



# INTERCOOLER PIPE UPGRADE KIT

(TUNING REQUIRED)

2011 - 2016 6.7L FORD | 122010

INSTALLATION GUIDE

[HS-MOTORSPORTS.COM](http://HS-MOTORSPORTS.COM)

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# INTERCOOLER PIPE UPGRADE KIT

6.7L FORD



## TROUBLESHOOTING

Please read and understand all installation instructions before proceeding with the installation. If you have questions during the installation of this product, please contact H&S Motorsports support at [tech@hs-motorsports.com](mailto:tech@hs-motorsports.com) or **(855) 623-4450**.

## INCLUDED PARTS

- 1 - HSM Billet Aluminum Throttle Body Adapter
- 1 - 5-Ply Stainless-Reinforced Hose Replacement
- 2 - Stainless T-bolt Clamps
- 1 - Pack of Installation Hardware

# POWER THAT *WORKS.*

## STEP 1

Disconnect the vehicle batteries. Disconnect the intake air temperature sensor connector and clip from the back side of the factory intercooler pipe. Disconnect the clip holding intake air temperature sensor wiring to the fan shroud.



## STEP 2

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Remove the bolt holding the power steering reservoir to the fan shroud. Pull the power steering reservoir up to disconnect it from the fan shroud and just let the reservoir swing free to temporarily provide easier access to the lower intercooler pipe connection point (on intercooler). Loosen the lower factory t-bolt clamp (at intercooler).



## STEP 3

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With a pick tool or something similar, carefully remove the metal locking clip from the factory plastic throttle body coupler. Be careful not to damage the ring as it will be re-used later. With everything disconnected, carefully remove the entire cold-side factory intercooler pipe assembly from the vehicle.



## STEP 4

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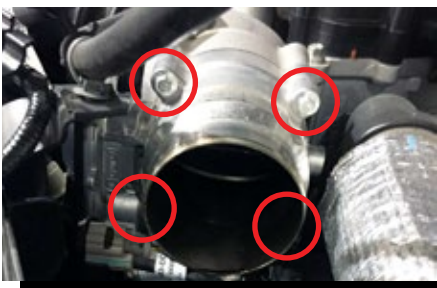
Twist carefully **(1/4 turn counter-clockwise)** to unlock and remove the intake air temperature sensor from the factory plastic throttle body coupler. Apply some vaseline or grease to the o-ring of the factory intake air temperature sensor and install it into the machined port on the supplied HSM billet aluminum throttle coupler. Be sure to carefully twist the sensor to properly lock it into place **(1/4 turn clockwise)**.



## STEP 5

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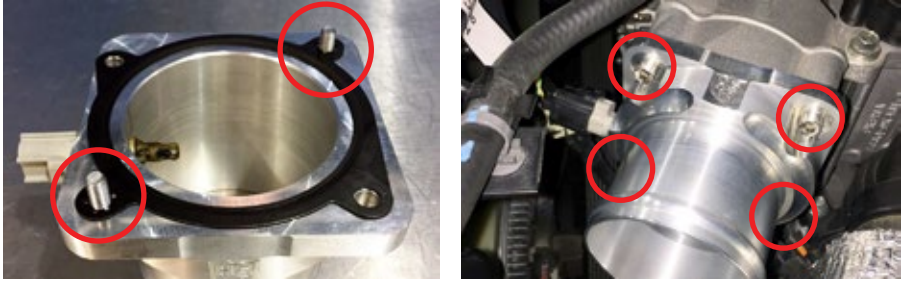
Locate the electrical connection on the factory throttle valve actuator as shown. Unplug this connector and secure the wiring harness away from hot/moving components (serpentine belt, radiator fan, etc). Keep in mind that this plug/harness will NOT be reconnected. Remove the 4 bolts connecting the throttle valve to the factory intake manifold as shown and remove the factory throttle valve from the vehicle. Ensure that the factory gasket is retained, as it will be re-used during reassembly.



## STEP 6

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Install the previously removed throttle valve gasket onto the supplied HSM throttle body adapter (it will only fit one way). Use the supplied 6mm x 1.0 x 20mm allen head bolts to hold the gasket to the HSM throttle body adapter (as shown) while you install the HSM throttle body adapter to the factory intake manifold assembly. Torque all 4 bolts to 98 in-lbs.



## STEP 7

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Using brake cleaner or another similar cleaning media, clean the factory intercooler boot sealing surface on the intercooler (failure to clean the intercooler may result in the boot blowing off due to oil residue or other contaminants on the sealing surface).

## STEP 8

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Locate the supplied HSM heavy-duty silicone intercooler hose and (2) T-bolt clamps. Loosely install the clamps onto the silicone hose and orient the clamps so that the clamp nuts are facing upwards in the vehicle and can be easily accessed when the hose is installed. Install the lower part of the supplied intercooler hose (the end WITHOUT the HSM logo) to the factory intercooler first, then install the upper part (the end WITH the HSM logo) to the previously installed HSM throttle body adapter as shown. Adjust the hose and clamps to ensure proper clearance/orientation and tighten both clamps.



## STEP 9

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Find the previously unplugged harness belonging to the intake air temperature sensor and route the wiring behind the power-steering reservoir as shown. Re-install the power steering reservoir using the factory hardware. On some applications, the hose clamp on the power steering reservoir hose can be clocked/oriented in such a way that it may rub or get close to the new silicone hose (SEE PICTURE). If the clamp is clocked/oriented in that position, use a pair of needle-nose pliers to rotate the hose clamp ends away from the silicone hose.



## STEP 10

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Reconnect the factory intake air temperature sensor connector and clip/zip-tie the wiring harness away from any hot/moving engine components. Reconnect vehicle batteries and double-check all work.

## STEP 11

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Kit installed.







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