

## Electronic parking brake (EPB)

Use of electronics in vehicle construction continues to increase. 24V on-board voltage has long been under discussion to supply complex electronics in the vehicle with adequate power. What started with the car radio, the first electronic component in the Golf I, continued with simple electric windows and has developed further to include sophisticated stability programs. Programs such as ESP, ASR and Co. interact perfectly with each other to ensure that vehicle occupants enjoy a maximum degree of safety and comfort. And EPB is no exception in this respect!

### What is EPB?

As with so many innovations in electronics, the story of EPB began in luxury class and medium class vehicles. It is an electro-mechanical component located on the rear axle. The EPB consists of a single-piston floating caliper with an electric servomotor mounted to it. This servomotor replaces the traditional hand brake mechanism. The servomotor is actuated via a control unit. This dispenses with the need for hand brake cables and a hand brake lever actuated by muscle power.



### Advantages of EPB

Safety and comfort are clearly the reasons for the development of EPB. Simple operation at the press of a button, more storage space in the vehicle interior, automatic prevention of undesired rolling on gradients (auto-hold function) and the dynamic starting assistant are the most important advantages.



### What should be observed regarding the EPB?

It is important to note that, when realising service work on the EPB, the brake pistons should not and cannot be retracted in the same manner as with a conventional brake caliper. It is e. g. recommended that when changing brake pads a suitable diagnostic unit should be used to actuate the servomotor. It is advisable to avoid any "tricks" which facilitate resetting without a diagnostic unit. Serious occupational accidents – injuries or even the loss of fingers – could otherwise be the result.

### Emergency hand brake function

According to the Federal Motor Transport Authority (Kraftfahrtbundesamt), a vehicle must incorporate an emergency brake function. In older vehicles with a single-circuit brake system, this was provided by the conventional hand brake. Nowadays, however, the dual-circuit brake system provides this emergency brake function. Where one brake circuit fails, the second brake circuit is, in theory, available for emergency braking. EPB can help in the most severe case where the service brake system fails completely. It is linked to the motor control and ESP. In emergencies the vehicle can therefore be stopped via the ESP.



Gut gemacht.

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### Driver tip!



The first cold night of the approaching winter often means the death sentence for weak vehicle batteries. This can be a problem for vehicles with EPB, as it does not have any emergency release system. It is impossible to release the EPB in the event of a power failure. Even in the case of jump starting or battery replacement, the EPB can frequently only be released in the garage with the required diagnostic unit.

**QH driver tip: check the vehicle battery in good time!**

### What does QH offer?

With its optimum range of products, QH also strives to enable the independent aftermarket to generate sales in this new business area. We have already enlarged our brake caliper range through the addition of two new brake calipers with an electronic parking brake. Article numbers QBS4419 and QBS4420 are available with immediate effect. The QH brake caliper range is subjected to continuous further development! We will keep you informed of the latest developments through our newsletter.

### Article information:

QH-No.	Article Description	OE-No.	Status	
QBS4419	Brake Caliper Rear Axle System: TRW Piston-Diameter: 38.0mm  Volkswagen Passat & Passat Variant (3C2, 3C5) 1.6 & 1.6 FSi, 1.9 TDi, 2.0 FSi, 2.0 TDi & TDi 16V for vehicles with electronic Hand Brake 03/05-, left	3C0 615 403E	A/I	
QBS4420	Brake Caliper Rear Axle System: TRW Piston-Diameter: 38.0mm  Volkswagen Passat & Passat Variant (3C2, 3C5) 1.6 & 1.6 FSi, 1.9 TDi, 2.0 FSi, 2.0 TDi & TDi 16V for vehicles with electronic Hand Brake 03/05-, right	3C0 615 404E	A/I	

Due to the increased value of old cores as a result of the electronic component, the old core charge for these articles will increase to 80€ from the 01.01.10.



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