



**2006-15 Mazda Miata 2.0L**  
**P/N BH10306 – 1 5/8” Primary 304SS Tri-Y Header**

**Installation Instructions**



Thank you for making HOOKER HEADERS your choice in a high-performance exhaust system. Extensive dyno/track testing has enabled HOOKER to offer the most advanced design in exhaust systems. The installation, while not complex, will take a certain amount of time. However, the additional horsepower and improved performance will more than justify your efforts. Proper installation and maintenance will ensure long life and maximum performance from your HOOKER HEADER exhaust system.

**WARNING! This product is not street legal and may only be used on Racing Vehicles. Racing Vehicles must be used exclusively for racing or other forms of competition. Racing vehicles must not be registered and must never be used on the street. It is illegal to install this product on a registered vehicle and use it on the street.**

**BEFORE STARTING:**

Your vehicle must be raised a minimum of 18 inches. A floor hoist is ideal and recommended. If no hoist is available, we strongly urge the use of axle stands as a safety measure. **Please read and understand these instructions and disclaimer in their entirety before attempting installation.**

**CAUTION! WORK ONLY ON A LEVEL SURFACE. USE JACKS /JACK STANDS OF SUFFICIENT CAPACITY TO LIFT AND SUPPORT YOUR VEHICLE. NEVER WORK UNDER A VEHICLE SUPPORTED BY A FLOOR OR BUMPER JACK.**

**INCLUDED HARDWARE**

P/N	Qty.	Description
505R71	2	Spring Bolts
538R37	2	M8 Flange Nut
N/A	1	Header Gasket
N/A	1	Donut Seal Ring
N/A	1	Primary O2 Sensor Ext. Harness
N/A	4	Flame Resistant Cable Ties

Parts List:	
1	1-5/8” Tri-Y Header Assy

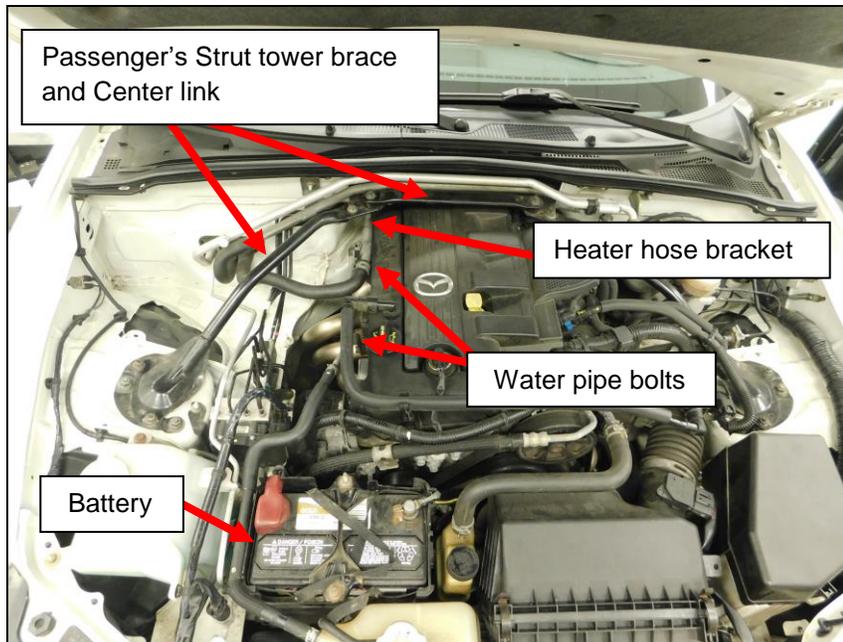
Tool List:
3/8” Drive Metric Socket Set
3/8 Drive Universal
13mm Wrench
14mm Wrench
18” Extension
7/8 Wrench or O2 Wrench
WD-40® or equivalent

Check the hardware package. If anything is missing, please contact Technical Service at 1-866-464-6553 or 270-781-974

## INSTALLATION:

### Removing the factory exhaust manifold assembly

1. Disconnect and remove the battery.
2. Remove the battery tray bolts. Move tray to allow access to accessory belt tensioner.
3. Remove the accessory drive belt.
4. Remove the small (x1) 6mm bolt connecting the harness retainer from the front of the alternator. Remove the (x3) alternator mounting bolts and move alternator aside. **Note:** It is not necessary to disconnect the battery cables from the alternator.
5. Remove the center link and the passenger's side section of the strut tower brace (**Figure 1**).



**Figure. 1**

6. Remove the (x2) large mounting bolts for the water pipe running across the top of the exhaust manifold and the small 10mm nut on the heater hose bracket at the back of the cylinder head that ties the two pipes together.
7. Remove the bolts from the heat shield on the exhaust manifold and remove the upper section. The lower section can be removed after the engine is raised in step 15.
8. Remove the engine mount nut on top of the passenger's side mount. It is not necessary to remove the pedestal from the engine.
9. Lift the vehicle and secure on jack stands.
10. Remove the metal service cover from under the oil pan. Removing the large metal brace will make working less restrictive, but it is not necessary.
11. Remove the (x2) nuts at the spring mounts on the flange between the down pipe and the mid pipe. Save the springs for re-use later.
12. Remove the brace between the catalytic converter and the engine block.
13. Unplug the (x2) O2 sensors from the vehicle harness.

**Caution must be taken with the next step to avoid personal injury or death and the possibility of damaging the vehicle.**

14. Raise the engine until the engine-mounting pedestal is just off the stud on the engine mount. Be aware of the valve cover contacting the strut tower brace.

**DO NOT** raise the engine from the oil pan or crank pulley. Damage can result.

**DO NOT** allow anyone to be under the vehicle when the engine is being raised or while the work is being performed with the engine raised.

**DO NOT** raise the vehicle off the jack stands while raising the engine.

15. Remove the lower section of heat shield from the exhaust manifold.

16. Remove the nuts from the exhaust manifold flange at the cylinder head

17. Remove the manifold assembly from the vehicle. Take care not to damage the heater hoses or the O2 sensors while working the assembly from the vehicle.

18. Remove the O2 sensor from the exhaust manifold. Make a note of where the sensor was located (before the cat or after the cat).

## **Installing the Hooker Racingheart BH10306 Tri-Y Header**

1. Install the Hooker Racingheart Tri-Y header into the vehicle but not on to the mounting studs. Take care not to damage the heater hoses.
2. Install the new header gasket on to the cylinder head.
3. Install the header on to the studs and install the nuts, torque to spec.
4. Lower the engine on to the engine mount. Install the nut and tighten to spec.

## **Installing the O2 Sensor**

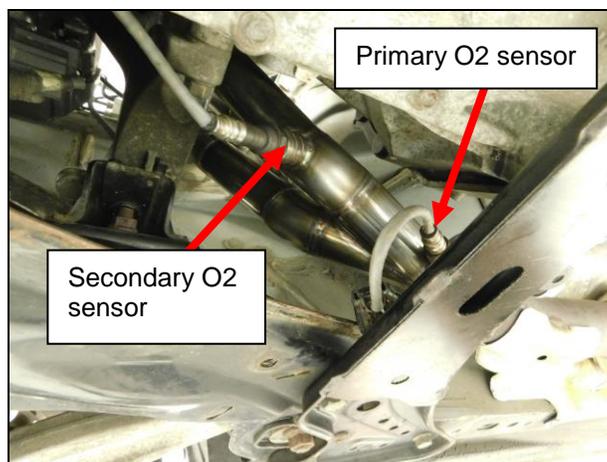
It will be necessary to remove the round heat shield from the primary O2 sensor before installation into the header. A small rotary tool with a cut off wheel or a good set of tin snips will work for this. Take care not to damage the sensor during this process.

1. Apply a small amount of anti-seize to the threads of the O2 sensor (be careful not to get anti-seize on to the O2 sensor head). Install the primary O2 sensor into the header collector at the 4 o'clock position (**Figure 2**).

**Note:** An extra O2 bung has been provided (11 o'clock position) for wide band O2 sensor installation if needed for tuning the vehicle.

2. Connect the supplied O2 sensor extension onto the primary O2 sensor and connect the extension into the vehicle harness.
3. Install the secondary O2 sensor (the sensor after the cat) into the extended O2 bung at the first merge and plug the sensor into the vehicle harness (**Figure 2**).

**NOTE:** This location is for convenient O2 placement and may not prevent the check engine light from illuminating. Tuning out the secondary O2 sensor or relocating the sensor to after the secondary catalyst may be necessary to prevent a false check engine light.



**Figure 2**

4. Install the supplied doughnut gasket at the collector outlet.
5. Position the exhaust pipe on to donut gasket and align the flanges. Install the factory exhaust springs on to the provided spring bolt and install the assembly into the flanges. Install the supplied M8 flange nuts on to the spring bolts and tighten to 35 ft.lbs. (Figure 3).



Figure 3

6. Use the supplied cable ties to secure the harnesses away from the headers or any moving parts.
7. Reinstall the alternator, waterlines, heater hoses, strut tower braces, and any hardware or parts removed to access the factory exhaust manifold.
8. Reinstall any service covers removed from under the car.
9. Reinstall the battery tray and battery.
10. Re-check your work.
11. Remove the jack stands and lower the vehicle.
12. Connect the battery and start the vehicle to check for leaks.
13. After 150 miles, re-check and tighten all bolts and clamps.

**NOTE: It is normal for the Racingheart Exhaust System to emit smoke for the first few minutes during break-in period**

**LIMITATION OF LIABILITY – DISCLAIMER:**

The regulation of emissions production, noise levels, and safety standards is undertaken by the federal government, each of the fifty state legislatures, and by many local municipalities, towns, and counties.

HOOKER™ makes no warranties of merchantability, of fitness for particular purpose, or that its products are approved for general use, or that its products comply with laws, regulations, or ordinances in the state where they may be sold to the ultimate purchaser, the consumer.

Unless expressly stated to the contrary in the catalog, instruction sheet; or price list, the entire risk as to the conformity of any company product in any such state and as to repair should the product prove to be defective or non-conforming, is on the retail purchaser, the buyer, the ultimate consumer, of such product and it is not upon the seller, distributor, or manufacturer.

In this connection, the retail purchaser, the buyer, the ultimate consumer assumes the burden of the entire cost of any and all necessary service, alterations, or repair.

**THE FOREGOING STATEMENT LIMITS THE LIABILITY OF THE MANUFACTURER.**

California vehicle code, sections 27156 and 38391, prohibits the advertising, offering for sale, or installation of any device, which modifies a vehicle's emission control system, unless exempted, unless otherwise noted. HOOKER™ Headers that have not received an Executive Order (E.O.) exemption from these code sections are not legal for sale or use in California on vehicles originally equipped with catalytic converters, except for racing vehicles, which may never be driven upon a highway. Check with your local authorities to determine if these headers are legal for use in your particular area.

© 2018 Hooker Headers, Inc. All rights reserved. Tous Droits Réservés.

**199R11630**

**Revision Date: 7-20-21**