

Service Information

Mazda Motor Corporation

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Category N	Repair Guidance	Ref. No. R026/10 A	Page 1 of 4
Coverage <input type="checkbox"/> Distributor only <input checked="" type="checkbox"/> Please inform your dealers		Date Issued March 4, 2010	
Please convey this information to your <input checked="" type="checkbox"/> Warranty Dept. <input checked="" type="checkbox"/> Parts Dept. <input checked="" type="checkbox"/> Training Dept. <input checked="" type="checkbox"/> Field Rep.	<input type="checkbox"/> Director <input checked="" type="checkbox"/> General Manager	Date Revised March 16, 2010	
Applicable Mode All models	Applicable Countries or Specifications Worldwide		

[Revised]

Note: "WARRANTY INFORMATION" has been revised.

Subject: Steering Wheel Off Center

DESCRIPTION

Some customers may complain that the steering wheel is off-centered more than 3° even when driving straight on a flat road.

(If the offset is within 3°, it can be considered as normal characteristics)



REPAIR PROCEDURE

When you encounter a customer complaint on this concern, measure the offset as per "Measurement of steering wheel offset". If the offset is more than 3°, adjust the steering wheel center as per "Adjustment of steering wheel center".

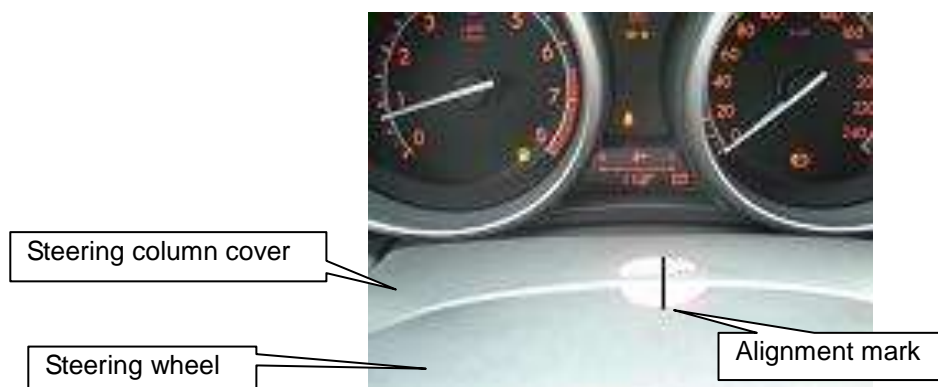
Note: If the steering is pulling to right or left, this procedure does not apply. Refer to Workshop Manual for troubleshooting.

<Measurement of steering wheel offset>

1. Visually align the steering wheel to its center then apply tape on the steering wheel and the steering column cover.

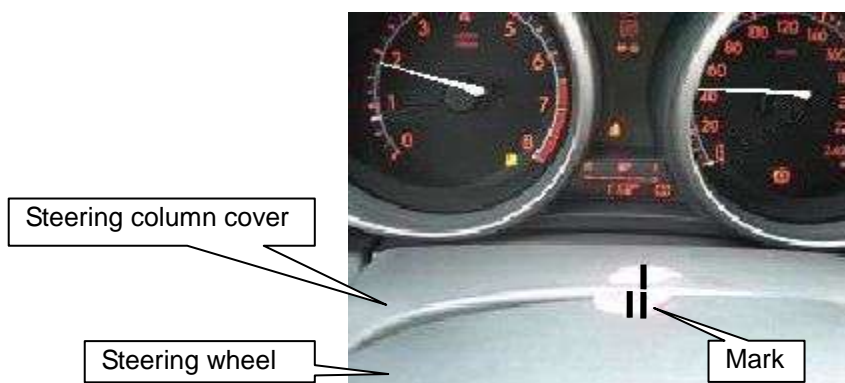


- Put alignment mark over the tape.

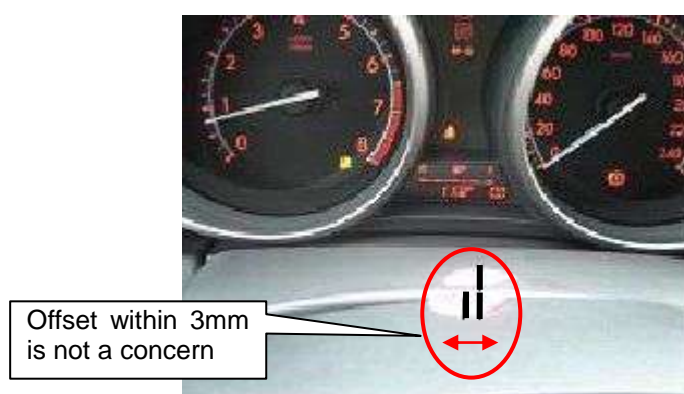


- Drive the vehicle and align the steering wheel to its driving center. Put mark on tape on the steering wheel.

Caution: Follow all necessary safety precaution to avoid an accident. It is recommended to perform this action with the assistance of a second person.

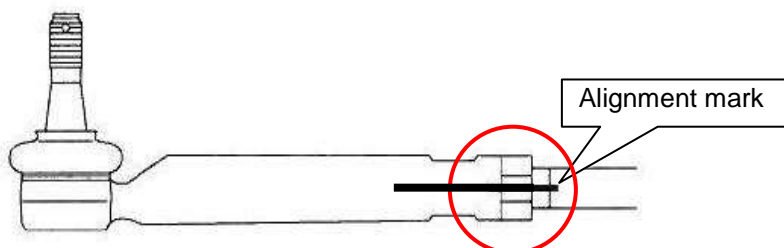


- Measure the distance between the two lines.
It can be approximately calculated as $1\text{mm} = 1^\circ$ offset

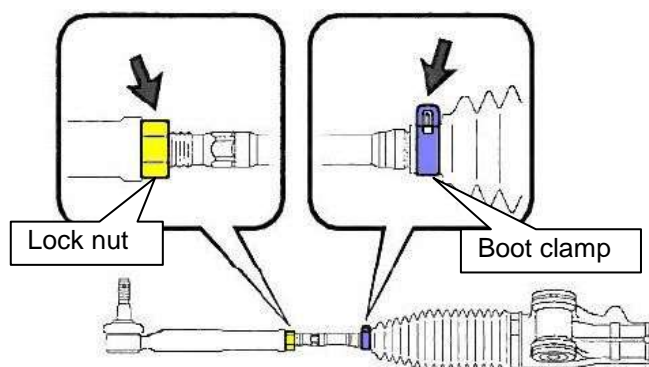


<Adjustment of steering wheel center>

1. Put alignment mark over the tie-rod end and tie-rod as shown below.



2. Remove the boot clamp.
3. Loosen the lock nut.



4. Rotate the tie-rod to adjust the steering wheel center. Refer to the chart below for rotating direction.

Note: Rotate both sides of the tie-rod by the same amount.

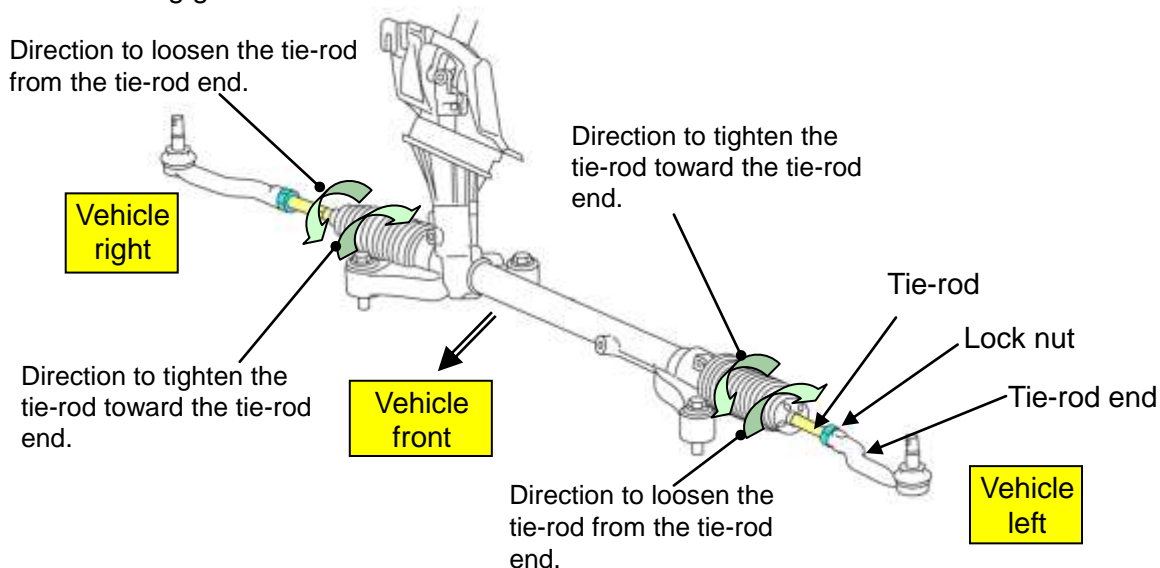
- Steering wheel offset direction & Tie-rod rotating direction -

Steering wheel offset direction	Tie-rod to adjust	Tie-rod rotating direction to adjust
Right	Right side	Tighten the tie-rod toward the tie-rod end.
	Left side	Loosen the tie-rod from the tie-rod end.
Left	Right side	Loosen the tie-rod from the tie-rod end.
	Left side	Tighten the tie-rod toward the the tie-rod end.

Note: This chart is applicable for vehicles with steering gear behind the front axle (most of front wheel drive vehicles).

For vehicles with steering gear in front of the front axle (typically rear wheel drive vehicles such as MX-5, RX-8), invert the tie-rod rotating direction on the chart.

For vehicles with steering gear behind the front axle



- (Reference) Steering wheel offset & tie-rod rotating angle -

Steering wheel offset to adjust	Tie-rod rotating angle
4mm (approx. 4°)	150°
5mm (approx. 5°)	180° (half turn)
6mm (approx. 6°)	210°
7mm (approx. 7°)	240°

5. Tighten the lock nut. Refer to Workshop Manual for tightening torque.
6. Straighten the boot.
7. Attach the boot clamp.

WARRANTY INFORMATION

Symptom Code	30
Damage Code	9H
Causal Part No.	5555 FE 001
Q'ty	0
Operation No.	XXF11XAX
Labor Hours	0.4Hrs.
Period Covered	Adjustment Warranty Period

Shinji Kanai
Manager, Technical Information Gr.
Technical Service Dept.
Mazda Motor Corporation
2941454655 (MC Internal Use)