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

KEY POINTS

<table>
<thead>
<tr>
<th>WHY?</th>
<th>ALWAYS</th>
</tr>
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<tbody>
<tr>
<td>If rotors have excessive run-out there may be poor brake feel and stopping performance.</td>
<td>ALWAYS evaluate rotor condition and thickness</td>
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<td>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.</td>
<td>• Machine or replace as needed</td>
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<tr>
<td>• Toyota recommends using an approved on-car lathe</td>
<td>• Resurfacing rotors leaves behind metallic shavings that need to be removed to prevent causing noise concerns, and contaminating the pad surface.</td>
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<td>• 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.</td>
<td>• Use soap and water to clean rotor</td>
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<td>• To ensure a smooth in/out operation when the brakes are applied.</td>
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<td>• Corrosion can cause pistons to bind, this can result in un-even brake force distribution and vehicle pull while braking.</td>
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<td>• Pads may fit too loose or too tight if a tech uses OEM shims with TCMC pads.</td>
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<td>• OEM shims are not compatible with TCMC Pads, specifically pad and shim total thickness.</td>
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<td>Re-using old shim plates may result in brake pad rub/drag on rotor surface, causing squeal, grind, premature pad wear, and rotor damage.</td>
<td>NEVER re-use old brake pad shims</td>
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<td>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.</td>
<td>NEVER use TCMC shim grease to lubricate caliper pins or clips</td>
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<td>Applying any substance to a brake friction surface can result in poor braking performance, noise condition, and/or premature pad wear.</td>
<td>NEVER apply any type of grease, compound, or spray to brake pads, pad ears, or rotor friction surface</td>
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<td>Changing the shape of the brake pad can result in poor braking performance, noise condition, and/or premature pad wear.</td>
<td>NEVER alter friction material or pad shape</td>
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NEVER apply any type of grease, compound, or spray to brake pads, pad ears, or rotor friction surface
- Applying any substance to a brake friction surface can result in poor braking performance, noise condition, and/or premature pad wear.
- Changing the shape of the brake pad can result in poor braking performance, noise condition, and/or premature pad wear.

NEVER alter friction material or pad shape
- Changing the shape of the brake pad can result in poor braking performance, noise condition, and/or premature pad wear.

NEVER use TCMC shim grease to lubricate caliper pins or clips
- 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 re-use old brake pad shims
- Re-using old shim plates may result in brake pad rub/drag on rotor surface, causing squeal, grind, premature pad wear, and rotor damage.

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**Toyota Complete Maintenance Care (TCMC) Installation**

**Technician Job Aid**

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### ALWAYS

- **ALWAYS** apply supplied grease evenly between all 4 brake pads.
  *Refer to diagram on right of page for grease application

- **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)

- **ALWAYS** use a torque wrench in proper sequence

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### 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.

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### Pad Assembly

1. **Identification**
   
   A. TCMC Brake Pads can be identified by the “AZ” in the part number.
   
   B. TCMC pads will come as a complete kit with pads, shims and grease.

2. **Grease Shims**
   
   A. 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**
   
   A. Install shims by hooking the bottom clips first.
   
   B. Align shim tabs to pad grooves for correct placement.

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

   D. Wipe away any grease or residue that remains on the brake pad backing plate.

   E. Confirm shim fits tightly to brake pad backing plate.

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### 1 Hole Style

- **Torque**
  - Pad Carrier
  - 1 Hole Style
  - 79 ft-lbs (107 Nm)
  - 25 ft-lbs (34 Nm)

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### 2 Hole Style

- **Torque**
  - Pad Carrier
  - 2 Hole Style
  - 79 ft-lbs (107 Nm)
  - 25 ft-lbs (34 Nm)

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### 3 Hole Style

- **Torque**
  - Pad Carrier
  - 3 Hole Style
  - 79 ft-lbs (107 Nm)
  - 25 ft-lbs (34 Nm)

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### 4 Hole Style

- **Torque**
  - Pad Carrier
  - 4 Hole Style
  - 79 ft-lbs (107 Nm)
  - 25 ft-lbs (34 Nm)

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### 6 Hole Style with pins

- **Torque**
  - Caliper
  - 6 Hole Style with pins
  - 91 ft-lbs (123 Nm)

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10/10/2013

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