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› [Mishimoto Borne Off-Road Wheel Spacers Instruction Manual for Toyota Tacoma & 4Runner \(6x139.7, 1-Inch Thick\)](#)

Mishimoto BNWS-004-250BL

Mishimoto Borne Off-Road Wheel Spacers Instruction Manual

MODEL: BNWS-004-250BL

Brand: Mishimoto

1. PRODUCT OVERVIEW

The Mishimoto Borne Off-Road Wheel Spacers are engineered to enhance vehicle stance, improve brake clearance, and optimize wheel fitment. Constructed from forged 6061-T6 aluminum, these hub-centric spacers provide a precise extension of the axle hub, ensuring secure and smooth operation. They are designed for vehicles with a 6x139.7 bolt pattern, M12x1.5 studs, and a 106 mm center bore, specifically compatible with Toyota Tacoma and 4Runner models.



Figure 1: Mishimoto Borne Off-Road Wheel Spacers (Blue)

Safety Information

WARNING: Improper installation of wheel spacers can lead to serious injury or death. Always follow these instructions carefully. If you are unsure about any step, consult a qualified automotive technician. Ensure all lug nuts are torqued to manufacturer specifications.

- Always use appropriate safety gear, including eye protection and gloves.
- Ensure the vehicle is securely supported on jack stands before working underneath.
- Never use an impact wrench for final torquing of lug nuts.
- Regularly inspect wheel spacers and lug nuts for wear or damage.

2. PACKAGE CONTENTS

Verify that all components are present before beginning installation:

- 2x Aluminum Wheel Spacers (with pre-installed studs)
- 12x Wheel Nuts (for securing the spacer to the hub)



Figure 2: Wheel Spacer with Pre-installed Studs

3. SPECIFICATIONS

| Feature | Specification |
|-------------------|-------------------------|
| Material | Forged 6061-T6 Aluminum |
| Bolt Pattern | 6x139.7 |
| Thickness | 1.00 Inch (25.4 mm) |
| Stud Thread Pitch | M12x1.5 |
| Center Bore | 106 mm |
| Design | Hub-Centric |
| Finish | Anodized (Blue) |
| Stud Grade | Grade-12.9 Steel |



Figure 3: Forged Grain Structure for Enhanced Strength

4. INSTALLATION INSTRUCTIONS

Follow these steps carefully for proper and safe installation of your Mishimoto Borne Off-Road Wheel Spacers.

1. Prepare the Vehicle:

- Park the vehicle on a flat, level surface.
- Engage the parking brake.
- Loosen the lug nuts on the wheel(s) to be removed, but do not remove them completely.
- Jack up the vehicle and secure it with appropriate jack stands. Ensure the vehicle is stable.
- Remove the lug nuts and then remove the wheel.

2. Inspect the Hub:

- Clean the vehicle's hub surface thoroughly, removing any rust, dirt, or debris. A wire brush can be used.
- Ensure the wheel studs are in good condition and free from damage.

3. Install the Wheel Spacer:

- Place the wheel spacer onto the vehicle's hub, ensuring it sits flush against the hub face. The hub-centric design should align perfectly.
- Apply a small amount of anti-seize lubricant to the threads of the vehicle's original studs.
- Install the provided wheel nuts onto the vehicle's original studs, securing the spacer to the hub.
- Tighten these nuts by hand, then use a torque wrench to tighten them in a star pattern to the vehicle manufacturer's specified torque for wheel lug nuts. **Do not use an impact wrench for final torquing.**

4. Install the Wheel:

- Place the wheel onto the newly installed wheel spacer's studs. Ensure the wheel sits flush against the spacer.
- Install your original lug nuts onto the spacer's studs.
- Tighten these nuts by hand, then use a torque wrench to tighten them in a star pattern to the vehicle manufacturer's specified torque for wheel lug nuts. **Do not use an impact wrench for final torquing.**

5. Lower the Vehicle:

- Carefully lower the vehicle until the wheels are just touching the ground.
- Perform a final torque check on all lug nuts with the vehicle fully on the ground.
- Remove jack stands and fully lower the vehicle.

6. Post-Installation Check:

- Drive the vehicle for approximately 50-100 miles, then re-check the torque on all lug nuts (both those securing the spacer to the hub and those securing the wheel to the spacer). This is crucial for safety.



Figure 4: Wheel Spacer Mounted on Vehicle Hub

5. MAINTENANCE

Regular maintenance ensures the longevity and safe operation of your wheel spacers:

- **Periodic Torque Checks:** Re-check the torque of all lug nuts (both spacer-to-hub and wheel-to-spacer) every 3,000-5,000 miles or during routine tire rotations.
- **Visual Inspection:** During torque checks, visually inspect the spacers for any signs of cracking, corrosion, or damage. Inspect the studs for any signs of stretching or damage.
- **Cleaning:** Keep the spacers clean from excessive dirt and debris, especially around the lug nuts and hub mating surfaces.
- **Corrosion Protection:** The anodized finish provides corrosion resistance, but avoid harsh chemicals that could damage the finish.

6. TROUBLESHOOTING

If you encounter any issues, refer to the following common problems and solutions:

- **Vibration After Installation:**
 - **Cause:** Improperly torqued lug nuts, debris between mating surfaces, or incorrect hub-centric fitment.
 - **Solution:** Re-check all lug nut torques. Remove wheels and spacers, clean all mating surfaces thoroughly, and re-install ensuring flush fitment. Verify the spacer is hub-centric for your vehicle.
- **Wheel Not Sitting Flush:**
 - **Cause:** Debris on the hub or spacer face, or vehicle's original studs protruding past the spacer face.
 - **Solution:** Clean all mating surfaces. If original studs protrude, they must be trimmed or the wheel must have cavities to accommodate them.
- **Loose Lug Nuts:**
 - **Cause:** Insufficient initial torque, failure to re-torque after initial driving, or damaged studs/nuts.
 - **Solution:** Immediately re-torque all lug nuts. If they continue to loosen, inspect studs and nuts for damage and replace if necessary. Always perform the 50-100 mile re-torque.

7. WARRANTY & SUPPORT

Lifetime Warranty

Mishimoto Borne Off-Road Wheel Spacers are backed by a signature Lifetime Warranty. This warranty covers defects in materials and workmanship for the lifetime of the product. For full details and to initiate a warranty claim, please visit the official Mishimoto website or contact customer support.

Customer Support

For technical assistance, installation questions, or warranty inquiries, please contact Mishimoto customer support:

- **Website:** www.mishimoto.com
- **Email:** Refer to the Mishimoto website for current contact information.
- **Phone:** Refer to the Mishimoto website for current contact information.

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Related Documents - BNWS-004-250BL

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|---|---|
|  | <p>Toyota Wheel Torque Specifications: Alloy, Steel, and Anti-Theft Nuts/Bolts</p> <p>Comprehensive guide to Toyota wheel torque values for alloy and steel wheels, including anti-theft wheel lock nuts and bolts. Covers various Toyota models with detailed specifications.</p> |
|  | <p>Toyota Wheel Torque Specifications for Alloy and Steel Wheels</p> <p>A comprehensive guide to torque values for Toyota alloy wheels, steel wheels, and wheel locks, including installation instructions and a detailed table of specifications by model and generation.</p> |
|  | <p>HORI Racing Wheel Apex Instruction Manual for PlayStation & PC</p> <p>Official instruction manual for the HORI Racing Wheel Apex. Learn how to set up, connect, and customize your racing wheel for PlayStation 5, PlayStation 4, and PC. Features detailed guides on modes, button mapping, and software adjustments.</p> |



[HORI Racing Wheel APEX Instruction Manual for PS5, PS4, PC](#)

Official instruction manual for the HORI Racing Wheel APEX (SPF-004), detailing setup, connection, features, and button assignments for PlayStation 5, PlayStation 4, and PC gaming.



[Thule Kit 186100 Fitting Instructions for Toyota Fortuner/Hilux SW4](#)

Comprehensive fitting instructions for Thule Kit 186100, designed for Toyota Fortuner and Toyota Hilux SW4 (5-door SUV, 2016 onwards) with flush railing. Includes component identification, step-by-step installation guidance, and essential safety specifications for roof rack installation.



[Toyota RAV4 Plug-In Hybrid Front & Rear Mudflaps Installation Guide](#)

Step-by-step instructions for installing front and rear mudflaps on the Toyota RAV4 Plug-In Hybrid (models from 2018/11 onwards). Includes parts list, required tools, and installation procedures.