

Airstream Service Bulletin

Bulletin Number: 181

Product Line: Airstream Atlas

Subject: VB Air Ride Auto Ride Height Change

Operation Code: TCSBR8381079

Labor rate will be 1.00 hrs. plus Mercedes charge for file update.

It has come to our attention that when the air ride system is locked in to the down position it will not automatically adjust to the correct ride height once the vehicle is in motion. The motorhome is still safe to drive until the service bulletin can be performed. However, if the air suspension has been deflated the airbags must be re-inflated to the correct ride height position prior to operating the vehicle

RANGE OF VEHICLES INVOLVED:

2020 Airstream Atlas built between 6/11/2019 and 10/19/20

Serial number range: 035017, 30619 – 307718

Note: Because our VINs do not run in a contiguous series, there will be units in the VIN range which will not be affected by this Service Bulletin.

Equipment needed:

- 3/8" ratchet
- Short 3/8" extension
- 3/8" External Trox #E12
- Twin Pin Extraction tool
- Terminal Crimps (Sta-Kon)
- Wire Stripers
- Power Drill w/#2 Philips tip
- Drill 1/4"
- Suitable seat prop.

Programming Tool: (Mercedes-Benz)

- Mercedes Xentry programmer w/ 513909 Code.

Parts Required:

Kit PN 513945 (the kit contains the following):

- Two 18-22 butt splice (Pink): #500226
- One #10 Ring Terminal 18-22Ga. (Pink): #513767-04
- 3/4" Self Tap screw: #320111
- #10 External Star washer: #300213
- Channel Invert Board: #512658-01
- 20ft ORG/WHT 18Ga. Wire w/ butt and spade terminals: #513887

Steps:

1) Move the vehicle into a safe and secure location to perform the work, and turn the engine "OFF".

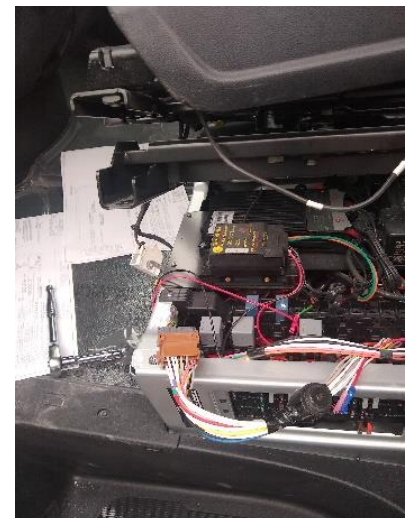
2) Disconnect the vehicle body ground connection by removing the cover, located beside the accelerator pedal. Next, reach into the lower center column and release the ground cable for the chassis bond. This will require pushing down on the red button and pulling out on the grounding cable.



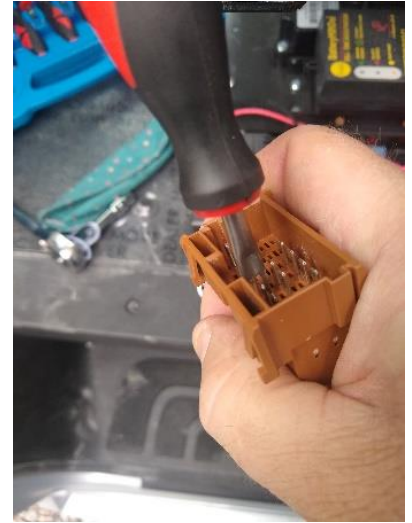
3) Remove the two seat base bolts located at the driver's door entrance. Loosen the other bolts about 1/4" on the hand brake side. From the door entrance, tilt the seat toward the center and prop with a suitable prop rod to keep the seat angled and safely up.

4) Fold the skirt up so it's out of the way.

5) Reach into the seat base and pull out the 21-pin connector and separate the connection. (A Brown connector plugged into a gray connector)



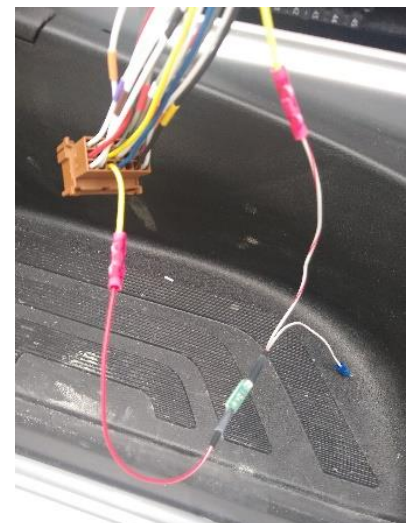
- 6) Working with the brown connector, locate pin 7 (Output 7) and remove it from the connector. Move this pin to the open pin 2 spot (Output 2) on the same connector.



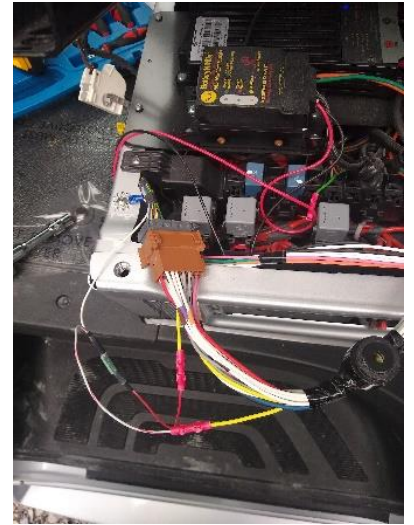
- 7) Next, remove pin 14 (Output 14) and reinstall it in the now open Pin 7 (Output7) location. This is the same spot that you vacated in the previous step.
- 8) From the new pin 7 (Output7) above, trace down the wire about 3" and cut the Output 7 wire.
- 9) Remove the Channel Invert Board from the kit and install the pink butt splices onto the two striped wires. The solid white wire exiting the board will get the ring terminal attached to it.



- 10) Connect the butt that exits as a single wire from the invert board (See Above) to the cut wire exiting the brown connector pin 7 (See wires in step 8 above). Next, connect the stripped butt spliced wire from the other end of invert board to the cut wire end that goes back into the harness.



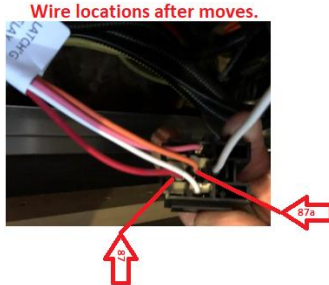
- 11) The invert board's solid white wire, with the ring terminal, is then attached to the top of the seat base using the self-tapping screw and star washer. Use a power drill to install the screw.



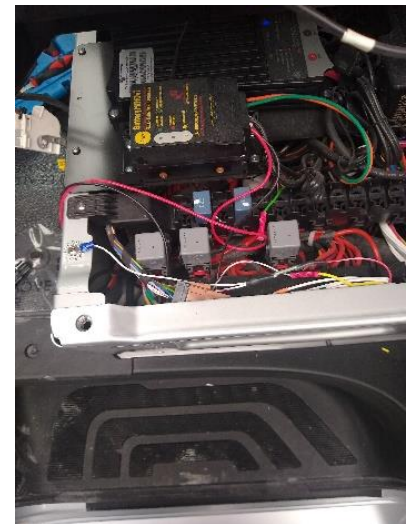
- 12) Now find pin 3 on the brown connector and cut the wire apart about 3" from the connector. Place a butt slice on the wire going into the harness. The wire coming out of the connector is butt sliced to the new 20ft extension wire. The extension wire needs to run into the corner cabinet where the Magnum converter rein sides. The floor board behind the driver's seat is removable and can pass the wire behind the seats. Use the drill to make a passage under the floor to the corner cabinet.



- 13) Once the wire is in the corner cabinet it will need to connect to the “Latching Relay” (LLR). This relay is located below the Magnum converter along the bottom edge of the board. There are multipole relays in a row with the tallest one being the “Latching Relay”. Remove it and its socket from the wall. With the relay removed from the socket release the terminal in the 87 position (old LST wire, ORG) and move it to the 87a position. See the face of the relay itself for the pin numbering. Once 87 has moved to 87a position insert the extension wire into the 87 position. Reattach the relay socket to the wall and install the relay. Return all compartments and covers back to their original state



- 14) Reconnect the Brown connector to the Gray connector and return all wiring back into the seat base.



- 15) Return the seat skirt back to its proper fitting around the seat base, and remove the seat prop and lower the seat back into position.
- 16) Hand start the two seat bolts on the door side. ****Take care not to cross thread the bolts****. Next, tighten all four seat bolts (Torque = 27.3ft/lb (37nm)).
- 17) With the wiring change completed, reconnect the vehicle body ground in step 2.

PROGRAMMING PSM 9 (THIS MUST BE DONE AT A MERCEDES DEALER)

If Mercedes Xentry programmer is available at the site of the above wire repair.

- 1) Attach a Mercedes Xentry programmer to the OBD2 port and install the 513909 PSM Code. (Contact Airstream service to send you the 513909 code.)
- 2) Jump to TESTING (Air-Ride)

If Mercedes Xentry programmer is NOT available at the site of the above wire repair.

The unit will need to be driven to a nearby Mercedes authorized dealer that has a Xentry programmer. The PSM can only be updated by a registered Mercedes Xentry. An additional temporary change must occur before the vehicle can be driven to the Mercedes dealer to prevent the awning from deploying.

- 1) Make sure the awning is fully retracted.
- 2) Locate the “Awning Disable Relay” which is located in the cabin beside the main cabin door and remove it from its socket.

- 3) Verify that the awning is disabled by trying to extend the awning from the switch located on the passenger seat base. If the awning still operates you have pulled the wrong relay. Reinstall the relay and try another one. **Note:** Mercedes engine should be "OFF" during this test.
- 4) Now the unit is ready for transporting to the Mercedes dealer for programming. The Awning Alarm system is not disabled by this change. So, if the Awning Alarm does appear during transport you will need to reinstall the relay to retract it, then remove it again. This should not happen.
- 5) At the dealer, have them attach a Mercedes Xentry programmer to the OBD2 port and install the 513909 PSM Code. (Contact Airstream service to send you the 513909 code.)
- 6) Once the unit returns from the Mercedes dealer with the updated 513909 code reinstall the relay.
- 7) Verify that the awning works by trying to extend the awning from the switch, located on the passenger seat base. **Note:** Mercedes engine should be "OFF" during this test.
- 8) If the awning works go to testing below.

TESTING (Air-Ride):

- 1) At the driver seat, let the air out of the Air-Ride system using the remote keypad.
- 2) Start the engine.
- 3) Drive the vehicle by slowly accelerating. **Note:** You may hear the mud flaps dragging during the test.
- 4) The Air-Ride system should start raising the rear end at the beginning of motion.
- 5) At around 6MPH a light buzzer should sound telling you the Air-Ride is not fully deployed and to slow down and wait for full deployment.
- 6) Continue to increase speed to just above 12 mph and another louder alarm will sound telling you to slow down or stop to check if the Air-Ride is fully deploying or not working. Keep moving just above 12mph for the test.
- 7) The Air-Ride should reach full deployment in a few moments and the alarms will stop sounding.
- 8) If after a short time the alarms stop, the system is working correctly. If not, stop the vehicle and verify that the Air-Ride is working correctly. If the AIR-Ride is not working correctly, a repair is required.
- 9) Test finished.