## 2014+ FORD FIESTA ST PERFORMANCE INTERCOOLER KIT





#### **GUIDE INTRODUCTION**

The following guide is broken up into three sections. Each one provides the steps required to install the intercooler and both the hot-side and cold-side intercooler pipes. We recommend fully reading over all sections before beginning your install. This will give you a complete representation of how to carry out installing the entire kit at once.

It may help to watch video of the installs, which can be found on each product's web page:









#### **CONTENTS**

**GUIDE #1.....**2014+ Ford Fiesta ST Performance Intercooler *2 total pages consisting of 30 steps* 

**GUIDE #2.....**2014+ Ford Fiesta ST Hot-Side Intercooler Pipe Kit *2 total pages consisting of 10 steps* 

**GUIDE #3.....**2014+ Ford Fiesta ST Cold-Side Intercooler Pipe Kit 2 total pages consisting of 20 steps

**INSTALL BEGINS ON FOLLOWING PAGE** 

### 2014+ FORD FIESTA ST INTERCOOLER PARTS LIST AND INSTALLATION GUIDE



#### **PARTS LIST**

1PC | MISHIMOTO INTERCOOLER

1PC | AIR DIVERSION PANELS WITH ASSEMBLED RUBBER TRIM

MOUNTING HARDWARE

#### **TOOLS NEEDED**

FLATHEAD SCREWDRIVER 8MM DEEP SOCKET

1/4" DRIVE 12" EXTENSION 8MM SWIVEL SOCKET

1/4" DRIVE RATCHET 7MM DEEP SOCKET

3/8" DRIVE RATCHET 10MM SOCKET

T20 TORX BIT OR SOCKET 13MM SOCKET

## INSTALLATION TIME UNDER 2 HOURS INSTALL DIFFICULTY (2) (2) (2) (2)

#### **DISCLAIMER**

- Raise vehicle only on jack stands or on a vehicle lift.
- Allow vehicle to cool completely prior to attempting installation.
- Do not run the engine or drive the vehicle while overheating; a serious damage can occur.
- Please dispose of any liquids properly.
- Mishimoto is not responsible for any vehicle damage or personal injury due to installation errors, misuse, or removal of Mishimoto products.
- Mishimoto suggests that a trained professional install all Mishimoto products.

#### **CAUTION**

Never work on the cooling system when it is hot. The coolant temperature in the radiator can be considerably higher than boiling, and the system may be under pressure. Opening a cooling system that is hot or under pressure can result in serious injury. Always wait until the system has cooled completely before servicing it in any way.

#### **INSTALLATION INSTRUCTIONS**

- Set the vehicle on an automotive lift, or raise it with a jack and place it securely on jack stands. Refer to your owner's manual for safe lifting points if you are unsure.
- Remove the fasteners that secure the headlights. There are two bolts at each corner of the housing, and one Phillips-head pop-clip on the air diverter plate. Remove the fasteners on both sides. (4x Flathead/T30 Torx bolts, 2x Phillips-head pop-clips)
- 3. Remove the headlight by sliding the housing back toward the cabin and then lifting upward. Do this on both sides.
- Unplug the electrical connectors for both headlights. Release the connectors by depressing the locking tab and pulling the connectors apart.
- Remove the pop-clips from the top of the bumper cover, located on either side of the hood latch. (2x Phillips-head pop-clips)
- 6. Remove the fasteners that secure the fender liners to the front bumper cover. On each side you will find two T20 Torx screws, one 7mm bolt, and one pop-clip in the front section of the wheel well. (4x T20 Torx screws, 2x 7mm bolts, 2x pop-clips)
- Remove the bolts holding the front bumper to the air diverter. These bolts are located just under the front edge of the bumper cover. (5x 7mm bolts)
- Unplug the connectors for the fog lights. To release the connector, depress the locking tab and pull the connectors apart.
- From inside the engine bay, remove the three bolts that hold the fender to the bumper cover on each side. This is most easily achieved with a long extension and swivel socket. [6x 8mm bolts]



Remove the bumper cover by sliding it forward, away from the vehicle.

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### 2014+ FORD FIESTA ST INTERCOOLER



**INSTALLATION GUIDE** 

- 11. Remove the five 8mm bolts that secure the air diverter to the vehicle, and remove the air diverter. Two bolts are located at the top and three along the bottom. (5x 8mm bolts)
- 12. Loosen the clamps that secure the couplers to the intercooler. (2x 7mm/flathead worm-gear clamps)
- 13. Remove the two 8mm bolts that secure the intercooler to the vehicle. (2x 8mm bolts)



- 14. Remove the intercooler from the vehicle. The top of the intercooler is held in by two grommets. Pull the intercooler down, and slide it out of the couplers.
- 15. Transfer the grommets to the Mishimoto intercooler.
- 16. Locate the lower air diversion panel in your kit; it is the smaller panel. Install the panel on the bottom of the intercooler using the supplied hardware. (3x 10mm bolts)
- 17. Locate the upper air diversion panel in your kit; it is the larger panel. Install the panel on the top of the intercooler using the supplied hardware. When properly installed, the air diversion panel will be flush with the top of the intercooler. (3x 10mm bolts)



- 18. Install the Mishimoto intercooler. Slip the intercooler into the couplers, and push the intercooler up so that the upper pegs engage with the mounting holes.
- 19. Install the two 8mm bolts that secure the intercooler. These bolts are located behind the end tanks of the intercooler. (2x 8mm bolts)
- Tighten the clamps that secure the coupler to the intercooler. (2x 7mm/flathead worm-gear clamps)
- 21. Install the plastic air diverter, and secure it with the five 8mm bolts. (5x 8mm bolts)
- 22. Now double check all your connections before installing your front bumper.
- 23. Install the bumper cover. There are two tabs along the bottom edge of the bumper cover that slip into slots on the air diverter. Tuck the air diverter under the bumper cover, and align the plastic wings on the air diverter with the holes in the bumper cover.
- 24. Install the bolts that secure the fenders to the front bumper. There are three on each side. (6x 8mm bolts)
- **25.** Plug in the fog lights. You will hear a click when the connectors are locked.
- 26. Set the inner fender liners back into place.
- Install the bolts that secure the bottom of the bumper cover to the air diverter (5x 7mm bolts)
- 28. Tighten the inner fender liner on both sides of the vehicle. (4x T20 Torx screws, 2x 7mm bolts, 2x pop-clips)
- 29. Install the headlights. There is a white plastic clip that holds the bottom of the headlight to the body. This clip may have rotated during removal. Connect the wiring harness to the headlight. Slide the entire housing in from the side, aligning the two bolt holes on the front of the headlight with the mounting locations on the body. Push the headlight housing down into the white plastic clip, and install the fasteners. Do this on both sides. (4x Flathead/T30 Torx bolts, 2x Phillips-head pop-clips)
- Install the Phillips-head pop-clips in the top of the bumper cover on either side of the hood latch assembly.
   (2x Phillips-head pop-clips)

Congrats! You just finished installing the 2014+ Ford Fiesta St Intercooler.

02

# 2014+ FORD FIESTA ST HOT-SIDE INTERCOOLER PIPE KIT PARTS LIST AND INSTALLATION GUIDE



#### **PARTS LIST**

**1PC** | ALUMINUM PIPE

**2PC |** SILICONE COUPLERS

**1PC |** 1.75" T-BOLT CLAMP

3PC | 2.75" T-BOLT CLAMPS

#### **TOOLS NEEDED**

FLATHEAD SCREWDRIVER 7MM DEEP SOCKET

1/4" DRIVE RATCHET 10MM SOCKET

3/8" DRIVE RATCHET 13MM SOCKET

## INSTALLATION TIME 0.5 HOUR INSTALL DIFFICULTY 2 2 2 2

#### **DISCLAIMER**

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#### **CAUTION**

Never work on the cooling system when it is hot. The coolant temperature in the radiator can be considerably higher than boiling, and the system may be under pressure. Opening a cooling system that is hot or under pressure can result in serious injury. Always wait until the system has cooled completely before servicing it in any way.

#### INSTALLATION INSTRUCTIONS

- Set the vehicle on an automotive lift, or raise it with a jack and place it securely on jack stands. Refer to your owner's manual for safe lifting points if you are unsure.
- 2. From underneath the vehicle, remove the two 13mm nuts that secure the hot-side pipe to the oil pan. (2x 13mm nuts)
- Loosen the clamp that secures the hot-side pipe to the intercooler coupler. This will make it easier to remove the pipe later.



- 4. Loosen the clamp that secures the hot-side pipe to the turbocharger outlet, and remove the pipe from the vehicle.
- 5. Reach in between the piping and the bumper to loosen the clamp that secures the stock hot-side intercooler coupler to the intercooler, and pull the coupler off the intercooler. If you are having a hard time accessing the clamp, remove the pop-clip and T20 Torx screw that secure the fender liner to the bumper cover. (1x T20 Torx screw, 1x pop-clip)
- 6. Locate the turbocharger coupler in your kit. Slip two T-bolt clamps over the coupler, and install the coupler onto the turbo outlet end of the intercooler pipe. Position the clamps so that the adjustment nuts will be accessible when the pipe is installed on the car. Tighten the clamp that secures the coupler to the pipe. (2x 10mm T-bolt clamps)
- 7. Locate the intercooler coupler in your kit. Install the wider end onto the intercooler. Slip two T-bolt clamps over the coupler. Slip the Mishimoto intercooler pipe into the intercooler coupler, and install the pipe onto the turbocharger. Make sure the adjustment nuts will be accessible with the pipe installed. (2x T-bolt clamps)

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# 2014+ FORD FIESTA ST HOT-SIDE INTERCOOLER PIPE KIT INSTALLATION GUIDE



8. Slip the isolator bushing over the oil pan stud that lines up with the bracket on the hot-side pipe. Slide the bracket over the stud, and secure it with original hardware. (1x 13mm nut)



- Now go back and tighten all the clamps on the hot-side pipe. (3x 10mm clamps)
- Double-check all your connections. Start the vehicle, and go for a test drive.

Congrats! You just finished installing the 2014+ Ford Fiesta ST Hot-Side Intercooler Pipe Kit



02

### 2014+ FORD FIESTA ST COLD-SIDE INTERCOOLER PIPE KIT PARTS LIST AND INSTALLATION GUIDE



#### **PARTS LIST**

**1PC** | ALUMINUM PIPE

**2PC |** SILICONE COUPLERS

1PC | 1.75" T-BOLT CLAMP

3PC | 2.75" T-BOLT CLAMPS

#### **TOOLS NEEDED**

FLATHEAD SCREWDRIVER T20 TORX

POP-CLIP PLIERS 1/4" DRIVE RATCHET

3/8" DRIVE RATCHET PLIERS (LINESMAN OR

CHANNELLOCK)

HOSE CLAMP TOOL

10MM SOCKET

7MM DEEP SOCKET

13MM SOCKET

#### **INSTALLATION TIME .5 HOUR**

#### INSTALL DIFFICULTY 💋 💋 💋 🙆









#### **DISCLAIMER**

- · Raise vehicle only on jack stands or on a vehicle lift.
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#### **CAUTION**

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#### INSTALLATION INSTRUCTIONS

- 1. Set the vehicle on an automotive lift, or raise it with a jack and place it securely on jack stands. Refer to your owner's manual for safe lifting points if you are unsure.
- 2. Remove the vacuum line that attaches to the port above the throttle body. Squeeze the knurled tabs to disengage the line, pull it off the port, and tuck it behind the engine cover.



- 3. Loosen the clamp that secures the stock cold-side pipe to the throttle body.
- 4. Compress the constant-tension clamp that secures the sound generator hose to the plastic sound generator housing until it locks in the open position.



- 5. From underneath the vehicle, remove the nut that secures the cold-side pipe to the engine. (1x 13mm nut)
- 6. Reach in between the piping and the bumper to loosen the clamp that secures the cold-side pipe to the intercooler on the driver side, and then, pull the cold-side pipe off the intercooler. If you are having a hard time accessing the clamp, remove the pop-clip and T20 Torx screw that secure the fender liner to the bumper cover. (1x T20 Torx screw, 1x pop-clip)

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## 2014+ FORD FIESTA ST COLD-SIDE INTERCOOLER PIPE KIT INSTALLATION GUIDE



- 7. Disconnect the plastic hose that connects to the cold-side pipe. To release the clip, gently pull back on the fingers of the green clip, pry the clip away from the sensor, and pull the line off the port.
- 8. Disconnect the electrical harness from the sensor on the cold-side pipe. Depress the tab on the connector, and pull it off the sensor
- Remove the cold-side pipe from the vehicle. The sound generator hose should still be attached to the cold-side pipe. The plastic sound generator housing will stay on the engine.
- 10. Remove the MAP sensor from the cold-side pipe, and install it on the Mishimoto cold-side pipe using the supplied 10mm bolt. (1x 7mm screw, 1x 10mm bolt)
- 11. If you decide to keep the stock sound generator, transfer the sound generator hose to the Mishimoto cold-side pipe. Compress the constant-tension clamp, pull the hose off the stock pipe, and install it on the Mishimoto pipe. Secure it with the original constant-tension clamp. [1x constant-tension clamp]
  - If you are deleting the sound generator, install the supplied CNC-machined plug and coupler to block the port on the cold-side pipe. Install the plug into the coupler, and secure it with a worm-gear clamp. Install the coupler on the cold-side pipe, and secure it with a worm-gear clamp. [2x worm-gear clamps]
- 12. Locate the transition coupler. Slip a T-bolt clamp over the smaller end of the coupler, and install it onto the throttle body. Tighten the clamp, making sure to position the T-bolt clamp so that the adjustment nut will face toward the front of the vehicle when installed. (1x T-bolt clamp)

- 13. Slip a T-bolt clamp over the cold-side pipe on the throttle body side, and make sure the adjustment nut will face toward the front of the vehicle. Install the cold-side pipe into the throttle body coupler. Do not tighten the clamp yet. (1x T-bolt clamp)
- 14. Connect the wiring harness to the MAP sensor, and install the plastic hose onto the port on the cold-side pipe. Ensure that the green locking tab is engaged.
- Locate the intercooler coupler in your kit. Install the wider end onto the intercooler.
- 16. Slip two T-bolt clamps over the coupler, slide the cold-side pipe into the coupler, and tighten the clamps. (2x T-bolt clamps)
- 17. If you removed the fasteners from the fender liner, install them now. (1x pop-clip, 1x T20 screw)
- 18. Now go back and tighten the clamp at the throttle body.
- 19. Connect the vacuum line to the port above the throttle body. Push the connector into the port until it clicks.
- 20. Double-check all your connections. Start the vehicle, and take it for a test drive.

Congrats! You just finished installing the 2014+ Ford Fiesta ST Cold-Side Intercooler Pipe Kit



02