

## NOLATHANE ADVERTISING FEATURE

# WANT IT TO HANDLE?

**Whether you intend to build a Street Machine, go bush or simply drive to work, suspension bushes are the link between your vehicle and its springs, struts and shock absorbers. Suspension bushes provide the movement points in your vehicles suspension system.**

**O**riginal rubber suspension bushes are compressed or chemically bonded to the suspension components in which they are installed. In the case of a metallastic (steel cased) bush, the rubber is compressed at the time of manufacture and chemically bonded to the metal centre sleeve and outer steel shell. The rubber bush is normally press-fitted into the suspension component such as a control arm, then bolted to the chassis. In this way, the capacity for suspension movement or rotation is restricted. The rubber suspension bush design requires delicate compromise, as it must be soft enough to permit sufficient rotational movement whilst maintaining alignment settings. (SEE FIGURE 'A & AA')

Unlike rubber, Nolathane polyurethane suspension bushes are not bonded by compression. Nolathane bushes are mechanically fitted with minimal crush of the urethane material, and the centre pin is lubricated so the component freely pivots without restriction. Combined with Nolathane's ability to maintain the bush shape, this free pivoting provides sharper handling response and greatly increased suspension control. (SEE FIGURE 'B')

Technical developments in suspension design have provided many of today's vehicles much improved on-road handling. Using Nolathane suspension bushes ensures there is no weakness in the suspension and therefore maintains steering control. Nolathane bushes bring the following improvements to your suspension:

- Outstanding abrasion resistance
- High load bearing capability (4WD's, utes & tow vehicles)
- Flexibility
- Increased tensile strength
- Chemical resistance to oil, grease, ozone & weathering.
- Alignment correction via adjustable bushes

### THE RESULT:

- Longer suspension life and less repair time
- Enhanced road holding, steering and performance
- Less change in suspension geometry under load, braking and through corners
- Longer tyre life

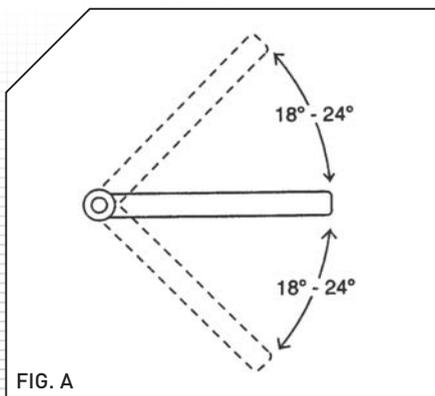


FIG. A

Rubber bush bonded to outer shell and centre pin provides restricted movement.



FIG. AA

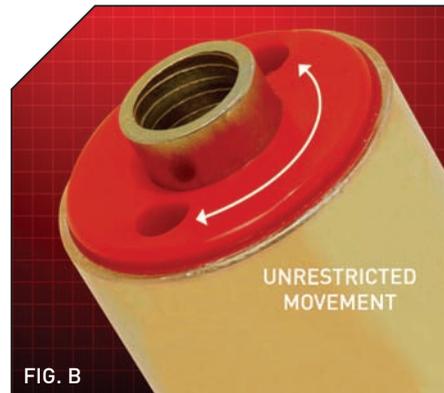
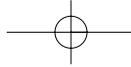


FIG. B





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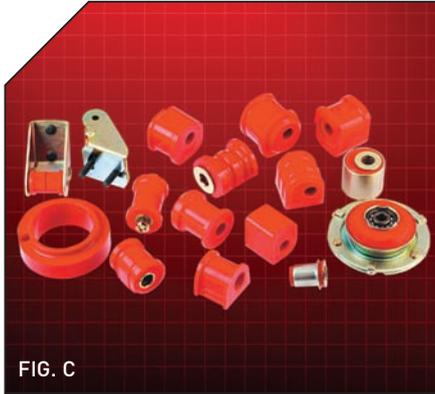


FIG. C

Nolathane was originally designed to replace brass bushings in vehicles competing in hillclimb events. Therefore the early formulation was very hard, as it was designed to replace brass, not rubber. Whilst it was great for competition use it was too harsh for normal street use. Over the years, just like vehicle & suspension system designs, things have changed. Today Nolathane is manufactured in various durometers (grades of softness / hardness), with the correct durometer selected for each application. Today's Nolathane formulations have higher resistance to tear, abrasion & compression whilst being softer than the original formulations! (SEE FIGURE 'C')

### NOLATHANE YOUR 4WD:



Whilst modern 4WD's have improved, they remain a compromise between ride, handling and traction in both on and off-road situations. Tyre wear on larger 4WD's can be an issue, and raising these vehicles can make the situation worse. Accordingly, many large, raised 4WD's suffer from nervous steering and vibration at highway speeds.

Nolathane offset caster bushes install into the leading arms that mount the front axle on GQ / GU Patrols and 78 / 79 / 80 & 100 series live axle Landcruisers. These offset bushes restore caster lost when raising the vehicle. The Nolathane kit for Land Rover Discovery, 110 & Range Rover rear trailing arm front bushes have a simple two-piece bush system which mounts the bushes on an angle into a new steel mounting plate (included in the kit). This design ensures the rear trailing arms do not "load up" the bushes at normal ride height, which in the rubber units, leads to premature failure. (SEE FIGURE 'D & E')



FIG. D



FIG. E

Being a flexible bearing, the installation of Nolathane bushes into leaf spring suspensions permit the lubricated shackle pins to freely pivot under changes in spring length during compression and rebound. This provides an enhanced ride and off-road manoeuvrability.

### NOLATHANE YOUR FAST 4:



The opportunity to upgrade your suspension bushes whilst doing other suspension work / upgrades is often overlooked. If you want the best "Bang For Your Buck" consider replacing your front & rear sway bar link & mount bushes with Nolathane suspension bushes. Nolathane bushings are easy to DIY install and provide immediate suspension response.

Lack of front alignment adjustment in many front wheel drive cars often slashes front tyre life - especially if the vehicle is lowered. Many vehicles tend to "pull" to the left, scrubbing near-side tyres in no time. Fitting Nolathane's offset or adjustable caster bushes to the rear of the lower front control arms corrects this problem. Most Fast 4 applications are covered and can be fitted in stages from "Bang For Your Buck" to "The Works" including Strut Braces. (SEE FIGURE 'F')

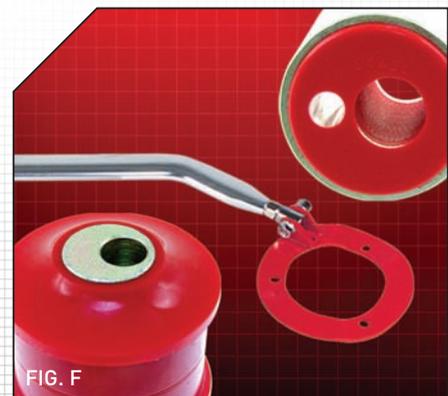
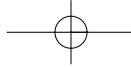


FIG. F

NOLATHANE - WANT IT TO HANDLE?





## NOLATHANE ADVERTISING FEATURE

### NOLATHANE YOUR COMMODORE:



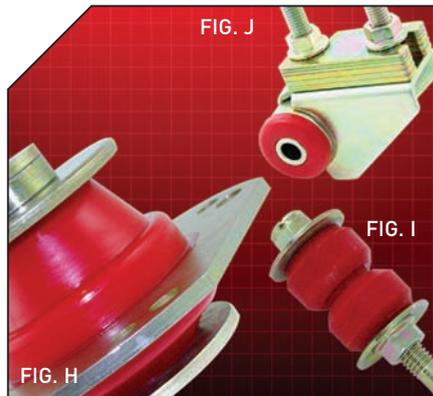
For Commodore's with Independent Rear Suspension that have been lowered or carry a load, you need the Nolathane IRS kit. This kit can be fitted in two stages, and adjusts rear wheel camber and toe to improve tyre life dramatically. Similarly, adjustable front strut mounts and rear panhard rods are essential on lowered live rear axle Commodores. (SEE FIGURE 'G')



If your VT-VY Commodore squirms under braking or pulsates the brake pedal, then Nolathane has the answer. The original strut rod to chassis bush (mounted just below the bottom radiator support) is a relatively soft hydraulic or fluid filled bush. This soft bush takes most of the braking load as the vehicle wants to keep moving and the wheel tries to stop. The result is very little feedback through the brake pedal and in some vehicles, even if the front disc rotors are in good condition, a pulse can still be felt through the pedal. Whilst there is camber adjustment on these models via a camber pin at the base of

the strut leg, there is no caster adjustment available.

Nolathane's new 48166 is the answer - it's adjustable! The Adjustment is achieved by 2, 4 & 8mm shims / washers being arranged in different sequences each side of the bush. These replacement strut rod to chassis bushes provide improved brake pedal feel without harshness and removes the squirming or wandering under braking. You can actually feel the difference! (SEE FIGURE 'H')



Another interesting part is the heavy-duty sway bar link kit to suit VN to VT Commodores. The original sway bar links connect from the end of the sway bar up to a mounting tab on the side of the strut leg below the coil spring. When turning a corner, the upper part of the link twists around as the strut assembly rotates on the ball joint and upper strut mount. This rotation places extremely high loads on the sway bar link, particularly when turning into or out of a steep driveway or road. As a result the original sway bar links are prone to premature failure. It is common for the OE link to punch through the washers or to bend / break the OE link rod. A knocking sound from the front of the vehicle when turning is a telltale sign of breakage.

Nolathane's 42997 kit contains all hardware required to replace the original link pins with heavy duty replacement link pins, bushes, washers & nuts. Nolathane recommends the hardened

cup washers be installed with the dish of the cupped washers facing away from the Nolathane bushes. This permits greater articulation of the link pin to reduce the potential for breakage. (SEE FIGURE 'I')

### NOLATHANE YOUR FALCON:



Fitting of Nolathane camber and caster adjusting kits to the front of your Falcon can improve tyre life significantly. These kits replace the original mounts and bushes on the front upper control arms. Adjustment is via shims that permit alignment correction. (SEE FIGURE 'J')

Fitting Nolathane to rear trailing arms on Commodores & Falcons is now even easier with complete new arms (with Nolathane bushes already fitted) now available, to save you the drama of pressing out the old bushes to fit new ones. Complete Vehicle Enhancement Kits are also available to replace all of the essential bushes for most popular cars. (SEE FIGURE 'K')



The Nolathane team can be contacted on 1300 882355 or [www.nolathane.com.au](http://www.nolathane.com.au)



**NOLATHANE - WANT IT TO HANDLE?**

