# STAINLESS WORKS 99-04 FORD F150 LIGHTING HEADER INSTALLATION INSTRUCTIONS

Thanks for purchasing a Stainless Works Header system for your 1999-2004 Ford F150 Lightning. Our team has worked to ensure that this product is the premium in performance, quality, and fitment. We are proud to say that this system will unleash the true character of your vehicle. We encourage you to read through the following steps, and check the included Bill of Materials before beginning. Please follow these steps to ensure that your installation goes as planned.



1999-2004 F150 LIGHTNING (FTLTNHCAT, FTLTNHOR)

#### а.

Stainless Works recommends the use of Hi-Temp RTV sensor safe silicone gasket maker as an option or in conjunction with the use of factory gaskets. The recommended Oxygen Sensor Safe RTV is either Valco All-in-One Aluminum or Permatex Copper P/N 101BR available at NAPA, Autozone and other retailers.

## **b**.

Disconnect the battery before starting to work on the exhaust system for your vehicle. Reconnect the battery when the job is completed.

#### С.

Your exhaust system can be installed by a weekend warrior, but the use of a lift is recommended for ease of installation. If using a jack, the vehicle must be placed on a hard level surface. Jack stands are required for safety.

## **d**.

You will assemble the components together as specified below, but only snug the clamps as you move along from front to back. After aligning all the components in the vehicle, you will tighten all the clamps working from front to back of the vehicle.



Detail a

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#### 1.

Disconnect the battery.

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## 2.

Remove 8mm headed bolt holding engine die stick to left cylinder head and remove dipstick tube.

## 3.

Put truck up on jack stands or lift.

## 4.

Remove front tires (for manifold bolt access).

## 5.

Through the left fender well, undo air tube at manifold.

## 6.

Remove 2-13 mm headed bolts holding heat shields to transmission cross members, and 1-13mm bolt on head pipe mount.

## 7.

Remove 2-18mm nuts holding transmission mount to cross member.

## 8.

Remove 6-18mm nuts (3 per side) holding crossmember to frame rails.

## 9.

Lift transmission to take weight off the cross member, slide bolts coming thru frame rails out of cross member and pull crossmember out.

10.

Unhook all 4 O2 sensors.

11.

Pull 4-15mm nuts off of manifolds holding head pipe on.

## 12.

Undo hangers and drop exhaust.

## 13.

Put cross member back in using OEM hardware





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#### 14.

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Remove starter: 3-13 mm bolts holding it to bell housing, 1-13mm nut holding battery cable, 1-10mm nut holding solenoid wire.

#### 15.

Remove 8-13mm nuts per side holding manifold to head and pull manifolds down through the bottom.

#### 16.

If you retain the factory studs you may have to jack up motor to install headers. If you are using bolts, headers will slide up in place from the bottom, without jacking up motor. Make sure to install all bolts before tightening, and with bolts installed but loose on the passenger side, go ahead and install starter, it can be done with header tight, it is just easier with the header loose. Also install O2 extensions on wiring harness side before putting headers up in place; this will make it much easier to get to the factory connectors.

## 17.

Reinstall starter using OEM hardware.

#### 18.

Tighten all clamps and bolts in your header system.

#### 19.

Put dipstick tube back in and tighten bolt.

#### 20.

Install O2 sensors.

#### 21.

Slide clamp onto inlet of converter (or converter delete) and slide onto collector (both sides).

#### 22.

Slide clamp onto inlet of left head pipe and slide it onto left converter, making sure to place the welded on mount on the head pipe into lower hold in factory mount on the cross member. Tighten mount.

#### 23.

Slide clamp onto right head pipe and slide it onto converter with the O2 bung pointing up around 10 o'clock.

#### 24.

Install rear O<sub>2</sub> sensors, then continue by following the catback installation instructions.

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