

Model: All

Vehicle System: 32 - Steering

Region: All

Tech Note: Steering System Functional Check

Tech Notes are announcements that help to communicate and track new information about Tesla Service concerns. Such concerns may or may not be VIN specific. These instructions assume knowledge of motor vehicle and high voltage electrical component repairs, and should only be executed by trained professionals. Tesla assumes no liability for injury or property damage due to a failure to properly follow these instructions or for repairs attempted by unqualified individuals.

This document describes how to perform a visual and functional check of a Tesla vehicle steering system.

1. Power on the vehicle by pressing the brake pedal.
2. Make sure that there are no vehicle alerts present on the touchscreen.
3. Check the steering wheel tilt/telescope for proper functionality. Move the steering wheel fully up, down, in, and out.
 - **Model S, Model X:** Move the control on the left side of the steering column (Figure 1).
 - **Model 3:** Touch **Controls** > **Quick Controls** > **Adjustments** > **Steering Wheel** on the touchscreen, and then adjust the steering wheel using the left scroll button on the steering wheel (Figure 2).



Figure 1

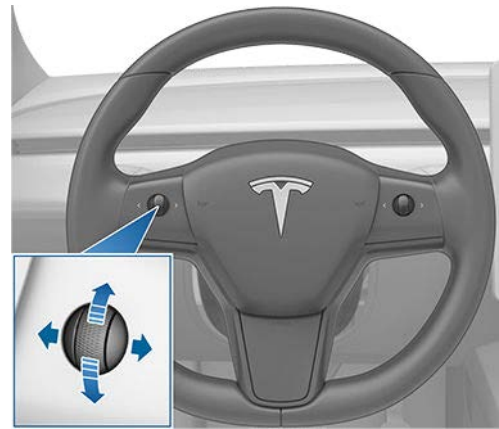


Figure 2

4. Perform a steering wheel lock-to-lock check:
 - a. Turn the steering wheel fully to the left, making sure that there are no abnormal noises, obstructions, or play/looseness.
 - b. Turn the steering wheel fully to the right, making sure that there are no abnormal noises, obstructions, or play/looseness.
 - c. Center the steering wheel.
5. Remove the front aero shield panel (refer to Service Manual procedure 12030102).
6. Visually inspect the steering rack for damage.

7. Inspect the intermediate shaft universal joint and the rubber boots on both tie rod ends for punctures or leaking grease.
8. Visually inspect all paint marks on the steering system and suspension fasteners. If a paint mark appears to have moved, confirm/re-torque the fastener. Refer to the following Service Manual procedures:
 - Front suspension: 31019000
 - Model S, Model 3 - Steering rack (dual motor): 32012202
 - Model S, Model 3 - Steering rack (rear wheel drive): 32010102
 - Model X - Steering rack: 32010102
9. Reinstall the front aero shield panel (refer to Service Manual procedure 12030102).
10. Perform a road test, paying close attention to any abnormal play/looseness in the vehicle's steering.

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