
☎ 0 986 614 415

Repair tools for components

Mounting devices	Order number
Bosch workbench	0 986 613 300
Clamping device	0 986 611 248
Clamp holder for flange mounting	0 986 611 358
Mounting device for nozzle and clamping nut replacement of UI and basic mounting device for CRI/CRIN (accessory set 0 986 613 500 required)	0 986 613 400
Mounting device for roller plunger	0 986 611 993
CRI/CRIN stage 1 – Mounting device for nozzle replacement	0 986 610 130
Accessory set for basic mounting device, necessary for CRI/CRIN	0 986 613 500
Force measuring device for shaft seals, bushings, etc.	0 986 612 878
Force transducer for compressive forces	0 986 612 997
Tools and special accessories	Order number
Stage 3 CRIN retrofit set for CRI repair set (0 986 610 700 or 0 986 610 703) to perform CRIN repairs	0 986 610 705
CRIN starter kit, stage 3, package for beginners including case for storing tools and washers	0 986 610 710
Stage 3 CRI retrofit set for CRIN repair set (0 986 610 710) to perform CRI repairs	0 986 610 715
Upgrade set for tools for repair of CP1/CP1H high-pressure pumps (0 986 614 360) manufactured before 2022	0 986 613 750
Stage 2 tool set for the maintenance/repair of the CRIN solenoid valve assembly (incl. PEEK rings of commercial vehicle injectors)	0 986 613 699
Plunger holder for roller plunger	0 986 611 298
Mounting sleeves for mounting the O-rings in common-rail injectors (CRIN) for MAN, Ford Otosan	0 986 612 930
Snap ring clipper and assembly tool	0 986 610 600
Suction device for cleaning hard-to-reach surfaces	0 986 613 111
Mounting mandrel for mounting the O-rings on the return of common-rail injectors (piezo)	0 986 614 030
PEEK ring removal tool	0 986 613 461
Peek ring mounting tool (8.1 mm)	0 986 613 463
Peek ring mounting tool (7.52 mm)	0 986 613 464
Denoxtronic	Order number
Special accessories (Scania) adapter module	0 986 610 173
Test adapter	0 986 610 174
Upgrade set from Denoxtronic 2.1 to Denoxtronic 2.2	0 986 610 541
Denoxtronic workbench	0 986 613 880

What drives you, drives us

Bosch technologies are used in most vehicles worldwide. People, and assuring their mobility, is what we are focused on.

Therefore, we have dedicated over 130 years of pioneering spirit and expertise in research and manufacturing to achieving this.

We provide the aftermarket and workshops worldwide with modern diagnostic and workshop equipment and a wide range of spare parts for passenger cars and commercial vehicles:

- solutions for efficient vehicle repairs
- innovative workshop equipment and software
- one of the world's most comprehensive ranges of new and exchange parts
- large network of wholesale customers, for quick and reliable parts supply
- competent hotline support
- comprehensive educational and training offers
- targeted sales and marketing support

Find out more at:
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