



# DEFENDERS OF SPEED

R53 Copper Air-to-Air Intercooler Installation Instructions

## Parts Included:

- A) Defenders of Speed A2A-IC
- B) 6X 6mm Fender Washers
- C) Pre-Cut Section of Self Adhesive Heat/Anti-Abrasion Shield Material
- D) Front Diverter

## Tools & Supplies Needed:

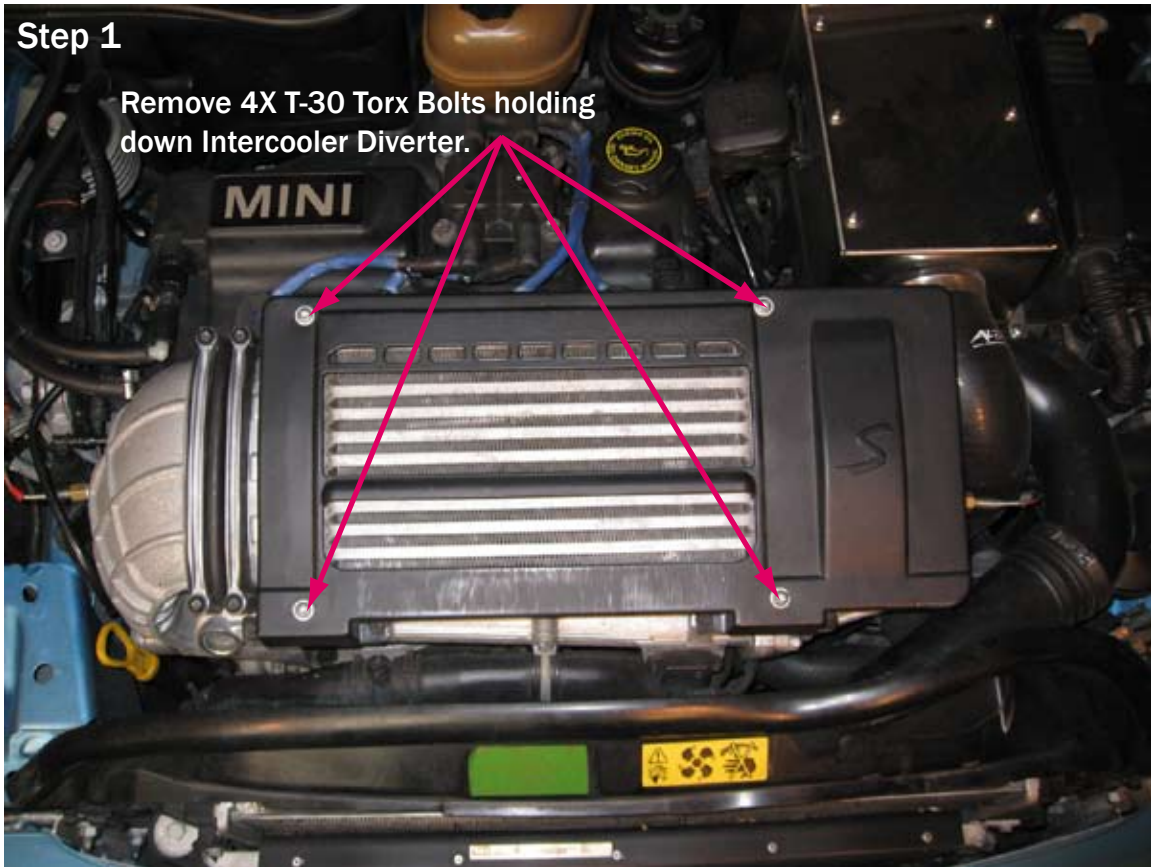
- A) 3/8" Drive Ratchet Handle
- B) 1/4" Drive Ratchet Handle
- C) 3/8" Drive X 3" Extension
- D) 1/4" Drive X 3" Extension
- E) T-30 Torx Bit – 3/8" Drive
- F) 8mm socket – 1/4" Drive
- G) (optional) 8mm deep socket – 1/4" Drive
- H) (optional) 1/4" drive nutdriver handle
- I) Denatured Alcohol
- J) (optional) Vinyl Application Squeegee



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## Step 1

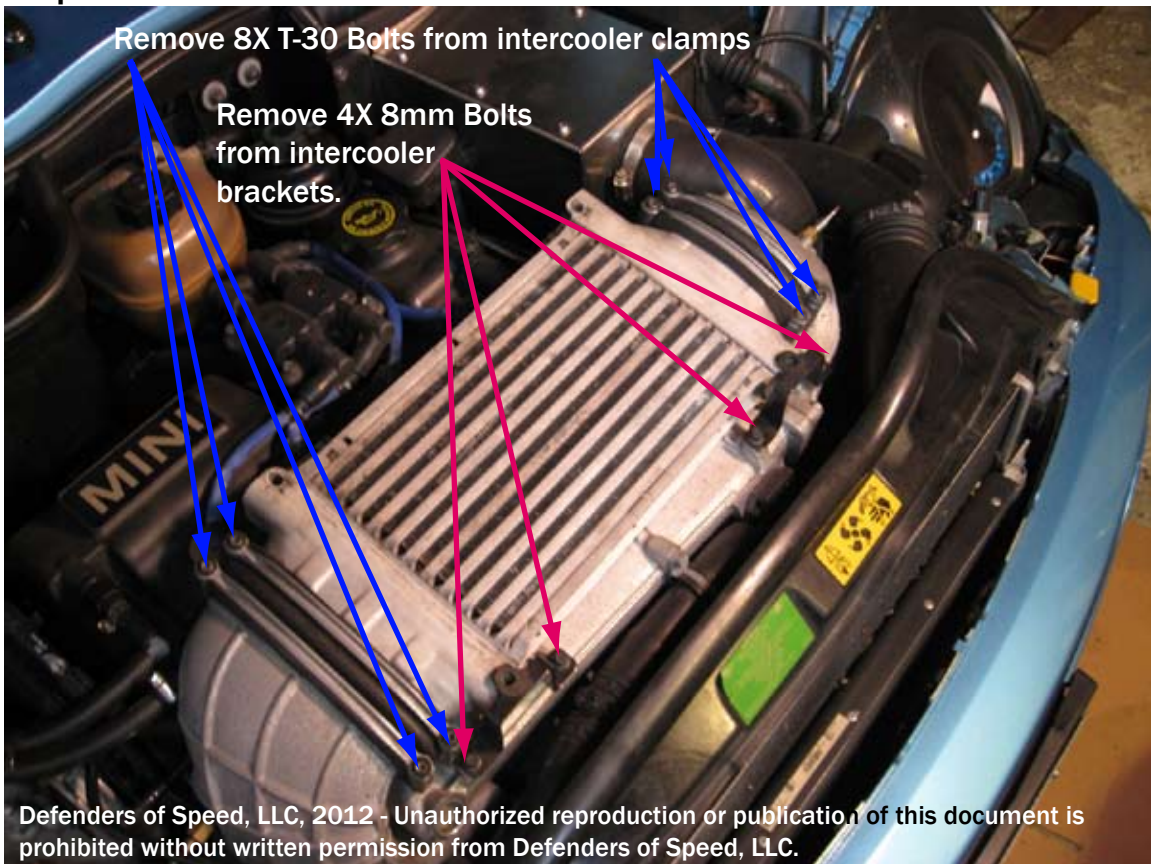
Remove 4X T-30 Torx Bolts holding down Intercooler Diverter.



## Step 2

Remove 8X T-30 Bolts from intercooler clamps

Remove 4X 8mm Bolts from intercooler brackets.



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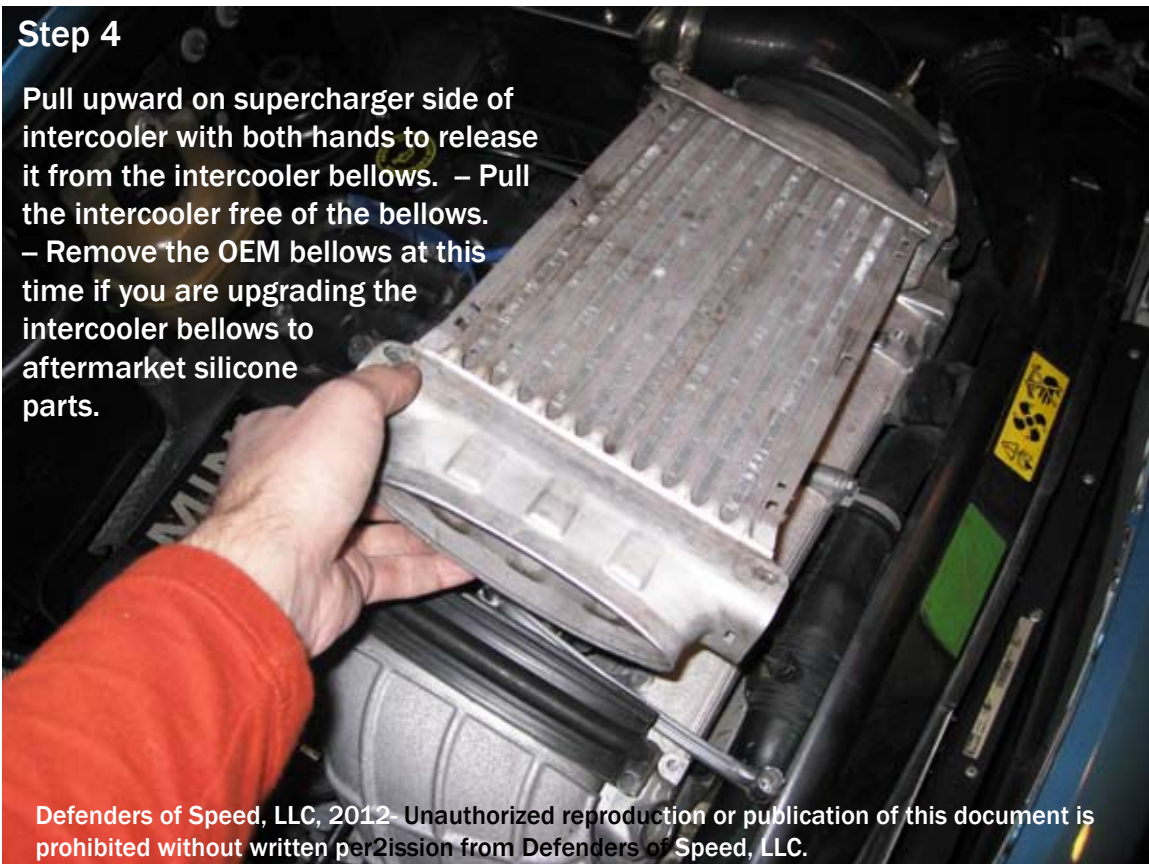
### Step 3

Remove Upper Portion of Intercooler Clamps as shown.



### Step 4

Pull upward on supercharger side of intercooler with both hands to release it from the intercooler bellows. – Pull the intercooler free of the bellows. – Remove the OEM bellows at this time if you are upgrading the intercooler bellows to aftermarket silicone parts.



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## Step 5

Your engine should look like this when the intercooler and bellows are removed



## Step 6

Re-Install OEM bellows or install silicone intercooler boots. – Slide DoS A2A-IC (IC) into outlet side intercooler boot. – Work the IC into supercharger (SC) side intercooler boot by tilting SC side boot slightly upward and then pushing both parts downward onto the SC side IC horn.

– If this does not work, a non-marring nylon pry tool may help to ease the IC into the boot.

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\*\*\* !!! DO NOT USE ANY METAL PRY TOOLS OR HOSE HOOKS FOR THIS STEP TO AVOID DAMAGING THE PLASTIC ENDTANKS!!!



**Step 7**



Slide lower half of intercooler clamps beneath intercooler boots.

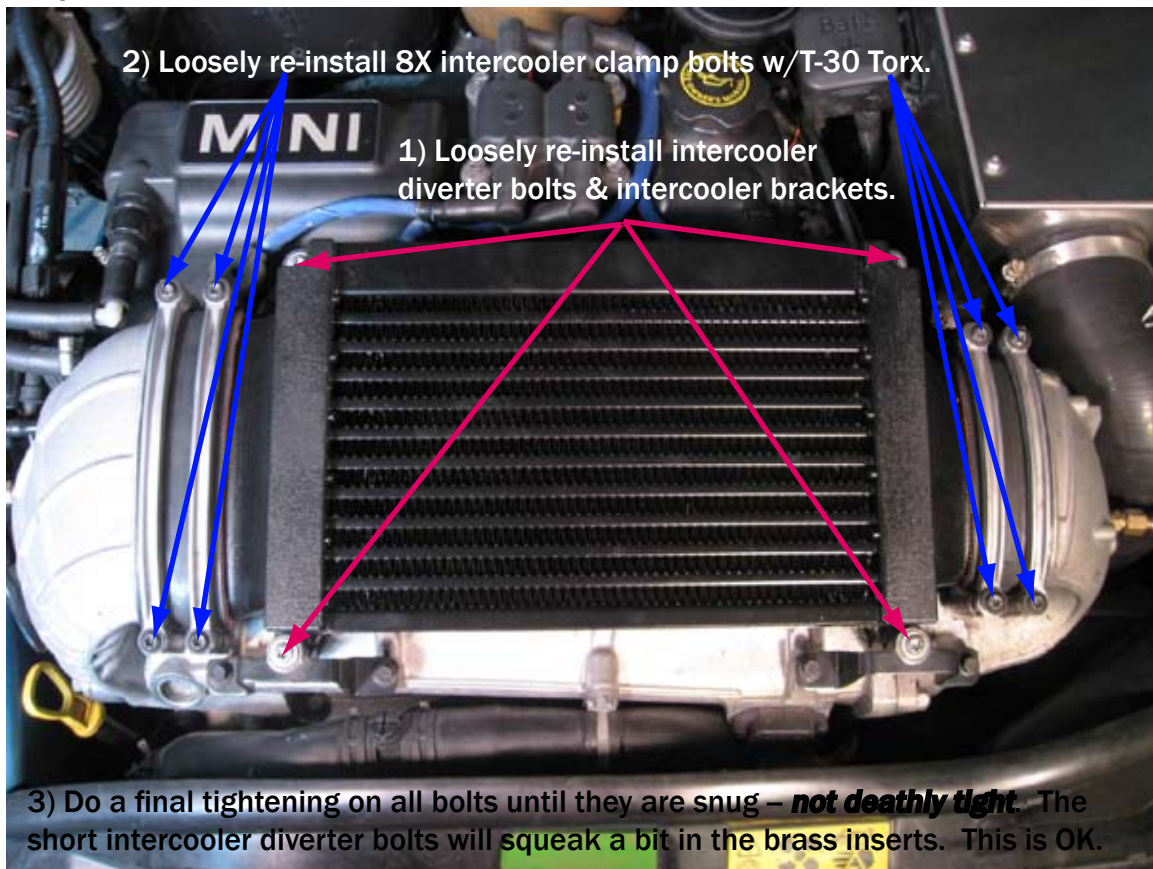
**Step 8**

Slide included 6mm fender washers onto intercooler diverter bolts.



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## Step 9



## Step 10





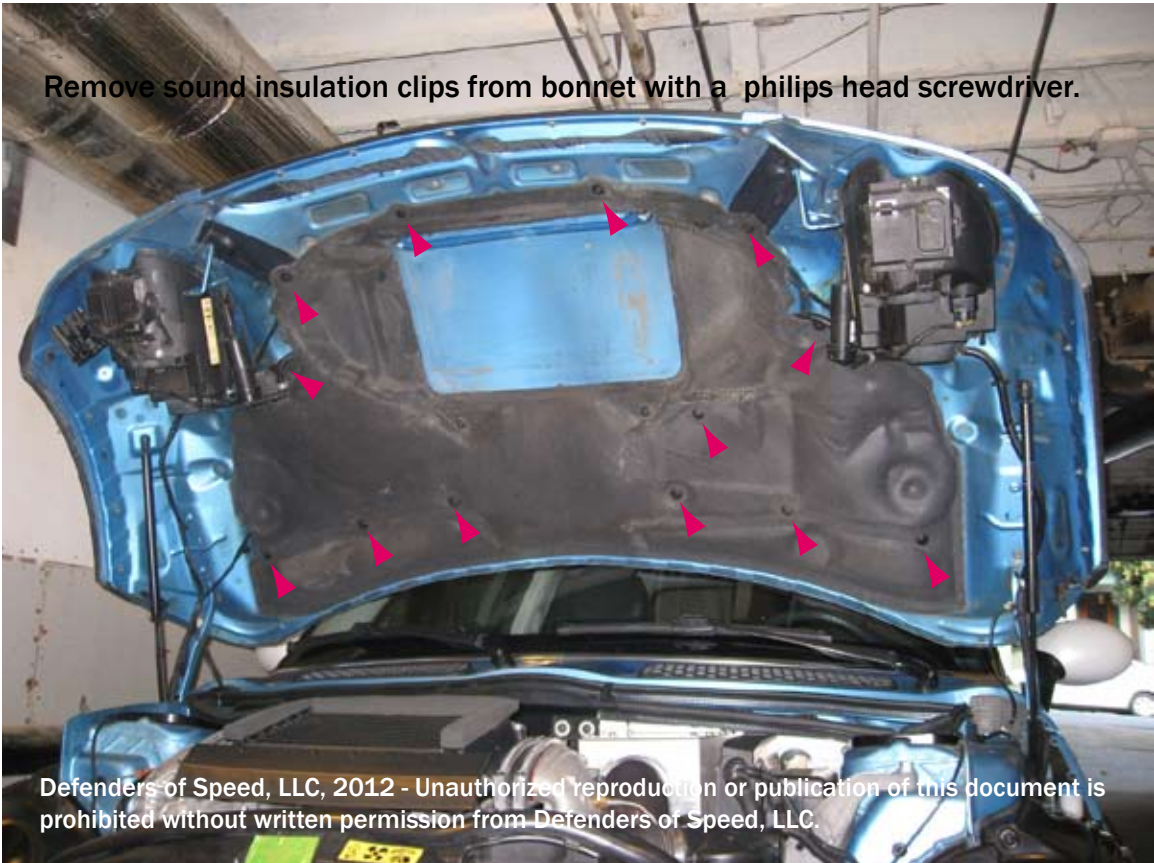
## Step 11

Remove intercooler diverter from bonnet with an 8mm socket and a philips head screwdriver



## Step 12a

Remove sound insulation clips from bonnet with a philips head screwdriver.



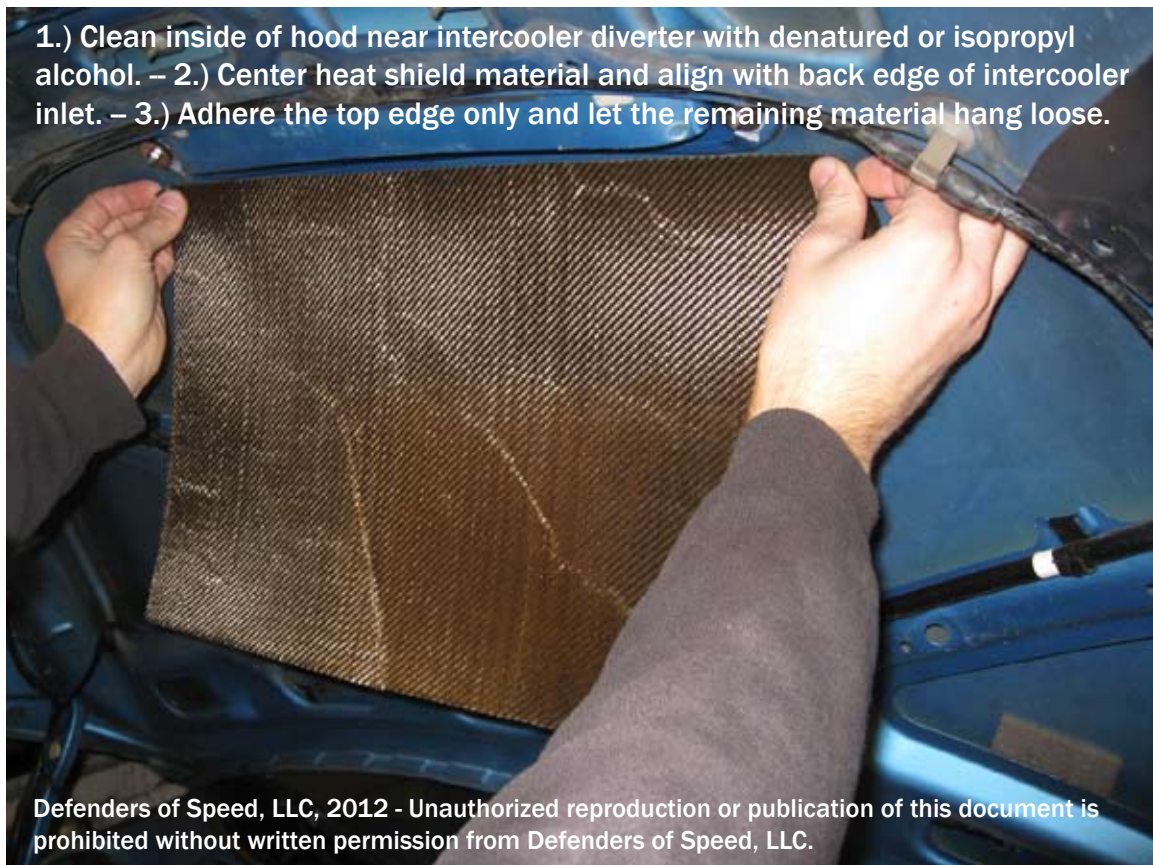
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## Step 12b



## Step 13a





### Step 13b

Using a vinyl application squeegee or carefully using your fingertips, rub down the heat shield material working from side to side. Start from the top and gradually rub down the material until you reach the bottom.



### Step 13c

Using your fingertips, work the corners of the heat shield material behind the struts inside the bonnet.

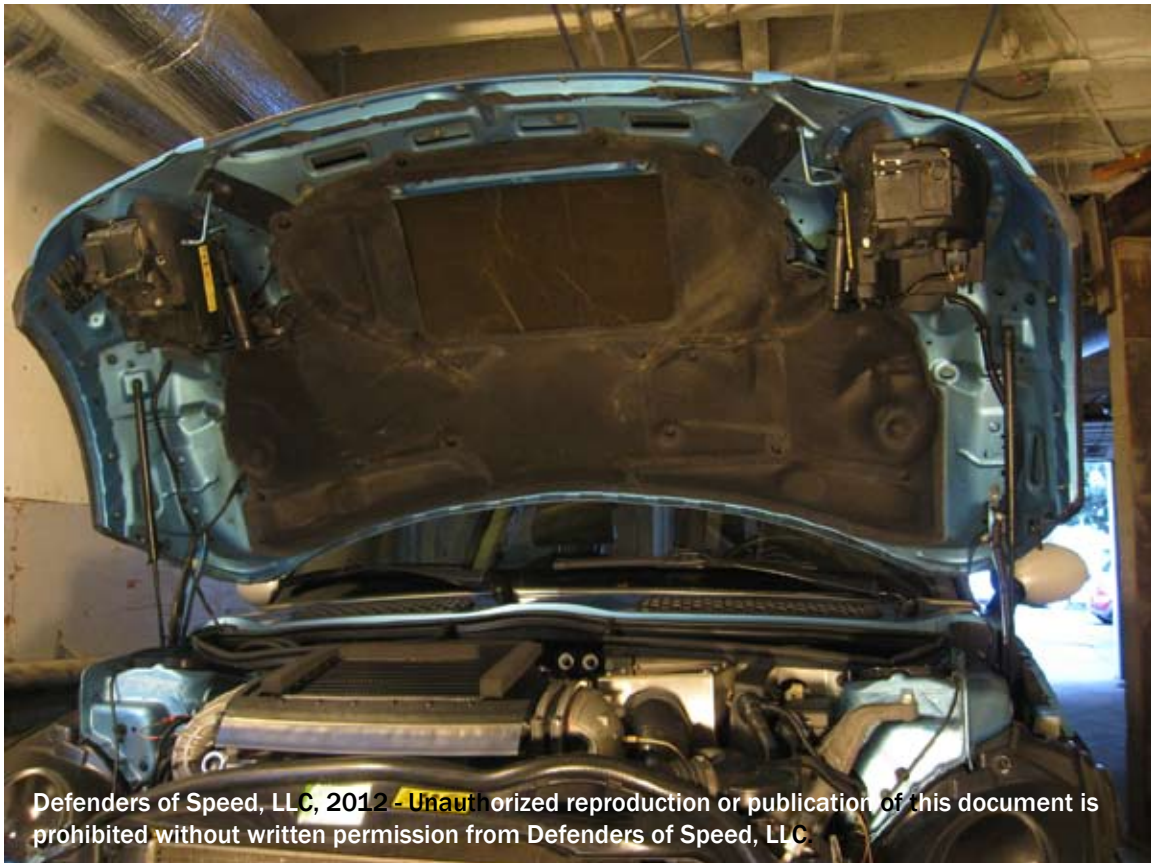


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## Step 13d



Final installation should look like this when completed.





At this point, double-check all connections/connectors, fasteners, clamps before starting the engine.

**NOTES:**

1) Check all fittings, fasteners, vacuum lines and electrical connectors near the location of the intercooler to ensure that they are in their proper locations and/ snugged-down – **not deathly tight** before starting the engine. Overtightening fasteners could crack the intercooler or break the intercooler clamps.

3) Call us at (404) 433-2452 or send Clint an e-mail at [clint@defendersofspeed.com](mailto:clint@defendersofspeed.com) if you have any questions or need installation assistance.

Enjoy your new high performance, race ready Copper Air-to-Air Intercooler!

-DoS