

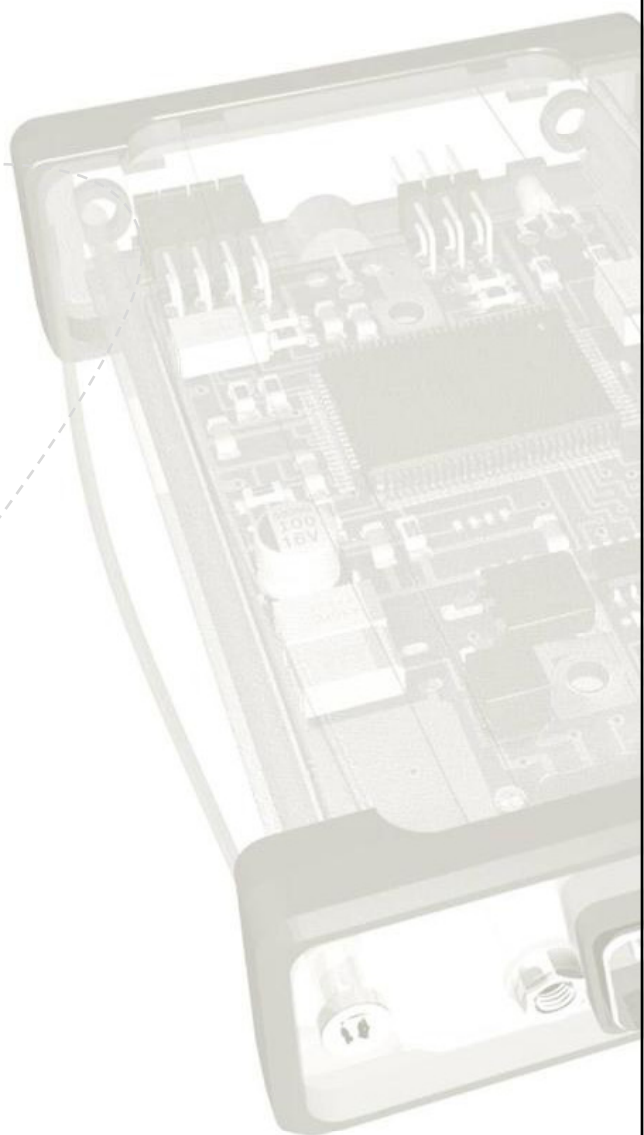
## Installation guide for cars

■ BMW 118d 2.0 90kW/122hp 280Nm  
BMW 120d 2.0 120kW/163hp 340Nm  
BMW 123d 2.0 150kW/204hp 400Nm

Engine code: BMW M47TU2D20

Year: 2004-2007

Platform: E87



# Installation guide for cars

## General instructions

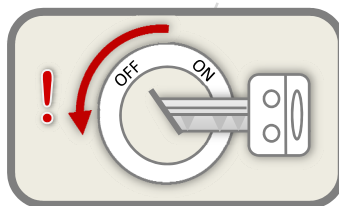
Read this installation guide carefully before starting the installation so that you will be able to use all the technical advantages of the systems and do not start with the installation before you have read and understood the instructions.

Your tuning system was designed and manufactured with great care and therefore should be also handled with care. If you comply with the advice given below you will avoid an early termination of the product guarantee and you will be enjoying your product for years to come.

Never install the system if the ignition is on. Pull the ignition key. After switching off the ignition, wait for 5 minutes until all electric devices are turned off.



Please absolutely consider these references.



Ignition switch off .

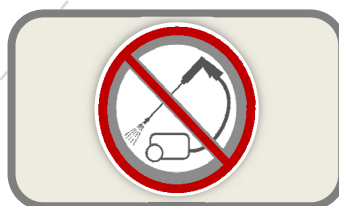


Wait after switching the ignition off 5 min.

If possible, install the module in a dry area in the engine compartment. Humidity and wetness contain minerals which cause corrosion to the electronic circuits. Fix the harness and protect it from humidity. Before every engine wash, remove the entire tuning system.



Install splash-proof



Attention with engine washing.



No installation on hot engine parts.

Do not fix tuning systems to engine parts that could heat up. Never fix the module directly or close to the engine (engine block). High temperatures can reduce the lifespan of electronic devices and can deform or melt specific plastics materials.

Take care that the harness does not touch the parts in motion and the metal parts to avoid friction. Do not make any changes to the harness (do not make it any longer or shorter).

In case of the malfunctioning of the system due to any non-compliance with the instructions during the installation of the tuning modules, the product guarantee will be terminated.

# Installation guide for cars

BMW 118d 2.0 105kW/143hp, BMW 120d 2.0 130kW/177hp, BMW 123d 2.0 150kW/204hp

## Installation

Localise the common rail bar. Open the 3-pole connector plug on the common rail bar and connect the adapter cable from the CRD module with the connector from the common rail.

**Advice!** You can't find the rail pressure sensor? Follow the injection pipes. These pipes are made of metal and go directly to a thick metal pipe (rail pressure bar). The rail pressure bar has a diameter of about 2,5cm. In general the rail pressure sensor is in front of the rail pressure bar. The sensor plug is always a 3-pole plug.

Move the adapter cable not in parallel with injection pipelines or ABS-control device connecting leads. Keep to very big distances. Fix the cable harness with cable binders. Connect the CRD module with the adapter cable.

The module should be obstructed possibly against warmth and splash water protected. Use the provided splash water protection bag and fasten this by means of the velcro fastening.

## Settings

The module is preset on the vehicle and needs no other change of the settings. Now the vehicle is ready for a test run.

The Performance tuning can obtain a different result throughout the series. It's possible that the engine power turns out to be too high or too low.

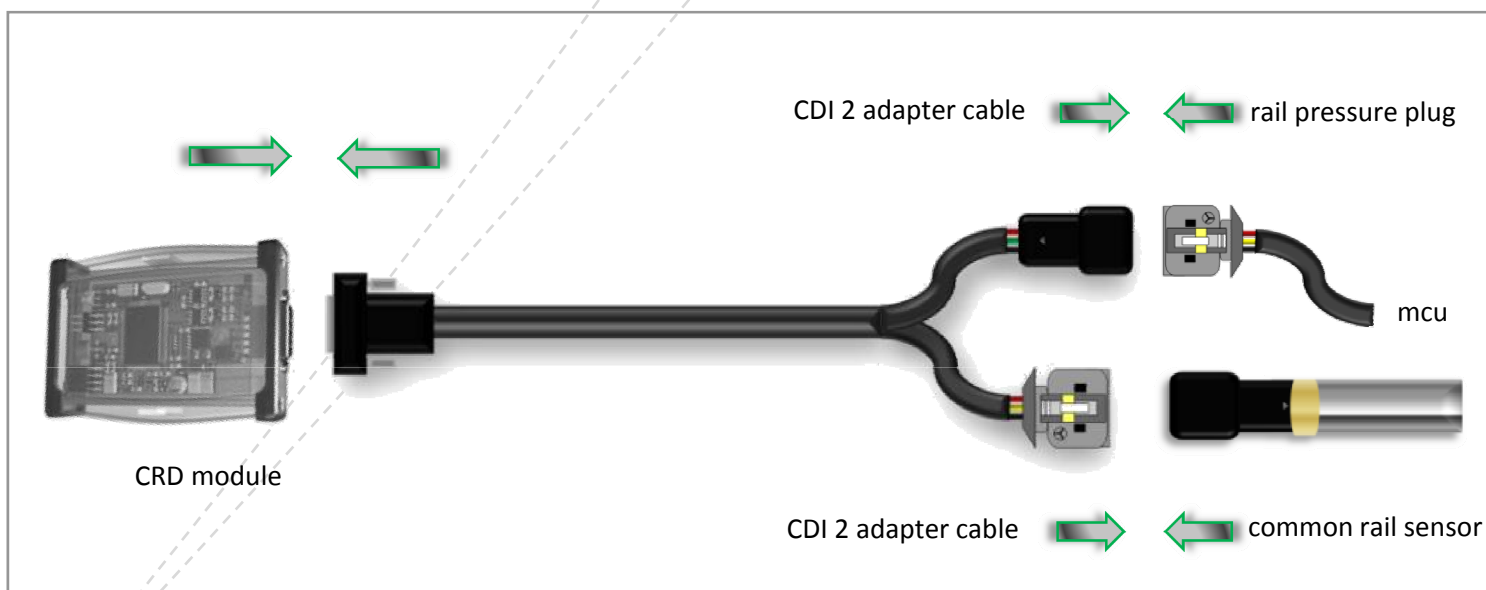
If the power should be too high, it is shown by a strong soot generation, disturbed engine run, engine misfire or the initiation of the engine emergency program.

See the attached sheet fine-tuning CRD system.

If you still have questions or you are not quite sure?

Contact us, a technician will gladly help you!

## CRD System CDI 2 installation principle



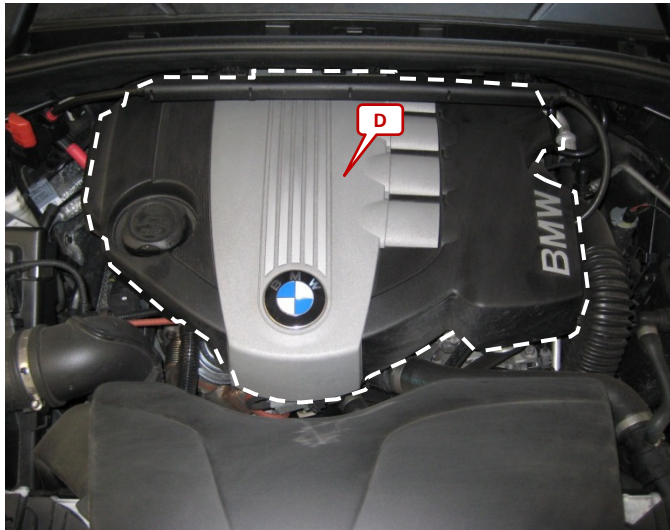


## Installation guide for cars

BMW 118d 2.0 105kW/143hp, BMW 120d 2.0 130kW/177hp, BMW 123d 2.0 150kW/204hp



Open the engine hood.  
Solve the socket head screws (I).  
Remove the engine cover (D).



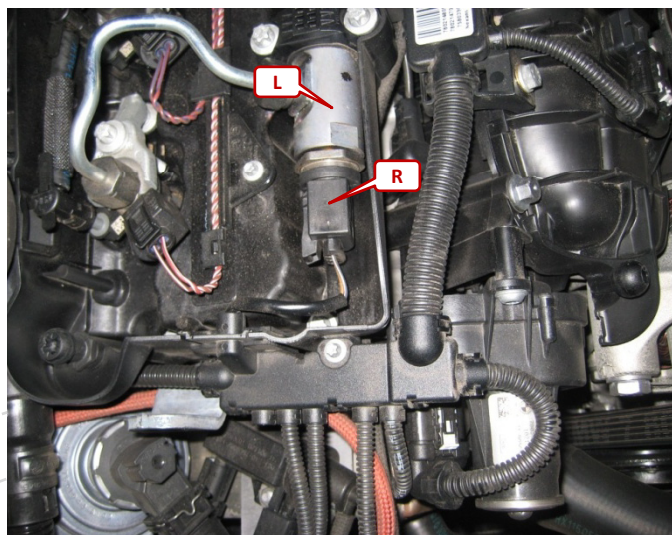
Now you can see the rail pressure sensor (R) in front of the common rail bar (L).



Press the locking device to disconnect the rail pressure plug (R).

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BMW 118d 2.0 105kW/143hp, BMW 120d 2.0 130kW/177hp, BMW 123d 2.0 150kW/204hp




Remove the rail pressure sensor plug (R). Connect the CDI 2 adapter cable with the common rail bar (L). Connect then the original pressure sensor plug with the CDI 2 adapter cable.

Move the adapter cable not in parallel with injection pipelines or ABS-control device connecting leads. Keep to very big distances. Fix the CDI 2 adapter cable with cable binders. Connect the CRD module with the adapter cable and screw it tight with the knurled screws.

Use the provided splash water protection bag and fasten this by means of the velcro fastening.

Check all connections again and reassemble the vehicle in reverse order.

If you still have questions or you are not quite sure?  
Contact us, a technician will gladly help you!



## Installation guide for cars

BMW 118d 2.0 105kW/143hp, BMW 120d 2.0 130kW/177hp, BMW 123d 2.0 150kW/204hp

### Trouble shooting

Error descriptions	Problem solution
The car doesn't start.	<ul style="list-style-type: none"><li>- Check all connected components.</li><li>- Are the adapter plugs in the right position?</li><li>- Do the LED's work properly (see CRD fine tuning)?</li><li>- Are the Jumpers positioned correctly?</li><li>- Is the adapter cable the right one?</li><li>- Is the module correctly screwed to the adapter cable?</li></ul>
The car doesn't run smoothly. The engine is bucking.	<ul style="list-style-type: none"><li>- Are the adapter plugs in the right position?</li><li>- Have you changed the jumper position (increase in performance / diminishing in performance)?</li></ul>
The emergency program runs immediately. The Malfunction Indication Light (MIL) flashes in the Instrument Cluster.	<ul style="list-style-type: none"><li>- Lower the performance by setting the jumper on a negative value (one or two positions → lower).</li><li>- Contact the support.</li></ul>
The emergency program (fail-save) runs in higher rpm.	<ul style="list-style-type: none"><li>- Lower the performance by setting the jumper on a negative value (one or two positions → lower).</li></ul>
The car shows no extra performance.	<ul style="list-style-type: none"><li>- Raise the power by setting the jumper on a positive value (one or two positions → higher).</li></ul>
The car produces too much soot.	<ul style="list-style-type: none"><li>- Lower the performance by setting the jumper on a negative value (one or two positions → lower).</li></ul>
How can I get back to the original state of the car?	<ul style="list-style-type: none"><li>- Turn the ignition off. Wait, until all electric power consumers are switched off. Disconnect the CRD module from the adapter cable. Connect the supplied bridging plug instead of the CRD module to the adapter cable. The car is now back in the series performance. You can also remove the complete system (CRD module and CDI2 adapter cable).</li></ul>



Information

The Performance tuning can obtain a different result throughout the series. It's possible that the engine power turns out to be too high or too low.

If the power should be too high, it is shown by a strong soot generation, disturbed engine run, engine misfire or the initiation of the engine emergency program.

In the emergency program the vehicle drives with a strongly decreased performance. In some vehicle models Malfunction Indication Light (MIL) flashes. The emergency program is a protective function of the engine and can be deactivated at any time.

With fine-tuning these problems can be resolved. A fine tuning is normally not necessary, since the CRD module was balanced and programmed for the respective vehicle. Before a change is made, you should contact your salesman or the manufacturer of the system. A technician will gladly help you.

CRD Box's backside

On the back of the unit you can see two LED's and some jumpers. The left set of jumpers is used for the program selection. The right set of jumpers is used for fine-tuning the CRD Tuning box (see ill.1).

Fine-tune jumper (right)

Only one jumper must be present in this row. Jumper on T position gives settings as made in configuration program. Now you can raise or lower the power output by setting the jumper on a positive or negative value. (see ill.2, ill.3 and ill.4). Jumpers which are put in horizontal position have no influence.

Program jumper function (left)

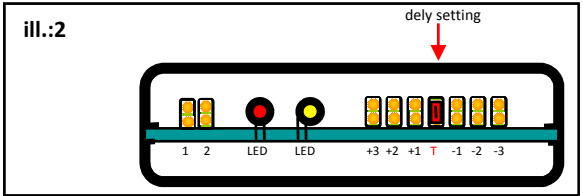
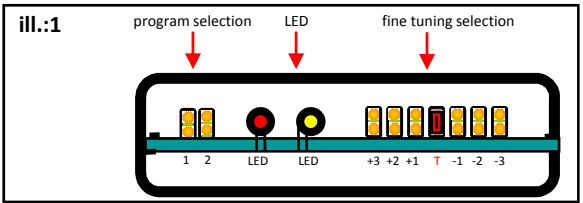
0, 1 or 2 jumpers can be applied in this row (see ill.5) Should a not configured program be selected, program 1 is automatically called.

Jumper 1	Jumper 2	Program
off	off	1
on	off	2
off	on	3
on	on	4

LED's

Both LED's flashes only while driving. You can't check the LED's when you turn only the ignition on.

- Red LED → The device is ready for use.
- Yellow LED → The tuning is active.



ill.:3

changing the supererogation	plus
position T	0%
position +1	+10%
position +2	+20%
position +3	+30%

ill.:4

changing the supererogation	minus
position T	0%
position -1	-10%
position -2	-20%
position -3	-30%

