

J4500 Ground Clearance Verification and Adjustment

Description:

This procedure outlines the steps to inspect and adjust ground clearance on J4500 coaches that may have an incorrect ground clearance setting.

This is applicable to J4500 coaches MY18 to MY20 within the VIN range: 68377-69754.

 **WARNING**

Read this entire procedure before beginning work.

Use Safe Shop Practices At All Times.

To avoid personal injury:

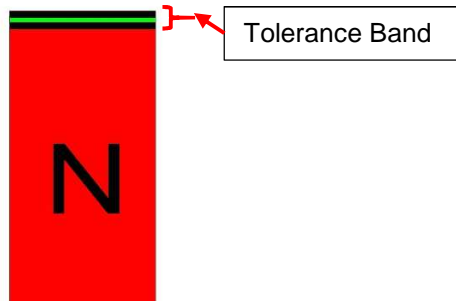
- a. Proper Personal Protective Equipment (PPE) must be worn. Safety glasses and protective gloves are required for working with DEF Fluid.***
- b. Ensure that both the front and the rear wheels are chocked.***
- c. Positioning the ENGINE RUN and ENGINE START switches on the engine compartment remote control box to the OFF position prior to working in the engine compartment.***
- d. Allow enough time for components to cool down prior to working in the engine compartment.***

1.0 Material Requirements:

No material requirement.

2.0 Special Tools:

Departure clearance tool kit, MCI P/N: T12-1215 which includes the “Departure clearance tool”, MCI P/N: T03-3082 and “Grabber tool”, MCI P/N: T03-3083.



Front Block for Normal Ride Height, Part of Departure clearance tool, T03-3082



Grabber Tool, T03-3083

3.0 Verify the Ground Clearance

Start the coach and place it on a level surface.

Make sure all tires are inflated to the correct pressure.

Pump the service brake pedal until Primary and Secondary air pressure gauges read below 100psi.



Let the air compressor engage and re-charge the air system to full governed pressure. Wait until the compressor shuts off at governed pressure before proceeding.

Press the “LEVEL CNTRL UP” switch to raise the coach to High Ride. Wait for the “HIGH RIDE” dash indicator light to stop flashing and remain solid.

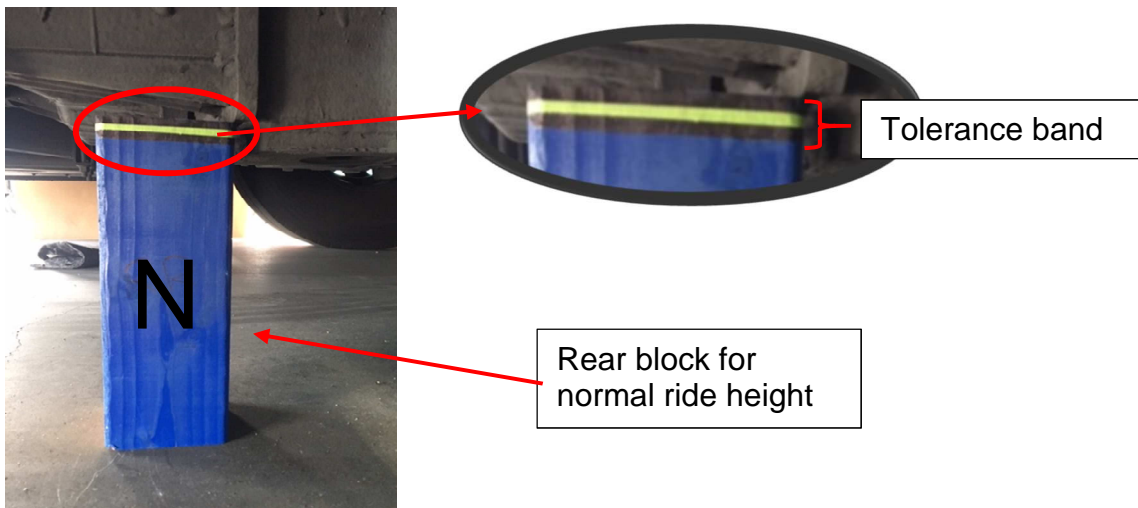
Procedure 12-24



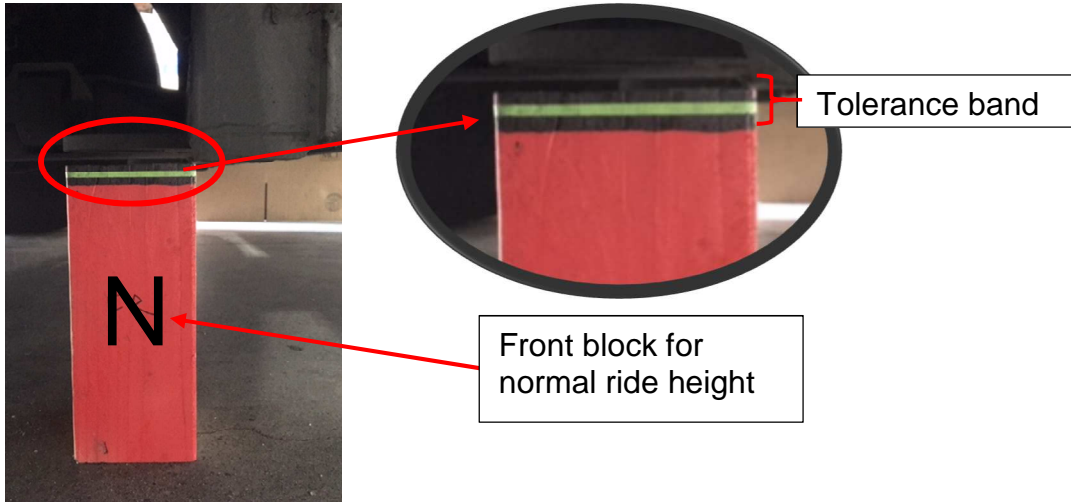
Press the “RE-COVER” switch. Wait for the “SUSPENSIOIN RECOVERED” indicator to come on. The coach will now be at Normal Ride Height.



Place the rear blocks for normal ride height (blue block with the letter “N” on it) from the kit T12-1215, at the rear jacking points and see if the rear jacking points are within black tolerance band on the measuring blocks.



Place the front blocks for normal ride height (red block with the letter “N” on it) from the kit T12-1215, at the front jacking points and see if the front jacking points are within the black tolerance band on the measuring blocks.



If both the jacking points are within the black tolerance band, then the coach Normal Ride Height ground clearance is correct then proceed to **Section 5.0**.

If either one of the coach jacking points is not within the black tolerance band then proceed to **Section 4.0**.

4.0 Recalibrating the Ride Height

Make sure the engine is running to maintain system air pressure while completing this calibration. Connect the laptop to the ECAS unit and run Meritor TOOLBOX Software. Clear any Fault Messages, if present, before proceeding.

Using the grabber tool from the kit T12-1215, place the Normal Level gauge blocks under the front and rear jacking points on both sides of the coach. Slightly raise the suspension, if needed, using the ECAS “CHARGE UP” button to air up the appropriate airbags.



Rear jacking point



Front jacking point

Slowly lower the coach towards the Normal Ride Level gauge blocks at all four jacking points until you reach the green line on all four gauge blocks.

Note: Using the suspension air drain valve you can lower the suspension more accurately for this step.



Lower the coach
to green line

Now click “Save normal level” on the TOOLBOX window.

Using the TOOLBOX “Charge Up” button, increase front and rear airbag pressures to High Ride Level. Remove the Normal Ride Level gauge blocks.

Place the High Ride Level gauge blocks (blocks with letter “H” on them) from the kit T12-1215 under the front(Red) and rear(Blue) jacking points on both sides of the coach. Slowly lower the coach towards the High Ride Level gauge blocks at all four jacking points until you reach the green line on all four gauge blocks.

Now click “Save upper level” on the TOOLBOX window. Remove the High Ride Level gauge blocks.

Place the Low Ride Level gauge blocks (blocks with letter “L” on them) from the kit T12-1215 under the front(Red) and rear(Blue) jacking points on both sides of the coach. Using the TOOLBOX “Vent down” button, decrease the front and rear airbag pressures to 1/2” from the top of the Low Ride gauge blocks.

Using the suspension drain valves slowly lower the coach towards the Low Ride Level gauge blocks at all four jacking points until you reach the green line on all four gauge blocks.

Now click “Save lower level” on the TOOLBOX window.

Now click “Finish calibration” on the TOOLBOX window.

5.0 Installing the Customized Ride Height

Turn the ignition off and close the entrance door.

Make sure you have the following two program files on a USB memory stick attached to the laptop:

- MDSS Modified Parameters III.ecu.
- Updated mux logic 07-18-xxxx.vmm (VIN specific program).

These programs will be provided by the Customer Service Engineering Team (CSET).

Add the MDSS parameter file using the Meritor Wabco ECAS TOOLBOX software, then updated the coach logic using VMM software tool. After the download is complete cycle the Master Battery Switch.

End of the procedure