



# Installation Guide

## REAR DIFFERENTIAL INSERTS

### PAGE 1 of 7

Z5390

*(Always refer to the current catalogue for complete application listings)*

**N.B:** This installation guide should be used in conjunction with the workshop manual.

#### **Tools Required:**

1. 21mm Socket
2. 13mm Socket
3. 18mm Socket
4. 7/8" Socket and ratchet
5. Thread locking compound
6. Jack/ Lift
7. Jack Stands
8. Torque Wrench

#### **Bill Of Materials:**

- 2 x 68706 Rear Synthetic elastomer bushings.
- 2 x 68707 Front Synthetic elastomer bushings.
- 2 x 16mm Long Crush Control Tubes.
- 2 x 20mm Long Crush Control Tubes.
- 6 x 41mm Diameter Flat Washers.
- 2 x 31mm Diameter Flat Washers.
- 2 x M14 x 110mm Long Bolts.
- 2 x M14 x 65mm Long Bolts.
- 2 x M14 x 35mm Full Length Threaded Bolts.
- 1 x Grease Satchet

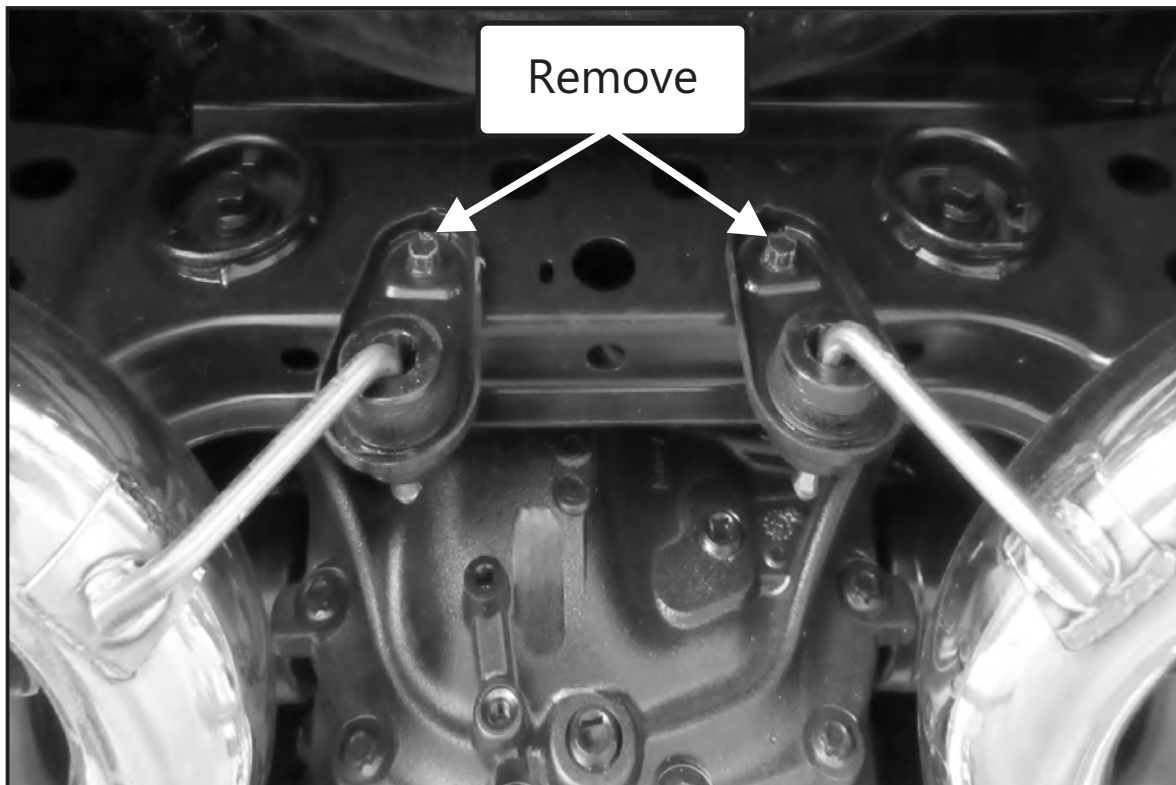
#### **Recommended Additional Component Removal:**

To simplify the installation process it is recommended that the rear section of the exhaust is either removed from the vehicle or alternatively the rear exhaust hanger bolts should be removed and whilst supporting the exhaust allow it to hang down far enough to obtain sufficient clearance.

#### **Rear Bushing Installation:**

1. Raise the vehicle with a jack or vehicle lift and support on jack stands.
2. Support the rear of the exhaust and remove the rear exhaust hangers shown in (Figure 1).

**Figure 1**



3. Support the rear of the sub frame and remove the two rear 21mm bolts holding the frame in place. Whiteline does not recommend that you let the frame hang solely on the front bushings and keep the frame supported at all times to reduce undue stress loading on the bushings. See (Figure 2).

**Note:** *The bolts to be removed are blue in colour.*



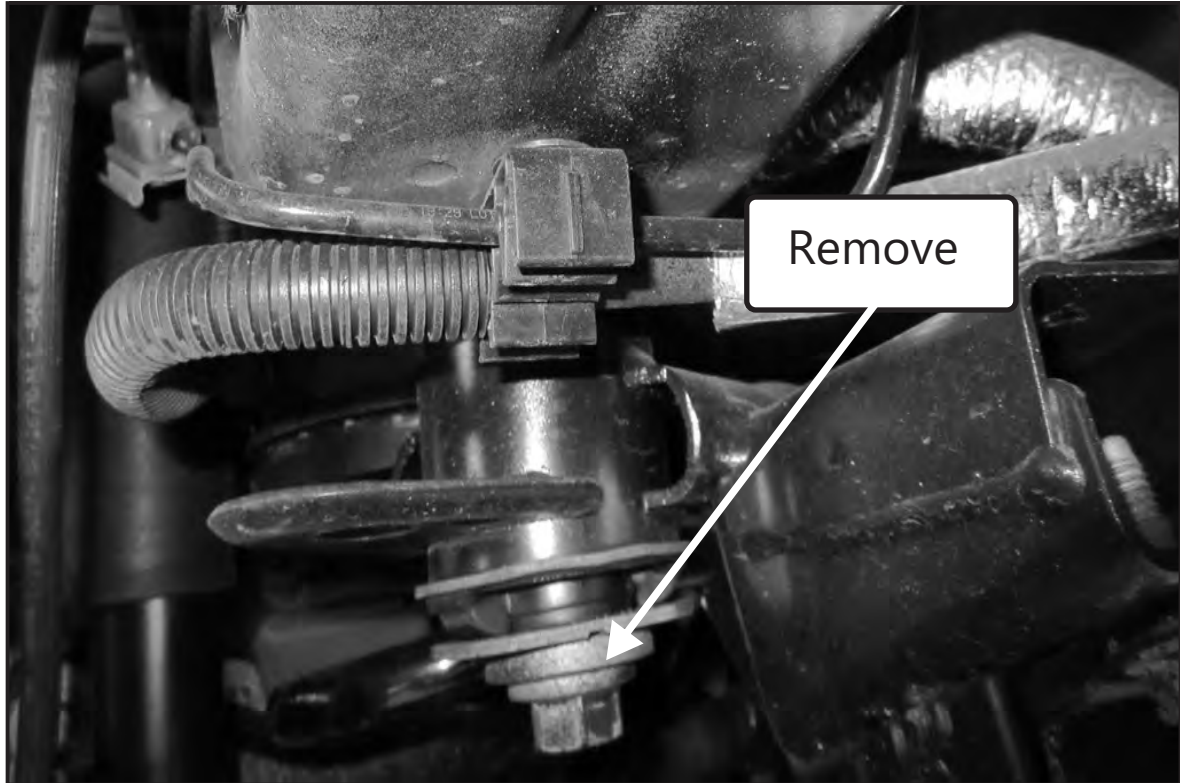
# Installation Guide

## REAR DIFFERENTIAL INSERTS

PAGE 2 of 7

Z5390

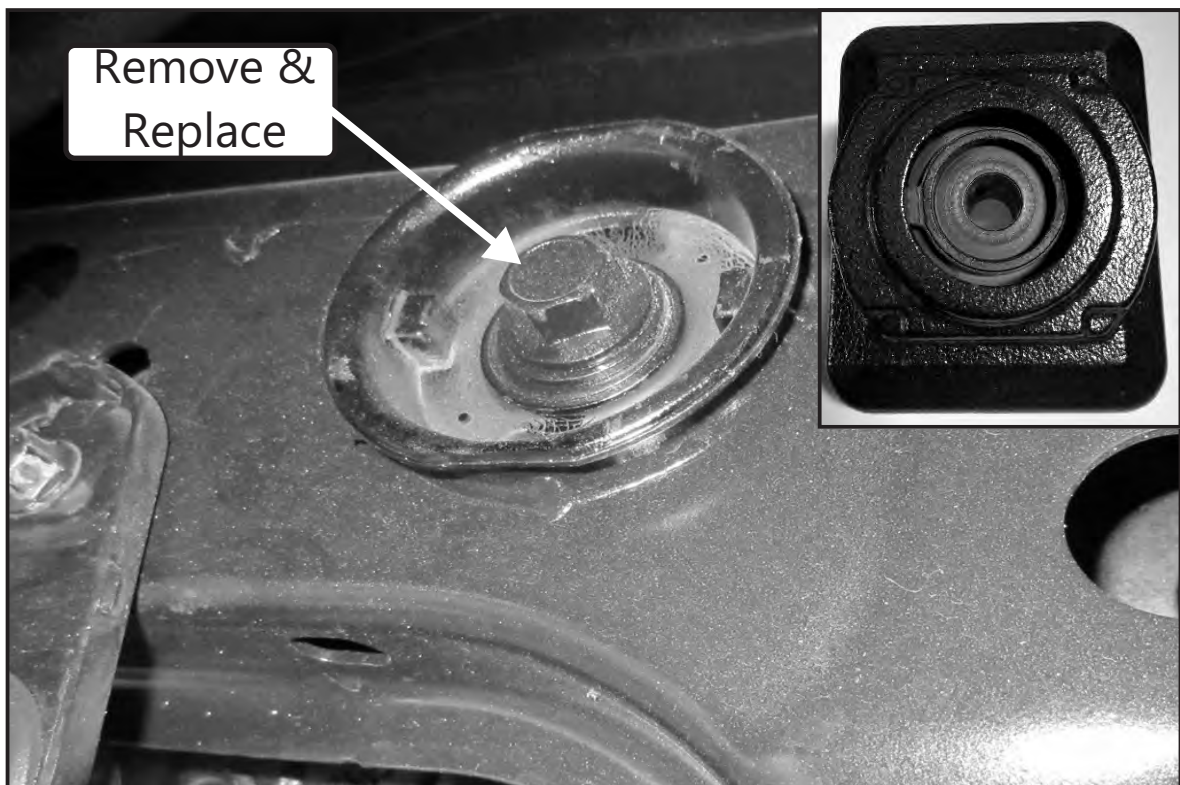
**Figure 2**



4. Removing one side at a time, remove the 18mm rear differential bolt. (Figure 3).

*Note: If the vehicle is fitted with a vibration mass damper (Figure 3 inset) to the rear differential OEM bushing then it will not be necessary to re-fit once the inserts are installed.*

**Figure 3**





# Installation Guide

## REAR DIFFERENTIAL INSERTS

### PAGE 3 of 7

Z5390

5. Select the synthetic elastomer bushing 68706 and install one of the 41mm flat washer into the rear of the bushing face shown in (Figure 4).

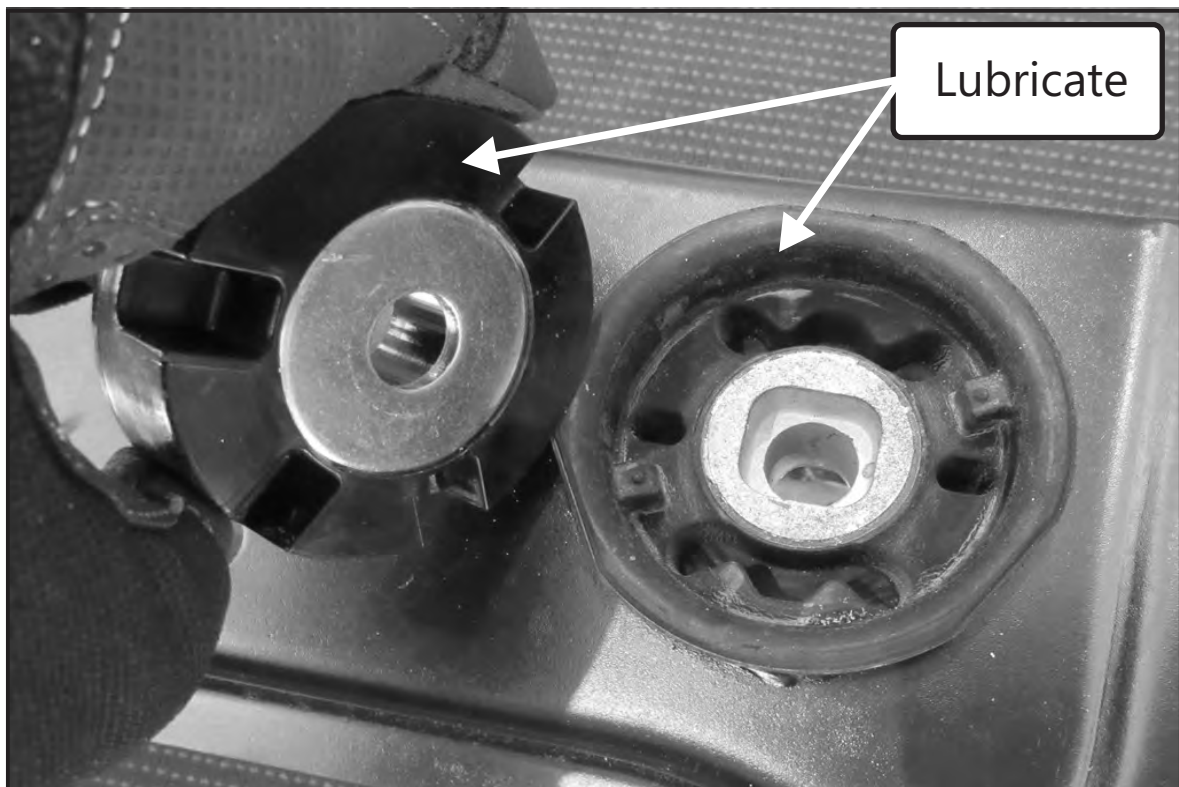
**Figure 4**



6. Lubricate the contact faces with the supplied grease and instal the 68706 insert into the OEM bushing taking note of the orientation for the voiding cutouts. (Figure 5).

*Note: "Please Note," that due to differing OEM rubber bushing designs across the model ranges that the part numbering and brand logo orientation will vary when installed.*

**Figure 5**





# Installation Guide

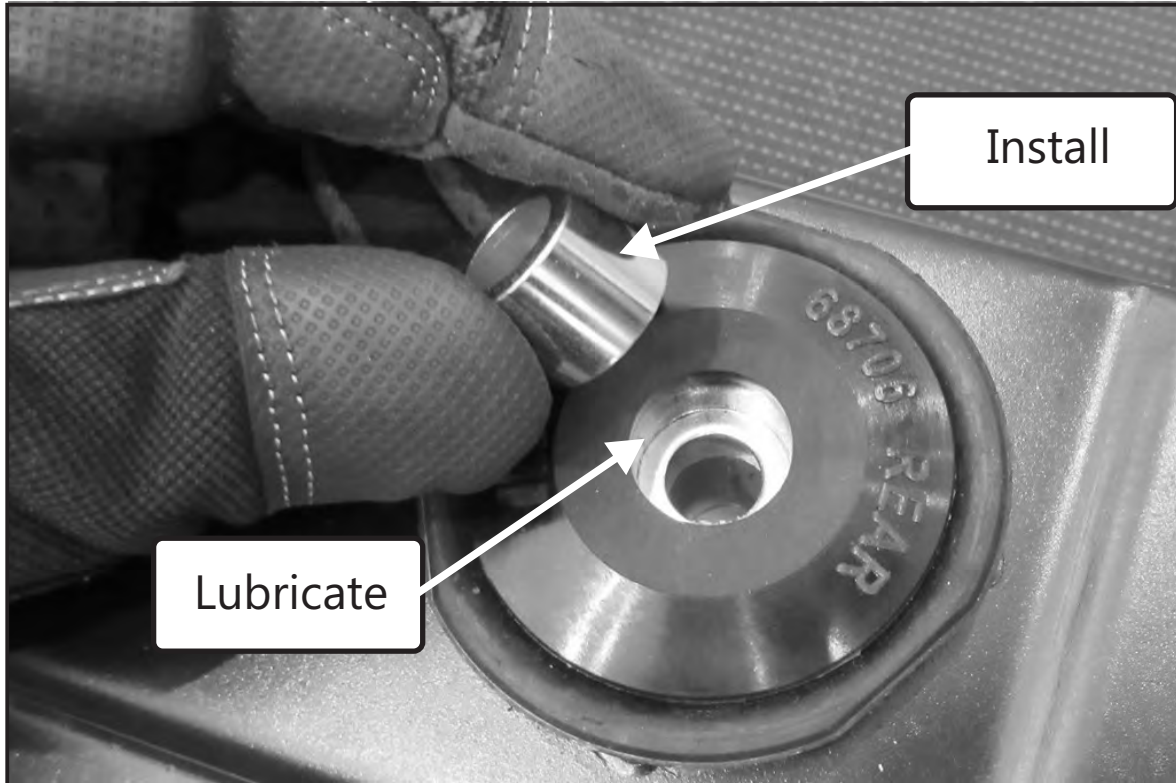
## REAR DIFFERENTIAL INSERTS

### PAGE 4 of 7

Z5390

7. Install the 16mm long crush control tube into the bushing, (Figure 6). Lubricate the front face with the supplied grease.

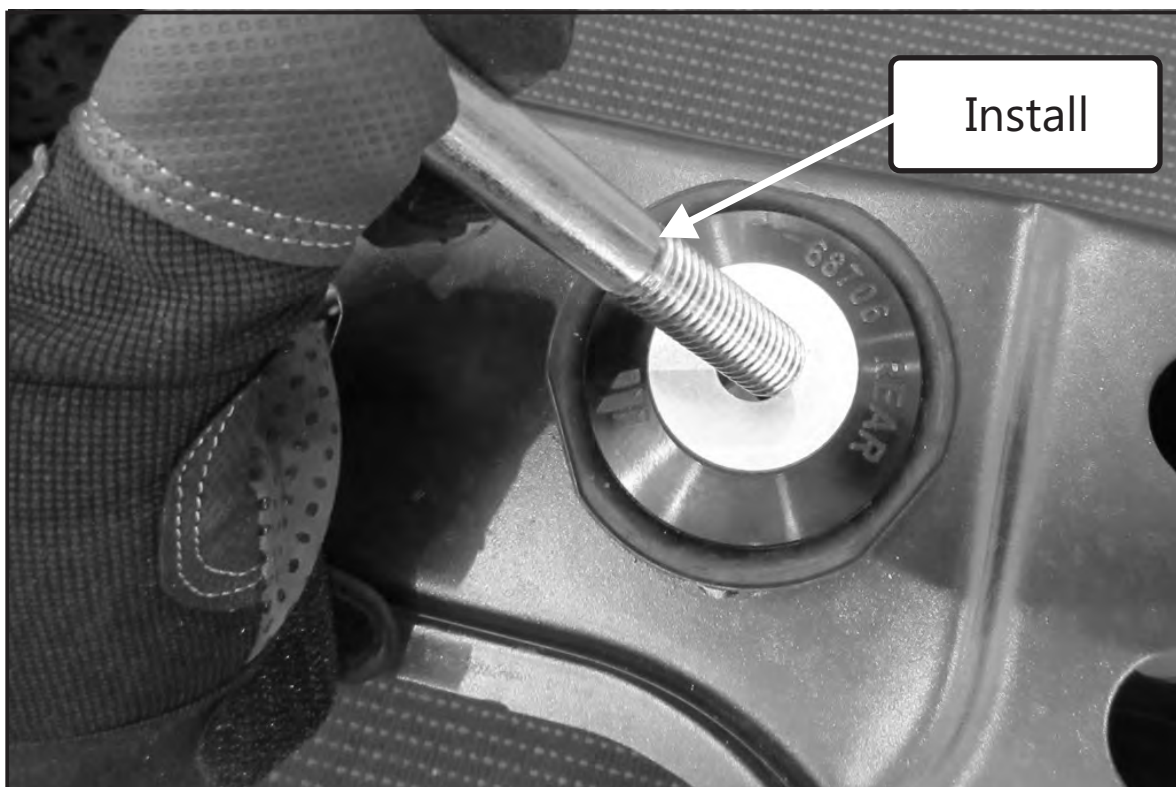
**Figure 6**



8. Locate the kit supplied M14 X110mm long bolts and apply thread locking compound to the thread. Install the supplied 41mm flat washer over the face of the insert and fit the M14 X 110mm long bolt into the bushing. Torque bolt to 129 ft-lbs. (Figure 7).

9. Repeat steps 7-8 for the remaining side. When completed, reinstall the factory 21mm sub-frame bolt and torque to 129 ft-lbs.

**Figure 7**





# Installation Guide

## REAR DIFFERENTIAL INSERTS

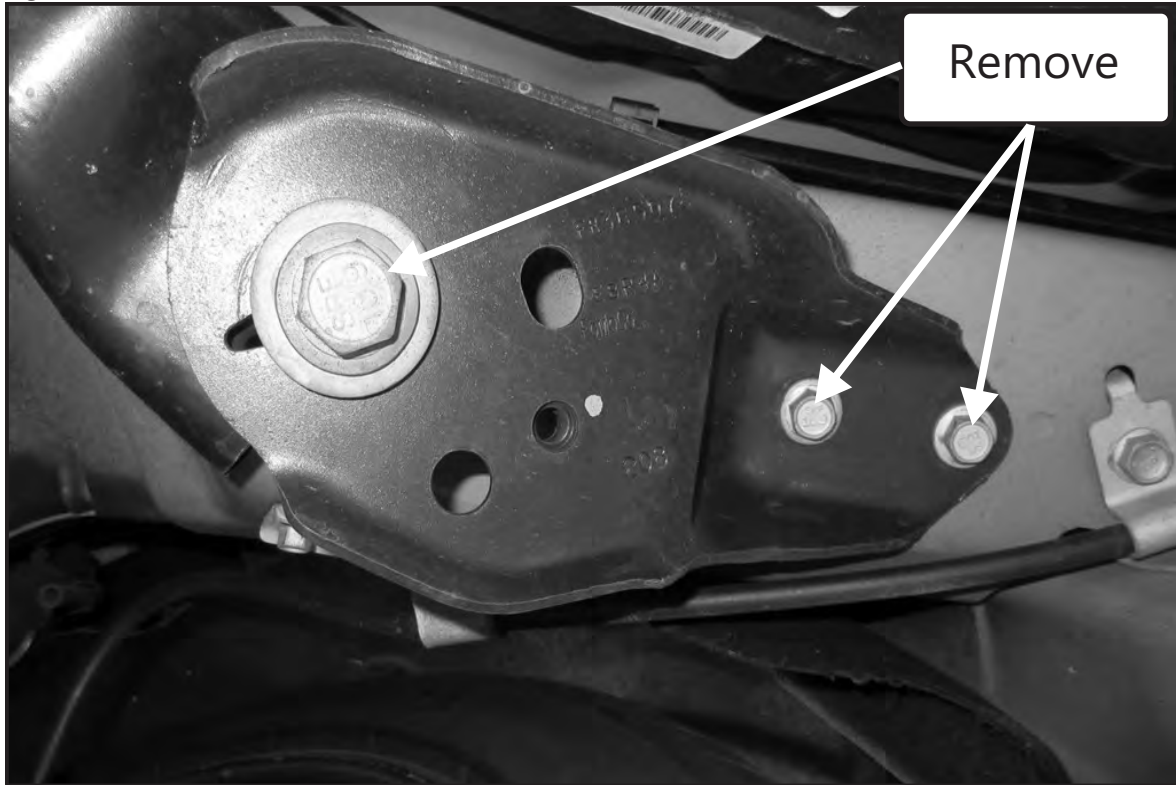
### PAGE 5 of 7

Z5390

#### **Front bushing installation**

11. After ensuring that the front of the sub-frame is properly supported, remove the 21mm blue sub-frame bolts as well as the 13mm retaining plate bolts. (Figure 8).

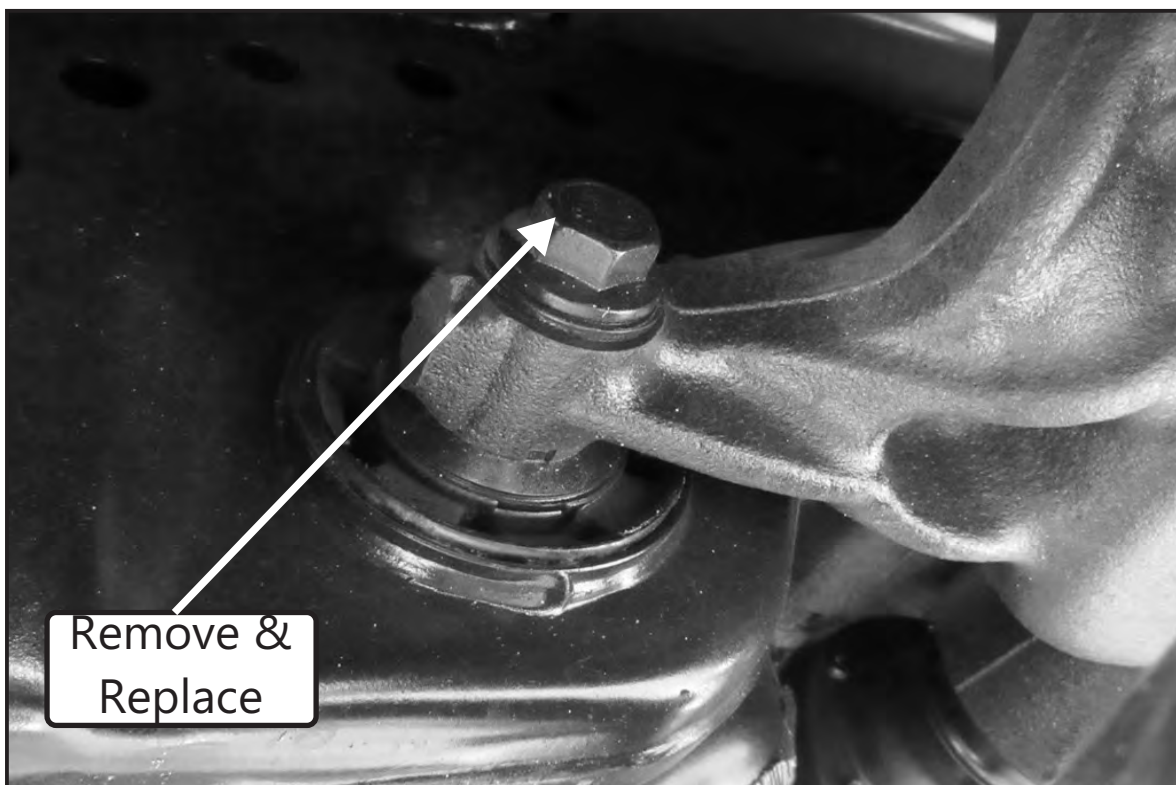
**Figure 8**



12. Lower the frame down at the front to gain access to the front differential bolts. Only remove one of the 18mm differential bolts from the mounting at this stage. (Figure 9).

*Note: This kit does not reuse the factory differential front mounting bolts, and replaces them with a pair of new bolts for each.*

**Figure 9**





# Installation Guide

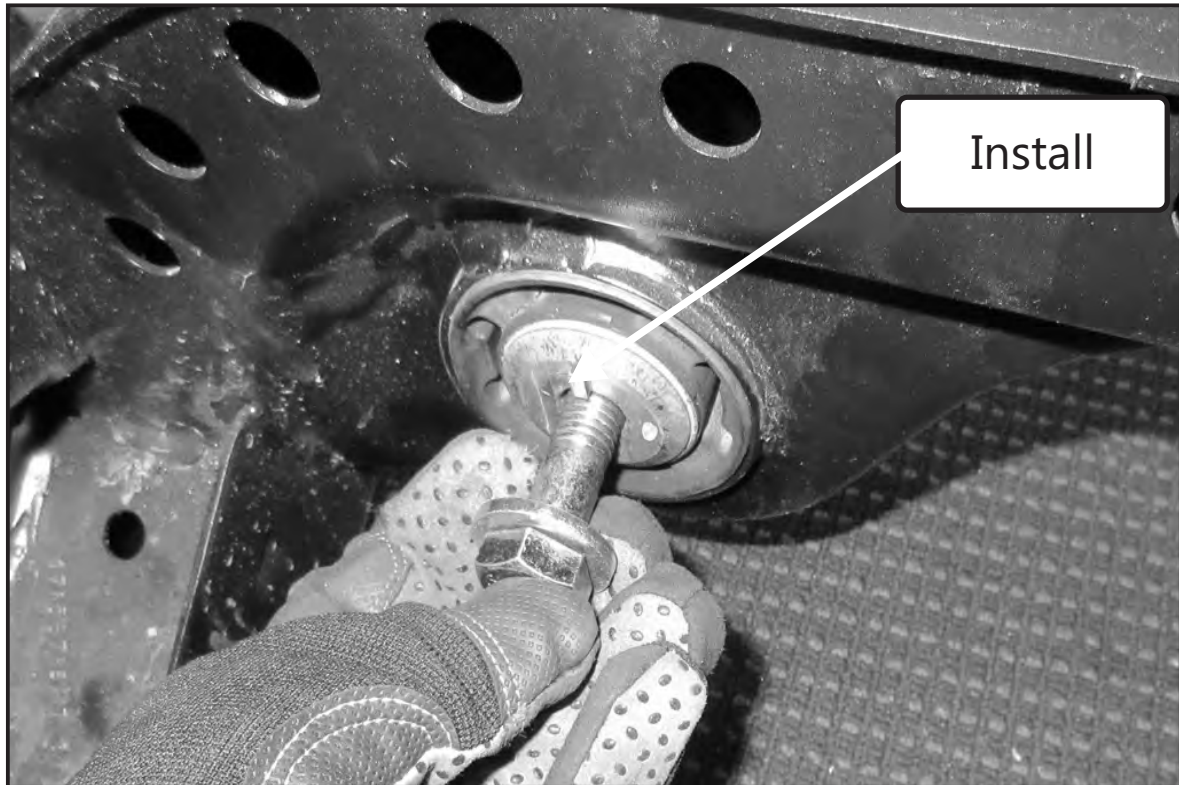
## REAR DIFFERENTIAL INSERTS

### PAGE 6 of 7

Z5390

13. Loosely install one of the supplied M14 X 65mm long bolt accompanied with a 31mm flat washer enough to support the differential in place. This bolt is designed to engage the thread half way up the threaded OEM rubber bushing. This will allow the synthetic elastomer insert to be bolted in from the opposite side. Figure 10  
*Note: The image shows the bushing, bolt and washer only*

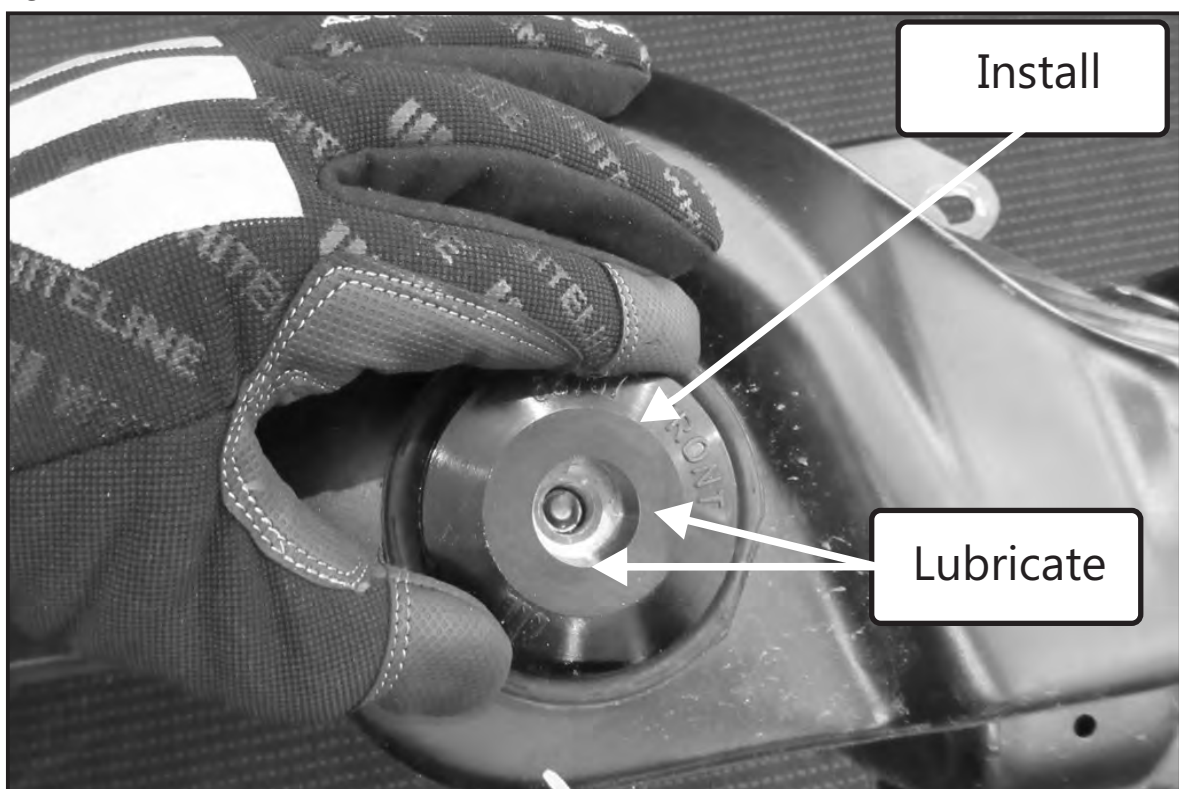
**Figure 10**



14. Repeat steps 12 & 13 for the remaining side, once complete torque the bolts to 129ft-lbs.

15. Locate the two front 68707 inserts and lubricate the faces and install into the OEM rubber bushing.(Figure 11)

**Figure 11**





# Installation Guide

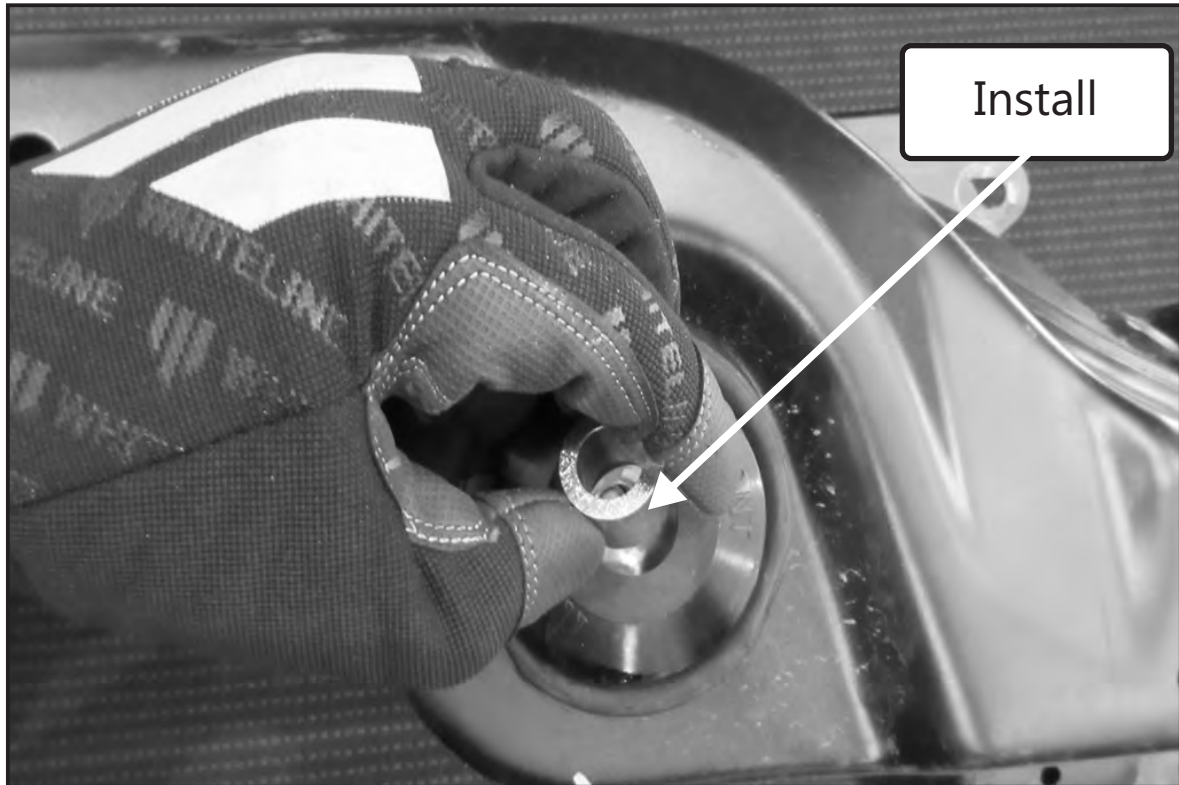
## REAR DIFFERENTIAL INSERTS

### PAGE 7 of 7

Z5390

16. Install the supplied 20mm long crush control tubes into the two 68707 bushings. (Figure 12).

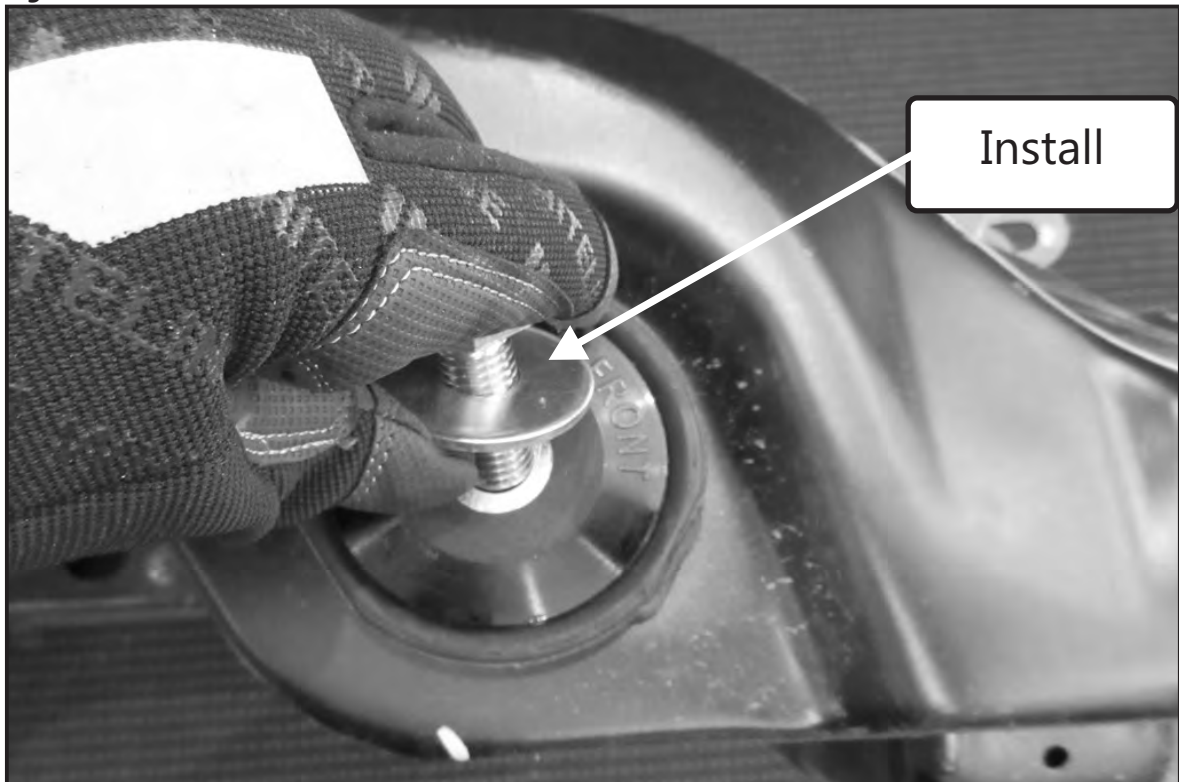
**Figure 12**



17. Apply thread locking compound to one of the M14 X 35mm long bolts and install it with a 41mm flat washer into the front bushing. (Figure 13).

18. Repeat steps 16 and 17 for the remaining side. Then torque all the bolts (2 per side) to 37ft-lbs.

**Figure 13**



19. Reinstall the front subframe plate using the factory 21mm blue subframe bolt and the 2 x 13mm bolts per side. Torque the 21mm blue sub frame bolt to 129 ft-lbs and torque the 13mm bolts to 40 ft-lbs.

20. Re torque all fasteners after 60 Miles or 100 Km's.