



RELEASE THE HOLD

AECS

AUTOMOTIVE EQUIPMENT & TRAINING
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RELEASE THE HOLD

VEHICLE: 2018 MERCEDES GLE 350D 3.0 V6 TURBO

This diagnostic article takes you through the process our technical support team use with problematic vehicles. We look at the issues involved and share how we resolved the problem. This an inside look, from the profound to everyday issues automotive workshops encounter.

Problem presented to the technical support team...

This vehicle has been presented to us by a brake specialist. It needs to have the rear brake pads replaced. This vehicle has an electric park brake, and we are unsure how to replace the pads. Also, we cannot find the function in our Launch scan tool.

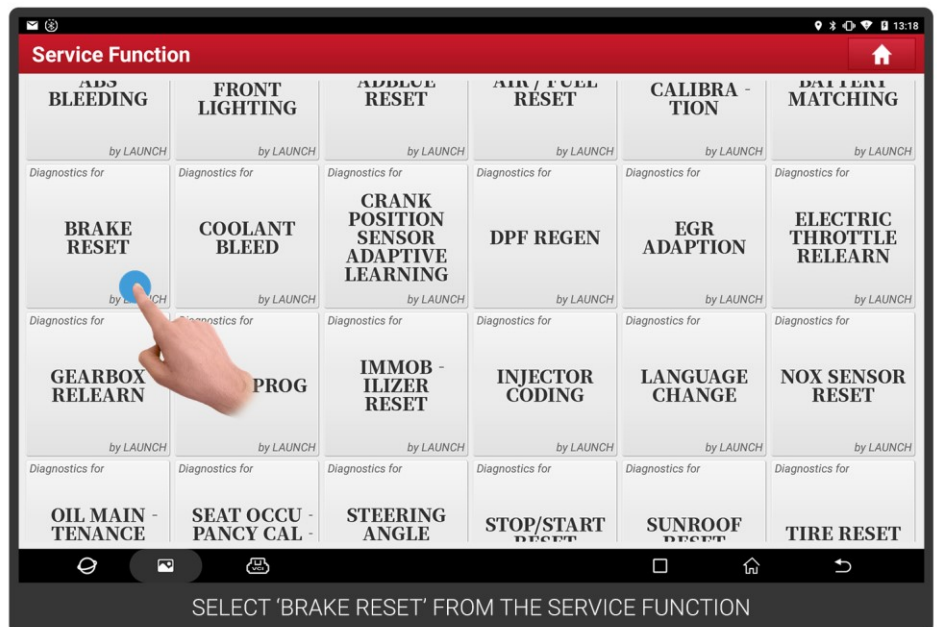
Can you please assist?

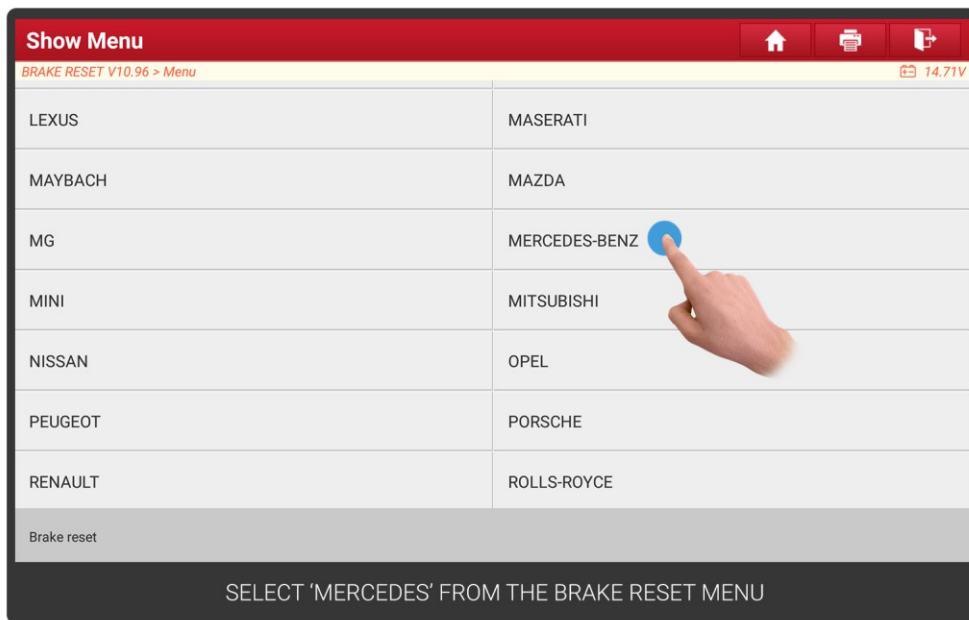
AECS - Technical Support

This was never going to be a hard job, but we are here to help. You could consider this article as non-interesting, however, it might help you. I'm sure it would be embarrassing if you could not replace brake pads when you are a brake specialist, either way, that's what our technical support is about, giving you the confidence and the knowledge to get work done.

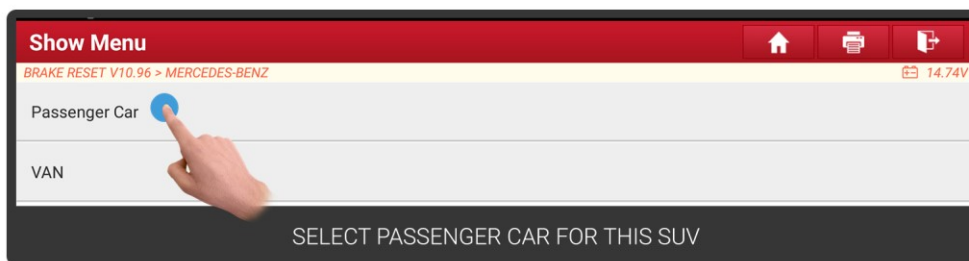
Launch Tool Layout

On the Launch EuroTab, you can directly access the main menu from the 'service function' button, which filters all often used (27) service functions for all brands, such as service interval reset, injector coding, crank/cam offset learning, dashboard language change, etc. This filtering has been created to vastly speed up your work.

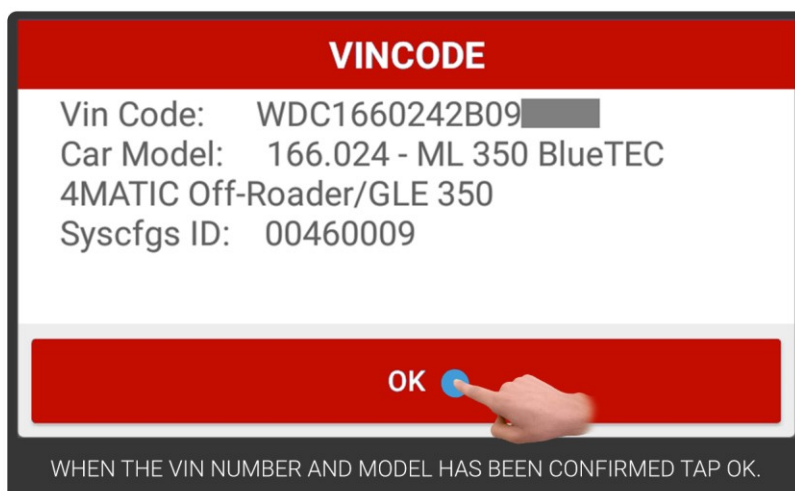
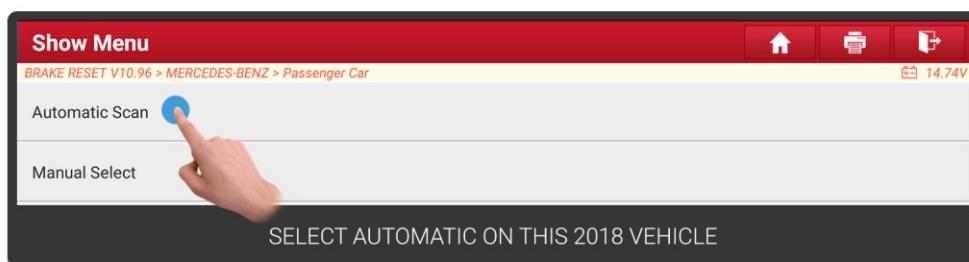


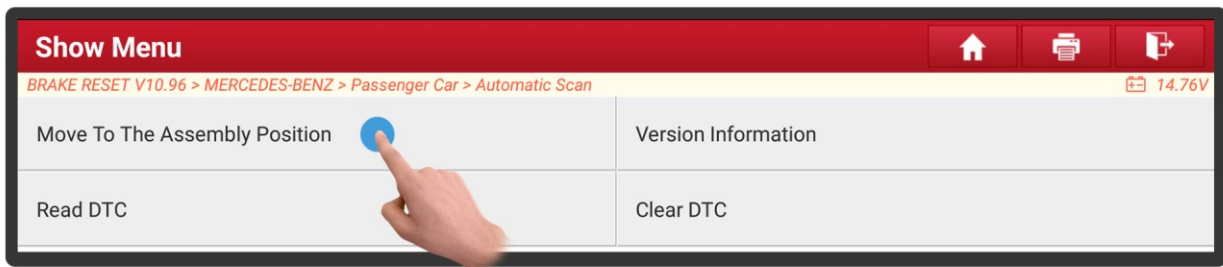


The scan tool will choose the correct ECU for the brake reset function and load the file into the wireless dongle (OBD). The tool will request if the vehicle is a car or van.



The scan tool will ask if it or you want to select the vehicle. The Automatic scan will decipher the VIN of the vehicle, an option on Euro cars from about 2003 onward.

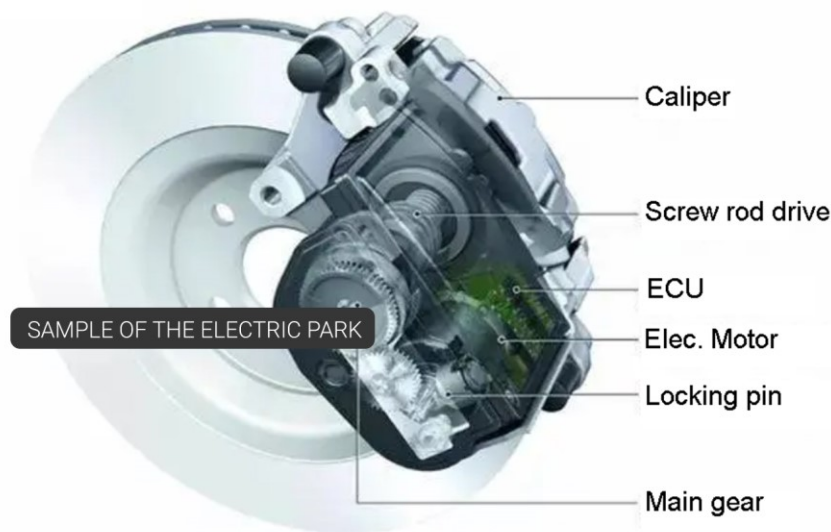
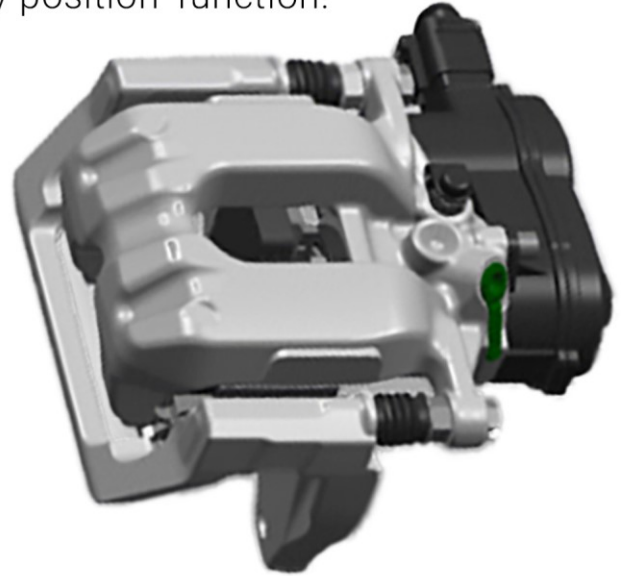




In the above menu, you can choose between reading, clearing fault codes and what we actually set out to do, the 'Move to the assembly position' function.

What are we trying to achieve?

The rear brake calliper is a single cylinder/piston brake calliper. When the pads wear, the piston moves further out to make up for the wear. Inside the brake calliper piston is a cavity with thread and a 'treaded rod' driven by a geared electric motor.



Every time you apply the park brake the electric motor learns the new wear status (percentage) of the brake pads. When applying the park brake the electric motor will wind out the piston until the torque of the electric motor has exceeded a pre-set value (Amps).

This is the point where the park brake is applied. (On the Launch Euro Tab this is classed as - Closed on the Launch, see more below).

When you release the park brake the electric motor winds back a fixed amount of 'steps'. This means that when you want to replace brake pads the piston can not be moved back enough to fit the new brake pads. The electric motor needs to be forced to pull the 'treaded rod' all the way back (As noted on the Euro Tab – Assembly position, below).

Doing It

When the 'Move to the assembly position' selection is made, the screen will show that the park brake is on and displays information that the park brake must be released.

BRAKE RESET V10.96 > MERCEDES-BENZ > Passenger Car > Automatic Scan > Move To The Assembly Position 14.73V

Name	Value	Unit
Name	Actual Value	
Status Of Left Electric Parking Brake	CLOSED	
Status Of Right Electric Parking Brake	CLOSED	
F3: Move To The Assembly Position F4: Deactivate Assembly Position		
Note: When You Press F4 To Perform The Disable Assembly Position Function, Ensure That The Brake Pad Status Is 'In Assembly Position'.		
EXIT	F3	F4

PARK BRAKE ACTIVATED

With the park brake activated the calliper cannot be moved to the assembly position, simply deactivate the park brake and make sure that the vehicle cannot roll away.

BRAKE RESET V10.96 > MERCEDES-BENZ > Passenger Car > Automatic Scan > Move To The Assembly Position 14.71V

Name	Value	Unit
Name	Actual Value	
Status Of Left Electric Parking Brake	OPEN	
Status Of Right Electric Parking Brake	OPEN	
F3: Move To The Assembly Position F4: Deactivate Assembly Position		
Note: When You Press F4 To Perform The Disable Assembly Position Function, Ensure That The Brake Pad Status Is 'In Assembly Position'.		
EXIT	F3	F4

PARK BRAKE DE-ACTIVATED.

When tapping F3 the calliper moves to the assembly position. The calliper will make a noise like activating the park brake, the unit will emit this noise for a lot longer than say if you were typically activating the park brake. The noise is the gears winding back the 'threaded rod' to its start position.

When the park brake mechanism is fully retracted the Euro Tab will show the following message for confirmation:

BRAKE RESET V10.96 > MERCEDES-BENZ > Passenger Car > Automatic Scan > Move To The Assembly Position 14.76V

Name	Value	Unit
Name	Actual Value	
Status Of Left Electric Parking Brake	IN ASSEMBLY POSITION	
Status Of Right Electric Parking Brake	IN ASSEMBLY POSITION	
F3: Move To The Assembly Position F4: Deactivate Assembly Position		
Note: When You Press F4 To Perform The Disable Assembly Position Function, Ensure That The Brake Pad Status Is 'In Assembly Position'.		
EXIT	F3	F4

PARK BRAKE MECHANISM FULLY RETRACTED AND IN THE ASSEMBLY POSITION

Manual Labour

The calliper can be removed, and the brake fluid bleed nipple can be opened to push the piston back to its zero position. New pads can be fitted with new slides and noise suppressing plates. Fit the calliper back in position and very importantly, pump the brakes until you feel the brake pedal come up.

Back to Electronics Again

After you feel brake pressure on the pedal it is time to reset the park brake mechanism. Tap F4 (deactivate Assembly Position) on the Launch Eurotab2.

BRAKE RESET V10.96 > MERCEDES-BENZ > Passenger Car > Automatic Scan > Move To The Assembly Position 14.73V

Name	Value	Unit
Name	Actual Value	
Status Of Left Electric Parking Brake	Brake IS RELEASED	
Status Of Right Electric Parking Brake	Brake IS RELEASED	
F3: Move To The Assembly Position F4: Deactivate Assembly Position		
Note: When You Press F4 To Perform The Disable Assembly Position Function, Ensure That The Brake Pad Status Is 'In Assembly Position'.		

EXIT F3 F4

THE EURO TAB WILL WIND THE PARK BRAKE MOTOR TO ITS BASE POSITION

14.71V

Name	Value	Unit
Name	Actual Value	
Status Of Left Electric Parking Brake	OPEN	
Status Of Right Electric Parking Brake	OPEN	
F3: Move To The Assembly Position F4: Deactivate Assembly Position		
Note: When You Press F4 To Perform The Disable Assembly Position Function, Ensure That The Brake Pad Status Is 'In Assembly Position'.		

EXIT F3 F4

PARK BRAKE MOTOR MOVED TO PARK BRAKE RELEASED POSITION

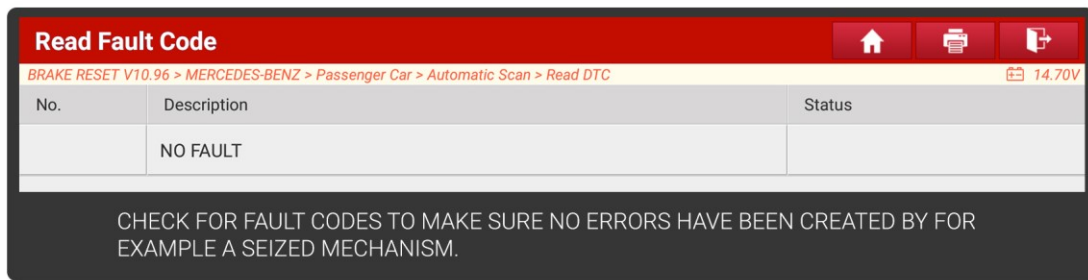
14.73V

Name	Value	Unit
Name	Actual Value	
Status Of Left Electric Parking Brake	CLOSED	
Status Of Right Electric Parking Brake	CLOSED	
F3: Move To The Assembly Position F4: Deactivate Assembly Position		
Note: When You Press F4 To Perform The Disable Assembly Position Function, Ensure That The Brake Pad Status Is 'In Assembly Position'.		

EXIT F3 F4

ACTIVATING THE PARK BRAKE SHOWS THIS SCREEN

Listen for normal sounds when applying and deactivating the park brake, test drive and make sure everything works normally.



Inform the customer that the brake pads need gentle braking for the first 200 km or so to bed the new pads in.

Final Thoughts

For our technical support team, we are typically engaged with more troublesome cases. Assisting our customers is no problem. However, it does highlight a few things. Our customer had the right tool for the job with the Launch scan tool, it is a decent tool that can do almost all vehicles on NZ roads. In this case knowledge of the tool let them down. This is where our training comes into play especially with Scan Tool Level 1 and Level 2 training.

Regarding the brake specialist (who sent the vehicle to our customer's workshop), if you have 'specialist' in your job title or consider yourself a specialist, the key to having the special in specialist is having the best equipment (it doesn't have to be expensive), the latest scan tools from AECS would have provided the perfect solution. Add to what we've highlighted earlier, quality training is important. Lastly, always be learning and growing it's the biggest key to not only being a specialist it is the key to staying one.

Herbert Leijen
Director AECS Ltd

Website Fresh

Over the past few months, we've been working hard to bring to life a new website. As a team our primary goal is to "make diagnostics easy" for our customers, we had that same goal with the website. The website should be easy to navigate and find what you are looking for. Also, it needed to be viewable on any device. We've also added in a shop so that equipment or training can be purchased through the website. If you haven't seen it, make sure you check it out. aecs.net



Southern Eddie

We'd like to introduce Eddie, who has recently joined our team. Eddie is based out of Canterbury and is our technical workshop adviser for our South Island customers. If you'd like to know more about Eddie and our team see aecs.net/about.

For our Southern customers, you can contact Eddie on 021 506 901 or email: eddie@aecs.net

R1234yf Specific - Brainbee 9450

We've recently added to our aircon service equipment the Brainbee 9450 which specifically does R1234yf refrigerant. We've seen a big shift over the previous months with workshops having to cater for the next generation of refrigerants. You can order yours today - info@aecs.net or 06 847 9077

Brainbee 9450: \$9785 +gst
more info: aecs.net/brainbee

Also, don't forget about the Brainbee 9350 which is R134a and can be upgraded at any time to either R1234yf or R513a.

more info: aecs.net/brainbee

If you are doing bigger systems such as busses or trains be sure to check out our big beast, the Brainbee 9000.

more info: aecs.net/shop/brainbee9000



BRAINBEE 9450



BRAINBEE 9350



BRAINBEE 9000

AUSCAN 3 + 3YRS OF UPDATES

AUSCAN 3 with 3 years of updates. From 2022* updates will be for 2 years only. Why wait? Don't loose out on saving \$1100.



Auscan 3 makes its competition high-end scan tools look low-end in comparison. Auscan 3 is roomy, with larger internal storage for 125+ brands, and an increase in memory and processing power.

AUSCAN 3 has a huge ability. Includes special functions such as:

- Immobilizer/key coding
- Electronic throttle relearn
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- ETACS adapt
- Transmission re-learn
- Actuator tests

PRICE: \$4,124.00 +gst



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PRICE: \$8,800 +gst

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BRAKE TEST | EURO-SYSTEM | 4T

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- 4 Ton axle load
- 3KW straight drive auto lock ABM Motor
- Side slip with de-stressing plate
- 25hz Eusama suspension tester
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