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# INSTALL INSTRUCTIONS FOR 83-2021

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## BEFORE YOU START

**VEHICLE FITMENT:** 2019-2023 Ford Ranger 2.3L Ecoboost

**DEVICE NAME:** HOT SIDE INTERCOOLER PIPE

When removing any turbocharger air intake system components, make sure to cover any open ports to prevent any debris from entering the system/engine. All components need to be inspected and cleaned (if necessary) prior to assembly and installation.

- Charge air cooler T-Bolt Hose Clamps making sure they are tight and secure.
- All electrical connections and wire harnesses moved during the installation of the charge air cooler pipe/hose and making sure they are secure and away from any hot or moving components.
- Check for any signs of abrasion or wear and tear on the charge air cooler hose, coolant hoses, power steering reservoir, power steering hoses, and electrical harnesses near the charge air cooler pipe/hose and repair/replace as necessary.

## REQUIRED TOOLS

- 5/16th Nut Driver
- 7mm, 8mm, 10mm, Socket and Wrench
- 11mm Deep Socket
- 10" Socket Extension or 4" + 6" Socket Extensions
- Panel Popper
- Pick
- Small Flat Blade Screwdriver
- Wire Cutters
- Torque Wrench, 75 in-lb setting

**Note:** Approximate Install Time: 1 Hr 00 Mins for Kit Installation.



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## STEP 1

Disconnect the Crank Case  
Fitting from the Intake Tube.



## STEP 2

Disconnect the IAT Sensor  
from the Intake Tube.



## STEP 3

Cut off the zip tie holding the hose to the rear of the air box/intake tube.

## STEP 4

Loosen the hose clamps on the Intake Tubes lower coupler.

## STEP 5

Loosen the hose clamp at the flange of the air filter. Then ~~remove~~ the intake tube from the bay.

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Once done, remove the air box lid seal and air filter from the air box.

## STEP 6

Remove the **(2) 10mm** bolts within the air box. Then remove the air box from the engine bay.

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## STEP 7

Disconnect this hose clamp  
next to the blowoff valve.

## STEP 8

We recommend covering the  
air inlet to prevent any  
debris/parts from falling in  
there.

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## STEP 9

Using a **13mm** socket, loosen and remove the bolt holding the intercooler pipe bracket.

## STEP 10

Using a pick tool, go ahead and remove the clip on the collar of the OEM hot side pipe. Once done, disconnect the pipe from the flange and then you are able to remove the entire OEM Hot Side Intercooler Pipe.

## STEP 11

Using an **8mm** socket or  
**5/16th** nut driver, remove the  
(3) bolts holding the Blowoff  
Valve to the stock pipe.

## STEP 12

Mount the stock blowoff valve  
to the S&B Hot Side Pipe  
using the provided **6mm** bolts

## STEP 13

Next, take the O-ring and  
assemble it into the S&B  
valve. We recommend using a  
socket to seat it and mount

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it to the flange. Once done, mount the snap ring onto the collar.

## STEP 14

Next, line up the index tab on the collar and push the collar until you hear the snap ring click. Verify it's fully seated and that the ring is fully engaged.

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## STEP 15

Now, assemble the (2) T-bolt clamps onto the intercooler pipe with the 90 degree bend. Then, install it onto the turbo as shown.

## STEP 16

Assemble the small intercooler hose with the provided T-bolt clamps, then mount it to the collar from step 14.

## STEP 17

Now, go ahead and install the large S&B aluminum pipe and ensure that the mounting

lines up while

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connecting all (3) intercooler pipe segments together.

## STEP 18

Using a **15mm** socket, go ahead and tighten down the bolt securing the bracket of the S&B aluminum intercooler pipe.

## STEP 19

Before tightening down any of the t-bolt clamps, make sure that they are all orientated in a way that will make them easy to access with a socket to tighten them

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## STEP 20

Next, go ahead and re-attach this tube to the blowoff valve. Ensure that the clamp is seated after the flange as seen in the image to the right.

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## STEP 21

Reconnect the sensor to the blowoff valve.

## STEP 22

Next, with a **7/16th socket**, tighten down all (4) t-bolt clamps while ensuring that the pipes and inlets are fully seated on both ends. Once done, go ahead and torque all t-bolt clamps down to 75in. lbs.

## STEP 23

Next, go ahead and re-install your air intake. First start by mounting your S&B air box. Then go ahead and tighten down the (2) **10mm** bolts at the bottom of the box.

## STEP 24

Mount the S&B air filter into the air box and ensure that the entire flange fully seats as seen in the image to the right.

Then seal off the box by installing the lid seal.

## STEP 25

Next, go ahead and install the

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Once done, go ahead and tighten down the air filter to the tube using a **5/16th** nut driver.

## STEP 26

Now, go ahead and tighten down the hose clamp on the low end of the intake tube using a **5/16th** nut driver.

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## STEP 27A

Next, go ahead and reconnect  
the IAT Sensor and Crank  
Case Fitting.

## STEP 27B

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## STEP 28

Zip tie this line out of the way.

**Verify that all connection points are tight and secure.**  
Your install is now complete.

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