



### **INTERCOOLER PIPE UPGRADE KIT** (OEM REPLACEMENT)

2011 - 2016 6.7L FORD | 122011

INSTALLATION GUIDE

**HS-MOTORSPORTS.COM** 

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# INTERCOOLER PIPE UPGRADE KIT

HEM

### 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** or **(855) 623-4450.** 

## **INCLUDED PARTS**

- 1 HSM Billet Aluminum Throttle Coupler
- 1 5-Ply Stainless-Reinforced Hose Replacement
- 2 Stainless T-bolt Clamps



### 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.



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

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.



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

Install the factory locking clip in the groove on the outside of the HSM billet throttle coupler as shown. Apply a small amount of vaseline or assembly lube/grease to the supplied o-ring and install the o-ring in the groove on the inside of the HSM billet throttle coupler as shown. Find the previously unplugged harness belonging to the intake air temperature sensor and route the wiring behind the power-steering reservoir as shown.



NOTE: Be careful not to damage the o-ring, intake air temperature sensor, or wiring harness during this step!

#### **STEP 6**

With the HSM logo on top, carefully install the HSM throttle adapter to the factory throttle body assembly by applying pressure while slightly twisting the HSM throttle adapter back and forth until the factory locking clip (c-ring) is locked into place. Keep in mind that these parts are a tight fit to ensure proper sealing, so some force may be required for installation.



### STEP 7

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).

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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 coupler as shown. Adjust the hose and clamps to ensure proper clearance/orientation and tighten both clamps.



#### STEP 9

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

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.



Kit installed



## C.A.R.B. E.O. NOTICE

#### E.O. identification label is required in passing the Smog Check inspection.

The E.O. identification label must be placed on or near the device in the engine compartment so that smog check technicians can verify the E.O. number.





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