

INNOVATIVE DESIGN GIVES FEELING BACK!

VE Commodore front lower front control arm bush kit 45560 - Holden Commodore VE 8/2006-on



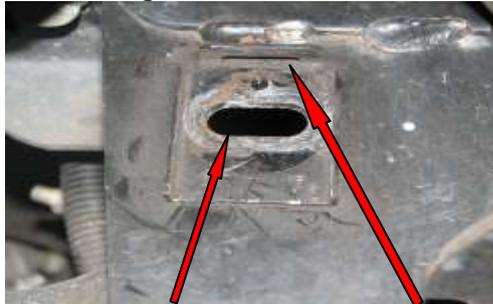
On VE Commodores, the front suspension is a completely new design and features a twin lower ball joint (virtual pivot) front end. The original lower front control arm bush is a relatively soft hydraulic or fluid filled bush. This soft bush takes most of the steering & braking loads and can result in excessive dynamic camber & caster movement as well as the steering feedback to the driver feeling very suppressed. The chassis mounting point is located inside long horizontal slots located by two factory shims, **Nolathane** feels these shims are inadequate in locking the front control arm into position and allows slippage to occur as there is free play between the shim and chassis tabs. Slippage will also occur if the bolts are not tight, or by simply clipping a curb, or roundabout.



Note voiding for fluid

Virtual pivot front end

Original slots in chassis



Front lower rear control arm Front lower front control arm 45560 location

Control arm mounting slot in chassis Original shim locking slot

Original shim Chassis tabs

Nolathane's 45560 bushes are not hydraulic and its unique voided design allows for greater articulation. Because of the virtual pivot suspension this bush travels through two articulation plains, both rotational and angular during normal suspension travel and when turning the wheels lock to lock. With this in mind **Nolathane's** R&D team have incorporated 2 different types of voiding as follows.



Stepped pin voids - These small voids are stepped and only travel through a 1/3 of the way into each side of the bush. This allows for greater rotational articulation and passenger comfort, with no increased Noise, Vibration, Harshness (NVH). This leaves the centre 1/3 to prevent camber & caster movement that the original rubber bushes suffer from and provides better steering feedback to the driver.

Scalloped voids - Are the deep voids in the face of the bush that allow for angular articulation as the wheels turn from lock to lock.

We also found some slippage at the front lower control arm mount on our own vehicle and developed the 4 x centered locating washers that are included in the **45560** kit, to lock the vehicles front control arm into a standard caster setting, and eliminate slip/movement. The profile of the washers fits inside the horizontal chassis slots to lock and prevent the movement as opposed to the factory shims simply fitting between two tabs.



If you require a more aggressive caster setting then **Nolathane** have developed **45572** (refer update 0903). This kit positively locks the vehicles front control arm at the maximum caster setting. This kit replaces the standard setting washers within the **45560** kit with 4 x offset locating washers and will increase caster settings. This will give the vehicle more dynamic negative camber which delivers more responsive steering and better corner turn in.

Part of a total handling system

Designed to integrate and offer a fully balanced handling solution. **Nolathane** suspension offers replacement bushes and alignment products. So for a catalogue, brochure or technical information on the VE Commodore range or any of the **Nolathane** products contact the Redranger team on **1300 88 2355** or visit



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