

Skunk2 Racing 372-05-0085

Skunk2 Racing Thermal Throttle Body Gasket User Manual

Model: 372-05-0085

Brand: Skunk2 Racing

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of the Skunk2 Racing 372-05-0085 Thermal Throttle Body Gasket. This advanced high-temperature thermal polymer material gasket is designed to protect against heat soak and maximize horsepower gains by reducing heat transfer. By minimizing air intake temperatures, it ensures cooler air for combustion, potentially providing up to 5% more power by bypassing several heat sources. It is suitable for race, weekend warrior, and street applications.

2. SAFETY INFORMATION

Always prioritize safety when working on automotive components. Read and understand all instructions before beginning installation. Failure to follow safety precautions may result in injury or damage to the vehicle.

- Ensure the engine is cool before working on the throttle body area.
- Disconnect the vehicle's battery to prevent accidental electrical shorts.
- Wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- Work in a well-ventilated area.
- If unsure about any step, consult a qualified automotive technician.

3. INSTALLATION GUIDE

The Skunk2 Racing Thermal Throttle Body Gasket is designed for use with K Pro Series Throttle Body ONLY. Proper installation is crucial for optimal performance and longevity.

3.1. Required Tools

- Socket wrench set
- Torque wrench
- Screwdrivers (flathead and Phillips)
- Clean rags
- Gasket scraper (optional, for old gasket removal)

3.2. Installation Steps

1. **Preparation:** Ensure the engine is completely cool. Disconnect the negative terminal of the vehicle's battery. Locate the throttle body on the engine.
2. **Remove Air Intake:** Carefully disconnect the air intake hose and any associated sensors or vacuum lines connected to the throttle body.
3. **Disconnect Throttle Body:** Unbolt the throttle body from the intake manifold. Note the position of all bolts and connections.
4. **Remove Old Gasket:** Carefully remove the old throttle body gasket. Inspect the mating surfaces on both the throttle body and the intake manifold for any residue or damage. Clean both surfaces thoroughly with a clean rag, ensuring they are free of old gasket material, dirt, or oil. A gasket scraper can be used if necessary, but be careful not to scratch the surfaces.
5. **Install New Gasket:** Position the new Skunk2 Racing Thermal Throttle Body Gasket between the throttle body and the intake manifold. Ensure the gasket is correctly aligned with all bolt holes and passages.
6. **Reinstall Throttle Body:** Carefully reattach the throttle body to the intake manifold, ensuring the gasket remains properly seated. Insert and hand-tighten the bolts.
7. **Torque Bolts:** Using a torque wrench, tighten the throttle body bolts to the manufacturer's specified torque settings. Tighten in a crisscross pattern to ensure even pressure. Refer to your vehicle's service manual for specific torque values.
8. **Reconnect Components:** Reconnect the air intake hose, sensors, and vacuum lines that were previously disconnected. Ensure all connections are secure.
9. **Reconnect Battery:** Reconnect the negative terminal of the vehicle's battery.
10. **Final Check:** Start the engine and check for any air leaks around the throttle body area. Listen for unusual noises and observe engine idle.

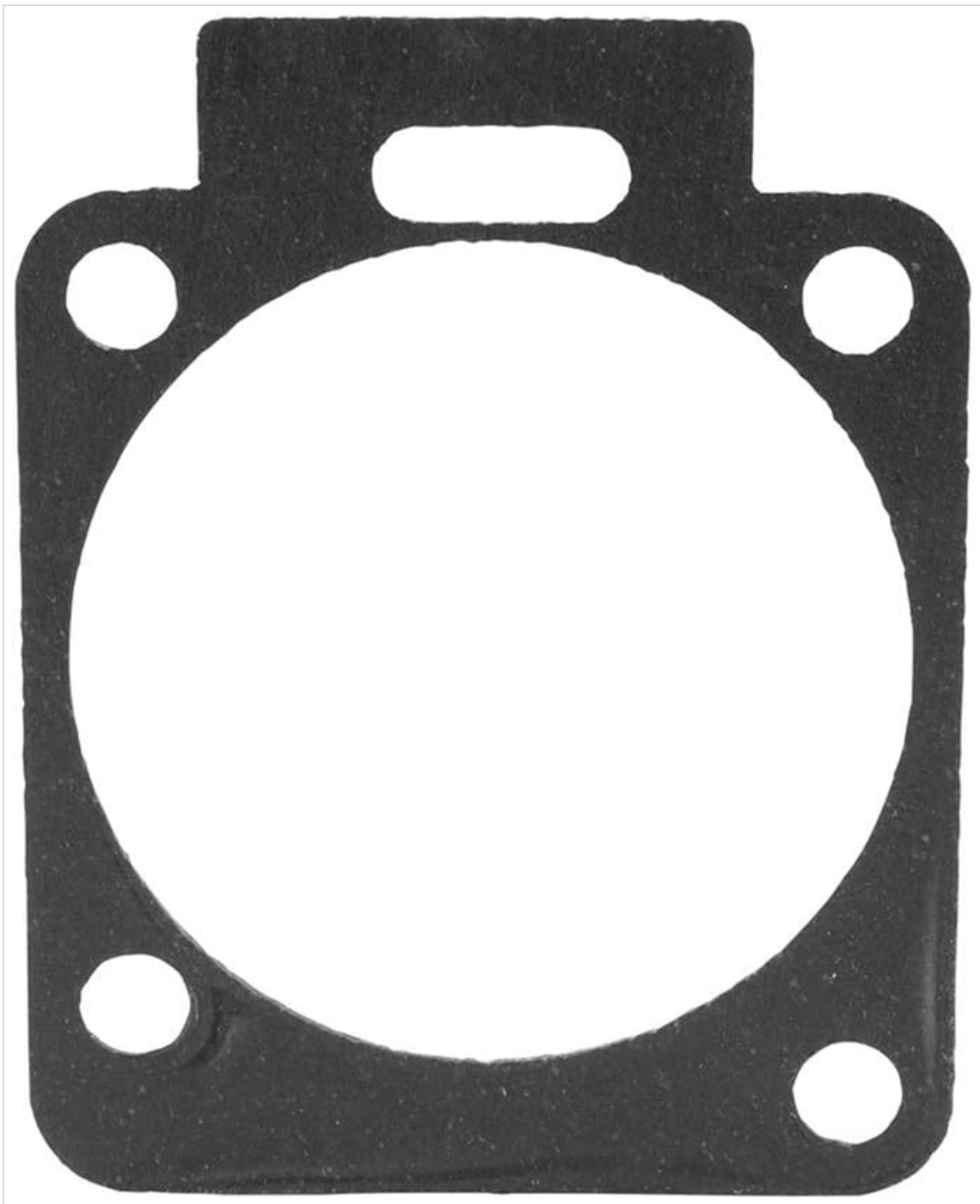


Image 1: Skunk2 Racing Thermal Throttle Body Gasket. This image shows the black, rectangular-shaped gasket with a large central circular opening and four smaller circular bolt holes at each corner, along with two elongated slots at the top.

4. OPERATION AND FUNCTION

The Skunk2 Racing Thermal Throttle Body Gasket functions by creating a thermal barrier between the hot engine components (intake manifold) and the throttle body. Made from an advanced high-temperature thermal polymer, it significantly reduces heat transfer to the throttle body. This reduction in heat soak helps maintain cooler air intake temperatures, which is crucial for engine performance. Cooler air is denser, allowing for more oxygen in the combustion chamber, leading to increased horsepower and efficiency. The gasket ensures a tight seal, preventing vacuum leaks that could negatively impact engine operation.

5. MAINTENANCE

While the thermal throttle body gasket itself requires minimal maintenance, periodic inspection of the throttle body area is recommended to ensure its continued effectiveness.

- **Visual Inspection:** During routine engine checks, visually inspect the gasket area for any signs of cracking, deterioration, or leaks.
- **Cleaning:** If the throttle body is removed for cleaning or other maintenance, inspect the gasket and replace it if it shows any signs of wear or damage. Do not reuse a damaged gasket.
- **Replacement:** Gaskets are wear items. If you notice any performance issues related to air leaks or excessive heat transfer to the throttle body, consider replacing the gasket.

6. TROUBLESHOOTING

Most issues related to a throttle body gasket stem from improper installation or a damaged gasket.

Problem	Possible Cause	Solution
Engine Idling Issues (Rough Idle, High Idle)	Vacuum leak around throttle body gasket.	Check for proper gasket seating and torque on throttle body bolts. Replace gasket if damaged.
Reduced Engine Performance / Power Loss	Gasket not providing adequate thermal insulation or vacuum seal.	Verify correct gasket installation. Ensure it is the correct gasket for your application. Replace if necessary.
Check Engine Light (CEL)	Severe vacuum leak detected by engine's sensors.	Scan for diagnostic trouble codes (DTCs). If related to air/fuel mixture or vacuum, inspect gasket and surrounding components.

7. SPECIFICATIONS

Attribute	Detail
Brand	Skunk2 Racing
Model Number	372-05-0085
Material	Polymer
Shape	Round (referring to the main opening)
Item Weight	1 pounds
Product Dimensions	6 x 4.5 x 4 inches
UPC	841150910296
Compatibility	For use with K Pro Series Throttle Body ONLY

8. WARRANTY INFORMATION

For specific warranty terms and conditions regarding the Skunk2 Racing 372-05-0085 Thermal Throttle Body Gasket, please refer to the official Skunk2 Racing website or contact their customer service directly. Warranty coverage typically applies to manufacturing defects and does not cover damage due to improper installation, misuse, or normal wear and tear.

9. CUSTOMER SUPPORT

If you have any questions, require technical assistance, or need to report an issue with your Skunk2 Racing product, please contact Skunk2 Racing customer support through their official channels:

- **Website:** Visit the official Skunk2 Racing website for contact forms, FAQs, and support resources.
- **Email/Phone:** Refer to the contact section on their website for current email addresses and phone numbers.
- **Authorized Dealers:** Contact the authorized dealer from whom you purchased the product for initial support.