

# Service Information

Mazda Motor Corporation

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Category <b>T</b>	<b>Repair Guidance</b>	Ref. No. R007/14	Page 1 of 12
Coverage <input type="checkbox"/> Distributor only <input checked="" type="checkbox"/> Please inform your dealers		Date Issued January 23, 2014	
Please convey this information to your <input type="checkbox"/> Director <input checked="" type="checkbox"/> General Manager <input checked="" type="checkbox"/> Warranty Dept. <input checked="" type="checkbox"/> Parts Dept. <input checked="" type="checkbox"/> Training Dept. <input checked="" type="checkbox"/> Field Rep.		Date Revised	
Applicable Model CX-5 (KE) & Mazda6(GJ) with rear mount camera	Applicable Countries or Specifications Worldwide		

**CX-5: This Service Information supersedes the previous S/I R079/12A, issued on 24/04/2013**

## Subject: Rear mount camera does not operate

### DESCRIPTION

Some vehicles may exhibit that the rear mount camera does not operate.

### CAUSE

This concern is caused by water entering inside the camera, e.g. during car washing with high-pressure cleaner.

### MASS PRODUCTION CHANGE

Shape of the camera has been changed.

### BEGINNING VIN & DATE OF MODIFICATION

#### **Mazda6 (GJ)**

##### **ADR spec**

JM0 GJ \*\*\*\*\* 114578 June 5, 2013

##### **General spec**

JM6 GJ \*\*\*\*\* 114578 June 5, 2013

JM7 GJ \*\*\*\*\* 114578 June 5, 2013

##### **Israel spec**

JMZ GJ \*\*\*\*\*114578 June 5, 2013

##### **EU spec**

JMZ GJ \*\*\*\*\* 140245 June 5, 2013

##### **US spec**

JM1 GJ \*\*\*\*\* 126340 June 5, 2013

#### **CX-5(KE)**

##### **ADR spec**

JM0 KE \*\*\*\*\* 210855 May 28, 2013

##### **Algerian spec**

KE \*\*\*\* 210855 May 28, 2013

##### **Chinese spec**

JM7 KE \*\*\*\*\* 210855 May 28, 2013

##### **General spec**

JM6 KE \*\*\*\*\* 210855 May 28, 2013

JM8 KE \*\*\*\*\* 210855 May 28, 2013

##### **Israel spec**

JMZ KE \*\*\*\*\* 210855 May 28, 2013

##### **EU spec**

JMZ KE \*\*\*\*\* 224310 May 28, 2013

##### **US spec**

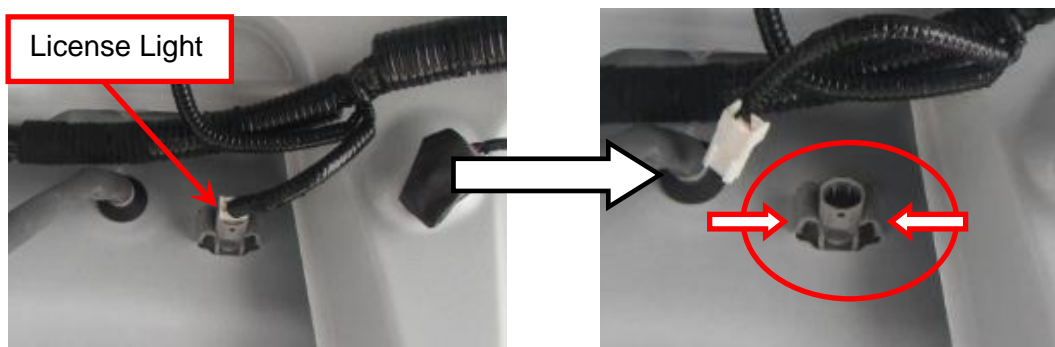
JM3 KE \*\*\*\*\* 355501 May 28, 2013

## REPAIR PROCEDURE

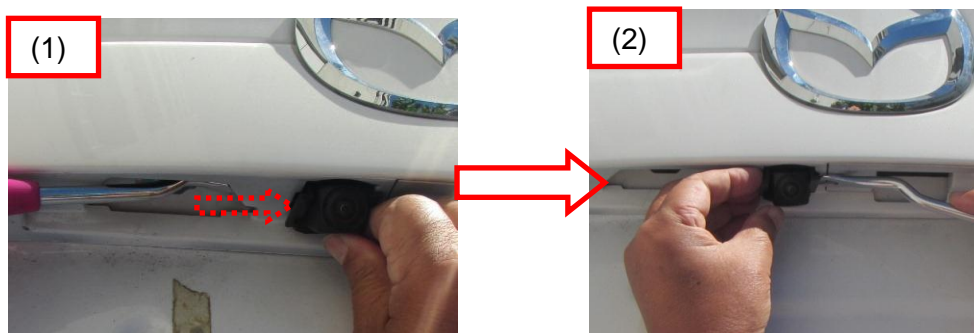
When you encounter a customer complaint on this concern, replace the rear mount (view) camera with modified one as followings.

### **CX-5 (KE):**

1. Disconnect the negative battery cable.
2. Remove the following parts according to workshop manual.
  - (1) Liftgate upper trim.
  - (2) Liftgate side trim.(Both sides)
  - (3) Liftgate recess.
  - (4) Liftgate lower trim.
3. Remove the license light (left side) from the liftgate to improve the accessibility.



4. Remove the rear mount camera from the liftgate garnish.
  - 1) Insert a tape-wrapped fastener remover into the area of license light shown in the photo and detach the left tab of the rear mount camera.
  - 2) Press the rear mount camera to left side using a tape-wrapped fastener remover.



- 3) Pull the rear mount camera from the liftgate garnish.
5. Install a modified rear mount camera to the liftgate garnish.
6. Install in the reverse order of removal.
7. **EC Spec Only:** Perform the parking assist system initialization (calibration) according to the attached procedure "PARKING ASSIST SYSTEM INITIALIZATION (CALIBRATION)".

### **For Mazda6:**

Replace the rear mount camera with a modified one according to workshop manual [REAR MOUNT CAMERA REMOVAL/INSTALLATION]

**EC Spec Only:** Perform the parking assist system initialization (calibration) according to the attached procedure "PARKING ASSIST SYSTEM INITIALIZATION (CALIBRATION)".

PART INFORMATION

**Mazda6 (GJ)**

Part Number		Part Name	Q'ty	Remark
New	Old			
GKK8 67 RC0C	GKK8 67 RC0B	Rear mount camera	1	Wagon : For EU
GHK1 67 RC0C	GHK1 67 RC0B		1	Sedan : For EU

**CX-5 (KE)**

Part Number		Part Name	Q'ty	Remark
New	Old			
KD45 67 RC0D	KD45 67 RC0C	Rear mount camera	1	For EU

WARRANTY INFORMATION

**CX-5(KE)**

Assembly group	T – Body electrical
Subassembly group	05 - WARNING SYSTEM
Symptom Code	61
Damage Code	9K
Causal Part No.	KD45 67 RC0D or KD33 67 RC0C (Rear mount camera)
Q'ty	1
Operation No. & Labor Hours	XXJCLXRX & 0.4H (for EU)
Period Covered	Normal warranty period

**Mazda6 (GJ) Wagon**

Assembly group	T – Body electrical
Subassembly group	05 - WARNING SYSTEM
Symptom Code	61
Damage Code	9K
Causal Part No.	GKK8 67 RC0C or GLG9 67 RC0C (Rear mount camera)
Q'ty	1
Operation No. & Labor Hours	XXJCRXRX & 0.5H (for EU with i-stop)
Period Covered	Normal warranty period

**Mazda6 (GJ) Sedan**

Assembly group	T – Body electrical
Subassembly group	05 - WARNING SYSTEM
Symptom Code	61
Damage Code	9K
Causal Part No.	GHK1 67 RC0C or GJT1 67 RC0C (Rear mount camera)
Q'ty	1
Operation No. & Labor Hours	XXK3GARX & 0.4 H (With i-stop) XXK3GBRX & 0.3 H (Without i-stop)
Period Covered	Normal warranty period

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## EC Spec Only

ATTACHMENT: 1 of 8:

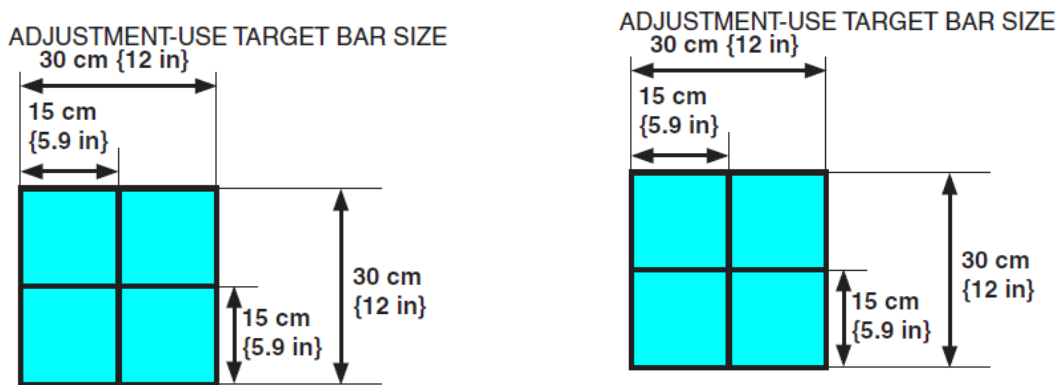
### PARKING ASSIST SYSTEM INITIALIZATION (CALIBRATION)

#### Prepare SST mat (Adjustment Bar and Inspection Bar)

1. Make two adjustment target bars as shown in below illustrations.

**Note:** \* Make the adjustment target bars from a thin rubber or plastic sheet and write a cross mark (+) on them.

\* The same adjustment target bars can be used for CX-5 and Mazda6.

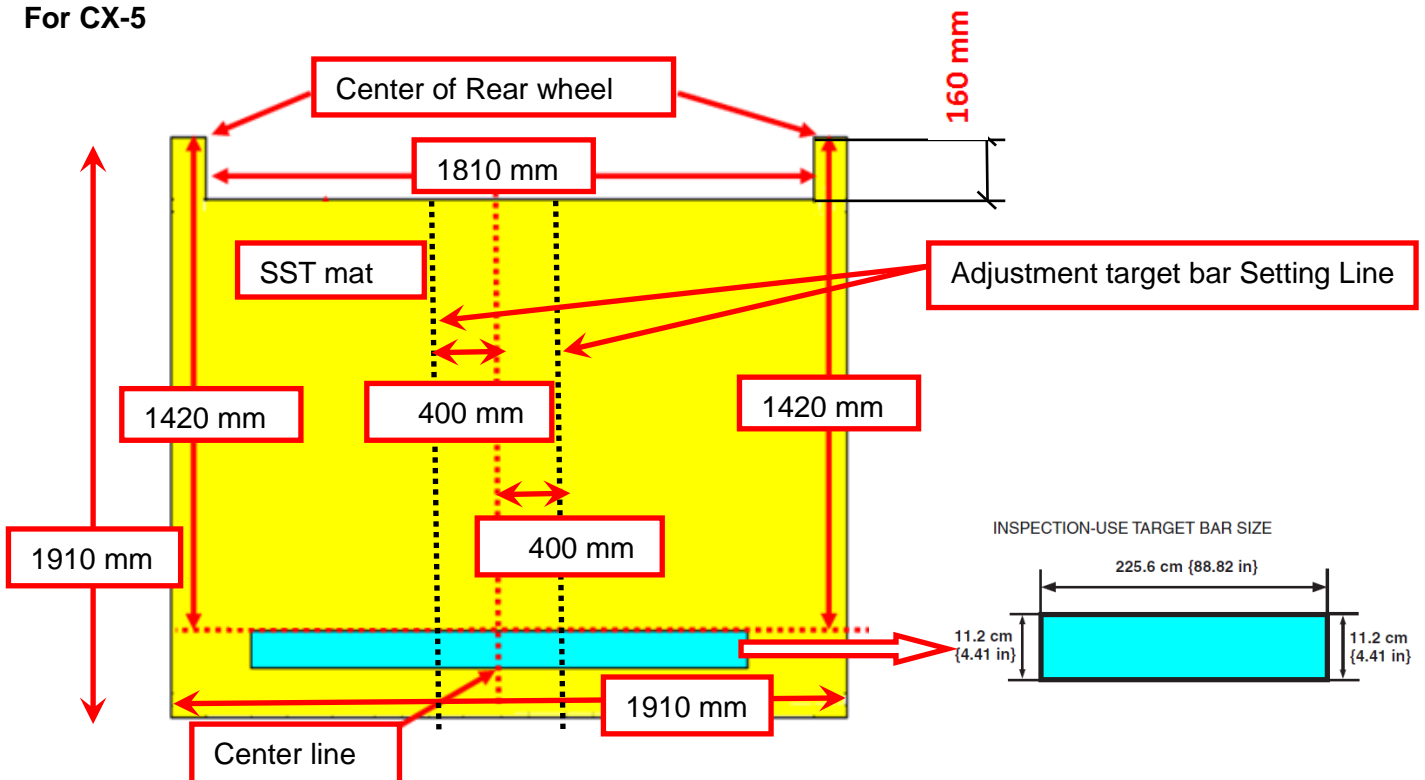


2. Make a SST mat, then mark the inspection target bar on it as shown in below illustration.

**Note:** \* Use a mat made of thin plate or vinyl sheet.

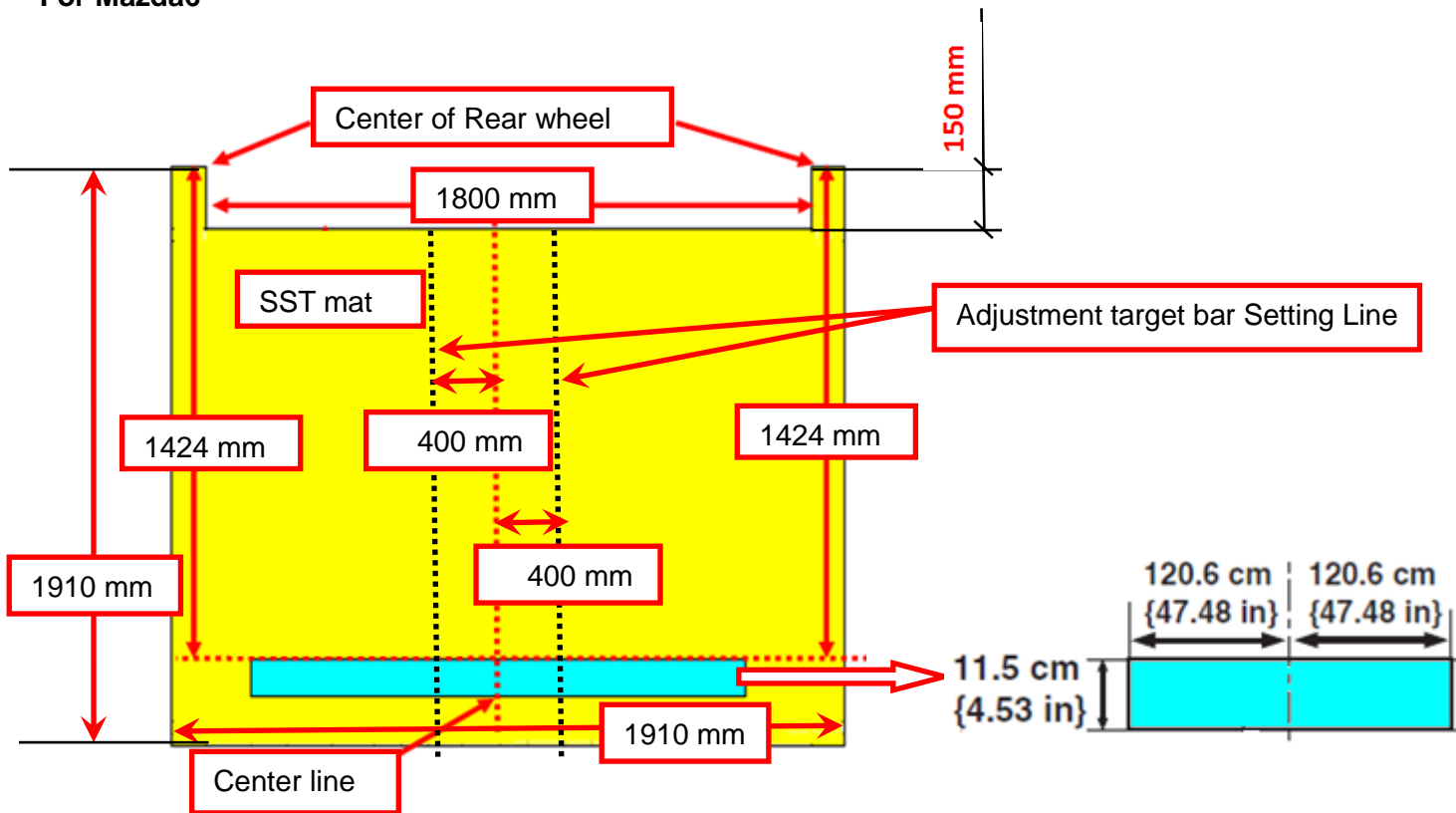
\*Mark the inspection target bar on the mat by painting or taping.

For CX-5



ATTACHMENT: 2 of 8

For Mazda6



**Initialization**

1. Empty the vehicle by having all occupants leave the vehicle and remove all the cargo except for the spare tire, jack and tools equipped on the vehicle.

**Caution:** If the initialization (**calibration**) is performed with the vehicle heavily loaded and the vehicle posture largely changed, the camera optical axis may not be set to the correct position. Perform the initialization (**calibration**) after unloading cargo and emptying the vehicle.

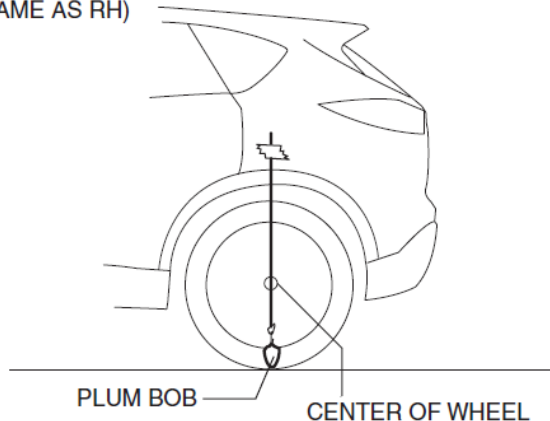
2. Adjust tire pressure.

**Note:** If the vehicle has been modified for the suspension system, check and adjust the wheel alignment.

3. Move the vehicle to level ground.

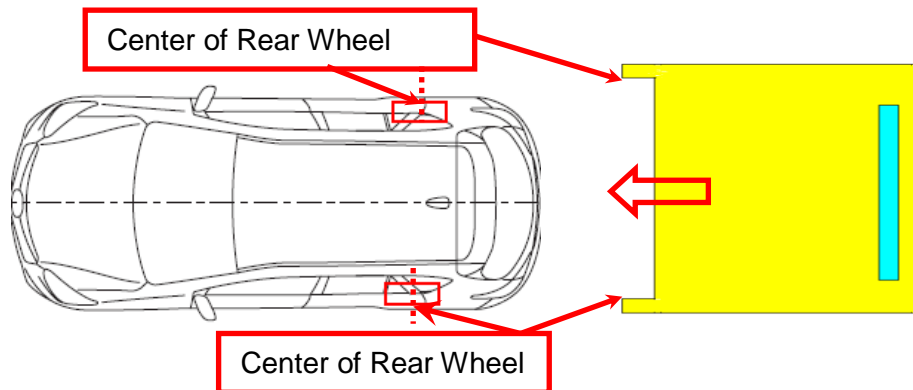
4. Adjust the SST (plum bob) so that it crosses the center of the rear wheel and identify the center position of the wheel house.

ILLUSTRATION INDICATES REAR LH  
(SAME AS RH)



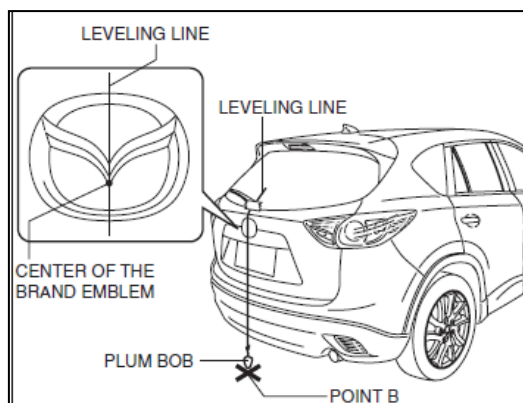
**ATTACHMENT: 3 of 8**

5. Set SST mat (Adjustment Target Bars and Inspection Target Bar)  
**Align the inner front edges of the mat to the center of rear tires and keep it in this position to perform the next steps.**



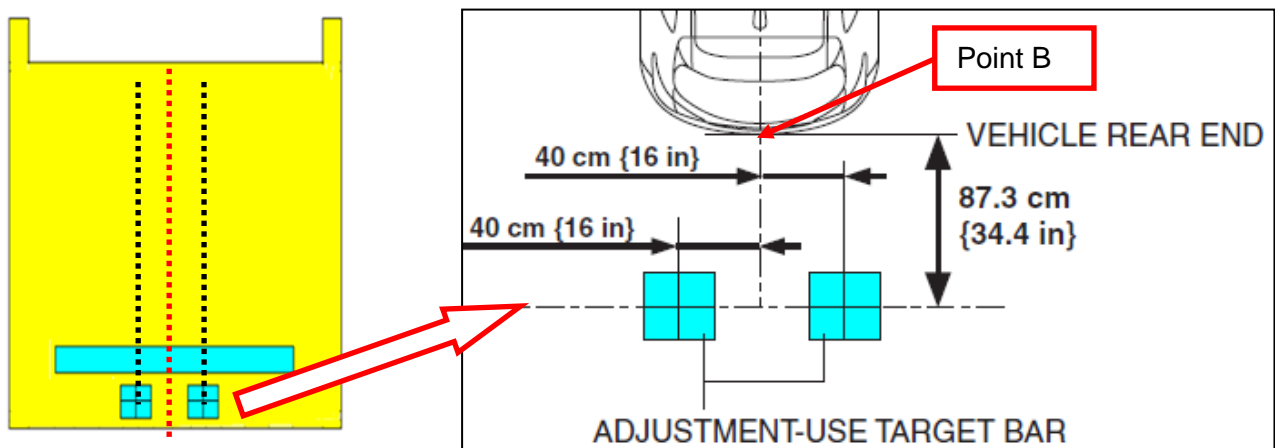
6. Adjust the SST (plum-bob) so that it is aligned with the center of the brand emblem, determine the center position at the rear of the vehicle, and mark the center position (point B) on the SST mat surface.

**Note:** The center of the brand emblem indicates the center position of the vehicle.



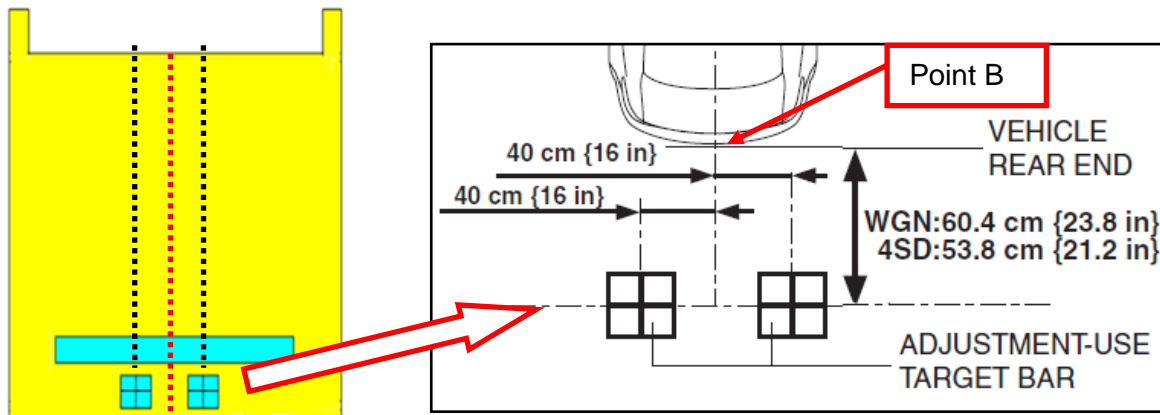
7. Set the adjustment target bars on the SST mat as shown in illustration and fix them securely. Paint them on the same position by drawing around the 4 edges each of the adjustment target bars. Remove the adjustment target bars and draw the cross mark on the SST mat like detailed in step 1.

**For CX-5**



ATTACHMENT: 4 of 8

For Mazda6



8. Select the adjustment mode No.1 screen MANU.

**Note:** The initialization (calibration) is not available for the touch panel operation. Select the screen using the turn switch or light switch as follows. For the operation method for the light switch and turn switch, refer to the switch operation method. (Refer to last page.)

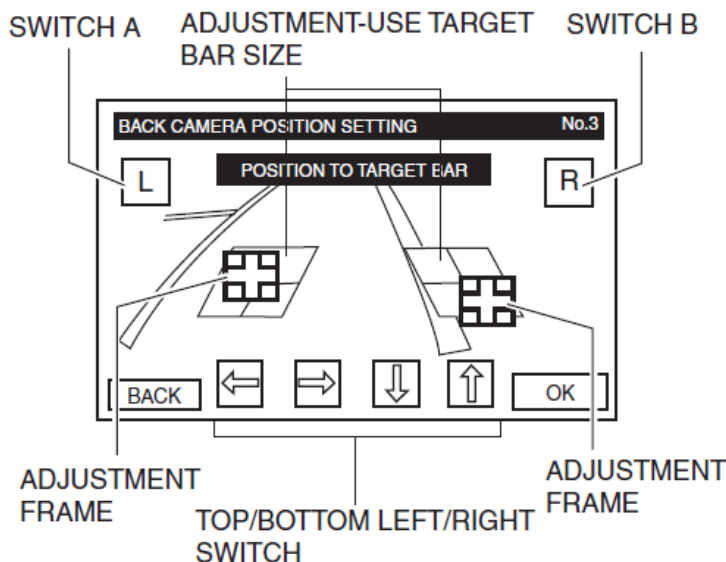
ADJUSTMENT	No.1
FACTORY ADJUSTMENT	JAPANESE
STEERING ANGLE SETTING	AUT
BACK CAMERA POSITION SETTING	MANU
FRONT CAMERA POSITION SETTING	CHK
SIDE CAMERA POSITION SETTING	SET
SIGNAL CONNECTION CHECK	FINISH
VER *** *****	

Screen cursor	Used switch	Switch operation
Move to right	turn switch	RH position
Move to left	turn switch	LH position
Selects (decides)	light switch	Passing position



**ATTACHMENT: 5 of 8**

9. Select the adjustment mode No.1 screen FACTORY ADJUSTMENT.
10. Operate switch A, B and the up/down switch of the back camera optical axis adjustment screen and center the target bar for adjustment in the adjustment frame.



11. Select the back camera optical axis adjustment No. 3 screen OK.

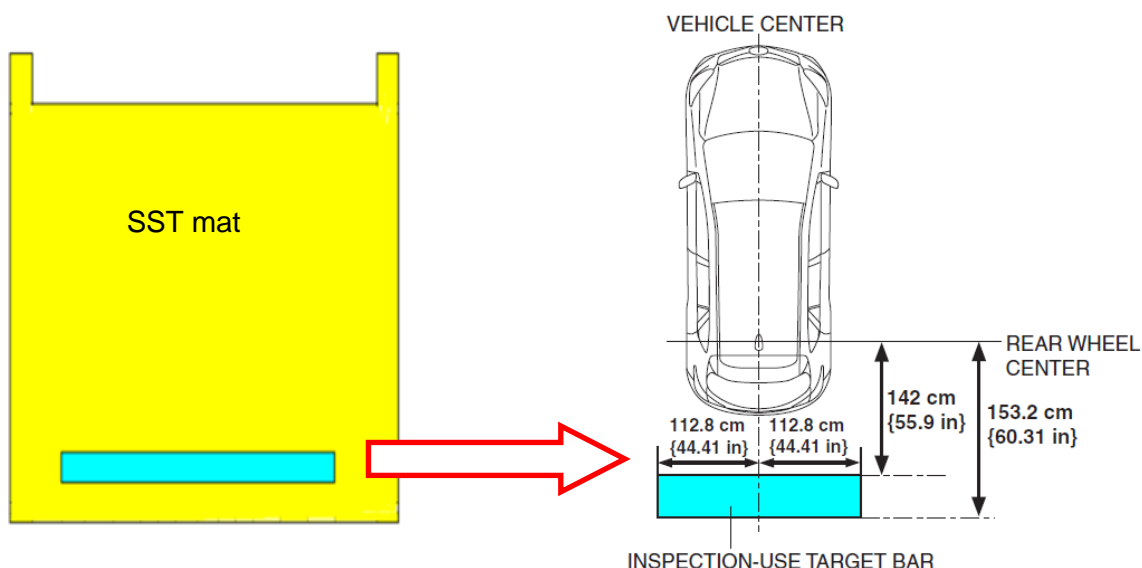
**Note:** The rear mount camera stores the adjustment value after OK is selected. The image at the rear of the vehicle taken by the rear mount camera is displayed on the screen while the adjustment value is stored. When storage of the adjustment value is completed, the screen switches to the adjustment mode No.1 screen.

12. Verify that the adjustment mode No.1 screen is displayed.

13. Make sure a position of the inspection target bar on SST mat shown in the figure and fix it securely.

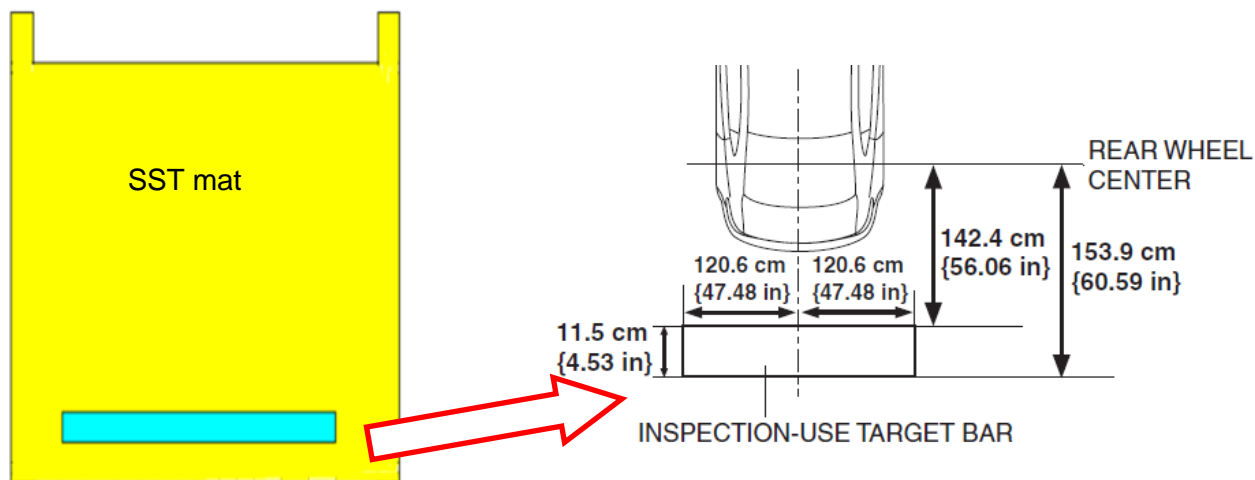
**Caution:** If the installation position of an inspection target bar is deviated, the camera optical axis may not set to the correct position. The margin of error in the installation position of an inspection target bar is 5 mm {0.2 in} or less.

**For CX-5**



ATTACHMENT: 6 of 8

For Mazda6

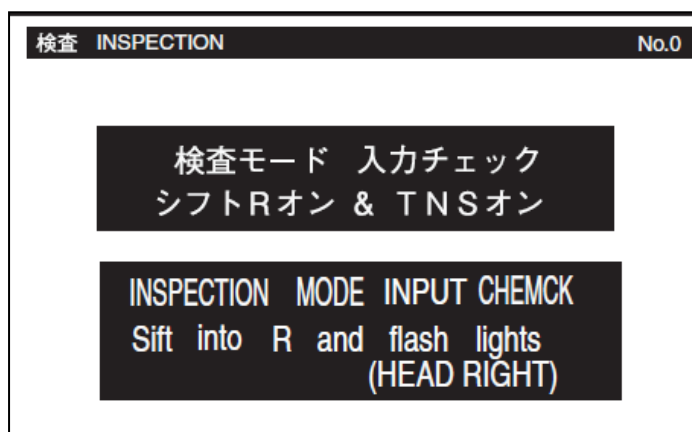


14. Select the adjustment mode No.1 screen CHK.
15. Verify that the parking brake is applied correctly.

**\*Shift the selector lever to the R position (ATX)/ put in reverse (MTX).**

**\*Switch the light switch from the OFF position to the TNS position, and then OFF again.**

**Warning:** When inputting the inspection password, keep the brake pedal depressed so that the vehicle does not unexpectedly move and cause an accident.

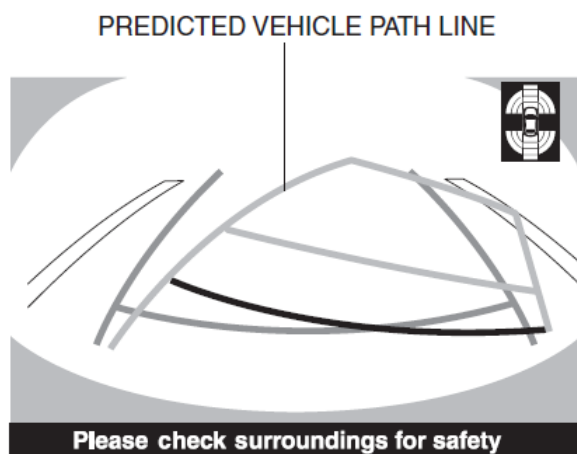


16. Verify that the distance reference line for the inspection is above the inspection-use target marker, and select OK.

**Note:** If it is not above the inspection-use target marker, select NG and perform the initialization (calibration) again.

**ATTACHMENT: 7 of 8**

17. Switch the ignition OFF (LOCK).
18. Turn the ignition ON.
19. Turn the steering wheel left and right until it locks, and verify that the predicted vehicle path line movement is synchronized to the operation.



**Note:** If the predicted vehicle path lines do not link, or they do not move prior to locking the steering wheel, the following problems are possible and repair is necessary.

\*The front wheel alignment is out of adjustment for any reason and the adjustment is necessary.

\*The steering angle signal will not be received correctly, therefore, perform signal connection verification (See Guide Line Display Setting Change in workshop manual)

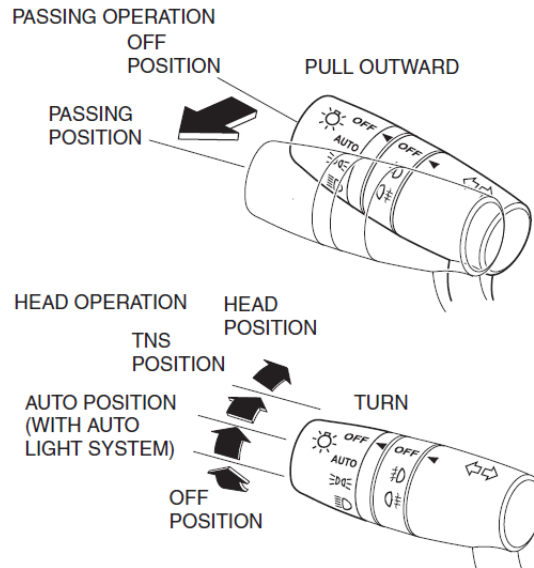
**Caution:** The predicted vehicle track is displayed only if the guide line display setting is SET1. If the guide line display setting is other than SET1, change the guide line display setting. (See Guide Line Display Setting Change in workshop manual)

**ATTACHMENT: 8 of 8**

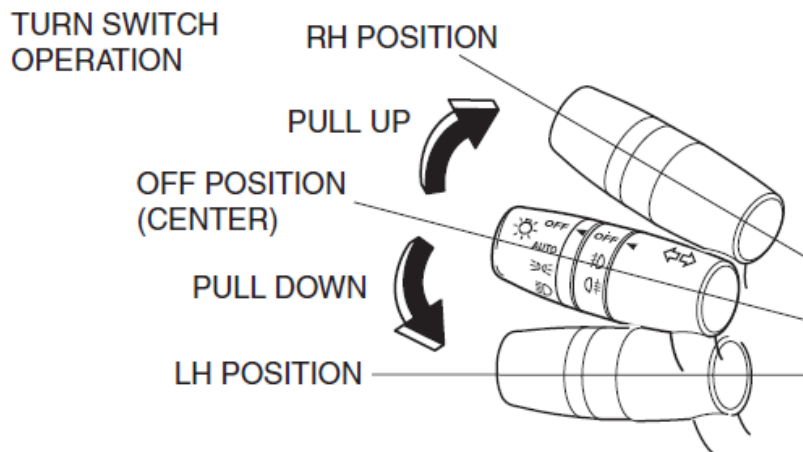
**Switch Operation Method**

The operation method for the light switch and turn switch is indicated as follows:

**Light switch operation method**



**Turn switch operation method**



**End.**