Working on the Electro-Mechanical Parking Brake (EPB)

The following document is an introduction to working on the Electro-Mechanical Parking Brake (EPB) systems found in VW/Audi vehicles.

Vehicles that typically use the EPB system include:

- **Audi**
  - A4/S4/RS4/Cabriolet (8K)
  - A5/5S (8T)
  - A6/56/RS6/Allroad (4F/FB)
  - A8/S8 (4E)
- **Bentley**
  - Continental (3W)
- **VW**
  - Passat (3C/AN) & Passat CC (3S)
  - Tiguan (5N/AX)

Replacing the brake pads on Electro-Mechanical Parking Brake (EPB) equipped vehicles consists of 4 main steps:

**Contents**

- 1) Preparing the vehicle for the brake repairs
- 2) Open Rear Parking Brake
- 3) Close Rear Parking Brake
- 4) Function Test

**Preparing the vehicle for the brake repairs**

- The EPB module is very sensitive to low voltage conditions! It is critical that a battery charger is properly connected and used for the duration of the rear brake job.

- Vehicles with a battery mounted in the rear typically use a battery management module and it is essential to connect the charger properly at the charging posts.

- Verify that the EPB system is working properly prior to the repair. This includes but is not limited to applying the normal hydraulic brake pedal and operating the EPB switch and running a complete diagnostic scan prior to repairs.

- Make sure the system is fully assembled prior to repairs! This includes the calipers properly installed on the rotors with pads and all electrical components being connected!
**Open Rear Parking Brake**

- The EPB system must be put into a service mode prior to the calipers being removed from the vehicle so the pistons can be pushed into the caliper housing. The specific Basic Setting groups vary depending on the vehicle and repair procedure to be performed.

- Using your diagnostic tool you will click [Select] > [53 - Parking Brake] > and TYPE in the specific number. Refer to the specific procedure dependant on the vehicle. Click OK and the brake calipers will open for repairs.

- It is important to wait 30 seconds after the brake calipers and live readings stop moving before exiting the menu and removing the key from Ignition Switch.

- The caliper pistons do not move back into the caliper, they are in an internally released position that allows the technician to push the pistons in as you would do with a conventional front brake job.

- Perform the brake repairs and reassemble the system prior to moving on to the next step.

**Close Rear Parking Brake**

- The EPB system service mode must be deactivated after the repairs.

- Using your diagnostic tool you will click [Select] > [53 - Parking Brake] > and TYPE in the specific number. Refer to the specific procedure dependant on the vehicle. Click OK and the brake calipers will close after repairs.

- It is important to wait 30 seconds after the brake calipers and live readings stop moving before exiting the menu prior to moving on to the next step.

**Function Test**

- The EPB must be cycled On and Off prior to the Function Test. Do so using the button inside the vehicle while applying the normal hydraulic brake pedal.

- Using the diagnostics tool you will [Select] > [53 - Parking Brake] > and TYPE in the relevant number. Refer to the specific procedure for the vehicle being serviced. Click OK and the brake calipers will open and close 3 times taking up the excessive gap in between the piston and backing plate of the new pads.

- It is important to wait 30 seconds after the brake calipers and live readings stop moving before exit.

- The Brake job should be complete and the system should not have any fault codes stored.
**VAG – Electronic parking brake** (opening/closing procedure)

**Open Rear Parking Brake**
Ensure Parking Brake is OFF first
From control module list find [53 - Parking Brake]
Then go into the Basic Settings

Group 007 (new brake pads)
OK

The brake calipers will then open, allowing the pads to be changed.

**Close Rear Parking Brake**
From control module list find [53 - Parking Brake]
Then go into the Basic Settings

Group 006
OK

The brake calipers will then close.

**Function Test of rear brake calipers**
From control module list find [53 - Parking Brake]
Then go into the Basic Settings

Group 010
OK

This will activate the system to open/close the brake pads three times.

**For adjust the brake pad min. Thickness**
From control module list find [53 - Parking Brake]
Then go into the Basic Settings

Group 06

You can adjust + and - for brake pad minimum thickness before warning lamp to illuminate from 3 – 14 mm

OK then Exit