**2014+ FORD FIESTA ST**
**DIRECT-FIT OIL COOLER KIT**
**PARTS LIST AND INSTALLATION GUIDE**

**PARTS INCLUDED**
1PC | APPLICATION-SPECIFIC MOUNTING BRACKETS & SPACER
1PC | 19-ROW OIL COOLER
1PC | 4’’ X 1’’ BRAIDED HOSE W/90° -10AN FITTINGS
1PC | 3’’ X 2.5’’ BRAIDED HOSE W/45° AND 90° -10AN FITTINGS
1PC | THERMOSTATIC SANDWICH PLATE OR NON-THERMOSTATIC
1PC | APPLICATION-SPECIFIC ¾ X 16’’ STAINLESS STEEL SANDWICH PLATE ADAPTER
1PC | COOLANT BYPASS TUBE
2PC | M20 X -10AN STRAIGHT FITTINGS
2PC | 1 FT LENGTH OF THERMAL REFLECTIVE WRAP
1PC | MOUNTING HARDWARE

**TOOLS NEEDED**
- PHILLIPS SCREWDRIVER
- FLATHEAD SCREWDRIVER
- 10MM WRENCH
- 8MM RATCHET WRENCH
- 10MM RATCHET WRENCH
- 12MM RATCHET WRENCH
- 7MM SOCKET
- 8MM SOCKET
- T25 TORX BITS
- T30 TORX BITS
- 12MM ALLEN KEY
- 27MM SOCKET
- (2) NEEDLENOSE VICE CLAMPS
- 1/4’’ DRIVE RATCHET
- 1/2’’ DRIVE RATCHET
- 1/4’’ DRIVE 6’’ EXTENSION
- 1/2’’ DRIVE 5’’ EXTENSION
- STRAP WRENCH
- -10AN WRENCH (1’’)
- DRAIN PAN/BUCKET
- FORD-APPROVED COOLANT
- FORD-APPROVED MOTOR OIL

**INSTALL TIME** 3 HOURS

**INSTALL DIFFICULTY**

**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; 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.

**NOTE**
Mishimoto recommends checking the contents of the baffled catch can every 1,000 miles until a baseline for oil accumulation is established. Oil blow-by accumulation will vary with ambient temperatures and driving conditions. It is important that the contents of the can do not rise above the internal baffle.

**INSTALL PROCEDURE**
01. 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.
02. Raise the hood on your Ford Fiesta ST and secure it with the prop rod.
03. Remove the fasteners that secure the headlights. There are two bolts at each corner of the housing, and one Phillips pop-clip on the air diverter plate. Remove the fasteners on both sides. (4x flathead/T30 Torx bolts, 2x Phillips pop-clips)
04. Remove the headlight by sliding the housing back toward the cabin, then lifting upward. Do this on both sides.
05. Unplug the electrical connectors for both headlights. Release the connectors by depressing the lock tab and pulling the connectors apart.
06. Remove the pop-clips from the top of the bumper cover, located on either side of the hood latch. (2x Phillips pop-clips)

CONTINUED ON FOLLOWING PAGE
07. 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)

08. Remove the five bolts holding the front bumper to the splash shield. These bolts are located just under the front edge of the bumper cover. (5x 7mm bolts)

09. Unplug the connectors for the fog lights. To release the connector, depress the locking tab and pull connectors apart.

10. 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)

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

12. Locate and remove the small, L-shaped, plastic trim panel on the passenger side that runs behind the crash bar. This panel is just to the outside of the sensor bolted to the radiator support, above the crash bar. (3x Phillips pop-clips)

13. Remove the plastic air diverter that runs above the intercooler. (4x Phillips pop-clips)

CONTINUED ON FOLLOWING PAGE
14. Locate the three oil cooler mounting brackets in your kit. There are two brackets that look similar. These brackets hold the top of the oil cooler to the support beam located just in front of the radiator, above the crash bar. This support has two sensors mounted to it and two open holes toward the center. This is where the oil cooler will be mounted.

15. Take the longer mounting bracket and install it to the bolt hole on the passenger side using the supplied hardware. The bracket should sit behind the support beam, with the locator tab resting flush on top of the beam. (1x 8mm bolt, 1x 8mm lock washer, 1x 8mm washer)

16. Take the other mounting bracket and install it onto the same beam, but on the driver side, using the supplied hardware. The bracket should sit behind the support beam, with the locator tab resting flush on top of the beam. (1x 8mm bolt, 1x 8mm lock washer, 1x 8mm washer)

17. Mount the oil cooler to the two brackets previously installed, using the supplied hardware, but do not fully tighten yet. The threaded fittings on the oil cooler will face downward. (4x 6mm bolts, 4x 6mm nylon lock nuts)

18. The last mounting bracket attaches to the passenger side of the oil cooler. The other side of the bracket mounts to the upper lip of the support beam through a preexisting hole. Install the bracket using the supplied hardware, then fully tighten all the bolts that secure the oil cooler. (3x 6mm bolts, 3x 6mm nylon lock nuts)

CONTINUED ON FOLLOWING PAGE
19. From underneath the vehicle, locate the oil filter and stock oil cooler. There are two coolant hoses that run to the oil cooler. Use Channellock pliers to compress the spring clamps and slide them down the hoses.

20. Position a coolant drain pan (or similar container) under the oil cooler, and slowly slide the hoses off the cooler. The system is full of coolant, so go slowly and be ready with the drain pan to capture the coolant as it drains. (Tip: You can reduce coolant spillage by clamping off these hoses with needlenose vice grips before removing them.)

21. Locate the 90° hose connector in your kit, and use it to join the cooler hoses. The longer side of the connector attaches to the driver-side cooler hose, and the shorter side connects to the passenger-side hose. Secure the hoses with the original spring clamps. [2x spring clamps]

22. Position an oil drain pan (or similar container) under the oil cooler. Loosen and remove the oil filter.

23. Loosen and remove the center bolt from the stock oil cooler, then remove the oil cooler assembly from the engine.

24. Install the two supplied fittings into the Mishimoto oil sandwich plate. [-10AN wrench or 25mm wrench, torque spec 15–20 ft-lb]

25. Install the oil cooler center bolt adapter so that the hex head is on the side of the sandwich plate without a rubber gasket. The longer end of the center bolt should protrude from the side of the sandwich plate with a rubber gasket.

26. Lubricate the rubber O-ring on the sandwich plate with clean motor oil before installing.

27. Install the sandwich plate and center bolt into your Fiesta ST, but do not fully tighten the bolt. The rubber gasket on the sandwich plate should contact the engine, and the fittings on the oil cooler should face downward. [27mm socket, torque spec 35 ft-lb]
28. Take the longer of the two oil lines and connect it to the driver-side port on the oil cooler, but do not fully tighten.

29. Take the shorter oil line and connect it to the passenger-side port on the oil cooler, but do not fully tighten.

30. Route the oil lines so that they run behind the crash beam and loop over the radiator support. They will pass between the plastic radiator housing and the flange where the crash beam is bolted to the body of the vehicle. They will pass underneath the lower radiator hose.

31. Connect the oil lines to the sandwich plate. The shorter line connects to the passenger-side fitting, and the longer line attaches to the driver-side fitting. You can now fully tighten all four oil line connections.

32. Tighten the center bolt. [27mm socket, torque spec 35 ft-lb]

33. Lubricate the oil filter gasket with clean motor oil, and install the oil filter.

34. Locate the supplied heat wrap and cut it in half lengthwise. Wear gloves when handling the heat wrap, as it is constructed with fiberglass and can cause irritation.

35. Apply heat wrap to the oil cooler hose that is closest to the lower radiator hose.

36. Apply heat wrap to the oil cooler hose that runs close to the AC line.

37. Install the plastic air diverter that runs above the intercooler. [4x Phillips pop-clips]

38. Top off the coolant. To do this, remove the filler cap from the coolant expansion tank, and loosen the bleeder screw at the top of the radiator. Pour coolant into the expansion tank until a steady flow of coolant comes out of the bleeder screw, and then tighten the bleeder screw. Continue to add coolant until the correct level is reached in the expansion tank. Leave the cap off the expansion tank for now.

CONTINUED ON FOLLOWING PAGE
39. Check the engine oil level and top off as needed. Start the engine and allow it to run for 5–10 seconds to build oil pressure, then shut off the engine and check the engine oil level. Top off as needed with Ford-approved oil. Start the engine again and allow the vehicle to warm up to operating temperature. While the engine is running, inspect around the sandwich plate and at every connection for oil leaks. The coolant level may drop at this point; top off as needed to maintain a proper level. Once you are sure that the system is fully sealed and the vehicle has reached operating temperature, shut off the engine and check the oil level one more time.

40. Install the bumper cover. There are two tabs along the bottom edge of the bumper cover that slip into slots on the splash shield. Tuck the splash shield under the bumper cover, and align the plastic wings on the splash shield with the holes in the bumper cover.

41. Install the bolts that secure the fenders to the front bumper. There are three on each side. (6x 8mm bolts)

42. Set the inner fender liners back into place.

43. Plug in the fog lights; you will hear a click when the connectors are locked.

44. Install the bolts that secure the bottom of the bumper cover to the splash shield. (5x 7mm bolts)

45. Tighten the inner fender liner on both sides of the vehicle. (2x T20 Torx screws, 1x 7mm bolt, 1x pop-clip)

46. Install the headlights. There is a white plastic clip that holds the bottom of the headlight into the body; this clip may have rotated during removal. Connect the wiring harness to the headlight, and 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. Then push the headlight housing down into the white plastic clip, and install the fasteners. (2x flathead screws, 1x Phillips pop-clip)

47. Install the Phillips pop-clips in the top of the bumper cover on either side of the hood-latch assembly. (2x Phillips pop-clips)

48. Double check your connections, and then take your Fiesta for a test drive.

Congrats! You just finished installing the 2014+ Ford Fiesta ST Direct-Fit Oil Cooler Kit.

ENJOY!