

2014-2016 MAZDA3, 2014-2015 MAZDA6 MECHANICAL REAR PARKING BRAKE STICKING CONCERN

A. VEHICLE INSPECTION PROCEDURE

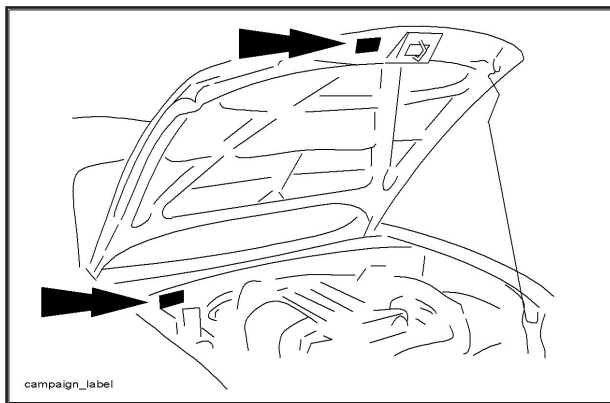
1. Verify that the vehicle is within one of the following year ranges:

Model	Year	VIN Range	Build Date Range
Mazda3 (Mexico built)	2014-2016	3MZ BM**** EM 100353 - 124127 3MZ BM**** FM 121913 - 237205 3MZ BM**** GM 228021 - 330080	From January 6, 2014 through September 2, 2016
Mazda6	2014-2015	JM1 GJ**** E1 100027 - 162747 JM1 GJ**** F1 162748 - 225009	From October 25, 2012 through December 1, 2014

The asterisk symbol “*” can be any letter or number.

- If the vehicle is within one of the above year ranges, proceed to step 2.
 - If the vehicle is not within one of the above year ranges, return the vehicle to the customer or inventory.
2. Perform a Warranty Vehicle Inquiry using your eMDCS System and inspect vehicle for a Campaign Label 1217F attached to the vehicle's hood or bulkhead. Refer to eMDCS System - Warranty Vehicle Inquiry Results table below.

NOTE: Verify Recall number as the vehicle may have multiple Recalls.



CAMPAIGN LABEL	
CAMPAIGN NO:	_____
DEALER CODE:	_____
DATE:	__ / __ / __
P/N 9999-95-065A-06	
1326b	

eMDCS System - Warranty Vehicle Inquiry Results

If eMDCS displays:	Campaign Label is:	Action to perform:
1217F OPEN	Present	Contact the Warranty Hotline at (877) 727-6626 to update vehicle history.
	Not Present	Proceed to “B. REAR BRAKE CALIPER BOOT INSPECTION”.
1217F CLOSED	Present	Return vehicle to inventory or customer.
	Not Present	Proceed to “I. CAMPAIGN LABEL INSTALLATION”.
1217F is not displayed	Does not apply	Recall does not apply to this vehicle. Return vehicle to inventory or customer.

PART OVERVIEW

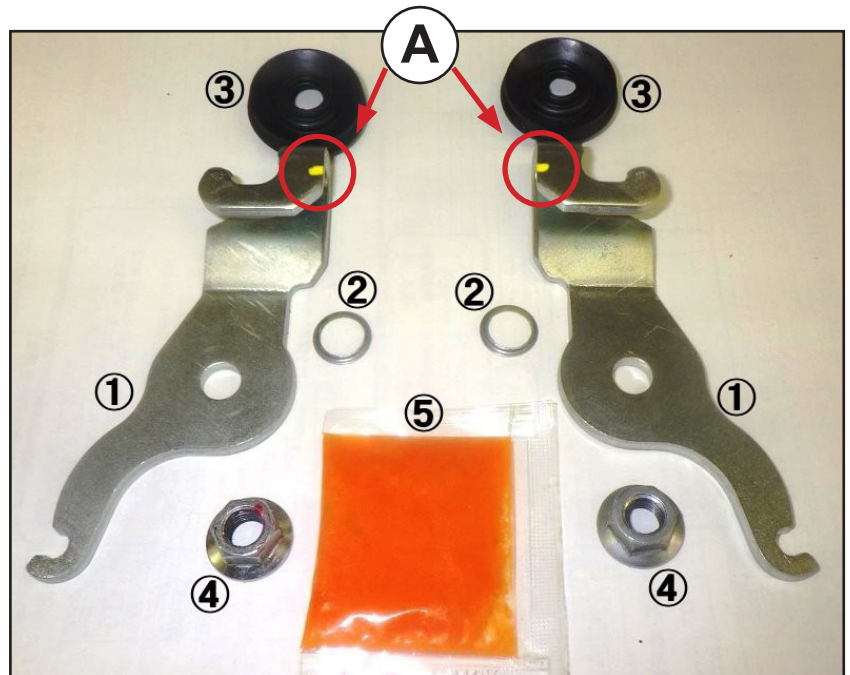
* Boot Kit Components

Mazda6: G4YG-26-45Z (LH & RH set)

LH & RH set is available only for Mazda6

No.	Part Name	Qty
1	Operating Lever (RH & LH) Yellow mark (A) on front side R stamped on RH backside L stamped on LH backside	2
2	L-shaped washer	2
3	Boot	2
4	Nut	2
5	Grease (Orange)	1

How the boot kit is packed.



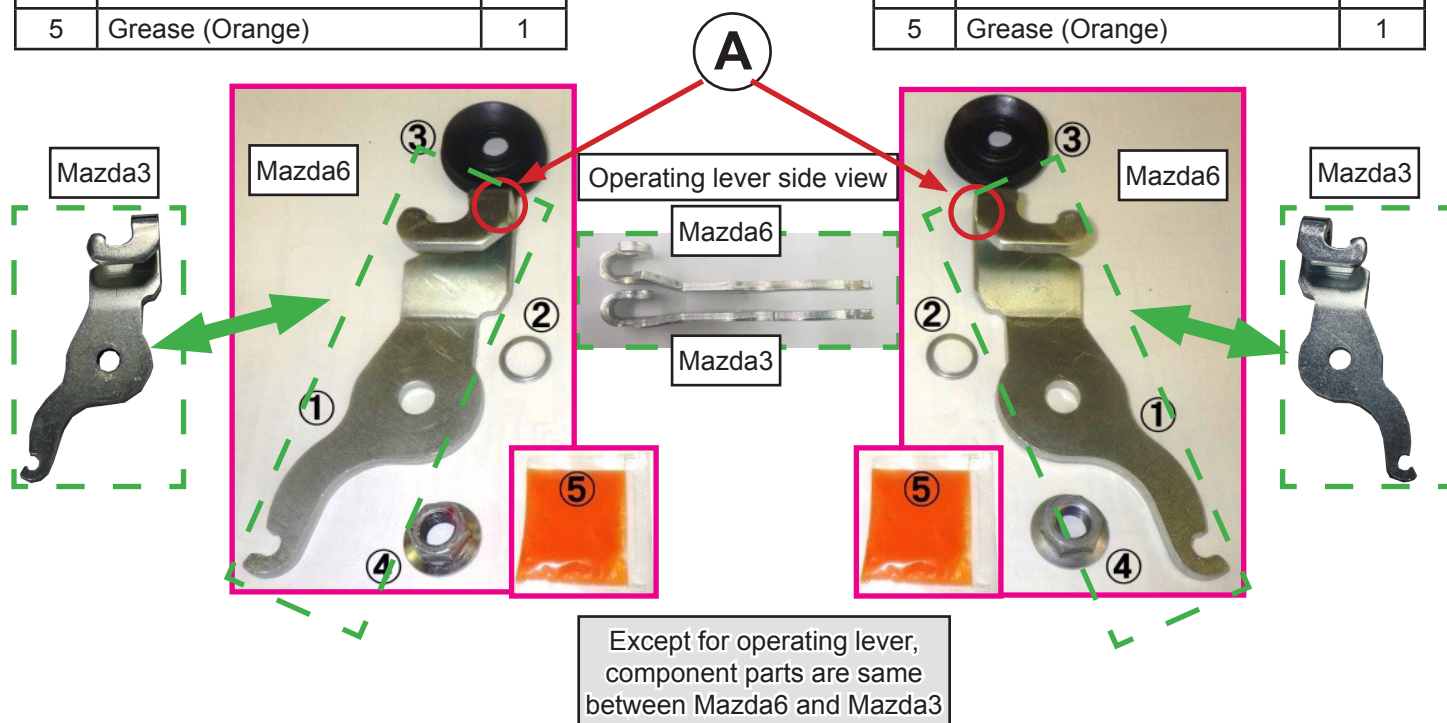
SAFETY RECALL 1217F

Mazda6: G4YF-26-45Z (LH set)
Mazda3: BJJ9-26-45Z (LH set)

Mazda6: G4YE-26-45Z (RH set)
Mazda3: BJJ8-26-45Z (RH set)

No.	Part Name	Qty
1	Operating Lever (LH) With or without yellow mark (A) on front side L, 3 or LH stamped on back- side	1
2	L-shaped washer	1
3	Boot	1
4	Nut	1
5	Grease (Orange)	1




No.	Part Name	Qty
1	Operating Lever (RH) With or without yellow mark (A) on front side L, 4 or RH stamped on back- side	1
2	L-shaped washer	1
3	Boot	1
4	Nut	1
5	Grease (Orange)	1



Reference table for Operating Lever (1)

Model	Boot kit Part Number	Stamp on backside LH	Stamp on backside RH
Mazda6	G4YG-26-45Z (LH & RH set)	L	R
	G4YF-26-45Z (LH set)	L	
		3	
		LH	
	G4YE-26-45Z (RH set)		R
			4
			RH
Mazda3	BJY9-2645Z (LH set)	TBD	
	BJY8-2645Z (RH set)		TBD

SPECIAL SERVICE TOOL (SST) OVERVIEW

Name	Image	Note
Washer guide jig		---
Washer press jig		---
Toothbrush		Dealer supplied (To clean ramp shaft)

REPAIR OVERVIEW

Note: Perform inspection and repair on both sides.

B. REAR BRAKE CALIPER BOOT INSPECTION

Judge if modified rear brake caliper has been already installed to the vehicle by checking the boot shape. (The modified one has been available since around June 2016 (for Mazda6) / Nov. 2016 (for Mazda3) as service parts.)

Modified caliper
is installed

Modified caliper is not installed

C. OPERATING LEVER REMOVAL

Remove the rear parking brake cable bracket and the operating lever from the rear brake caliper.

D. RAMP SHAFT INSPECTION

Check if there is rust at the ramp shaft where the operating lever is installed.

Rusted

No rust

E. L-SHAPED WASHER INSTALLATION

Install the L-shaped washer to the ramp shaft by using SST (Washer guide and washer press jig)

F. L-SHAPED WASHER INSTALLATION INSPECTION

Check if the L-shaped washer is correctly installed by using SST (Washer press jig) groove.

Not correctly
installed

Correctly installed

G. OPERATING LEVER INSTALLATION

Install the boot kit

Replace the rear brake caliper(s)

H. REINSTALLATION OF PARTS

Reinstall the removed parts

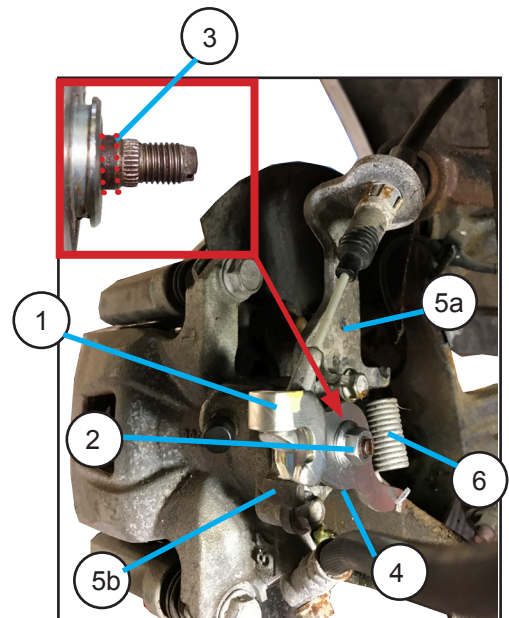
I. CAMPAIGN LABEL INSTALLATION

Install campaign label

End

Part name

No	Name
1	Operating lever
2	Fixing nut of operating lever
3	Ramp shaft (image shows NG rust)
4	Boot
5a	Bracket
5b	Stopper at bracket
6	Spring



REPAIR PROCEDURE

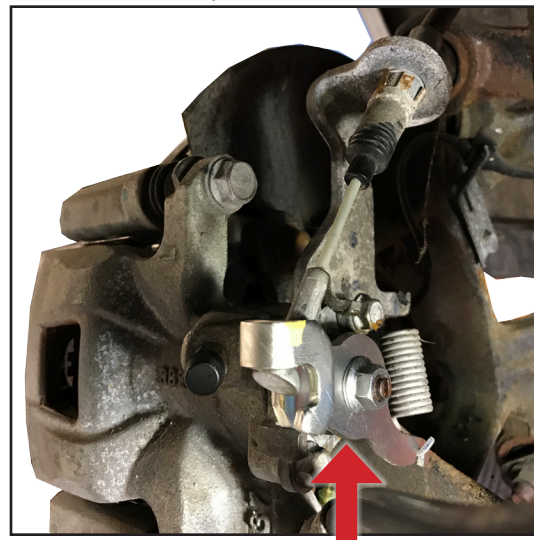
B. REAR BRAKE CALIPER BOOT INSPECTION

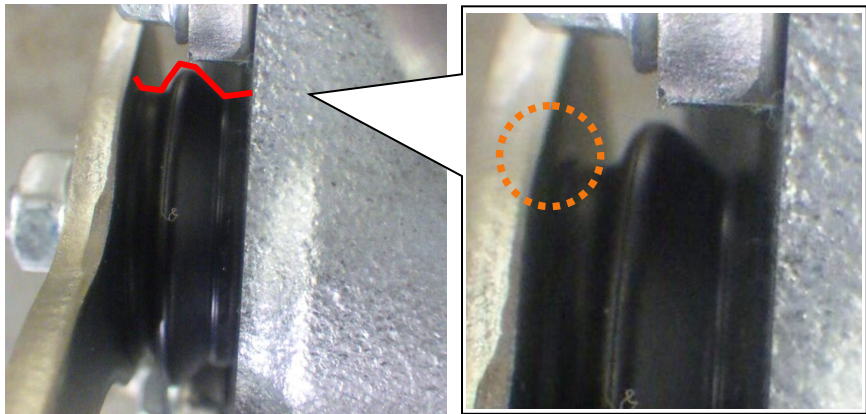
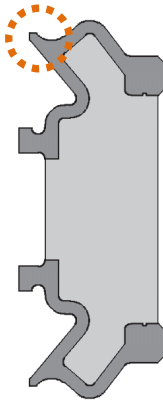
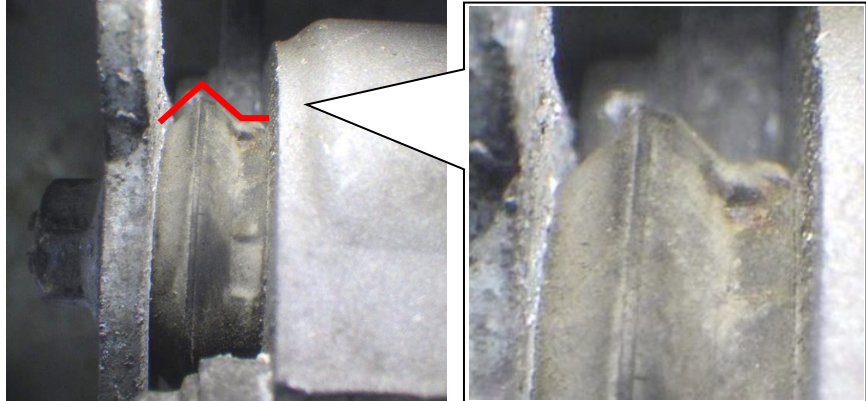
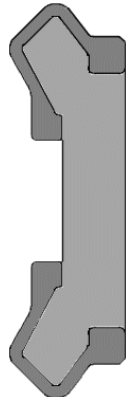
NOTE:

- Mazda6 illustrations are shown. Mazda3 is similar.
- Since June 2016 (for Mazda6) / Nov. 2016 (for Mazda3), a modified rear brake caliper has been available as service parts. If it is already installed to the vehicle, it is not possible to install the L-shaped washer due to different shape of the ramp shaft.

Check the shape of rear brake caliper boot to judge if modified rear brake caliper has been installed or not.

1. Use a vehicle lift to raise the vehicle.
2. Remove the rear wheels and tires.
3. From the bottom side of the vehicle, check the shape of the boot located between the rear brake caliper and the operating lever.



Modified boot	Cross section image
	
Not modified boot	Cross section image
	

INSPECTION RESULTS:

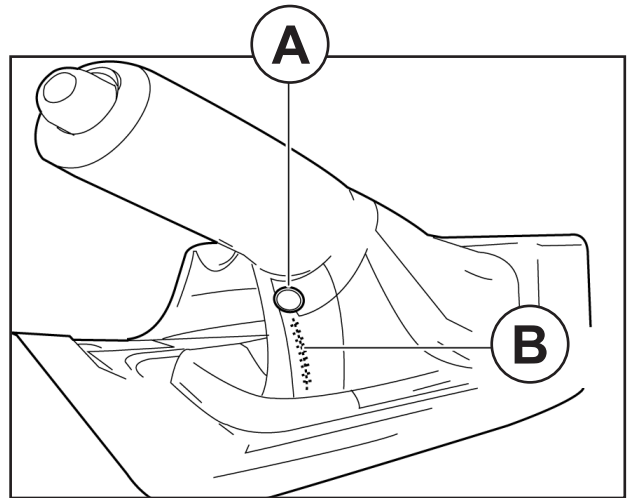
Result of rear brake caliper boot inspection

Boot shape	Next step
Modified caliper	No need to install boot kit. Go to I. CAMPAIGN LABEL INSTALLATION
Not modified caliper	Go to C. OPERATING LEVER REMOVAL

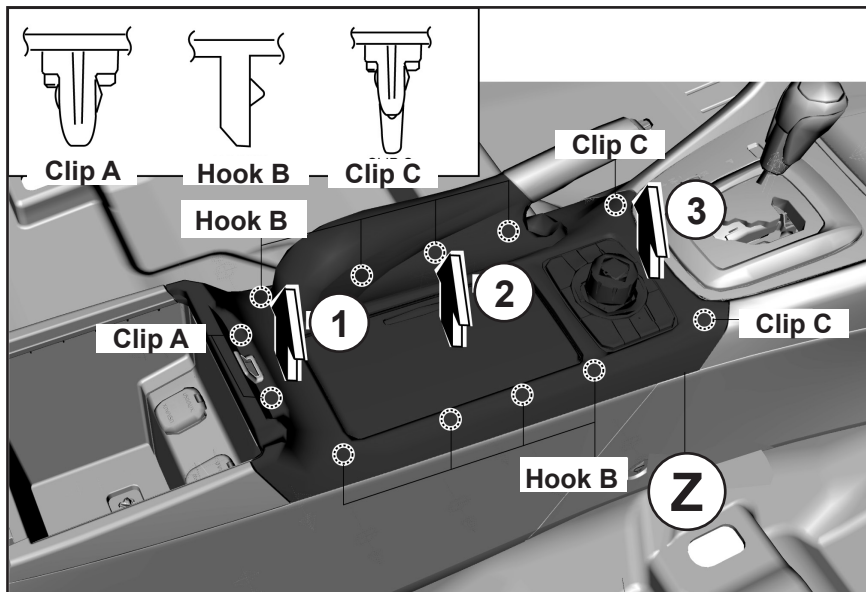
C. OPERATING LEVER REMOVAL

Remove the operating lever

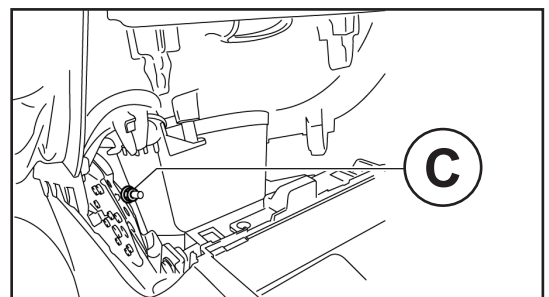
1. Disconnect the upper panel from the rear console.
 - a. Open the console lid.
 - b. Remove the button (A), then remove the fastener (B).



- c. Pull the upper panel (Z) in the order of arrows (1), (2), and (3) as shown and remove it while detaching clips A, hooks B, and clips C.



2. Loosen the adjusting nut (C) so that the rear parking brake cable could be disconnected from the operating lever.

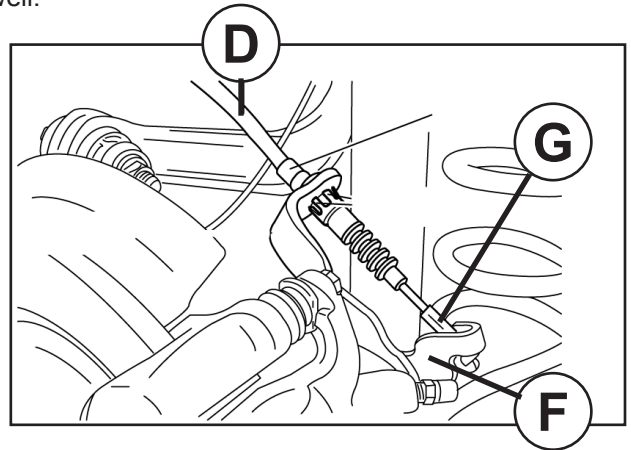


3. Release the parking brake, then raise the vehicle.

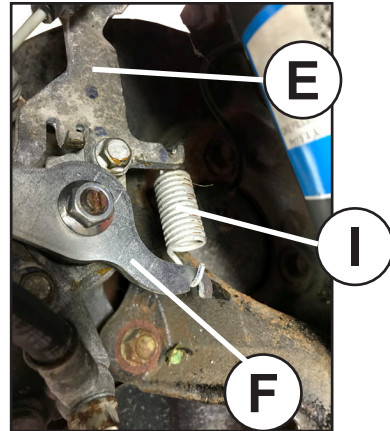
NOTE: The right side procedure is shown. Repair the left side as well.

4. Remove the rear wheel and tire.
5. Disconnect the rear parking brake cable (D) from the operating lever (F).
 - a. Move the operating lever (F) upward to remove the cable end (G).

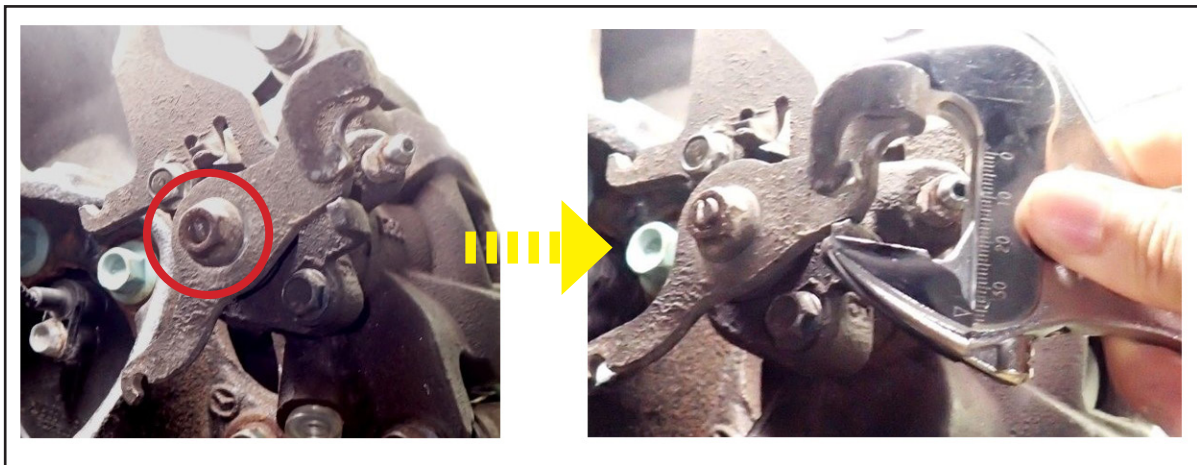
NOTE: If there is 5mm or more gap between the operating lever and the stopper at bracket, the caliper is seized. Replace the brake caliper.



6. Remove the spring (I) between the operating lever (F) and the bracket (E).



7. Loosen the nut (shown with red circle in below) from the caliper body.

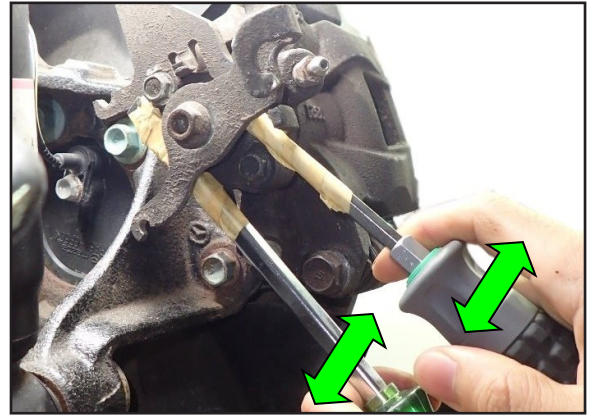


Caution:

- Do not remove the loosened nut at this moment.
- Fix the operating lever and the stopper by adjustable wrench / plier, so that the operating lever would not rotate with the nut when loosening (tightening) (See upper right picture). Otherwise, the ramp shaft may come out.

8. Prepare 2 flat head screw drivers and protect them with tape. Insert them between the operating lever and the bracket, move up and down one after the other so that the engagement between the operating lever and the ramp shaft separates.
9. Remove the nut.

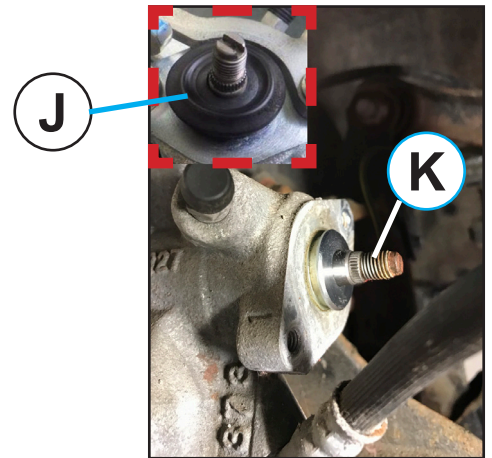
Caution: Do not throw away this nut at this moment as it will be used when pressing the L-shaped washer and the new operating lever.



10. Remove the bracket from the caliper body.
11. Remove the boot (J).
12. Clean the dirt of ramp shaft (K) by spraying brake parts cleaner to waste cloth and wiping it.

Caution: Do not spray brake parts cleaner to the ramp shaft (K) directly.

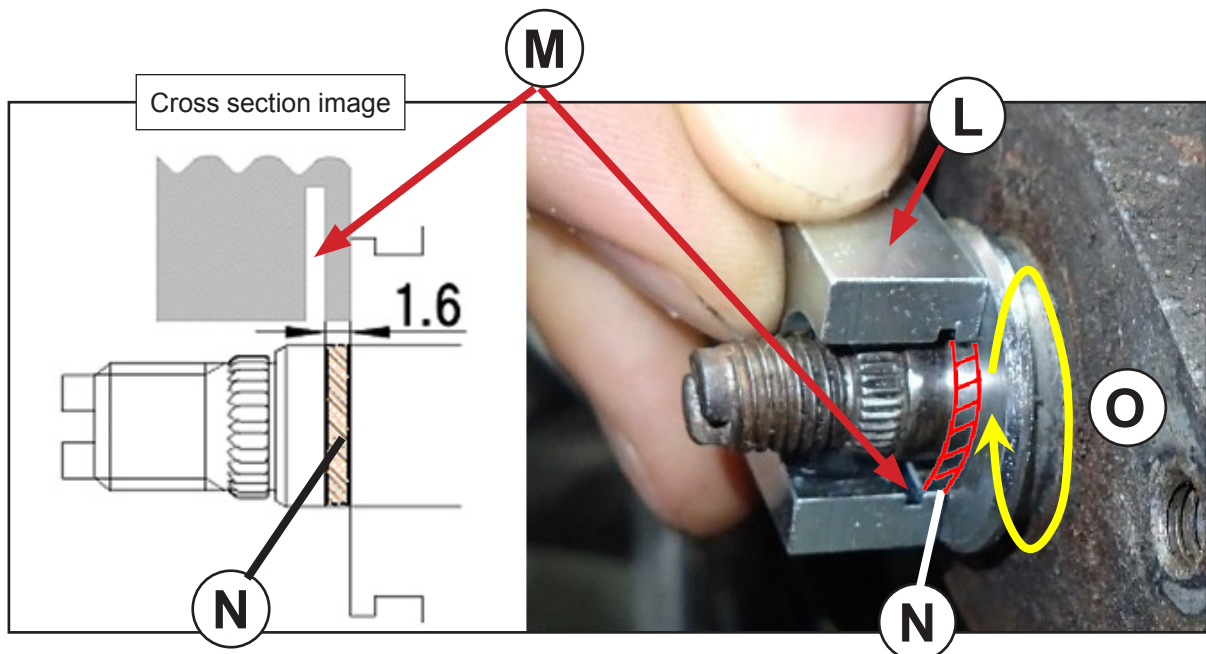
13. Go to D. RAMP SHAFT INSPECTION.



D. RAMP SHAFT INSPECTION

Check rust condition of ramp shaft

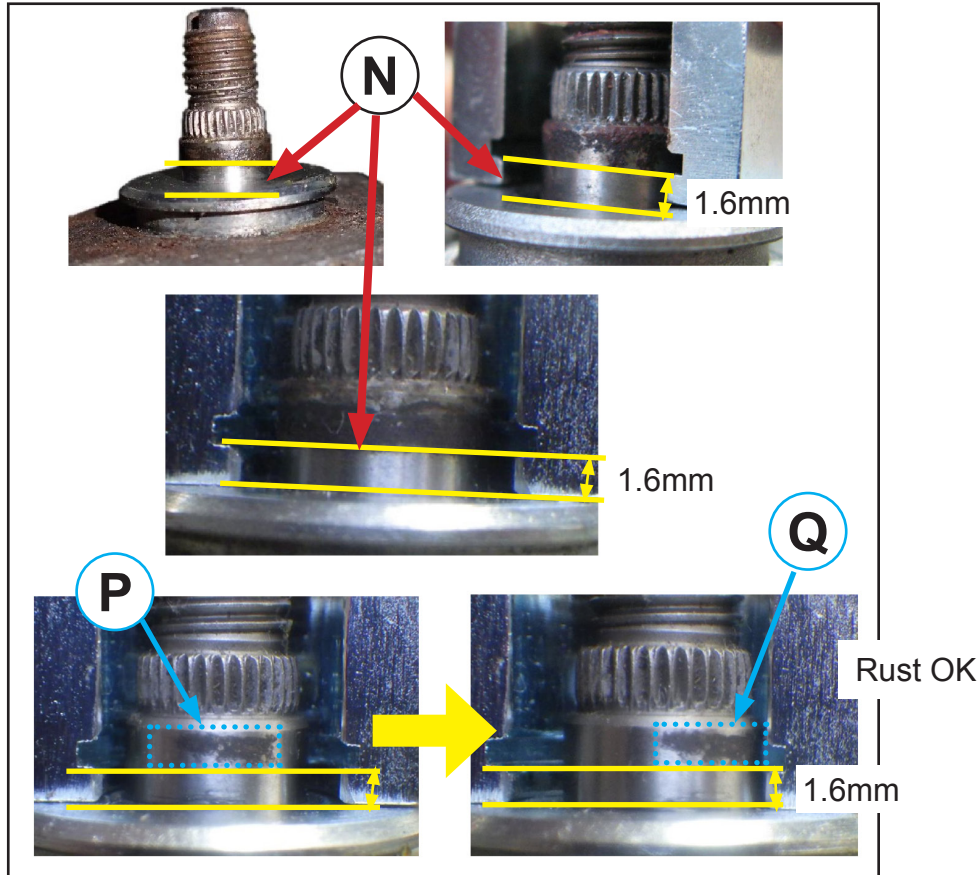
1. Check if there is rust at the ramp shaft root end by using groove of washer press jig (L).
 - a. Set the washer press jig (L) with facing its groove (M) to the brake caliper side.
 - b. Check if there is any of rust at the rust check "1.6mm-area" (0.06 in) (N) by rotating the jig (L) to circumferential direction for 360 degrees (O).



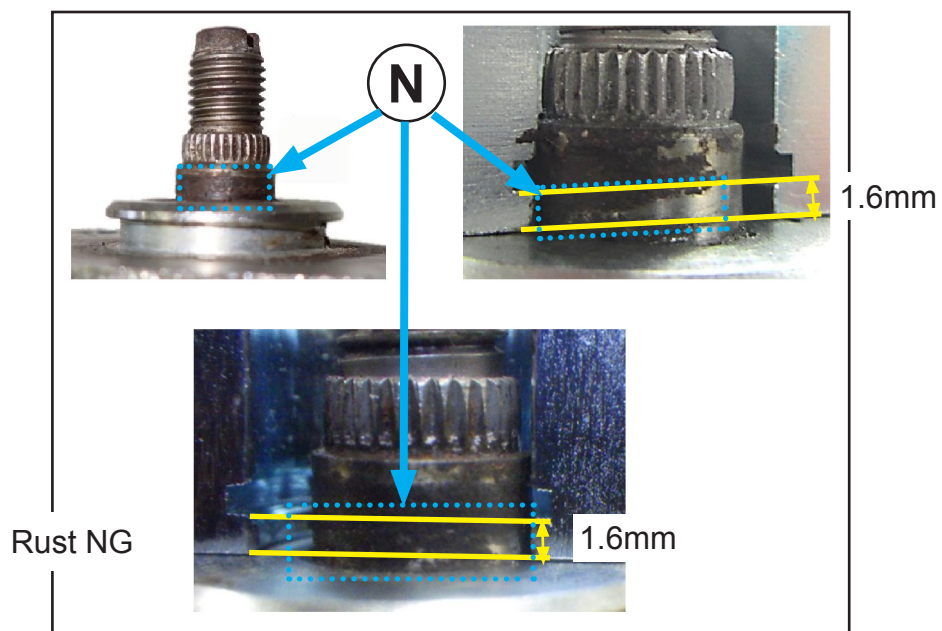
OK [No rust at 1.6 mm area (N)]

Note:

- Rust at location (P) is OK.
- Rotate the jig and watch the rusted area (Q).

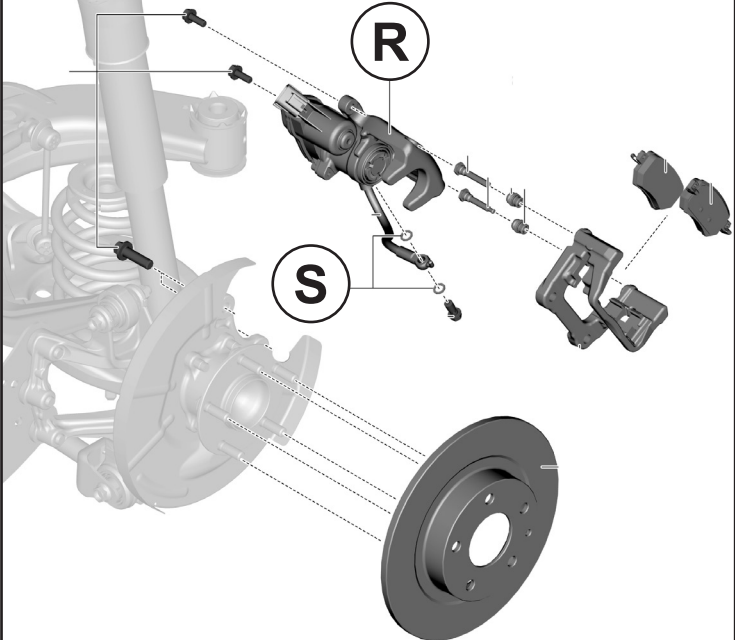


NG [There is rust at 1.6 mm area (N)]



INSPECTION RESULTS:

Result of ramp shaft rust inspection

Rust / No rust	Next Step
No rust	Go to E. L-SHAPED WASHER INSTALLATION
Rusted	<p>Need to replace the rear brake caliper (R) and washers (S).</p> <p>Mazda6: LH Caliper: GHY2-26-71X, RH Caliper: GHY2-26-61X, Washer: 995621000</p> <p>Mazda3: LH Caliper: BGY7-26-71X, RH Caliper: BGY7-26-61X, Washer: 995621000</p> <p>Refer to MGSS online Workshop Manual “BRAKE HOSE (REAR) REMOVAL / INSTALLATION”, “REAR BRAKE (DISC) REMOVAL / INSTALLATION”, “BRAKE FLUID AIR BLEEDING”.</p> 

E. L-SHAPED WASHER INSTALLATION

Install the L-shaped washer

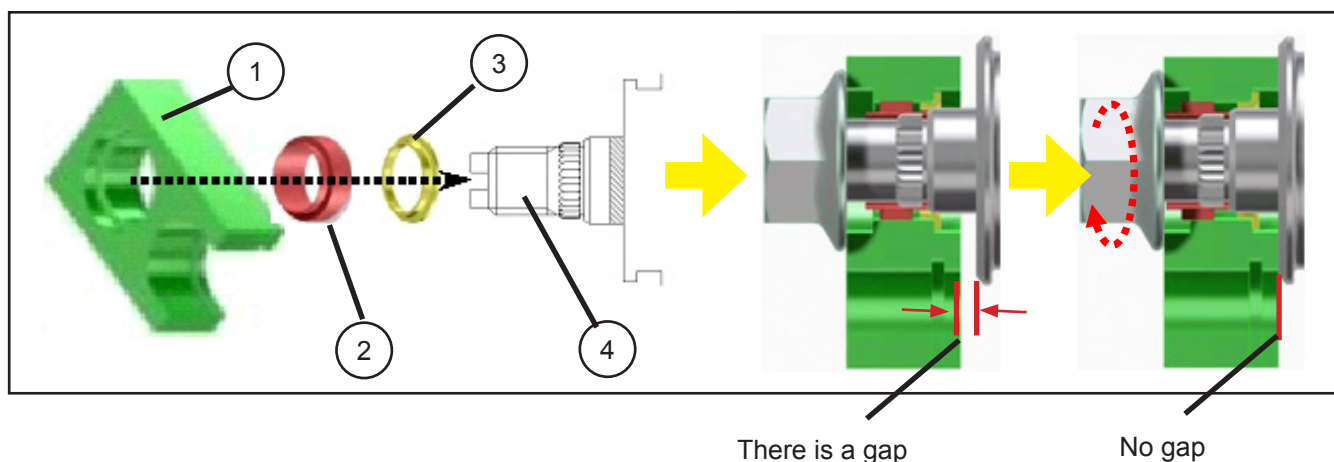
Part name

No	Name
1	Washer press jig (SST)
2	Washer guide jig (SST)
3	L-shaped washer
4	Ramp shaft


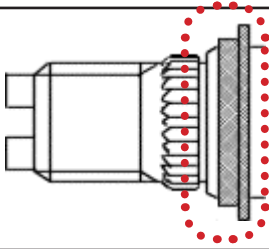
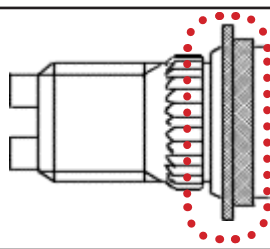
Set the order of washer press/guide jig and L-shaped washer

Temporary set

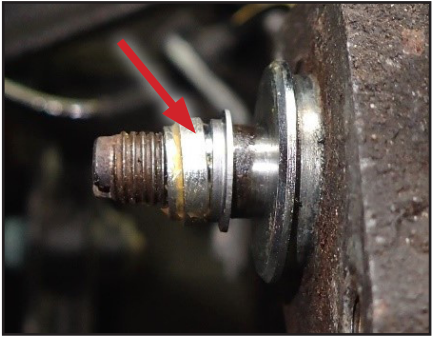
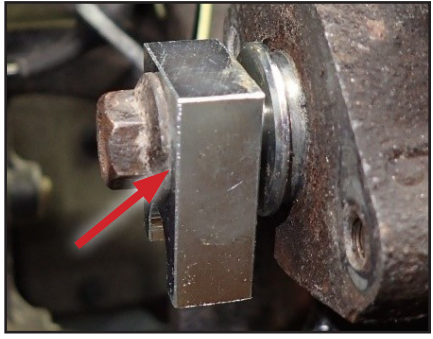
After install



1. Temporarily set the L-shaped washer to the ramp shaft.

	Caution: Set the flange side of L-shaped washer to the caliper side.	
	Correct	Incorrect
		

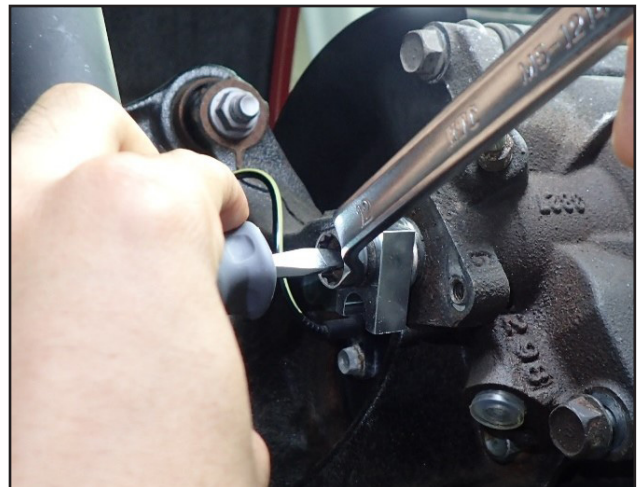
2. Apply the grease (orange) to all over the washer guide jig and the washer press jig where contacts to the nut, then set them temporarily to the ramp shaft.
3. Temporarily set the nut. (Use the nut which was originally installed to the vehicle.)

Apply grease (grease) to the washer guide jig.	Apply the grease (orange) to the washer press jig where contacts to the nut
	

4. Use a flathead stubby screw driver to hold the groove of the ramp shaft head. Then, press the L-shaped washer into the ramp shaft by tightening the nut (Hold the ramp shaft with a flathead stubby screwdriver while tightening the nut.)

Note:

- Use a flathead stubby screw driver whose head width is smaller than the inner diameter of the nut, so that they would not make contact.
- Do not fully tighten the nut during this step.

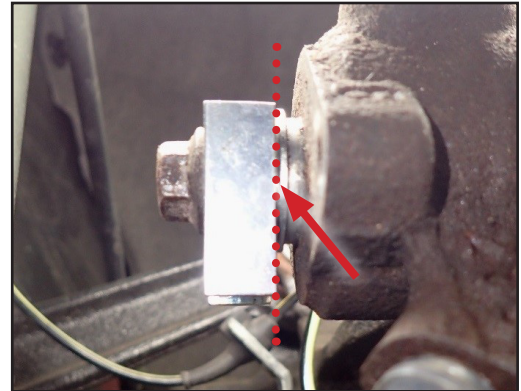


5. Tighten the nut until the washer press jig contacts to the caliper.
(Tightening torque: About 10 Nm, 88.5 in-lbf)

6. Loosen the nut. Then, confirm that there is no gap between the washer press jig and the caliper.

Note: If there is a gap, retighten the nut.

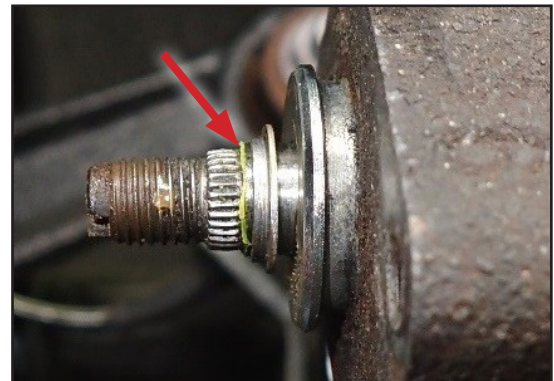
Confirm that there is no gap between the washer press jig and the caliper



7. Remove the nut, washer press jig, and washer guide jig. Then, wipe the grease which remains on both jigs.

8. Wait for 5 minutes until the adhesive dries. (After the L-shaped washer is installed, the adhesive (yellow color) appears which is pasted at inner side the L-shaped washer.)

Adhesive (yellow color)



Note: While you wait for 5 minutes, start inspection/repair for the opposite side. (Check rust condition of ramp shaft and install the L-shaped washer.)

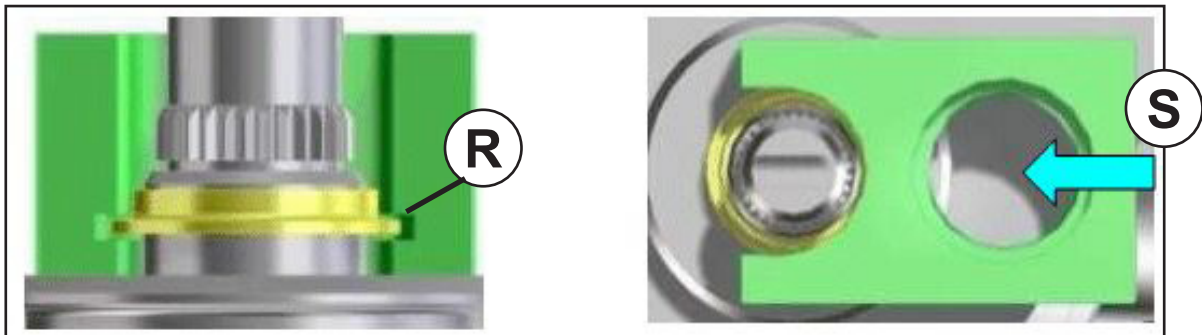
9. Wipe and remove the adhesive by using the toothbrush.
If there is any foreign material remains on the ramp shaft, remove it with a toothbrush.
10. Go to F. L-SHAPED WASHER INSTALLATION INSPECTION



F. L-SHAPED WASHER INSTALLATION INSPECTION

Check the condition of the L-shaped washer

1. Check the install condition of L-shaped washer by using the washer press jig.
 - a. Face the groove side of the washer press jig to the caliper (R).
 - b. Set the washer press jig from the side direction (S) so that the groove of the jig would fit to the flange of L-shaped washer.

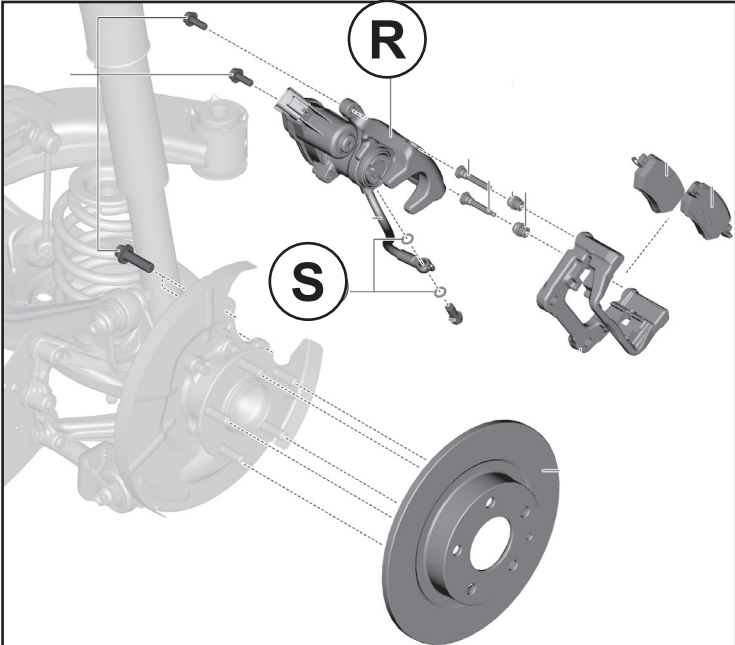


- c. Confirm that:
 - The groove of the washer press jig fits to the flange of the L-shaped washer (T).
 - and
 - There is no gap between the washer press jig and the caliper (U).

OK	Not OK	
	<p>There is a gap between the washer press jig and the caliper.</p>	<p>The groove of the jig and the flange of L-shaped washer contacts.</p>

INSPECTION RESULTS:

Result of L-shaped washer installation condition

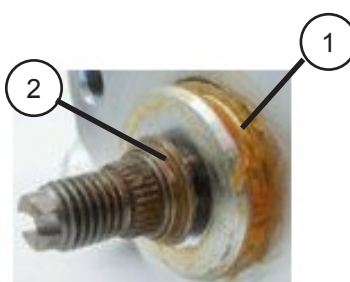
Install condition	Next Step
OK	Go to G. OPERATING LEVER INSTALLATION
Not OK	<p>Need to replace the rear brake caliper (R) and washers (S).</p> <p>Mazda6: LH Caliper: GHY2-26-71X, RH Caliper: GHY2-26-61X, Washer: 995621000</p> <p>Mazda3: LH Caliper: BGY7-26-71X, RH Caliper: BGY7-26-61X, Washer: 995621000</p> <p>Refer to MGSS online Workshop Manual “BRAKE HOSE (REAR) REMOVAL / INSTALLATION”, “REAR BRAKE (DISC) REMOVAL / INSTALLATION”, “BRAKE FLUID AIR BLEEDING”.</p> 

G. OPERATING LEVER INSTALLATION

Install the operating lever

1. Apply the grease (orange) to the following areas.

1	Caliper body (where the boot is hooked)
2	L-shaped washer (outer part)
3	Inside the new boot



2. Install the new boot to the caliper body.

Note

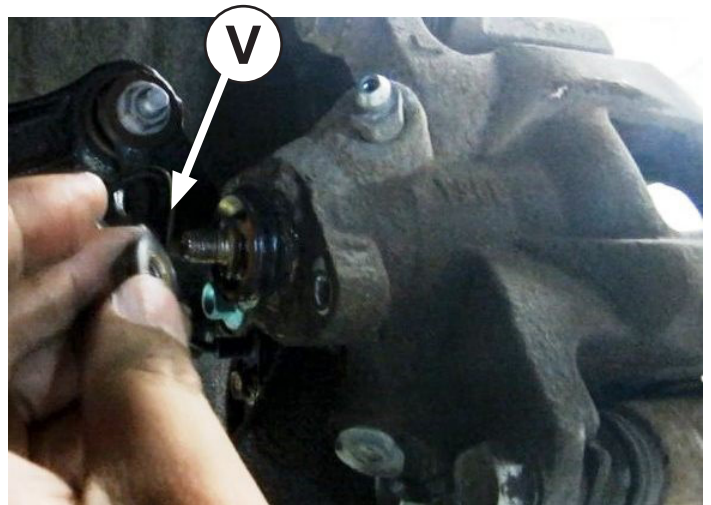
- Do not use pliers or do not pinch it by your nail. Otherwise, the boot may be damaged.
- After installing the boot, rotate it 360 degrees and confirm that it does not come off.



3. Apply the grease (orange) to the boot and the thread of the ramp shaft as shown.

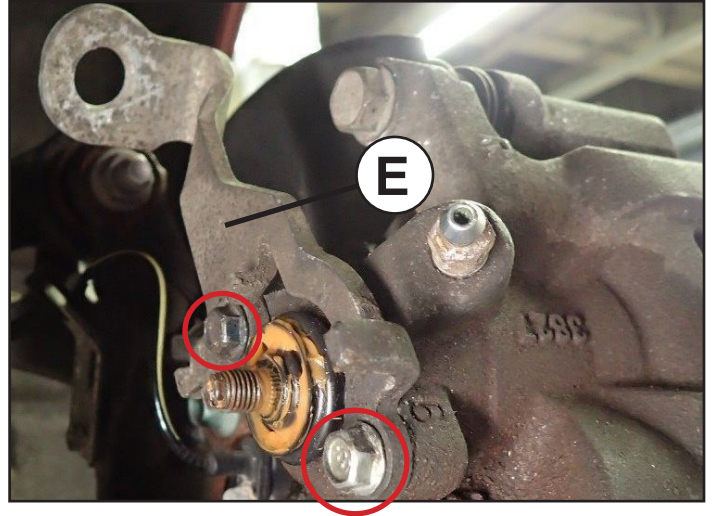


4. Tighten the nut which is originally installed to the vehicle by hand, loose the nut, and remove it. This will apply grease to the thread of the ramp shaft (V).

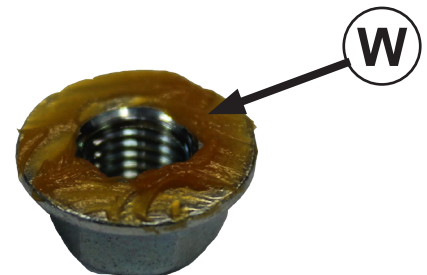


5. Install the bracket (E) to the caliper body.

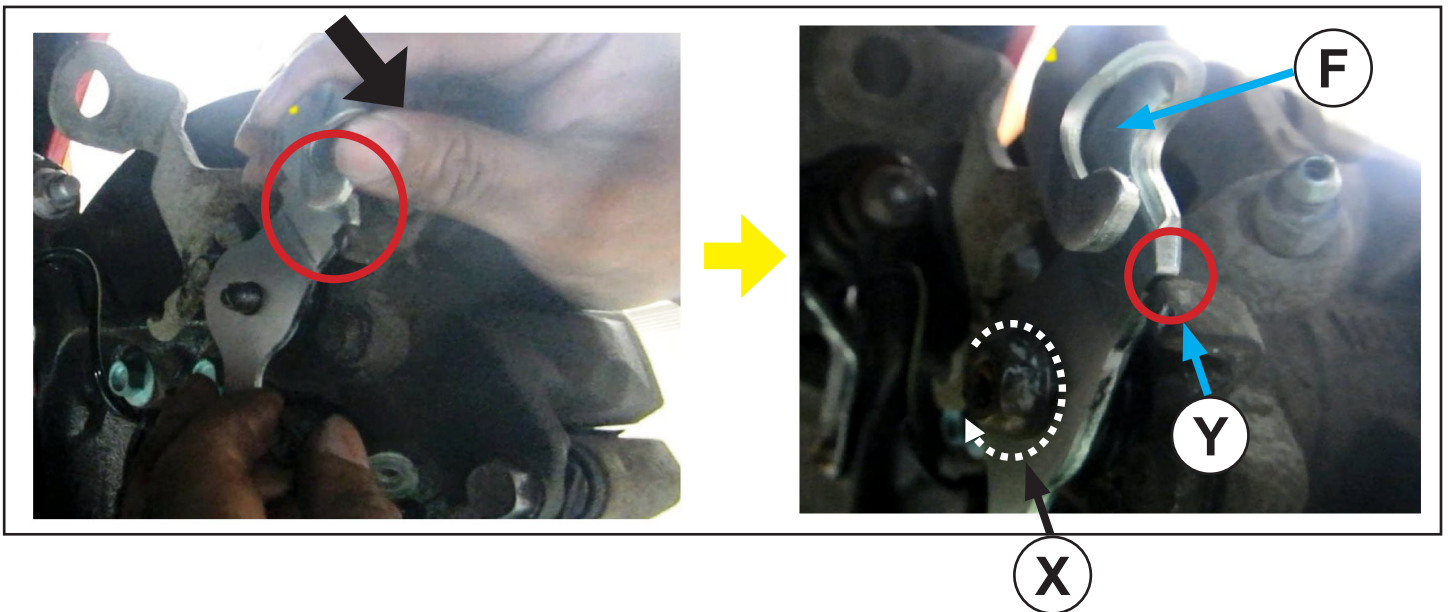
Tightening torque: 7.9 -11.7 Nm (70 - 104 in-lbf)



6. Apply the grease (orange) (W) to the backside of the nut which is originally installed to the vehicle.



7. Set the new operating lever (F) to the ramp shaft Then, tighten the nut by hand (X) while keeping the operating lever contacted to the bracket stopper (Y).



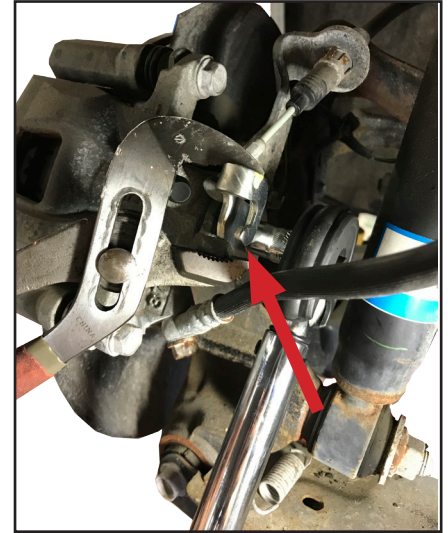
8. Fix the operating lever and the bracket stopper with an adjustable wrench / plier, so that they do not move.
9. Tighten the nut to the specified torque.

Note:

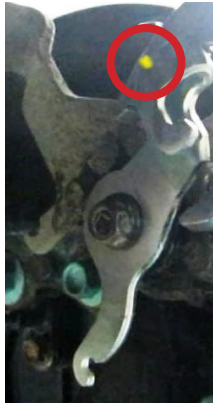
- Since the operating lever is pressed with grooves by the ramp shaft, it will require a large force to tighten.
- The operating lever has a stamp on the backside which requires the proper tightening torque listed in the table below.

Caution: To prevent the ramp shaft breakage,

- Tighten the nut gradually to prevent over torquing.
- Stop tightening as soon as it reaches to the specified torque.
- Do not tighten with power tools.



Tightening torque table

Model	Boot kit part number	CHECK Stamp on backside LH	CHECK Stamp on backside RH	Tightening torque	Yellow Mark on the operating lever	Yellow mark location
Mazda6	G4YG-26-45Z (LH & RH set)	L	R	30 ft lb (40 Nm)	Yes	
	G4YF-26-45Z (LH set)	L		30 ft lb (40 Nm)	Yes	
		3		22 ft lb (30 Nm)	No	
		LH				
	G4YE-26-45Z (RH set)		R	30 ft lb (40 Nm)	Yes	
			4	22 ft lb (30 Nm)	No	
Mazda3	BJY9-2645Z (LH set)	TBD		22 ft lb (30 Nm)	No	
	BJY8-2645Z (RH set)		TBD	22 ft lb (30 Nm)	No	

Note:

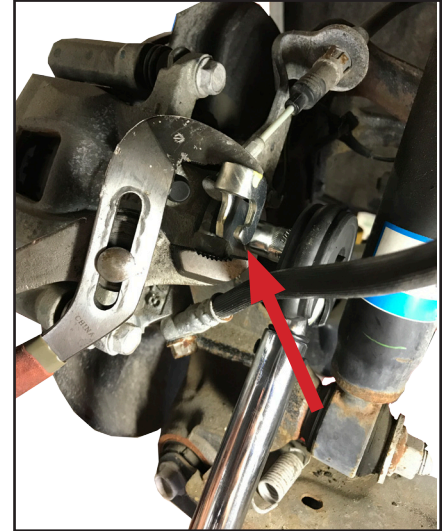
Since the inner diameter of some operating levers are different, the required tightening torque is different. All levers with a Yellow Mark have a higher torque specification of 40 Nm (30 ft lb).

10. Loosen and remove the nut. Then, wipe the grease which remains at the ramp shaft. (Spray brake parts cleaner to a waste cloth, then wipe it using waste cloth.)



11. Install the new nut and tighten it.

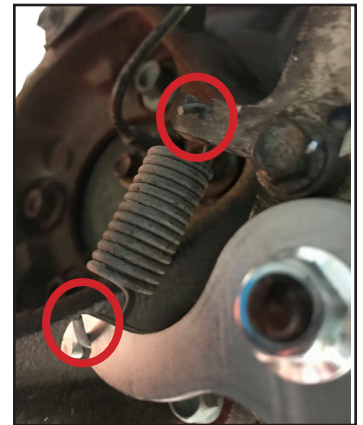
Tightening torque: 17.7 - 26.5 Nm (13.1 - 20 ft lbf)



12. Install the spring between the operating lever and the bracket.

Note: Install the spring in the direction shown.

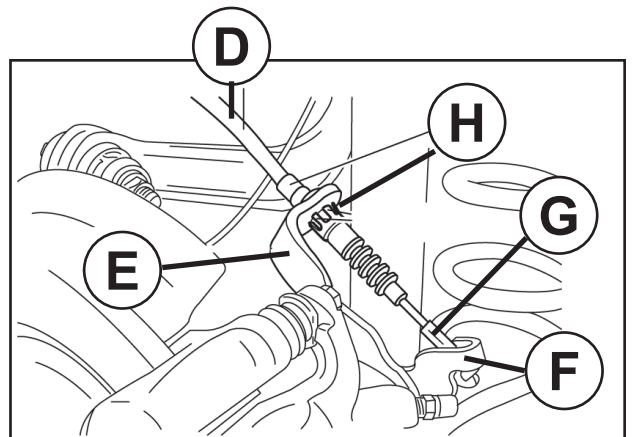
13. Go to H. REINSTALLATION OF PARTS.



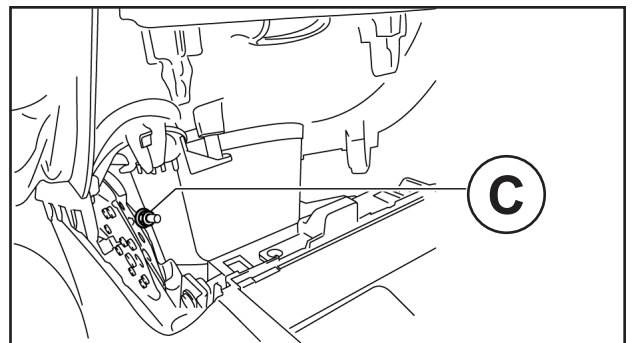
H. REINSTALLATION OF PARTS

Reinstall parts

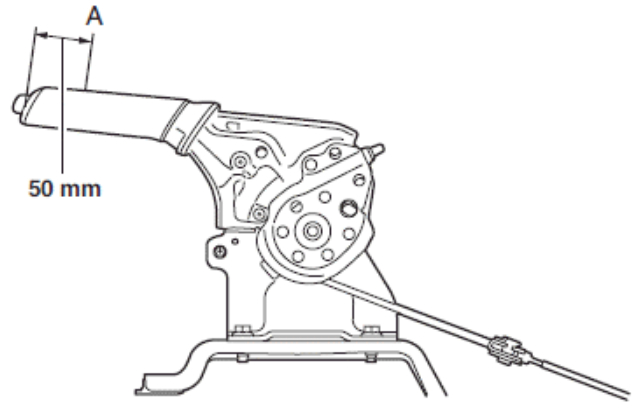
1. Parking brake cable installation.
 - a. Install the rear parking brake cable end (G) to the operating lever (F).
 - b. Verify that the outer end tabs (H) of the rear parking brake cable (D) is securely engaged with the bracket (E).



2. Reinstall the rear tire & wheel to the vehicle.
3. Lower the vehicle from the vehicle lift.
4. Tighten the adjusting nut (C).



5. Inspect the parking brake lever stroke.
 - a. Pump the brake pedal a few times.
 - b. Pull the parking brake lever two to three times.
 - c. Inspect the parking brake stroke by slowly pulling at point A 50 mm {2.0 in} from the end of the parking brake lever with a force of 98 N {10 kgf, 22 lbf} and counting the number of notches (clicking sound)



Parking brake lever stroke when pulled at 98 N {10 kgf, 22 lbf} : 2—3 notches

6. After adjustment, pull the parking brake lever one notch and verify that the parking brake warning light illuminates.
7. Verify that the rear brakes do not drag.
8. Upper panel installation.

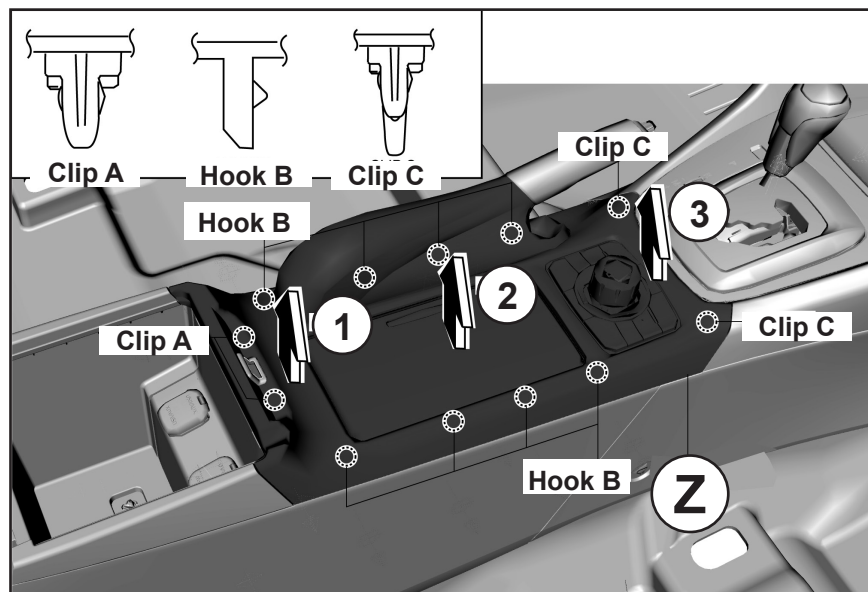
Note: When clips C are removed at the front of the upper panel, clips for the rear of the shift panel may be disengaged.

- a. Verify that the clips for the rear of the shift panel are installed to the front console.

Caution

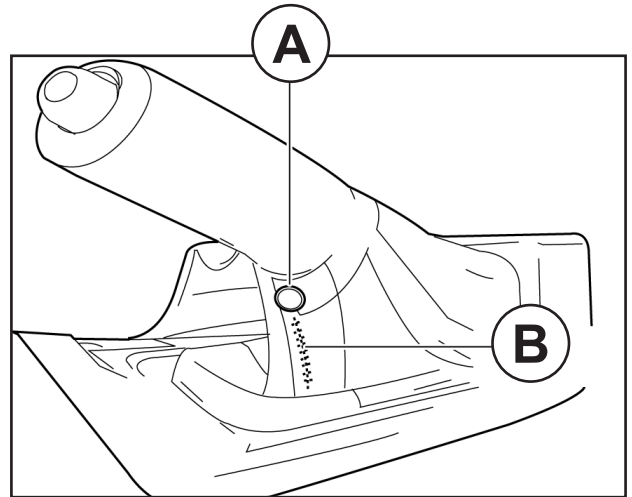
If the upper panel is pressed in without hooks B inserted into the rear console groove, hooks B may be bent outward or inward and damaged. Verify that hooks B are inserted into the rear console groove, then press the upper panel in.

- b. Press the upper panel (Z) in in the order of arrows (1), (2), and (3) as shown in the figure, and install hooks B, clips C, and clips A.



- c. Fasten the fastener (B) and button (A).
- d. Close the console lid.

9. Go to I. CAMPAIGN LABEL INSTALLATION.



I. CAMPAIGN LABEL INSTALLATION

- 1. Fill out a blue “Campaign Label” (9999-95-065A-06) with Campaign No: “1217F”, your dealer code, today’s date.

CAMPAIGN LABEL

CAMPAIGN NO: _____

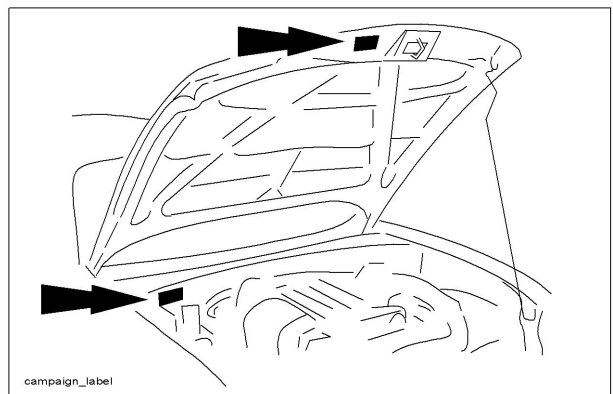
DEALER CODE: _____

DATE: // //

P/N 9999-95-065A-06

1326b

- 2. Affix the Campaign Label to the hood or bulkhead as shown:



- 3. Return the vehicle to the customer.