BMW 520d G31 - Replacing EGR valve 6NU 014 864-751

Data sheet	
Manufacturer	BMW
Vehicle model	520d G31
Drive unit	2.0d
Engine code	B47
Year of manufacture	2017
Hella spare parts	6NU 014 864-751
Symptoms	EGR valve defective
Recommended tool	mega macs X

Important safety information

Repair instructions for replacing EGR valve 6NU 014 864-751

Procedure for replacing the EGR valve

Move the valve to the installation position using a suitable diagnostic unit to prevent damage to the EGR valve. Failing to carry out this step will press the valve disk against the sealing seat in the EGR cooler during installation. This may lead to a deformed valve disk and valve stem. As a result, components inside the EGR valve will also be damaged, which means that the valve can no longer open and close correctly. This results in malfunctions in the exhaust gas recirculation system, emissions-related engine faults and entries in the engine control unit fault memory.

We recommend the following procedure to avoid such damage and a failure of the EGR valve:

Preparation and removal

- Allow the engine to fully cool down. Exclusively install the component once the engine has fully cooled down.
- Switch off the ignition

- Remove EGR valve according to manufacturer's instructions

Preparing the new EGR valve for installation

1. Connect the new EGR valve to the vehicle's electrical connection before installation.

2. Switch on the ignition

3. Connect the diagnostic unit to the vehicle

4. Move the EGR valve to the installation position using the "Basic setting" function (see Fig. 1-5)

5. Identifying feature of the installation position: The valve disk has slightly retracted into the housing (see Fig. 6)

Installing the EGR valve

- Once the EGR valve has reached the installation position, install it according to the vehicle manufacturer's specifications

In this process, please note:

- Do not reuse the old seal and hose clamps
- Evenly tighten the screw connections to the vehicle-specific tightening torque
- Switch off the ignition after installation (see Fig. 7)

Final steps

- Reinstall all parts in the vehicle as per the manufacturer's specifications
- Bleed the cooling system as per the manufacturer's specifications (Some manufacturers stipulate special bleeding routines that must be adhered to)
- Reset the engine control unit teach-in values

- Read out and clear fault memory

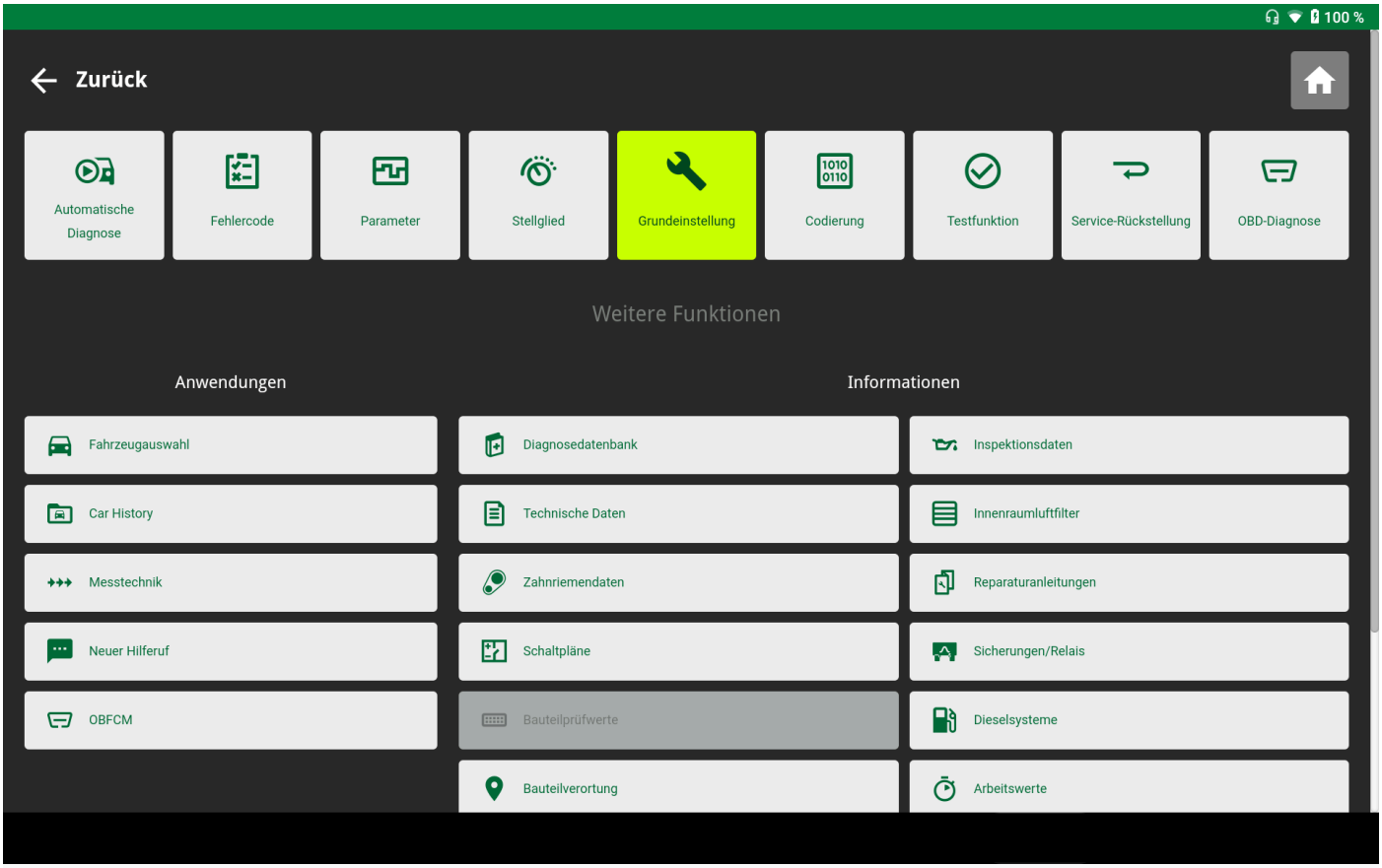

Figure 1)

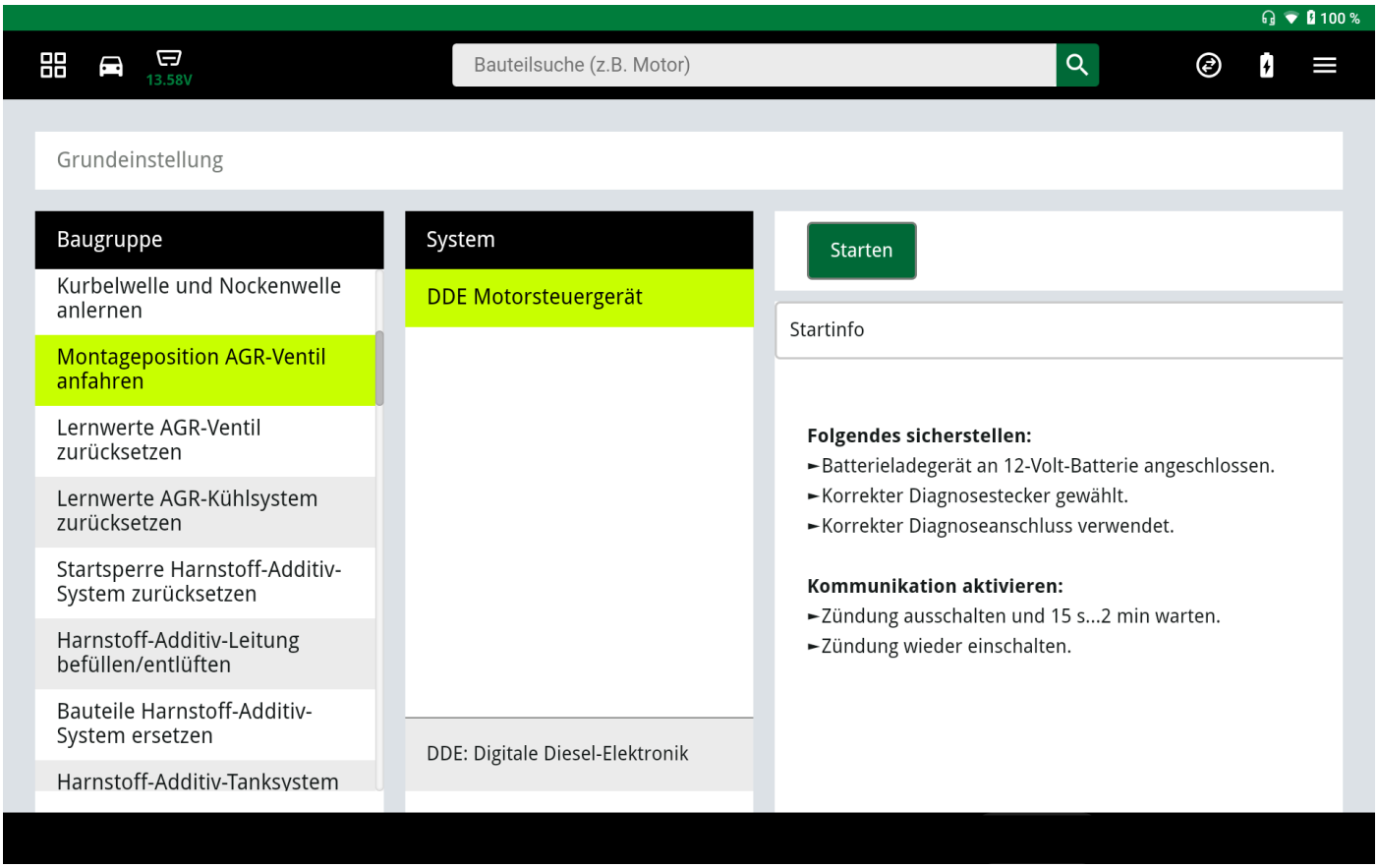

Figure 2)

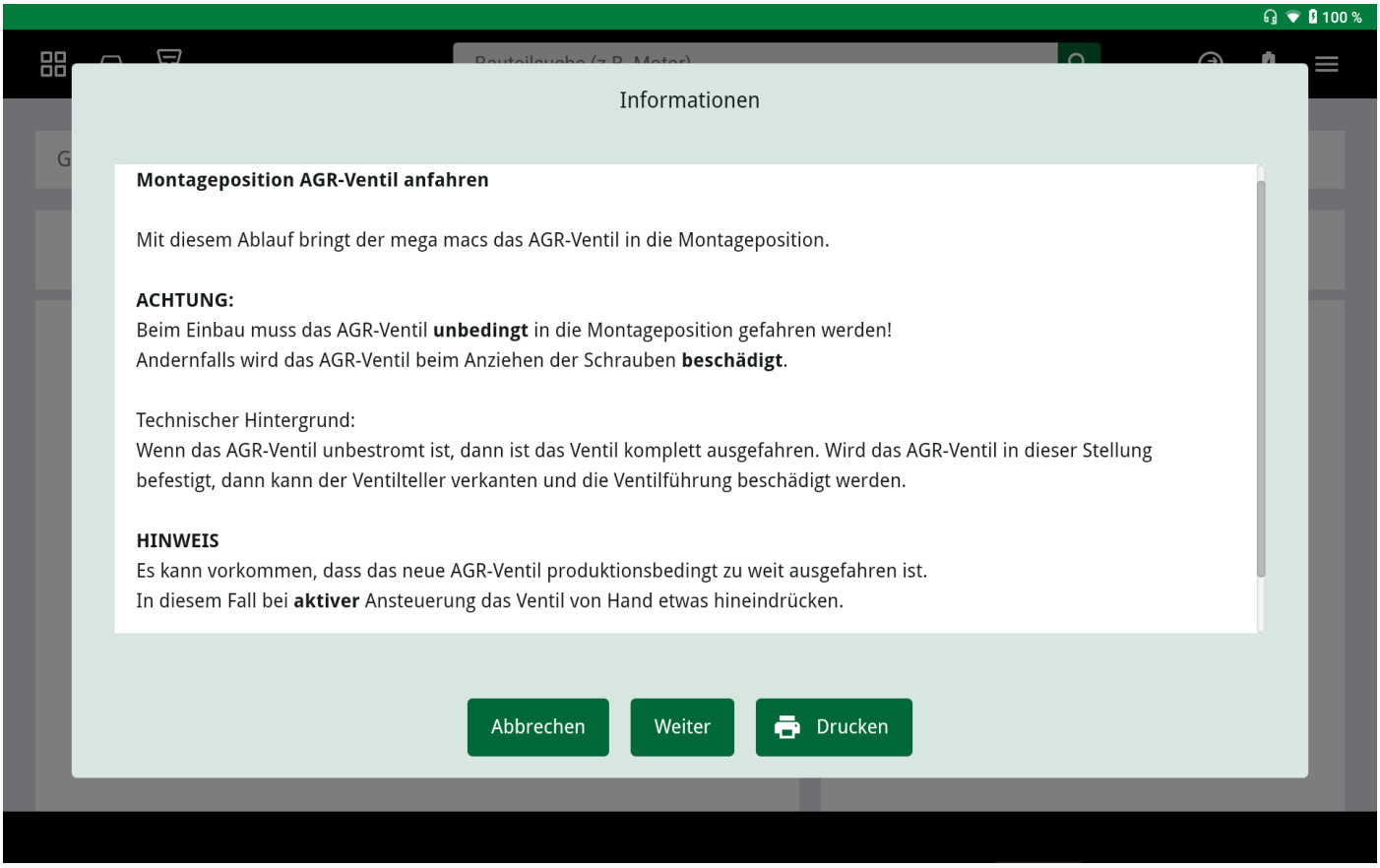

Fig. 3)

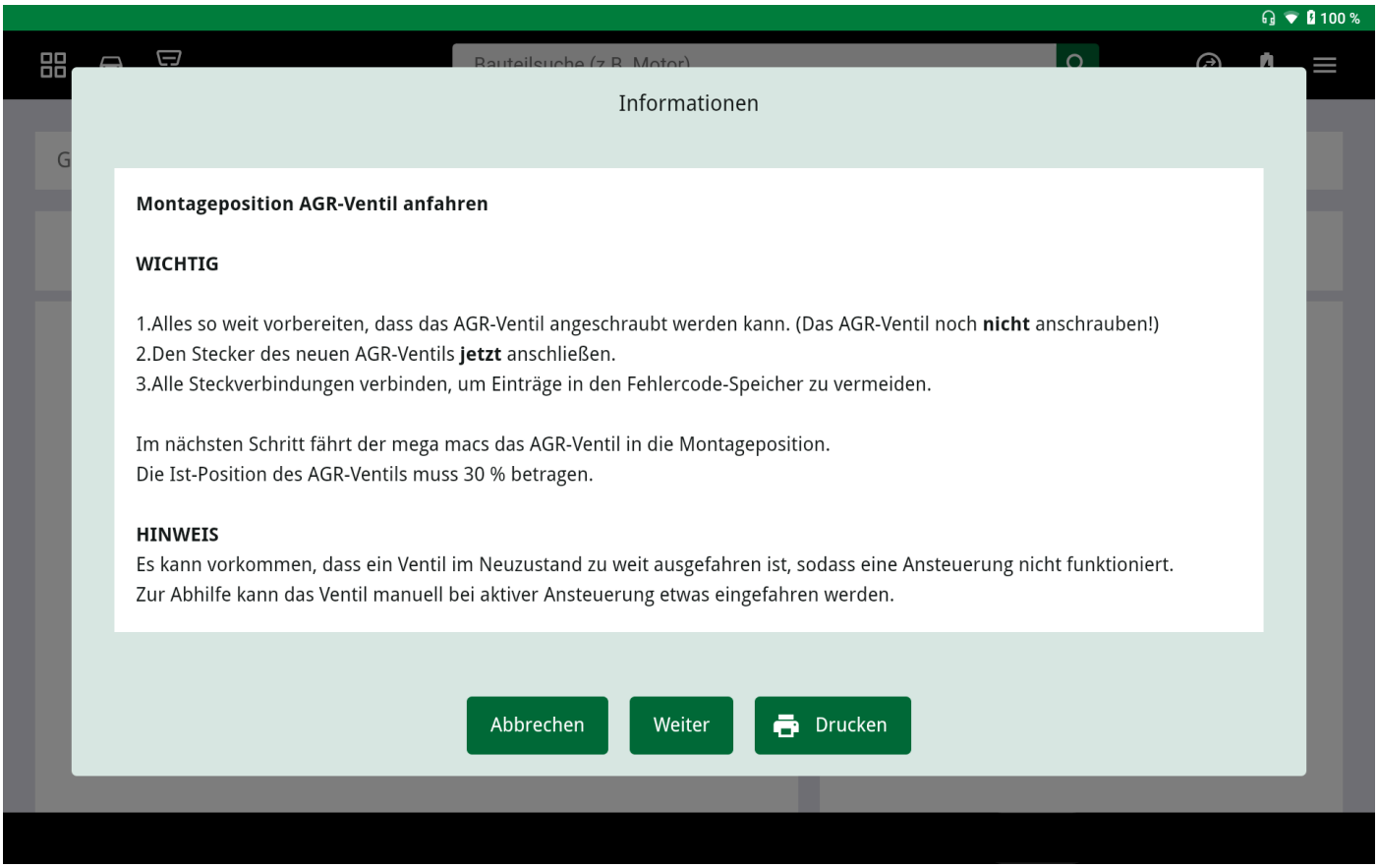

Fig. 4)

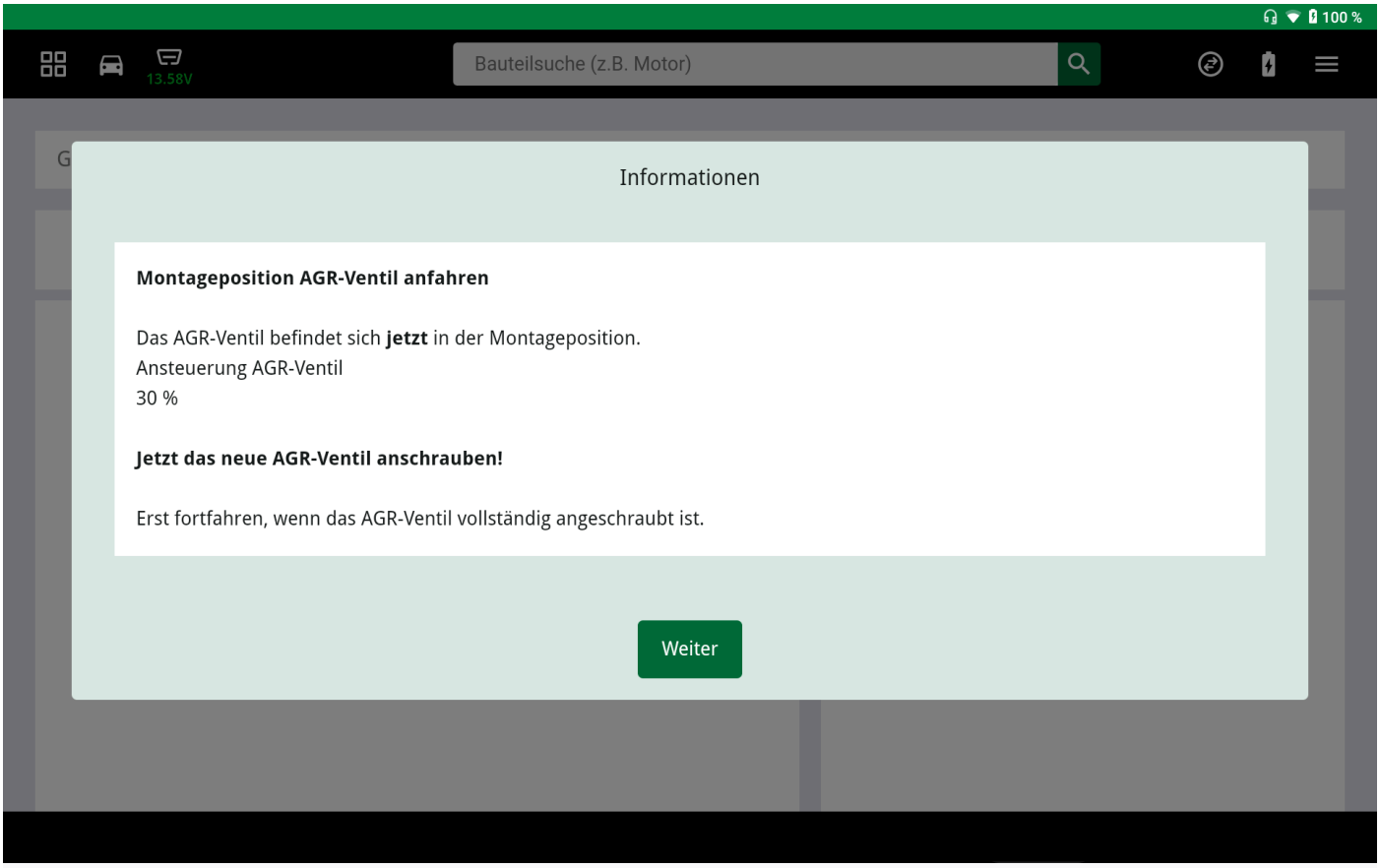

Fig. 5) EGR valve can now be installed

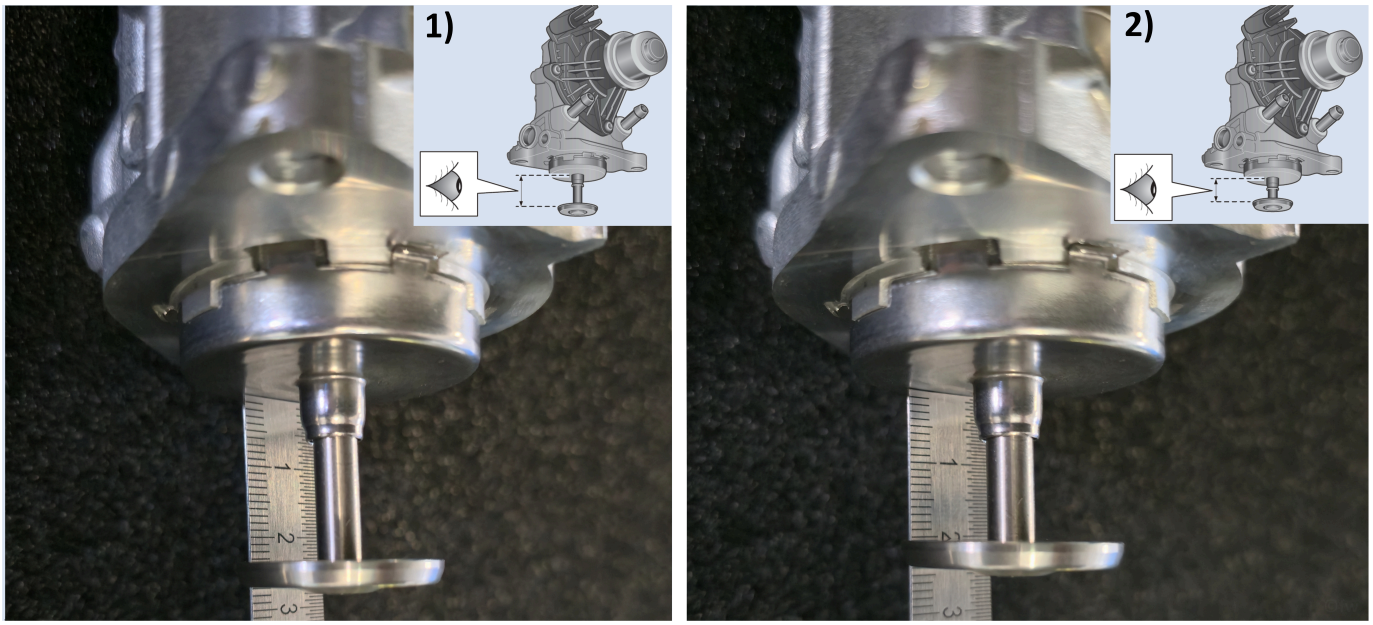

Fig. 6) 1) Delivery position 2) Installation position

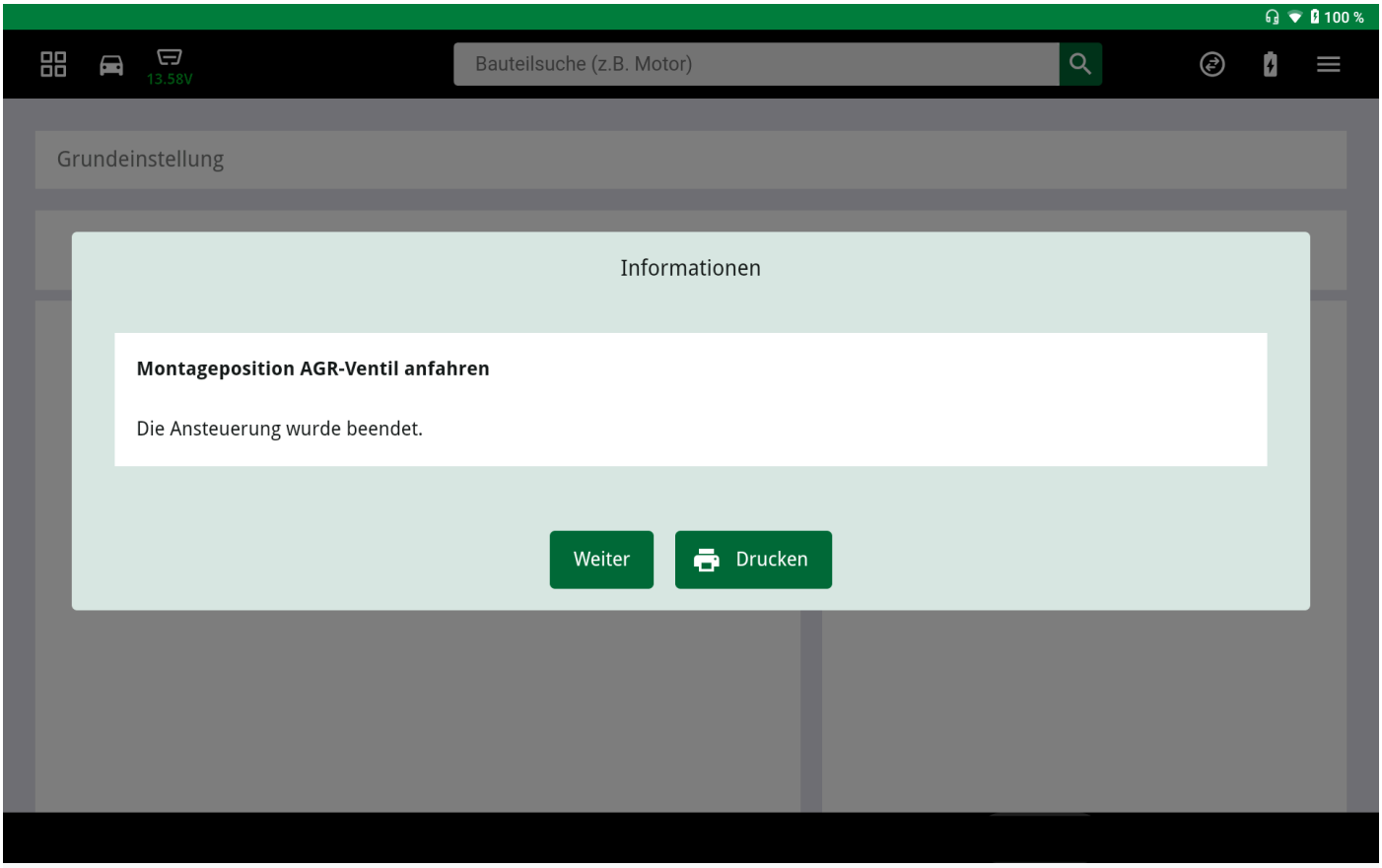

Fig. 7) After installation – switch off ignition

Please note

Installation must exclusively be carried out by trained, qualified personnel. Before installation, it is important to ensure that the product is suitable for the intended application and that it has the required dimensions, connections and properties or features. Please always observe the maintenance and repair notes provided by the vehicle manufacturer when carrying out such work and checks!

The various diagnostic options have been illustrated as examples using the mega macs X. The respective test depth and variety of functions can differ from vehicle manufacturer to vehicle manufacturer and depend on the respective system configuration of the control unit.

Exemplary representations, pictures and descriptions serve to explain and illustrate the document text and cannot be used as a basis for vehicle-specific repairs.

These installation instructions may also apply to other vehicle models with a comparable engine and identical EGR system.

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