



## **Toyota 120 Series Prado Grande**

### **Replacement of the height-adjustable and electronically-controlled suspension with conventional coil springs and dampers.**

The 2002-2009 Toyota 120 Series Prado Grande came equipped with front and rear electronically-adjustable dampers and an electronically height-adjustable rear axle air spring system.

If either or both systems require conversion to a conventional/non-adjustable set-up, use the following guide. Failure to follow the guide when converting the rear air springs to conventional coils will result in the constant displaying of an error indicator in the instrument cluster.

#### **Replacing the Electronically-Controlled Dampers Only**

The electronically-controlled dampers on the Prado 120 Series can be replaced with conventional units without an error indicator being displayed in the instrument cluster. However, it is imperative that all four dampers be replaced at the same time.

If operating correctly, the electronically-adjustable height control of the rear air springs will not be affected if all four dampers are replaced with conventional units.

#### **Replacement of the Air Springs with Conventional Coils**

When converting from air springs to conventional coils on the rear axle of the Prado 120 Series, the electronic workaround that prevents the error indicator from being displayed in the instrument cluster will also cause the electronic damping to stop working.

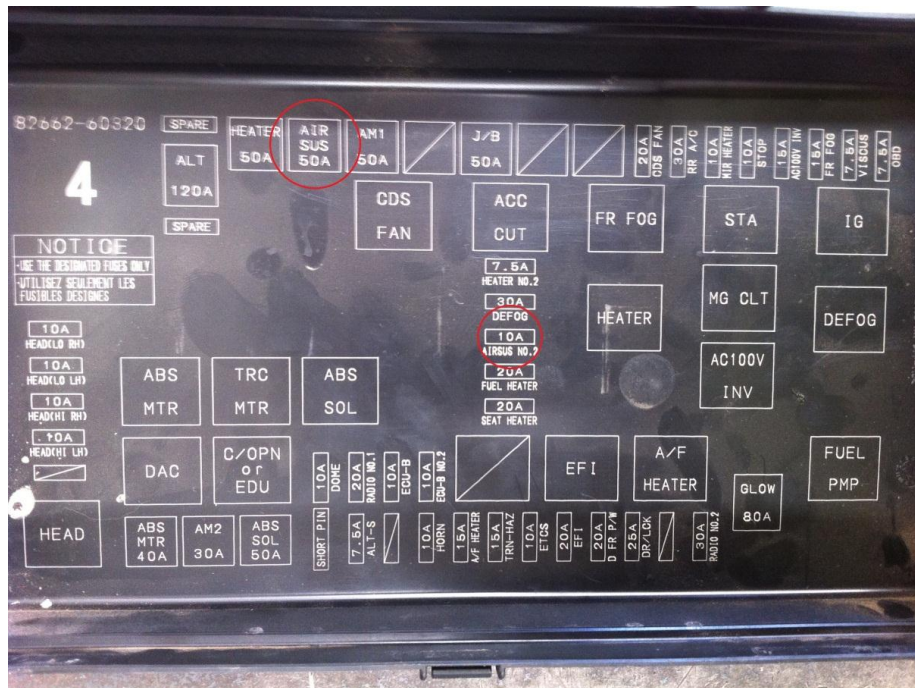
It is therefore important that all four dampers be replaced with conventional units if an air spring-to-coil spring conversion is being performed.

Follow the steps on the next pages to complete the conversion.

# Replacement of the Air Springs with Conventional Coils

## Electronic Workaround

1. Ensure that the vehicle's ignition switch is in the 'off' position and remains in this position during all of the following steps.
2. Access the under-bonnet fuse box and remove the 10A 'AIRSUS No.2' and the 50A 'AIRSUS' fuses. (pictured below) Refit the fuse box cover and close the bonnet.



3. Remove the passenger side lower dashboard trim by removing the one Phillips-head screw (pictured below) and then pulling the trim in a rearward direction. Once the trim is removed, disconnect the circled wiring harness clip (pictured below) from the trim to allow ease of access to the kick-panel.

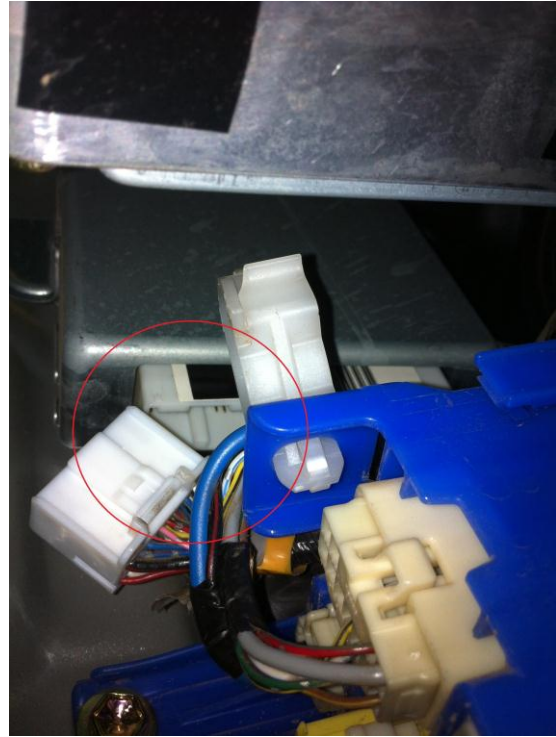
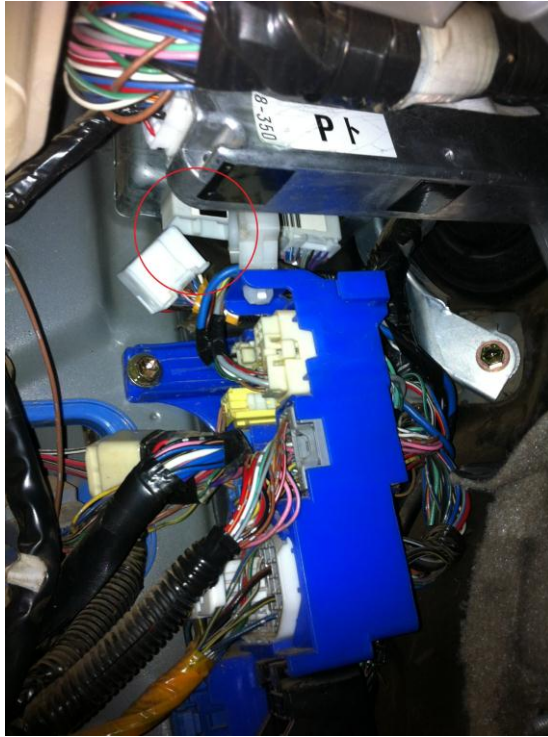




4. Remove the passenger side front door scuff plate and the passenger side kick panel black plastic retaining nut from the locating stud (pictured below). Once the black plastic nut is removed, the kick panel can be removed by pulling it in a rearward direction.



5. Locate the suspension control unit (silver coloured) situated above the main connector junction (blue coloured) and outboard of the powertrain control module PCM (also silver coloured). This unit has three white electrical connectors. Disconnect the most rearward connector (pictured below).



6. Refit all removed trims. Turn the ignition switch to the 'on' position and confirm that the suspension height control display that was previously illuminated in the lower centre position of the instrument cluster is no longer shown.
7. Start the engine and ensure that the compressor for the air suspension does not operate.

## **Replacement of the Air Springs with Conventional Coils**

### **Suspension Workaround**

The following parts will be required for the suspension hardware part of the conversion:

#### **Front Suspension:**

- 2 X Pedders Gas SportsRyder Spring Seat struts (Pt. No. 144302) –or–
- 2 X Pedders TrakRyder Foam Cell Spring Seat struts (Pt. Nos. 152302 or 154302)
- 2 X Pedders TrakRyder coil springs to suit the above struts

#### **Rear Suspension:**

- 2 X Pedders TrakRyder Gas 4X4 Shocks (Pt. No. 9147) –or–
- 2 X Pedders TrakRyder Foam Cell Shocks (Pt. No. 9547)
- 2 X Pedders TrakRyder coil springs to suit Prado 120 Series
- 2 X Pedders Bump Stops (Pt. No. 5899)
- 2 X Pedders Spring Spacers (Pt. No. EP8316/20)
- 2 X Bolt/nut sets and 4 X large washers to suit bolt/nut set (additional spring washers will be required if the nuts are not self-locking)

1. Replace the front struts using either OE or upgraded springs as per normal process. Ensure that the now-defunct wiring harnesses and connectors for the old electronic dampers are secured with cable-ties.
2. Remove the rear airbags but leave the existing airlines in situ.
3. Secure the 5899 bump stops into the rear upper spring locating recess using bolts, nuts and large washers. The bolt will go through the existing hole in the centre of the spring locating recess. (see below)



4. After securing the bump stops in place, install the Pedders EP8316/20 spring spacer into the upper spring locating recess around the 5899; ensuring that the raised inner spring guide of the spacer is facing downwards. (see below)



5. Install the required Pedders TrakRyder coil spring with the ground end of the spring facing upwards.
6. Install the rear shock absorbers as per the normal process.

**\*\*NOTE\*\*** Due to the use of the Pedders EP8316/20 Spring Spacer as a spring guide, the final rim-to-guard measurement *may* be 15mm more than the advertised amount for the coil spring part number in the Prado 120 Series application.