

Last Modified: 4-30-2021	6.10:8.0.50	Doc ID: RM0000040TO013X
Model Year Start: 2013	Model: Prius V	Prod Date Range: [10/2012 -]
Title: BRAKE SYSTEM (OTHER): BRAKE FLUID: REPLACEMENT; 2013 MY Prius V [10/2012 -]		

REPLACEMENT

HINT:

There are 2 ways of brake fluid replacement: using the Techstream or not using the Techstream.

NOTICE:

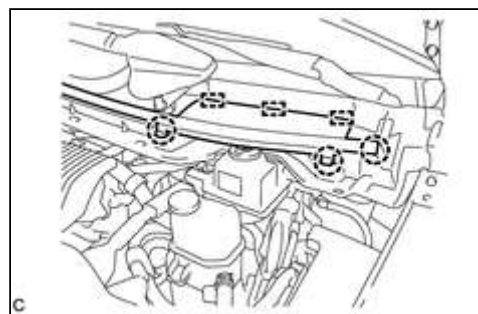
- Perform fluid replacement with park (P) selected and the parking brake applied.
- As brake fluid may overflow when replacing brake fluid, do not place the fluid can on the reservoir filler opening.
- Perform fluid replacement while maintaining the brake fluid level between the MIN/MAX level on the brake fluid reservoir.
- Replacing brake fluid will be difficult if the following occurs:
 - a. The brake actuator hose (the hose between the brake booster pump assembly and brake fluid reservoir) is higher than the fluid level and air enters the hose.
 - b. During the fluid replacement procedure, air enters the brake booster pump assembly while the pump motor is operating.
- While performing fluid replacement, the accumulator pressure drop may cause a buzzer to sound. As there is no problem, continue with the fluid replacement.
- During fluid replacement, DTCs for pressure sensor malfunctions, etc. may be stored. After fluid replacement and if instructed in the procedures, clear the DTCs.
- Do not allow brake fluid to adhere to any painted surface such as the vehicle body. If brake fluid leaks onto any painted surface, immediately clean it off.

1. REPLACE BRAKE FLUID (for Using the Techstream)

NOTICE:

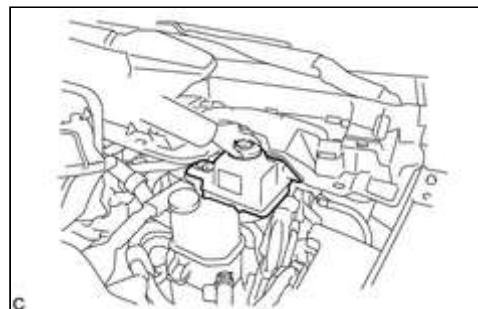
- Add brake fluid carefully and check that the reservoir level remains between the MIN and MAX lines.
- Do not stand the fluid can on the reservoir inlet. Doing so will cause brake fluid to overflow.

- (a) Disengage the 3 claws, 3 guides and separate the center cowl top ventilator cover.



- (b) Replace brake fluid.

- (1) Remove the brake master cylinder reservoir filler cap assembly.



(2) Add brake fluid into the reservoir between the MAX and MIN level on the brake fluid reservoir.

Brake fluid:

SAE J1703 or FMVSS No. 116 DOT3

(3) Connect the Techstream to the DLC3 and turn the power switch on (IG).

(4) Turn the Techstream on and enter the following menus: Chassis / ABS/VSC/TRAC / Air Bleeding.

(5) Select "Usual air bleeding" on the Techstream display, and replace the brake fluid following the instructions on the Techstream.


HINT:

It is not necessary to disconnect the reservoir level switch connector.

(6) After replacing brake fluid, tighten each bleeder plug.

Torque:

8.3 N·m {85 kgf·cm, 73in·lbf}

(c) Clear the DTCs .

(d) Turn the Techstream off and turn the power switch off.

(e) Inspect for brake fluid leaks.

(f) Install the brake master cylinder reservoir filler cap.

(g) Engage the 3 claws, 3 guides to install the center cowl top ventilator cover.

2. REPLACE BRAKE FLUID (for not Using the Techstream)

NOTICE:

- Performing the following procedure will select ECB (Electronically Controlled Brake system) Invalid Mode without using the Techstream.
- ECB (Electronically Controlled Brake system) Invalid Mode allows the brake fluid to be replaced without using the Techstream.
- The brake warning light / yellow will blink to indicate when ECB (Electronically Controlled Brake system) Invalid Mode is selected.
- Be sure to inspect that the brake warning light / yellow is blinking while replacing the brake fluid.
- When one of the following conditions is met, ECB (Electronically Controlled Brake system) Invalid Mode is cancelled, and DTCs may be stored. Do not cancel ECB (Electronically Controlled Brake system) Invalid Mode while replacing brake fluid.

The shift lever is used to select any other state from park (P).
The power switch is turned on (READY).
The power switch is turned off.
The parking brake is released.
The vehicle speed is not 0 km/h (0 mph).

- Do not rotate the brake disc while ECB (Electronically Controlled Brake system) Invalid Mode is selected. If the brake disc is rotated, ECB (Electronically Controlled Brake system) Invalid Mode may be cancelled.
- When replacing the brake fluid from the brake line, do not depress the brake pedal to operate the brake booster pump assembly for more than 100 seconds. If the brake booster pump assembly is operated for more than 100 seconds, ECB (Electronically Controlled Brake system) Invalid Mode is automatically finished and the DTCs may be stored.
- Add brake fluid carefully and check that the reservoir level remains between the MIN and MAX lines.
- Do not stand the fluid can on the reservoir inlet. Doing so will cause brake fluid to overflow.

(a) Remove all 4 wheels.

(b) Select ECB (Electronically Controlled Brake system) Invalid Mode.

(1) Perform the procedure listed below in 1 minute.

1. Turn the power switch on (IG) with park (P) selected and the parking brake applied.
2. Select N and then depress the brake pedal more than 8 times in 5 seconds.
3. Push the P position switch and then depress the brake pedal more than 8 times in 5 seconds.
4. Select N and then depress the brake pedal more than 8 times in 5 seconds.
5. Push the P position switch.

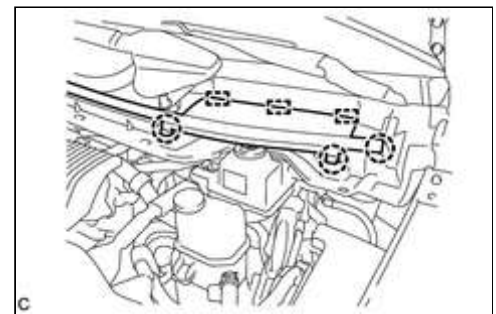
(2) Check that the brake warning light / yellow is blinking.

Text in Illustration

*a	Brake Warning Light / Yellow
----	------------------------------

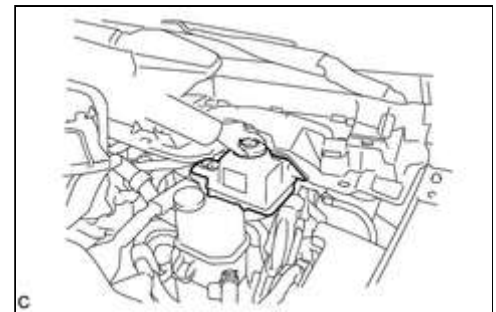


(c) Disengage the 3 claws, 3 guides and separate the center cowl top ventilator cover.



(d) Replace the brake fluid.

(1) Remove the brake master cylinder reservoir filler cap assembly.



(2) Add brake fluid into the reservoir between the MAX and MIN level on the brake fluid reservoir.

Brake fluid:

SAE J1703 or FMVSS No. 116 DOT3

- (3) Connect a vinyl tube to the bleeder plug of the front disc brake cylinder assembly RH.
- (4) Depress the brake pedal several times, and then loosen the bleeder plug with the pedal depressed.*1
- (5) When fluid stops coming out, tighten the bleeder plug, and then release the brake pedal.*2
- (6) Repeat *1 and *2 until all the air in the brake fluid is completely bled out and a new brake fluid comes out.
- (7) Tighten the bleeder plug completely.

Torque:

8.3 N·m {85 kgf·cm, 73in·lbf}

- (8) Replace the brake fluid from the front disc brake cylinder assembly LH using the same procedure as for the RH side.

- (9) Connect a vinyl tube to the bleeder plug of the rear disc brake cylinder assembly LH.
- (10) Loosen the bleeder plug while depressing and holding the brake pedal, and replace the brake fluid with the brake booster pump assembly and solenoid is running.*3


NOTICE:

- Be sure to keep the brake pedal depressed.
- Do not depress the brake pedal to operate the brake booster pump assembly for more than 100 seconds. When performing this procedure continuously, release the brake pedal to stop the brake booster pump assembly operating and depress the brake pedal again.

- (11) Tighten the bleeder plug, then release the brake pedal.*4
- (12) Repeat *3 and *4 until all the air in the brake fluid is completely bled out and a new brake fluid comes out.
- (13) Tighten the bleeder plug completely.

Torque:

8.3 N·m {85 kgf·cm, 73in·lbf}

- (14) Replace the brake fluid from the rear disc brake cylinder assembly RH using the same procedure as for the LH side.
- (15) Turn the power switch off.
- (e) Inspect for brake fluid leaks.
- (f) Adjust the brake fluid level in the reservoir  .
- (g) Install the brake master cylinder reservoir filler cap.
- (h) Engage the 3 claws, 3 guides to install the center cowl top ventilator cover.
- (i) Install the 4 wheels.

Torque:

103 N·m {1050 kgf·cm, 76ft·lbf}

