

Saris MHS Duo Add-On (Model 4650)

Saris MHS Bike Carrier Modular Hitch System

DUO ADD ON (MODEL 4650) INSTRUCTION MANUAL

Brand: Saris

Introduction

This instruction manual provides detailed guidance for the safe and effective use of your Saris MHS Bike Carrier Modular Hitch System, specifically the DUO ADD ON tray. The MHS is a versatile, precision-machined aluminum bike rack designed for secure and convenient transportation of bicycles on various vehicles. Its modular design allows for customization to fit your specific needs, offering zero-frame contact and easy access to your vehicle's rear.

Setup

1. Attaching the MHS Base (Sold Separately)

The MHS system begins with a base unit, available in 1+1, 2+1, or 3+1 configurations to accommodate different numbers of bikes. Ensure your vehicle has a compatible 2-inch hitch receiver. The base unit features Saris's HitchTighter system for a rock-solid connection to your vehicle, preventing wobble and ensuring stability.



Figure 1: Saris MHS Duo Add-On Tray. This component attaches to an existing MHS base.



Figure 2: The MHS Duo Add-On Tray shown alongside a base unit, illustrating the modular connection.

2. Attaching the MHS Duo Add-On Tray

The MHS Duo Add-On Tray is designed for simple, tool-free attachment to any MHS base. Align the tray with the designated slots on the base and secure it using the provided hardware. The heavy-duty clasp ensures a firm connection, allowing for quick customization of your rack's configuration.



Figure 3: Close-up view of a person attaching an MHS tray to the base unit.

Operating Instructions

Loading Bikes

The MHS Duo Add-On features a zero-frame contact design, securing your bike by its wheels. This protects your bike's frame from scratches and damage. The dual-arm holders provide superior bike connection and limit potential bike-to-bike contact with maximum offset bike positions. Simply place your bike's wheels into the trays and secure them with the adjustable straps and dual-arm holders.



Figure 4: The Saris MHS system securely holding two bikes on the back of an SUV.



Figure 5: The MHS system configured to carry multiple bikes, demonstrating its capacity.

Unloading Bikes

To unload, release the securing straps and dual-arm holders, then lift your bike directly out of the tray. The

process is quick and straightforward.

Tilting Feature

The MHS base unit includes a full tilting feature, allowing you to access your vehicle's rear hatch or tailgate without removing the bikes. Simply engage the tilt mechanism (refer to your MHS base manual for specific instructions) to lower the rack away from the vehicle.



Figure 6: The MHS bike rack tilted down, providing clear access to the vehicle's rear hatch.

Integrated Security

The MHS Duo Add-On features an integrated cable lock that stores conveniently within the wheel tray. Use this cable lock to secure your bikes to the rack, providing an additional layer of theft deterrence. The MHS base also includes a matching lock core system for overall security.

Wheel and Tire Compatibility

The adjustable wheel blocks on the MHS Duo Add-On accommodate a wide range of wheel sizes, from 20 to 29 inches, and tires as wide as 5 inches. It also supports wheelbases up to 53 inches, making it suitable for various bike types, including downhill bikes and large e-MTBs.

Maintenance

Regular maintenance ensures the longevity and safe operation of your Saris MHS Duo Add-On. Perform these steps periodically:

- **Cleaning:** Clean the rack with mild soap and water after each use, especially if exposed to dirt, salt, or harsh weather conditions. Rinse thoroughly and dry.
- **Inspection:** Regularly inspect all bolts, straps, and moving parts for wear, damage, or looseness. Tighten any loose fasteners.
- **Lubrication:** Apply a small amount of silicone spray or a similar lubricant to moving parts and lock

mechanisms to ensure smooth operation and prevent corrosion.

- **Storage:** When not in use, store the rack in a dry, protected area to prevent exposure to extreme elements.

Troubleshooting

- **Rack Wobbles:** Ensure the MHS base is fully tightened in the hitch receiver using the HitchTighter system. Check all connection points between the add-on tray and the base.
- **Bikes Not Secure:** Verify that the dual-arm holders are properly adjusted to the wheel size and that all straps are tightly fastened. Ensure the integrated cable lock is engaged if used.
- **Difficulty Tilting:** Check for any obstructions or debris in the tilting mechanism. Ensure the release handle is fully engaged. Lubricate moving parts if necessary.
- **Plastic Strap Breaks:** While the main rack components are durable, plastic parts like straps can wear over time. Contact Saris customer support for replacement parts.

Specifications

Feature	Detail
Model Name	MHS Bike Kit (DUO ADD ON)
Model Number	4650
UPC	012527025046
Color	Carbon Black
Item Dimensions (L x W x H)	77.2 x 10.6 x 6.5 inches
Load Capacity (per tray)	Up to 80 lbs (first two trays closest to vehicle), 35 lbs (add-on trays)
Mounting Type	Hitch (2-inch receivers only for base unit)
Wheel Size Compatibility	20-29 inches
Max Tire Width	5 inches
Max Wheelbase	53 inches
Included Components	MHS Duo 1-Bike Add-On Tray

Warranty Information

Saris Cycling Group, Inc (SCG), parent company of Saris Racks, warrants our product to the original consumer to be free from defects in materials and workmanship. Please retain your sales slip for your records, as proof of purchase will be required for any warranty claims.

Customer Support

For further assistance, technical support, or to inquire about replacement parts, please visit the official Saris website or contact their customer service department. Always refer to your specific product model number (4650) when seeking support.

[Visit Saris Official Website](#)