MANUAL

INSTALLATION OF

KLEEMANN *Comfort Power* Performance Kit

MERCEDES-BENZ ENGINE M271

Introduction

These fitting instructions constitute a helping hand for the installation of the KLEEMANN Compressor System. It is recommended to read the instructions before installing the kit, so that you can gain an overview of the entire installation before you begin. If questions arise during the installation, you are welcome to contact us. KLEEMANN A/S will be ready to answer questions and provide assistance. Please do not hesitate to call us with any inquiries. It is essential to all of us that the final installation results in a properly tuned car and a satisfied customer.

Yours faithfully
Soren Jess
President, KLEEMANN A/S

Kleemann Guarantee

After installing the KLEEMANN Compressor System please fill in the warranty form. Send or fax a copy to KLEEMANN, keep a copy for yourself and give the original to the customer.

For the Kleemann warranty to be effective the form must be returned to KLEEMANN after the 1500 km service.

Kleemann *Comfort power* Performance Kit

M271 Engines 180/200 Kompressor model all ranges

Last updated December 2007

Edited by: Morten Piil Gøttrup

BOM 200 models (major components)

KLEEMANN K BOX
High Flow Air Filter

To be modified:

- Engine Management >> install K BOX
- Air filter >> replace by KLEEMANN filter

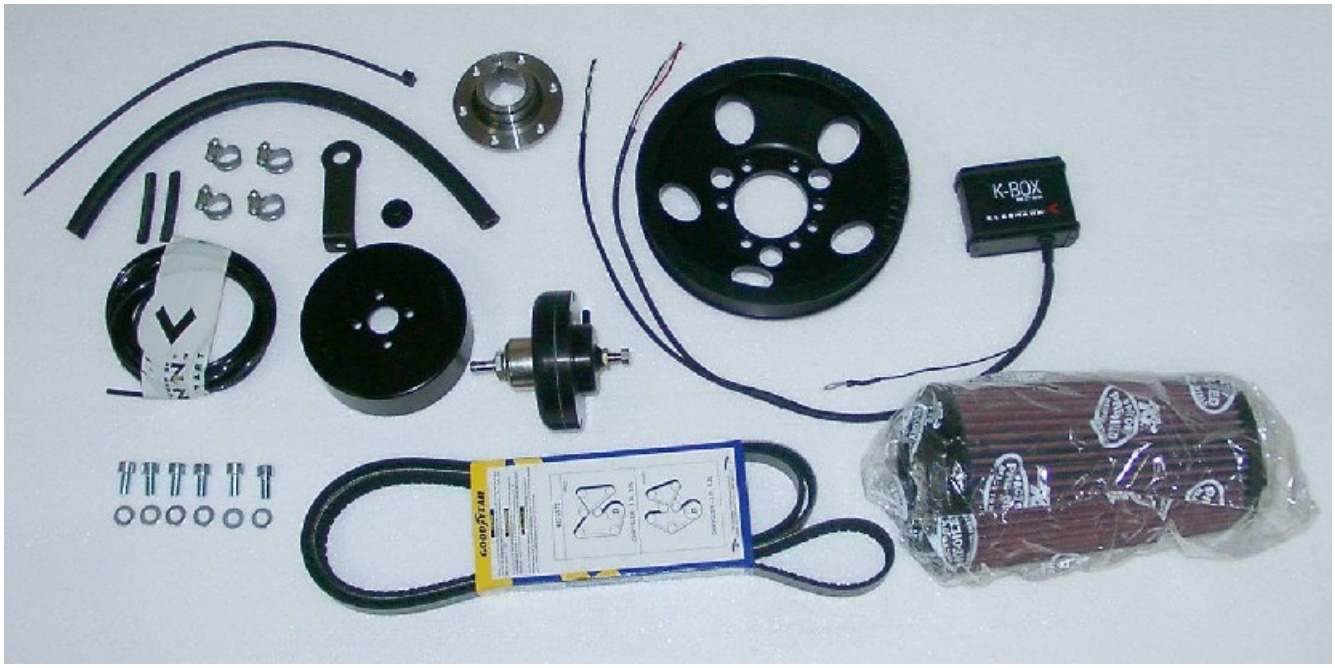
BOM 200 models (major components)

KLEEMANN K BOX
KLEEMANN Pulley wheel for crank pulley
KLEEMANN Pulley wheel for alternator
Rib belt
Fuel pressure regulator (KLEEMANN or BOSCH), Fuel hoses
High Flow Air Filter

To be modified:

- Crank pulley >> replace by KLEEMANN pulley
- Alternator pulley >> replace by KLEEMANN alternator pulley
- Belt >> replace by KLEEMANN belt
- Air filter >> replace by KLEEMANN filter
- Engine Management >> install K BOX
- Fuel system >> install KLEEMANN Fuel pressure regulator

Kit shown is for W203:



Test drive the car to see if there are no faults or problems. Read out error messages using the Mercedes-Benz DAS.

1. **Pay special attention to the MAF**
2. **Mend any problems, and**
3. **Erase any faults codes from memory**

Part 1: Installation of K BOX and Filter

1. Dismount airfilter box.
2. The O.E. fastener is replaced with 051 112 0451 as show in fig.1
3. The K-BOX is mounted in the fuse box located on the left side of the car (driving side). fig.1.a
4. The wires are drawn through the cars rubber wirer hoses to the Mass Air Flow sensor (MAF) and Manifold Absolute Pressure sensor (MAP) sensor. fig.2.
5. Wires are connected according to table below:

K – BOX colour	**Description**	**Connection**
Black	Ground	To chassis (Ground)
Red	Power supply	Parallel connected to the red/green (pin 2) on MAF
Brown	IN – 1	Brown/Black (pin 2) on M.A.P. sensor are cut and K-BOX is connected
Green	OUT – 1	Brown/Black (pin 2) free M.A.P. wire is connected to ECU
Grey	IN – 2	Brown (pin 3) on M.A.F. is cut and connected to sensor
White	OUT – 2	Brown (pin 3) free M.A.F. wire is connected to ECU

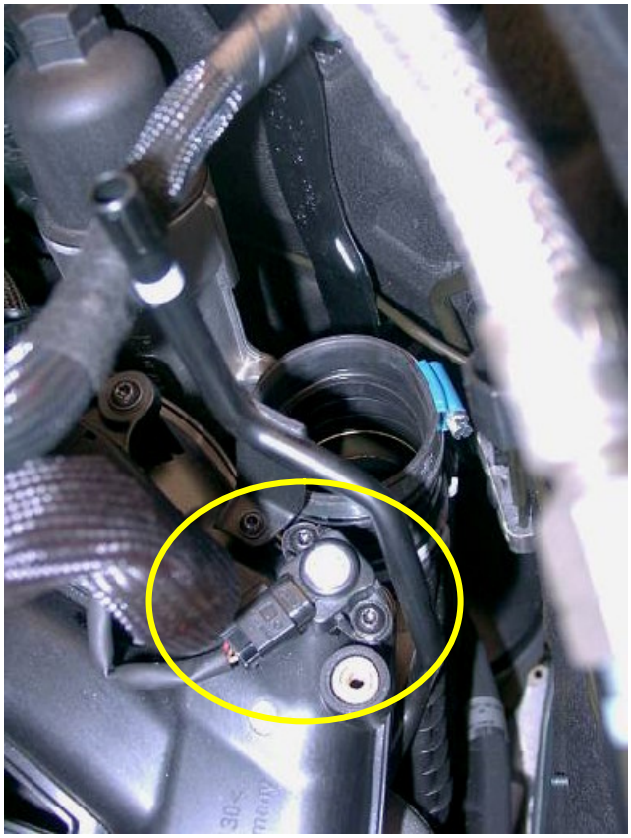


Fig 1: Location of the MAP sensor

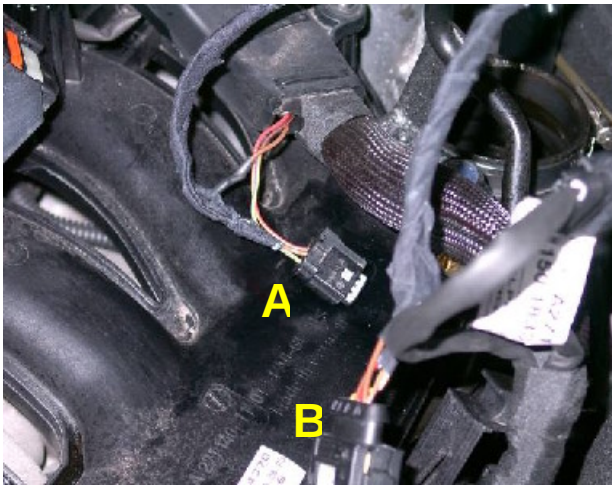


Fig 2:

A) MAP sensor
B) MAF Sensor

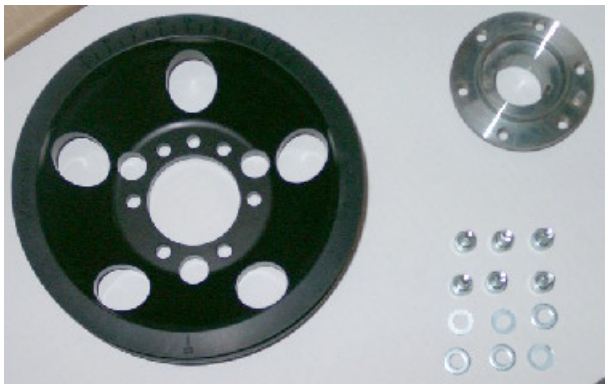
6. Remove the plugs for ease of work.
7. Connect wires as directed above
8. Reconnect plugs

9. Replace air filter
10. **Modification for 180K models is completed**
11. Proceed to final testing page 15

Part 2: Pulley Installation for M271 – 200 Kompressor models

Ready for crank pulley modification

1. Prepare work area. Remove:
   - Air Intake Pipe
   - Vibration Dampener
   - Radiator Cooling Fan
   - Crank pulley wheel



2. Prepare KLEEMANN crank pulley:
   - Insert hub into pulley
   - Fasten with 6 M8 Allen bolts, tighten to 25 NM

3. Completed KLEEMANN pulley.

4. Crank pulley replacement:
   - Use O.E.MB tool MB# 271 589 00 40 00 to remove stock crank pulley
   - Install KLEEMANN crank pulley using O.E.MB tool MB# 112 589 40 00.
   - Fasten to 300 NM. + (90 deg.)

5. Re-install:
   - Rib belt, check that the belt is properly routed
   - Air Intake Pipe
   - Vibration Dampener
   - Radiator Cooling Fan

6. Completed Pulley install

Part 3: Modification of Fuel System

3a: W203, W209 - Installing the KLEEMANN fuel regulator

1. Feed 4.5 meter vacuum line from the engine bay to the rear fuel filter.
   - Route the line in such a way that it does not come in contact with sharp or hot objects.
   - This vacuum line is the actuator for the fuel pressure regulator, if it becomes damaged in any way there will be a lean condition under boost. **Serious engine damage can occur!**
2. Attach one end of the vacuum line using the T-pcs. (Yellow circle, fig. 1) to the O.E. vacuum pressure hose, and route it along the other wires and hoses to the yellow arrow (fig 1).
3. The opposite end of the vacuum line will be attached to the signal port (pipe) on the KLEEMANN fuel regulator, where boost can be measured, so the fuel regulator raises fuel pressure under boost.

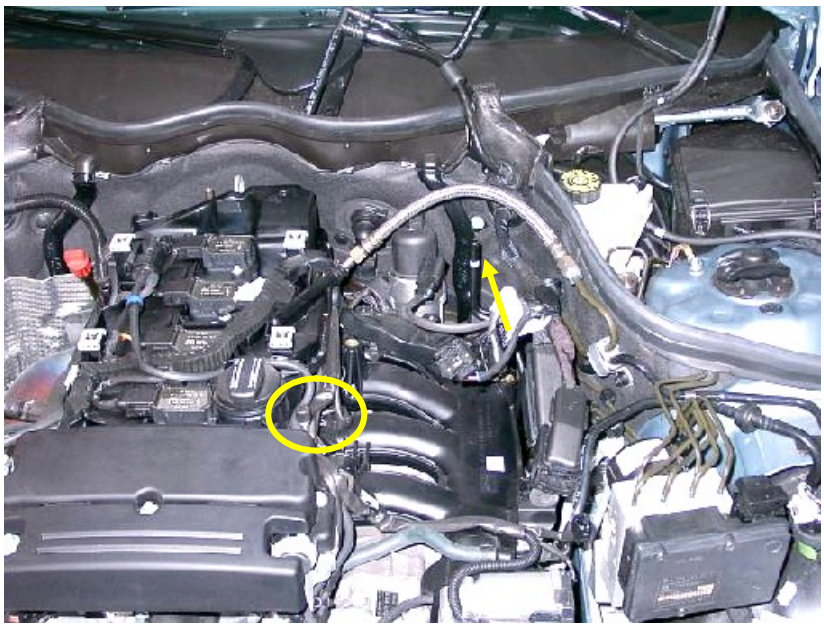


Fig 1

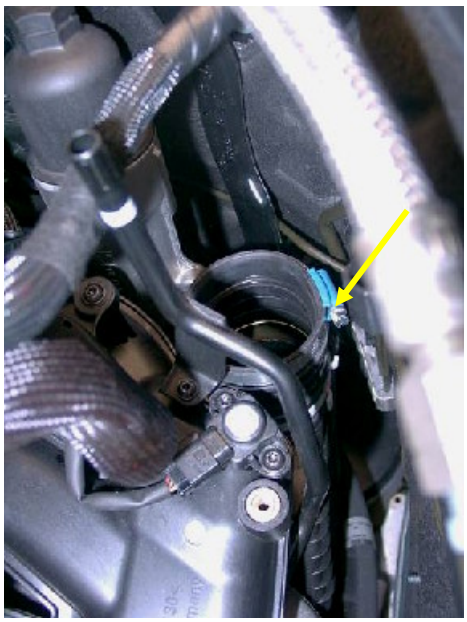
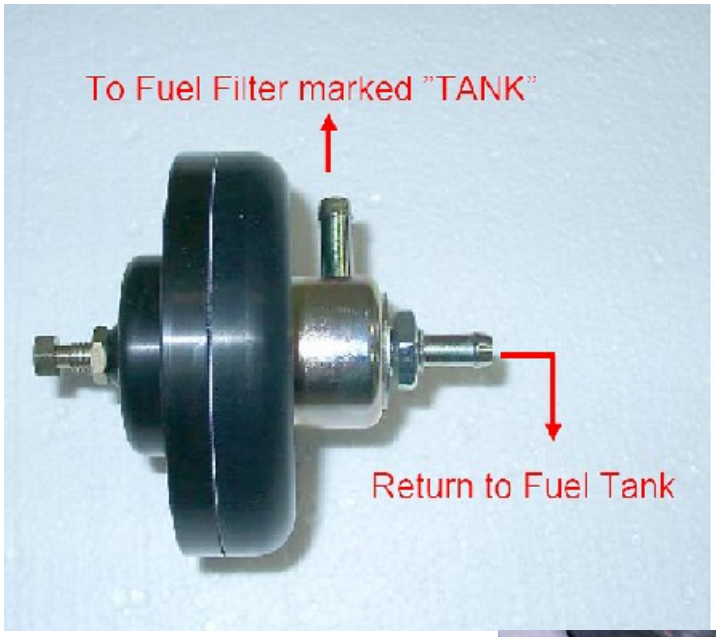
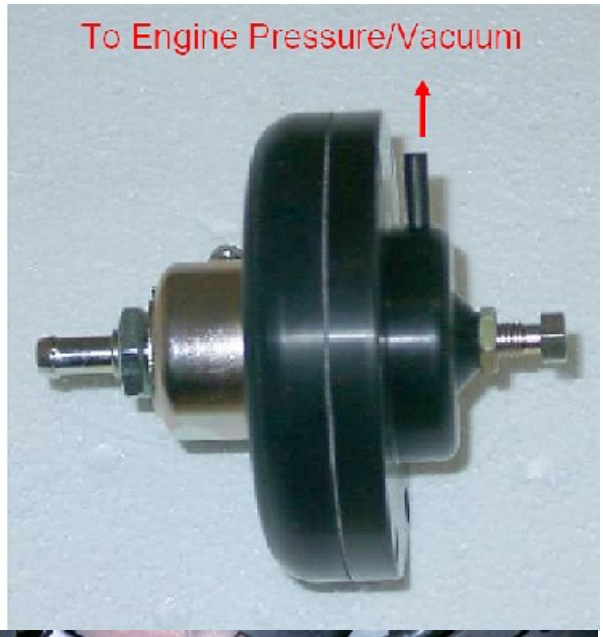


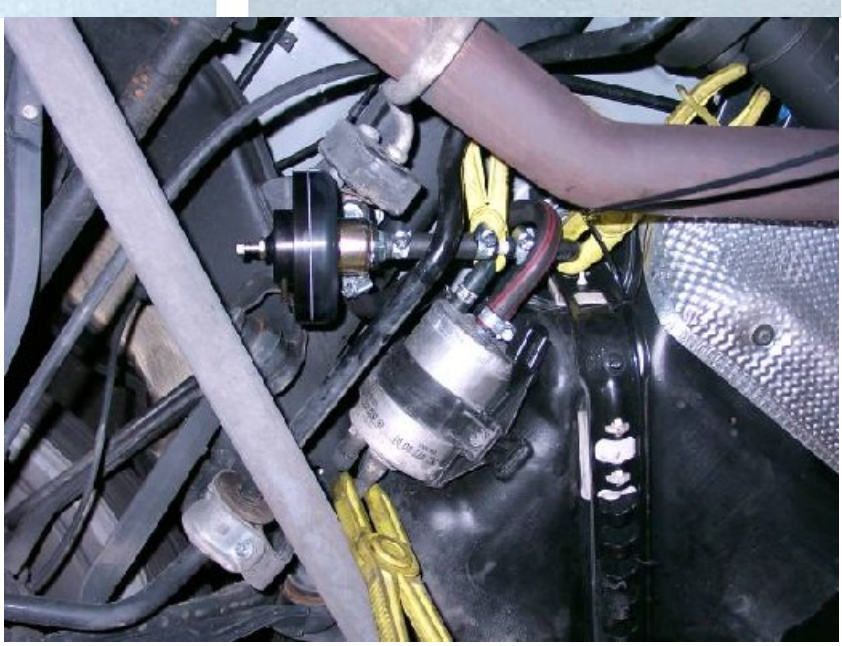
Fig 2

Fuel Regulator Layout:





4. On the fuel filter there is a hose marked “TANK”. This is the fuel return line. Cut the hose and install the KLEEMANN fuel regulator.
5. The regulator is installed between the fuel filter and the fuel tank. The hose from the fuel filter is connected to the port on the side of the regulator.
6. The hose to the tank is connected to the port on the bottom of the regulator.
7. Attach the vacuum signal line to the port on top of the regulator.
8. Use the KLEEMANN bracket to locate the regulator in a safe place. The regulator should not be allowed to come in contact with any other surrounding parts. Make sure the regulator is mounted securely and cannot move.
9. **IMPORTANT NOTICE: use Loctite on the adjustment screw**



10. Fuel regulator adjustment.
    - Loosen screw
    - Turn clockwise, using only slight force (fingers) until you feel resistance.

The regulator has been adjusted properly.

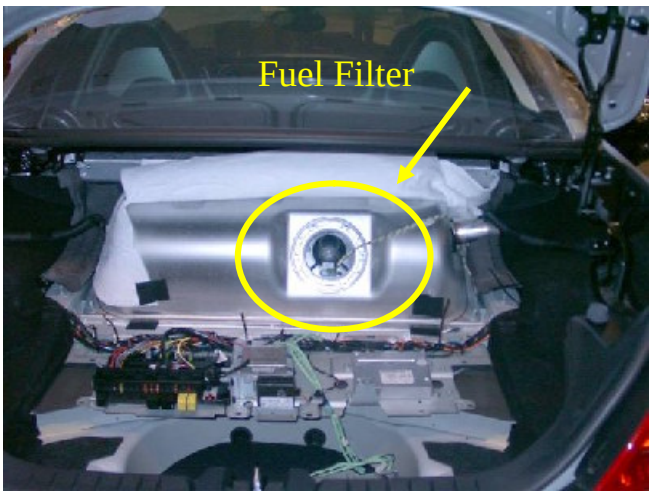
3b: R171 - Installing the KLEEMANN fuel regulator

On the SLK R171 it is necessary to change the O.E. 3,8 bar fuel regulator in the fuel filter to a 5 bar unit. To access the fuel filter remove carpets etc. As shown, before loosening the 6 x M6 screws at the fuel filter**, make sure that the fuel level in the tank is low**.

Step 1

Step 2

Step 3



Step 4

1. Change of fuel regulator to increase fuel pressure:
   - When the fuel filter has been removed from the tank, the small regulator has to be replaced with the KLEEMANN regulator.
   - This is done by carefully removing the pin holding the regulator and thereafter taking it out.
   - Then carefully reverse the operation when inserting the new regulator.