



Toyota Complete Maintenance Care (TCMC) Brake Pads Technician Job Aid



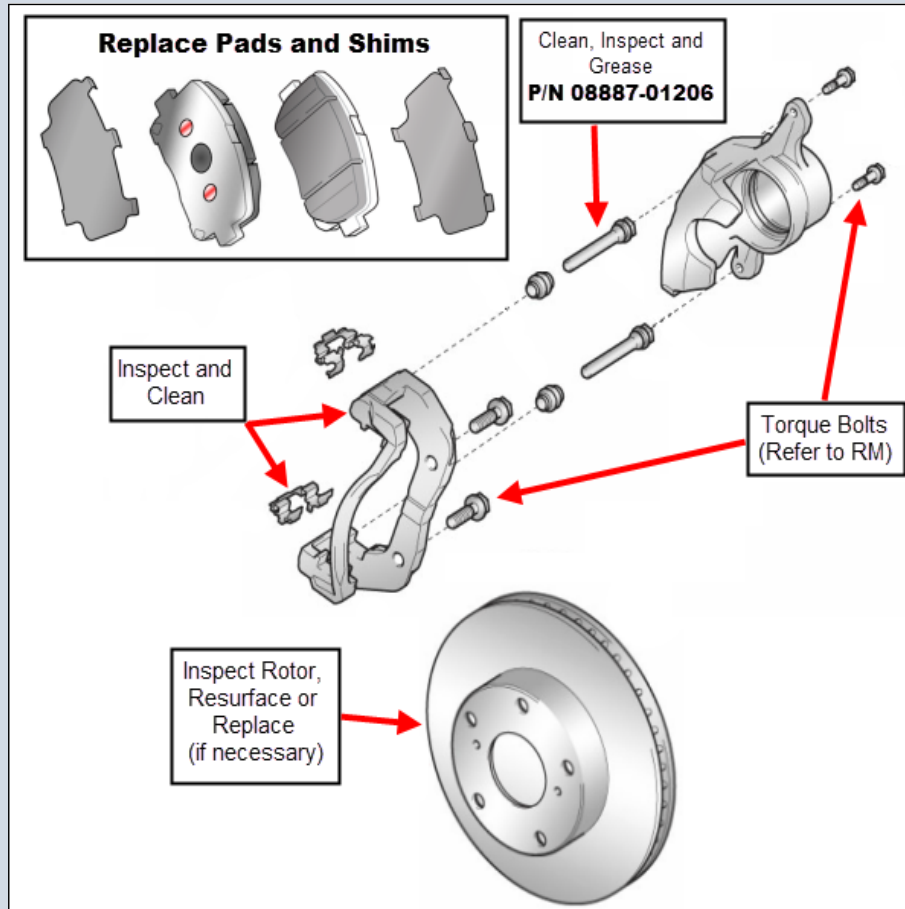
Purpose and Scope

- The following recommendations are intended to provide Toyota Best Practices for inspection and **unique** installation procedures for Toyota Complete Maintenance Care (TCMC) brake pads.
 - Brakes should be replaced per axle (both sides).
- CAUTION:** Follow the directions and cautions in this document for best results.

Reference

- NOTE:** Prior to beginning work, check **TSBs** related to the concern.
- Refer to the model specific [Repair Manual](#), [Technical Service Bulletins](#), and [TIS Publications](#) for specific repair instructions.
- For additional questions and training, refer to training tools:
- * E-Module: **M512A**
 - * Quick Training Guide: **QT512A**

Brake Diagram



ALWAYS

<u>KEY POINTS</u>	<u>WHY?</u>
ALWAYS evaluate rotor condition and thickness <ul style="list-style-type: none"> Machine or replace as needed Toyota recommends using an approved on-car lathe 	<ul style="list-style-type: none"> If rotors have excessive run-out there may be poor brake feel and stopping performance. If rotors are below minimum thickness before or after machining, they will not be able to dissipate heat correctly. Potentially leading to warped rotors and poor braking feel.
ALWAYS clean rotors after machining or replacing <ul style="list-style-type: none"> Use soap and water to clean rotor 	<ul style="list-style-type: none"> Resurfacing rotors leaves behind metallic shavings that need to be removed to prevent causing noise concerns, and contaminating the pad surface. New rotors have a residue from the machining and handling process. This oil must be removed to prevent causing noise concerns, and contaminating the pad surface.
ALWAYS inspect and clean pad wear clips, and support brackets <ul style="list-style-type: none"> Replace clips if needed 	<ul style="list-style-type: none"> To ensure a smooth in/out operation when the brakes are applied.
ALWAYS clean and lubricate caliper slide pins, pin boots and external piston seals <ul style="list-style-type: none"> Use lithium soap base glycol grease- P/N 08887-01206 Replace if needed 	<ul style="list-style-type: none"> Using grease other than Toyota lithium soap base glycol grease could result in premature rubber and seal failure, causing uneven caliper pressure or leaks. Cracked or torn rubber components can allow moisture to enter assemblies, potentially creating rust, preventing smooth operation while braking.
Always inspect pistons for operation, corrosion and leaks <ul style="list-style-type: none"> Replace if needed 	<ul style="list-style-type: none"> Corrosion can cause pistons to bind, this can result in un-even brake force distribution and vehicle pull while braking.
ALWAYS use the TCMC shims included with the pad kit <ul style="list-style-type: none"> Replace both pads and shims 	<ul style="list-style-type: none"> Pads may fit too loose or too tight if a tech uses OEM shims with TCMC pads. OEM shims are not compatible with TCMC Pads, specifically pad and shim total thickness. If the pad/shim combination is too tight, the pads may rub/drag on the rotor surface causing squeal, grind or groan. Premature pad wear and rotor damage may also occur.
ALWAYS use the supplied shim grease <ul style="list-style-type: none"> Follow procedure on opposite side of document 	<ul style="list-style-type: none"> TCMC shim grease has undergone extensive testing specific to these pads, and withstands extreme braking temperatures. Aftermarket grease is not designed for, or recommended by Toyota.
ALWAYS use a torque wrench for all brake components and wheels in a star pattern	<ul style="list-style-type: none"> Failure to use a calibrated torque wrench on all brake components and wheels in a star pattern can result in brake groan and pedal pulsation, potentially causing rotor damage.

NEVER

<u>KEY POINTS</u>	<u>WHY?</u>
NEVER re-use old brake pad shims	<ul style="list-style-type: none"> Re-using old shim plates may result in brake pad rub/drag on rotor surface, causing squeal, grind, premature pad wear, and rotor damage.
NEVER use TCMC shim grease to lubricate caliper pins or clips	<ul style="list-style-type: none"> TCMC shim grease is not designed or intended to lubricate moving parts, using it for this purpose may result in seized parts or uneven pad travel.
NEVER apply any type of grease, compound, or spray to brake pads, pad ears, or rotor friction surface	<ul style="list-style-type: none"> Applying any substance to a brake friction surface can result in poor braking performance, noise condition, and/or premature pad wear.
NEVER alter friction material or pad shape	<ul style="list-style-type: none"> Changing the shape of the brake pad can result in poor braking performance, noise condition, and/or premature pad wear.



Toyota Complete Maintenance Care (TCMC) Installation Technician Job Aid



ALWAYS

ALWAYS apply supplied grease evenly between all 4 brake pads.

*Refer to diagram on right of page for grease application

1-2mm thick
10 mm diameter



ALWAYS evaluate rotor condition and thickness

* Machine or replace as needed

* Toyota recommends using an approved on-car lathe

ALWAYS clean rotor after machining or replacing



ALWAYS measure rotor before and after a brake job

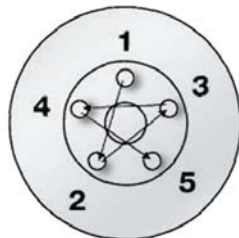


ALWAYS clean and lubricate caliper, mounts, supports, pins, seals and boots (see Repair Manual)

→ lithium soap base glycol grease- **P/N 08887-01206**



ALWAYS use a torque wrench in proper sequence



NEVER

NEVER apply any non-approved grease to the shims or pads

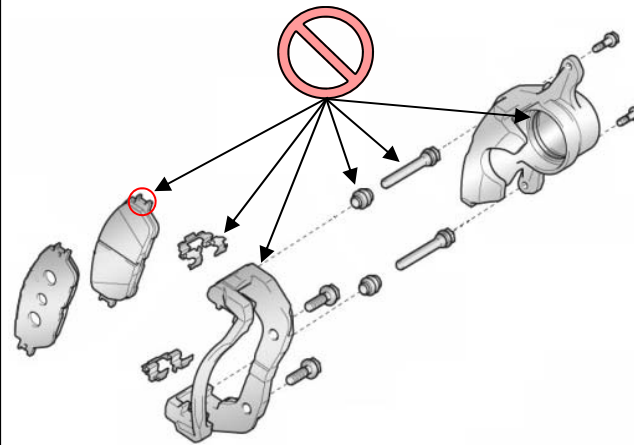
NEVER apply grease to entire shim plate



NEVER re-use the original pad shims



NEVER apply TCMC shim grease to pad slides (ears), supports, slide pins, rubber seal or boot.



NEVER use an impact gun to torque lug nuts.



Pad Assembly

1. Identification

- TCMC Brake Pads can be identified by the "AZ" in the part number.
- TCMC pads will come as a complete kit with pads, shims and grease.



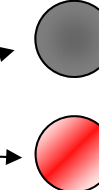
2. Grease Shims

- Apply only TCMC shim grease to brake pad backing plate as shown to the right.

CAUTION:

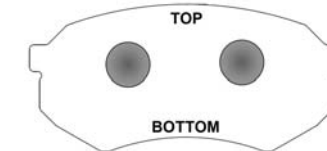
Do Not put grease in pad backing plate holes.

Red circles indicate grease locations.



3. Shim Installation

- Install shims by hooking the bottom clips first.
- Align shim tabs to pad grooves for correct placement.

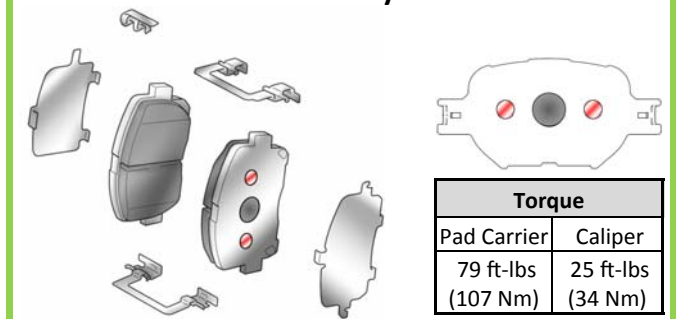


- Firmly apply pressure to the top of the shim while sliding it forward to clip it into place.

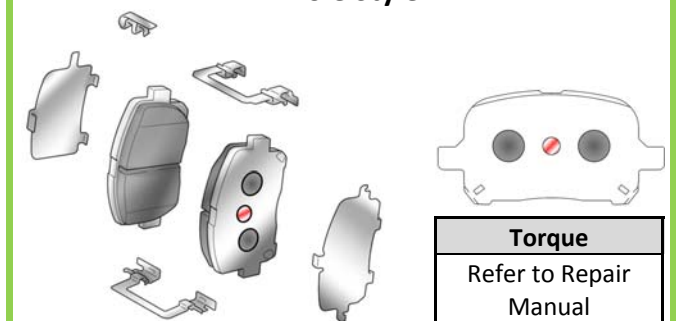


- Wipe away any grease or residue that remains on the brake pad backing plate.
- Confirm shim fits tightly to brake pad backing plate.

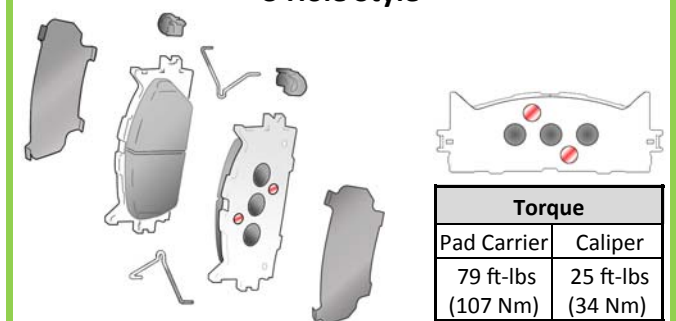
1 Hole Style



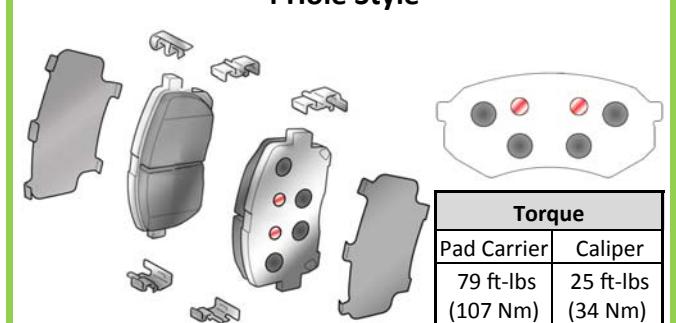
2 Hole Style



3 Hole Style



4 Hole Style



6 Hole Style with pins

