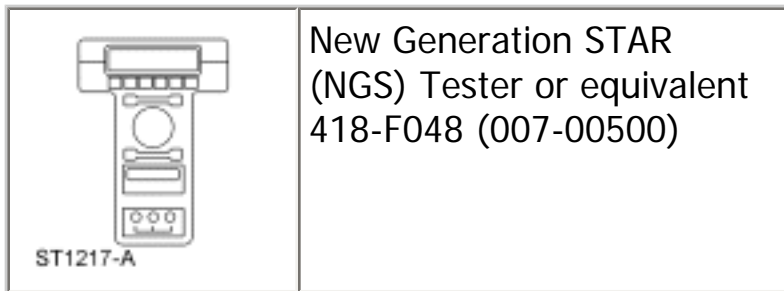




## Ride Height Adjustments

### Special Tool(s)



## Inflation and Deflation of the Air Suspension System

 **WARNING:** Do not remove an air spring under any circumstances when there is pressure in the air spring. Do not remove any components supporting an air spring without either exhausting the air or providing support for the air spring to prevent vehicle damage or personal injury.

 **WARNING:** Disconnecting an air line that is connected to the air compressor can cause personal injury or damage to components as high pressure air is vented uncontrolled.

1. Turn the air suspension switch on.
2. Turn the ignition switch to the RUN position.
3. Connect NGS Tester to the data link connector (DLC).
4. Select Air Suspension Control Module under Active Command Mode:
  - VENT FRNT to deflate the front down.
  - LIFT FRNT to inflate the front up.
  - VENT REAR to deflate the rear down.
  - LIFT REAR to inflate the rear up.

## Calibration

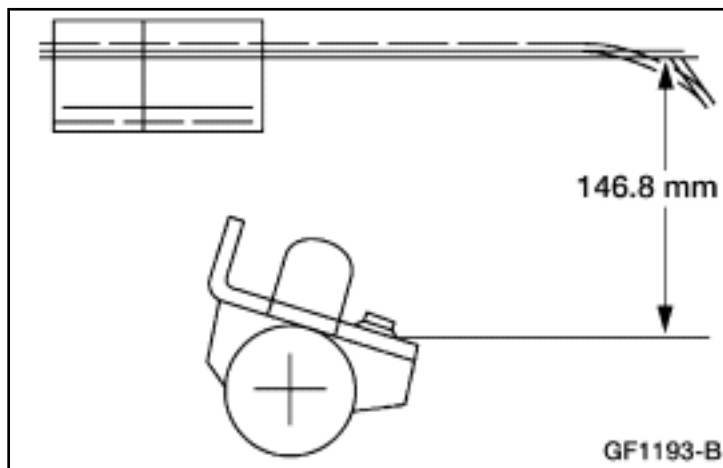
### Front Ride Height Resetting — Clear B2140 DTC

1. Turn the ignition key OFF and turn it back to RUN; exit the vehicle, close all doors and allow the system to vent the vehicle down to kneel height (approximately 30 seconds).
2. Connect New Generation STAR (NGS) Tester to the data link connector (DLC).
3. Select the proper vehicle year, model and engine type.
4. Select 4WAS-AIR SUSP/EVO (4x2 and 4x4) module.
5. Select "Parameter Reset Command (Clear Ride Height) under Active Command Modes" menu, trigger through the warning messages and reset (trigger from OFF to ON):
  - NGS version 10.0 — "Front" and "Rear."
  - NGS version 11.0+ — "Front CLR."
6. Back out the torsion bar adjustment bolt (approximately 40 mm from the bolt head to the bottom surface of the torsion bar adjuster).
7. Deflate the front air shocks by using the NGS "Vent Front" command in "Air Suspension Control" menu (should take about 30 seconds), and jounce the front of the vehicle to fully lower the front of the vehicle.
8. Adjust and measure the vehicle ride height; refer to [Section 204-01B](#).
9. **NOTE:** Do not save rear ride heights. The air suspension control module has precalibrated values already stored. Refer to Rear Ride Height Mechanical Resetting.

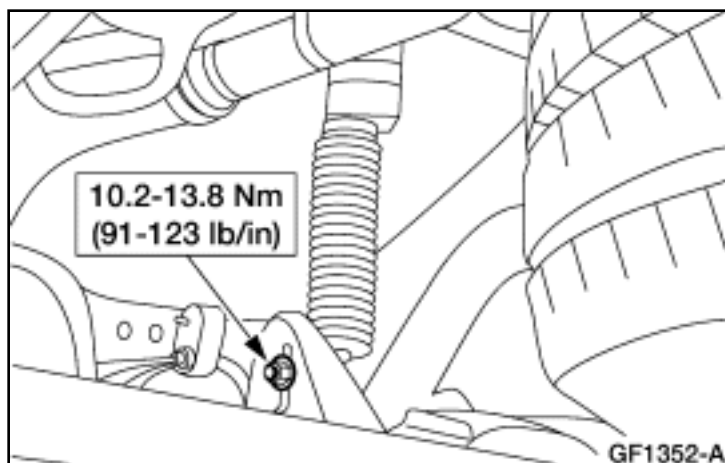
Select the "Save Calibration Values (Store Ride Height)" NGS command to calibrate the air suspension control module. Trigger through the warning message(s) and save "FRONT" (trigger from OFF to ON).

## Rear Ride Height Mechanical Resetting

1. Turn the ignition key ON.
2. Connect New Generation STAR (NGS) Tester to the data link connector (DLC).
3. Select the proper vehicle year, model and engine type.
4. Select 4WAS-AIR SUSP/EVO (4x2 and 4x4) module.
5. Measure vehicle rear height (driver side) from the bottom of the frame to the rear jounce bumper bolt rear side of head base.



6. Using NGS Tester, adjust rear height to  $146.8 \pm 2$  mm by moving the rear of the vehicle down using the active command ("VENT\_REAR") or by moving the rear of the vehicle up ("LIFT\_REAR") in PID RHGTSEN.
7. Monitor the rear height sensor voltage on the right side of the NGS screen.
8. Loosen the ball stud nut on the rear air suspension height sensor bracket and adjust it by moving it with the air suspension height sensor up or down until the voltage is  $2.66 \pm 0.02$  volt.
9. Tighten the ball stud nut.



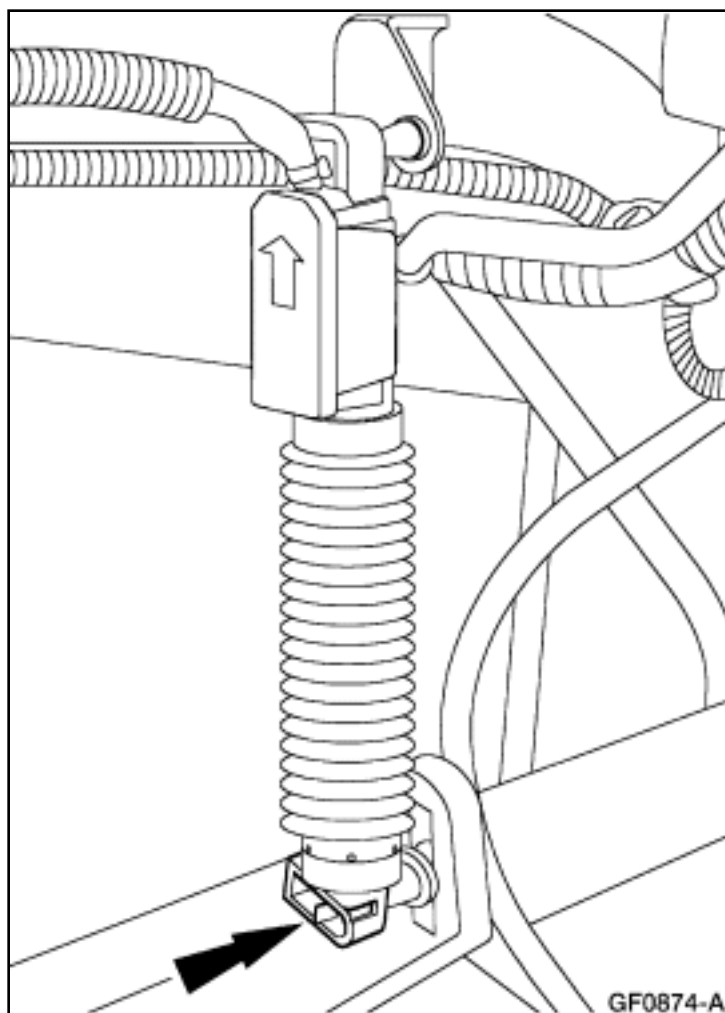
## Rear Ride Height Electronic Resetting

1. Connect New Generation STAR (NGS) Tester to the data link connector (DLC).
2. Turn the ignition switch to the RUN position.
3. Select the proper vehicle year, model and engine type.
4. Select 4WAS-AIR SUSP/EVO (4x2 and 4x4) module.
5. Select the active commands menu "Save Calibration (Store Ride Height)." Trigger through the warning message.
6. Monitor the RHGTSEN PID.
7. **NOTE:** Do not press the trigger after selecting REAR.

Select REAR.

8. **NOTE:** Do not disconnect the rear height sensor from the upper ball stud.

Disconnect the rear height sensor from the lower ball stud.



9. Slowly compress/extend the rear height sensor until the rear height sensor voltage is  $2.66 \pm 0.02$  volts.
10. Press the trigger to save rear ride height settings (turn from OFF to ON); this will calibrate the air suspension control module.
11. Perform the Rear Ride Height Mechanical Resetting. If the rear height mechanical resetting has been performed, clear DTCs and run On-Demand Self-Test.