

SERVICE POLICY LETTER

Reference number:	SPL-30-1396	Issued: 14 July, 2020
Subject:	Managing Customer Expectations – Brake Squeal	
Applicable to:	All Dealers	
Distribute to:	Head of Business After Sales Manager Service Manager Sales Manager	Warranty Staff Technician(s) Parts Staff

Dear Colleagues,

Aston Martin, like other high-performance manufacturers, develop vehicle brake systems to cope with a wide range of operating conditions. The primary focus for these systems is on performance criteria such as high levels of deceleration, drivability, brake feel and comfort.

The high-performance brake system used on the vehicle braking system is designed to provide optimal braking under all operating conditions. However, an inherent characteristic of this braking system is some brake noise, although its effects can be minimised when the customer is educated on its causes.

Certain combinations of speed, braking forces, ambient conditions and high brake disc temperatures may also cause the brakes to squeal.

Note: Brake squeal is not a safety issue and is a normal characteristic of the braking system.

Causes of Brake Noise

These systems must also function effectively and efficiently in a wide range of operating conditions, such as city driving with repeated low speed driving, as well as higher speeds where permitted (Motorways, Freeways, Autobahns). This means that a wide range of operating temperatures are generated, and as a result, brake pad materials need to be able to satisfy these different scenarios.

Brake pads in Aston Martin vehicles use a semi-race specification friction compound, so it is extremely important that periods of high temperature and cooling are created in the pad surfaces. This helps burn off manufacturing resins and make sure that the frictional surfaces do not become glazed, as this can reduce effectiveness and more high frequency vibration and brake squeal.

Brake pad glazing occurs from repeated low speed and low temperature urban driving, which can lead to brake squeal in service. This can be both an irritation and embarrassment but educating the customer that if the brakes are used periodically at higher speeds and temperatures can help reduce this glazing.

Workshop Process

Workshop maintenance, such as manual deglazing procedures can be completed, such as in SB-06-0344V2. However, more aggressive use of the brakes may be best as this will generate heat in the pads and reduce the brake squeal.

It is also essential that the brake pads are effectively bedded-in to allow 100% contact between the frictional surfaces and the brake discs. This procedure must be completed when the brake pads are replaced to reduce the presence of brake squeal and provide optimum brake effectiveness. This information can be found in the Workshop Manual under Brakes. Correct brake pad bedding procedures in service will improve customer satisfaction in brake performance, and reduce brake squeal.

Cleaning Products

Aston Martin recommends that both Sales and Aftersales personnel speak with the customer about what products they use when their vehicle is cleaned during the Customer Handover of all new and used vehicles. Acidic cleaners can cause contamination of the brake pads which can also cause brake noise symptoms.

Commercially operated automatic vehicle washes, jet washes and power operated mops are not recommended. The detergents used can contain certain chemicals which may, over time, be detrimental to some exterior parts of the vehicle.

To delay the onset of corrosion on the brake components, Aston Martin recommend that the vehicle should be driven a short distance after washing to make sure that all water and cleaning products have dried off.

Additionally, make customers aware of the Driving chapter of the Owner's Guide which mentions the brake squeal as well as cleaning guidelines in the Maintenance chapter.

If the customer still has complaints related to brake noise, do a visual inspection of the brake discs, pads and wheel mounting face for signs of external contamination. If there are signs of external contamination because the incorrect wheel cleaner was used, this damage will not be covered by the vehicle warranty. The brake pads must be replaced.

The image that follows gives an example of contamination on the wheel mounting face and caliper refer to Figure 1.



Figure 1

Further Support

Please then open a SpotLight case. This must include:

- Pictures of the brake discs, pads, hubs and calipers
- A video file with audio which shows the vehicle brakes being applied and with brake noise.

If you have any questions about this Policy Letter, please speak to Client Services - Technical on Tel: +44 (0) 1926 644720.

Thank you for your continued support.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Andrew West'.

Andrew West

Director, Client Services.