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Multi EPB Tool VAG & Mercedes

VAG EPB & Mercedes SBC Single Function Tester

This guide will give you a step-by-step guide of how to use the tool and how to access the functions built into it.

Version 2.001

Features / Operation

- Compatible with latest CAN vehicles
- Enable service and repair functions to be carried out on EPB systems
- Enable & Disable SBC systems for safe working practices
- Clear Errors from the SBC system after carrying out service and repairs

The new Multi EPB tool has been created to allow our users to service and replace brake pads and components used in the new Electronic Parking Brake systems which have been introduced over a range of VAG vehicles and in the SBC systems which have been fitted to a number of Mercedes vehicles (199, 211, 219, 230 and 240).

VAG EPB Functions

Open Calipers

With the EPB Tool the calipers can be retracted allowing the brake pads to be removed for service. This also provides assistance in fitting new Park Brake motors, brake calipers and disks as well as replacing wheel hubs because the calipers are safely retracted out of the way releasing the braking components.

Close Calipers

After servicing, the calipers can be advanced to the original position without any changes to the current calibration being effected.

Basic Setting

This will allow the brake system to cycle fully 3 times to check operation.

Open Caliper and Change Pads - A8

If new pads are fitted then the wear indicator needs to be initialised using this process.
Note: the new pad thickness needs to be measured as part of this process.

Close Calipers after Pad Change - A8

After servicing the brakes and replacing the pads the measured depth of the pads needs to be entered in to the vehicle using this command.

Tilt Angle Calibration

If required the Tilt Angle can be re-calibrated.



VAG EPB User Instructions



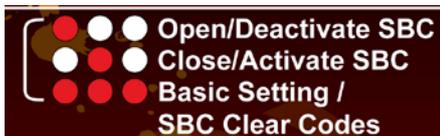
Function Select Button: Scrolls through the various function options.



Pad Size Set Button: Selects the Pad Size in mm which is displayed by the Status LED.



OK Button: Confirms the option as displayed by the LED's and is used to confirm different stages of the process.



Function LED key: for selecting desired option.



Vehicle Set-Up

- i) Ensure vehicle ignition is turned off.
- ii) Using the application list and socket location diagrams below, connect the EPB tool to the identified diagnostic socket.
- iii) Turn on the vehicle ignition.

Important Note

It may be necessary to manually push the piston back in to the caliper when the OPEN process has completed. This should be done carefully ONLY after the OPEN process has been carried out fully. The piston is not physically connected to the Park Brake Motor and therefore is not always carried back in to the caliper during the wind back process. This is not a fault with any equipment or the vehicle and is perfectly normal.

Standard Function – OPEN Command



1. Switch Ignition '**ON**'
2. Select '**Mode**' by toggling the '**Function Select**' button until the Required Mode LED is illuminated. In this case '**OPEN**'.
3. Ensure the Park Brake is released.
4. Press '**OK button**' and the pistons can be heard retracting (The selection LED will flash during this process).

5. Once the process has finished the '**OK**' light will flash.

*"Wait until the '**OK**' light flashes and the calipers stop moving before carrying out any work on the braking system!"*

The EPB light will flash constantly while the pistons are retracted.

Standard Function – CLOSE Command

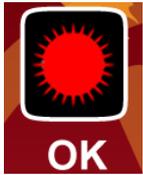


1. Switch Ignition '**ON**'
2. Select '**Mode**' by toggling the '**Function Select**' button until the Required Mode LED is illuminated. In this case '**CLOSE**'.

3. Press '**OK button**' and the pistons can be heard advancing (The selection LED will flash during this process).

4. Once the process is complete the '**OK**' light will flash.
5. Switch the ignition off for a few seconds and then back on.
6. Press and hold the brake pedal and then operate the Park Brake button on the car.
7. The procedure is now complete.

Standard Function – BASIC SETTING Command



1. Switch Ignition 'ON'
2. Select 'Mode' by toggling the 'Function Select' button until the Required Mode LED's are illuminated. In this case 'BASIC SETTING'.
3. Ensure Park Brake is released.
4. Press 'OK button' and the pistons can be heard opening and closing 3 times (The selection LED's will flash during this process).
5. Once the process has finished the 'OK' light will flash.
6. The procedure is now complete.

AUDI – TILT ANGLE Command



Before carrying out this function make sure the vehicle is level in the direction of travel, the vehicle must not be shaken or moved during this process.

1. Switch Ignition 'ON'
2. Ensure Park Brake is released.
3. Select 'Mode' by toggling the 'Function Select' button until the Required Mode LED's are illuminated. In this case 'TILT ANGLE'.
4. Press 'OK button' and the selection LED's will flash. After about 2 seconds without movement the setting is saved and after a further 12 seconds the process is complete.
5. Once the process has finished the 'OK' light will flash.
6. The procedure is now complete.

AUDI A8 – OPEN COMMAND WHEN CHANGING PADS



1. Switch Ignition **'ON'**
2. Select **'Mode'** by toggling the **'Function Select'** button until the Required Mode LED is illuminated. In this case **'OPEN'**.

3. Ensure the Park Brake is released.
4. Press **'OK button'** and the pistons can be heard retracting (The selection LED will flash during this process).

5. Once the process has finished the **'OK'** light will flash.

*"Wait until the **'OK'** light flashes and the calipers stop moving before carrying out any work on the braking system!"*

The EPB light will flash constantly while the pistons are retracted.

6. Measure the thickness of the new / used pads, excluding back plate. The value will be between 3mm and 14mm. Make a note of the smallest value of the set for use in the **'CLOSE'** procedure.

AUDI A8 – CLOSE COMMAND WHEN CHANGING PADS

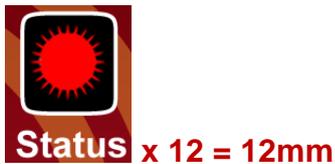


1. Switch Ignition **'ON'**
2. Select **'Mode'** by toggling the **'Function Select'** button until the Required Mode LED is illuminated. In this case **'CLOSE'**.

3. Press **'OK button'** and the pistons can be heard advancing to the correct position (The selection LED will flash during this process).



Select value between 3 and 14mm



4. Once the process has finished the 'OK' light will flash.

5. Wait until the 'STATUS' light flashes, switch off the ignition for a few seconds and then back on.

6. Press and hold the brake pedal and then operate the Park Brake button on the car.

7. Press the 'OK' button and then the 'STATUS' light will flash out the Current stored pad thickness.

8. Press the 'PAD SIZE' button to increment this value and press the 'OK' button so the 'STATUS' light will flash out the New pad thickness.

"If this is not correct use the 'PAD SIZE' button to change this and again press the 'OK' button so the 'STATUS' light will again flash out the New pad thickness."

9. When happy with the selected and indicated value press the 'OK' button to save this value.

10. Once the process has finished the 'OK' light will flash. Turn off the ignition and Remove the key and ensure steering lock activates.

WARNING – The motors will open the brakes fully and then close them again. Ensure no one is working on them at this point!

11. After the motors have finished cycling the procedure is then complete and the EPB Tool can be unplugged.

MERCEDES SBC Functions

The SBC system incorporates various systems which have previously been separate, ABS, ASR, BAS, ESP and ETS. The SBC system can be “woken up” by opening a door, operating the central locking, depressing the brakes, turning on the ignition or operating the park brake. When this occurs the system runs pre-checks which include a pressurisation of the braking system. If the brakes are either being worked on or are dismantled when these pre-checks occur it can lead to personal injury or damage to parts of the caliper and pad assembly. The SBC tool allows you to disable the system during service and repair work, thus allowing a safe working environment for the user.

Deactivate

With the SBC Tool the Sensortronic System can be De-activated allowing the brake pads to be removed safely for service. This also provides assistance in fitting new brake calipers and disks as well as replacing wheel hubs because the system is safely disabled.

Activate

With the SBC Tool the Sensortronic System can be Re-activated, this then requires a “Clear Codes” operation to be carried out after re-activation in case any codes have been stored during service.

CLEAR CODES

After servicing, the Sensortronic System can be left with logged errors which then requires a “Clear Codes” operation to be carried out, this will clear faults in the system prior to work as a pre-check before carrying out routine work on a potentially faulty system.

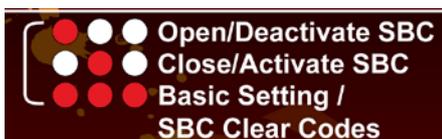
Mercedes SBC User Instructions



Function Select Button: Scrolls through the various function options.



OK Button: Confirms the option as displayed by the LED's and is used to confirm different stages of the process.



Function LED key: for selecting desired option.

Vehicle Set-Up

- i) Ensure vehicle ignition is turned off.
- ii) Using the application list and socket location diagrams below, connect the EPB tool to the identified diagnostic socket.
- iii) Turn on the vehicle ignition.

Important Note

The Brake Warning light will flash constantly on the dashboard info panel while the system is de-activated.

Standard Function – Deactivate Command



1. Switch Ignition '**ON**'
2. Select '**Mode**' by toggling the '**Function Select**' button until the Required Mode LED is illuminated. In this case '**Deactivate**'.

3. Press '**OK button**'.

4. Once the process has finished the '**OK**' light will flash.

"Wait until the dashboard warning light flashes before carrying out any work on the braking system!"

The Brake Warning light will flash constantly on the dashboard info panel while the system is de-activated.

Standard Function – Activate Command



1. Switch Ignition '**ON**'
2. Select '**Mode**' by toggling the '**Function Select**' button until the Required Mode LED is illuminated. In this case '**Activate**'.

3. Press '**OK button**'.

4. Once the process is complete the '**OK**' light will flash.

Once the process has finished the dashboard warning light will flash. "This process can take up to 15 minutes; ensure the vehicle is connected to a charging source!"

5. The procedure is now complete.

Standard Function – SBC Clear Codes



1. Switch Ignition '**ON**'
2. Select '**Mode**' by toggling the '**Function Select**' button until the Required Mode LED's are illuminated. In this case '**SBC Clear Codes**'.

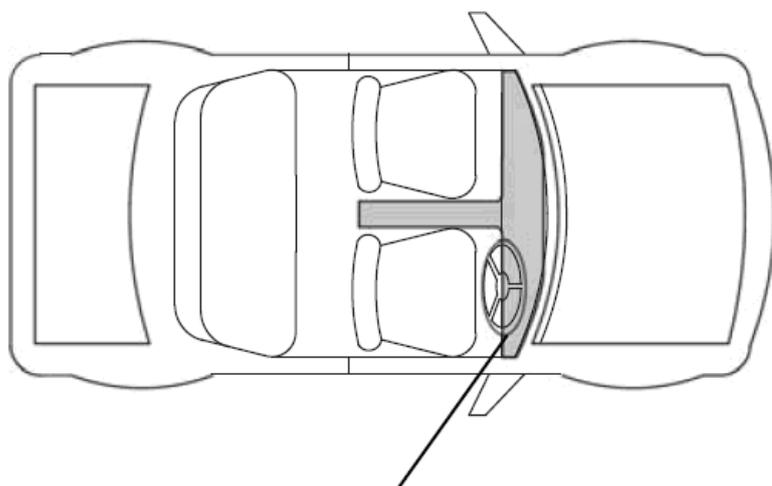
4. Press '**OK**'.

5. Once the process has finished the '**OK**' light will flash.

6. The procedure is now complete.

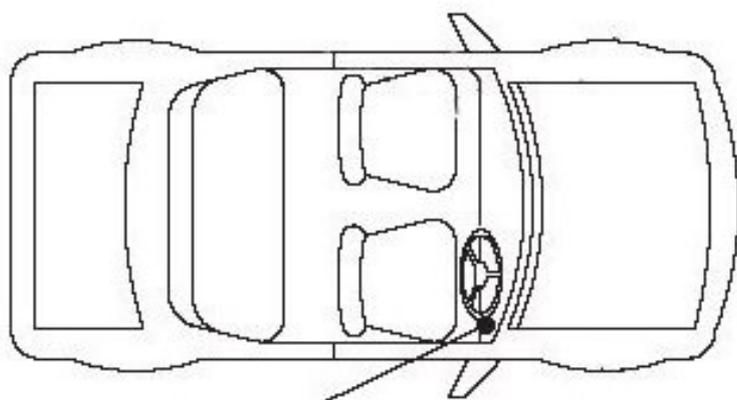
Diagnostic Connector locations

VAG



Audi
VW

MERCEDES



E Class
SL Class

Application List

VAG Vehicle List

						
Audi PARKING						
Q3 (8U Chassis)	All Variants	P/D	All	12	All Codes	ELECTRONIC PARKING BRAKE
A4 (8K Chassis)	All Variants	P/D	All	08-11	All Codes	ELECTRONIC PARKING BRAKE
S4 (8K Chassis)	All Variants	P	All	08-11	All Codes	ELECTRONIC PARKING BRAKE
A5 (8T Chassis)	All Variants	P/D	All	07-11	All Codes	ELECTRONIC PARKING BRAKE
S5 (8T Chassis)	All Variants	P	All	07-11	All Codes	ELECTRONIC PARKING BRAKE
A5 (8F Chassis)	All Variants	P/D	All	10-12	All Codes	ELECTRONIC PARKING BRAKE
S5 (8F Chassis)	All Variants	P	All	10-12	All Codes	ELECTRONIC PARKING BRAKE
Q5 (8R Chassis)	All Variants	P/D	All	08-12	All Codes	ELECTRONIC PARKING BRAKE
A6 (4F Chassis)	All Variants	P/D	All	06-11	All Codes	ELECTRONIC PARKING BRAKE
Allroad (4F Chassis)	All Variants	P/D	All	06-11	All Codes	ELECTRONIC PARKING BRAKE
S6 (4F Chassis)	All Variants	P	All	06-11	All Codes	ELECTRONIC PARKING BRAKE
A6 (4G Chassis)	All Variants	P/D	All	11-12	All Codes	ELECTRONIC PARKING BRAKE
Allroad (4G Chassis)	All Variants	P/D	All	11-12	All Codes	ELECTRONIC PARKING BRAKE
S6 (4G Chassis)	All Variants	P	All	11-12	All Codes	ELECTRONIC PARKING BRAKE
A7 (4G Chassis)	All Variants	P/D	All	09-12	All Codes	ELECTRONIC PARKING BRAKE
A8 (4E Chassis)	All Variants	P/D	All	06-10	All Codes	ELECTRONIC PARKING BRAKE
A8 (4H Chassis)	All Variants	P/D	All	10-12	All Codes	ELECTRONIC PARKING BRAKE
S8 (4E Chassis)	All Variants	P	All	06-10	All Codes	ELECTRONIC PARKING BRAKE
Seat PARKING						
Alhambra (7N)	All Variants	P/D	All	11-12	All Codes	ELECTRONIC PARKING BRAKE
Volkswagen PARKING						
Passat (3C Chassis)	All Variants	P/D	All	05-10	All Codes	ELECTRONIC PARKING BRAKE
Passat CC (35 Chassis)	All Variants	P/D	All	09-11	All Codes	ELECTRONIC PARKING BRAKE
Passat (36 Chassis)	All Variants	P/D	All	11-12	All Codes	ELECTRONIC PARKING BRAKE
Sharan (7N Chassis)	All Variants	P/D	All	11-12	All Codes	ELECTRONIC PARKING BRAKE
Tiguan (5N Chassis)	All Variants	P/D	All	08-11	All Codes	ELECTRONIC PARKING BRAKE
Touareg (7P Chassis)	All Variants	P/D	All	10-12	All Codes	ELECTRONIC PARKING BRAKE

Mercedes Vehicle

						
Mercedes - SBC						
SL (R230)	Where Fitted	P/D	All	01-06	All Codes	SBC
E-Class (W211)	Where Fitted	P/D	All	03-06	All Codes	SBC
E-Class (S211)	Where Fitted	P/D	All	03-06	All Codes	SBC
E-Class 4matic (W211)	Where Fitted	P/D	All	03-06	All Codes	SBC
E-Class 4matic (S211)	Where Fitted	P/D	All	03-06	All Codes	SBC
CLS (C219)	Where Fitted	P/D	All	02-06	All Codes	SBC
SLR (C199)	Where Fitted	P/D	All	02-10	All Codes	SBC
Maybach 57 (W240)	Where Fitted	P/D	All	02-04	All Codes	SBC
Maybach 62 (W240)	Where Fitted	P/D	All	02-04	All Codes	SBC



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