



## Installation Instructions

**D780-0002:**

**B46/B58 F2X/F3X**

**HEAT EXCHANGER**

**Document Revision: -**

**Release Date: 08/07/2023**

Thank you for being selective enough to choose a Dinan Performance Heat Exchanger. The Dinan Engineering Team has spent many hours developing this product to assure that you will receive increased performance and durability that you as a customer will be able to enjoy for many years. Ease of installation and maintenance is important to us and has been highly considered throughout the design process.

Prior to performing the installation, familiarize yourself with these instructions as it should help you with the process. If you feel that you do not have the required skills or tools, please arrange for a qualified technician to perform the installation.

If you have any difficulties during the installation, or if these instructions are not clear to you, please call Dinan's Technical Support Staff at (800) 341-5480.

Again, thank you for choosing Dinan. Enjoy.

## PARTS LIST

- [ D782-0109 ] HEAT EXCHANGER
- [ Z1003761 ] HX RIGHT OIL-COOLER MOUNT
- [ Z1003762 ] HX LEFT OIL-COOLER MOUNT
- [ Z1003335 ] BHCS, M6 x 1.0 - 10, 18-8 SS
- [ Z1003860 ] BOLT-BUTTON M6 X 1, 14MM, SS
- [ Z1003861 ] WASHER-FLAT OVERSIZE M6 SS
- [ Z1003862 ] NUT-LOCKNUT HEX M6 X 1 SS

## TOOLS REQUIRED

Basic hand tools such as screwdrivers (including bits such as Torx), pliers, and picks are required; no specialty tools are required.

## INSTALLATION



### STEP 1:

Familiarize yourself with the layout of the engine compartment. Installation of this product requires interaction with the engine intake, thermal management, and electrical systems.



### STEP 2:

Unclip the intake air mass flow sensor harness from the sensor.



**STEP 3:**

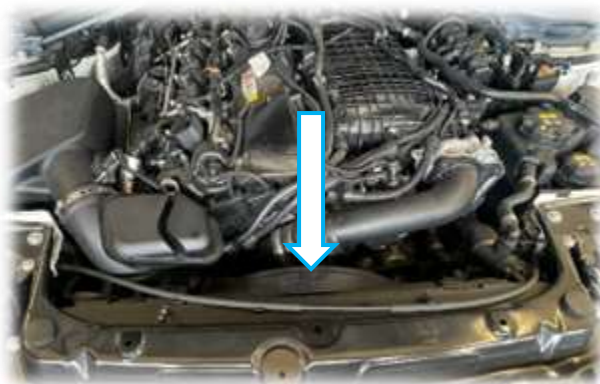
Release the four clips securing the airbox lid.



**STEP 4:**

Follow the outlet of the airbox down to the hose clamp near the turbo inlet; loosen this hose clamp. Remove the stock air intake assembly.

**THE TURBO INLET IS NOW EXPOSED. CONTAMINANTS  
MAY CAUSE SIGNIFICANT DAMAGE TO THE TURBO!**



**STEP 5:**

Disconnect the thermal management system's primary fan electrical connection; it is located on the rear left of the fan shroud. Remove the harness from the fan shroud.

Remove the fasteners securing the fan shroud to the thermal management's heat exchanger assembly. While depressing the retaining tabs, remove the fan shroud from the rear of the thermal management system's heat exchanger assembly.



**STEP 6:**

Remove the fasteners securing the front underbody protective shielding; they are located around its perimeter.

Remove the front underbody protective shielding.



**STEP 8:**

Remove the chassis brace located above the thermal management systems heat exchanger assembly. There are six fasteners securing the front, and eight fasteners and a large circular retaining clip on each side.



**STEP 9:**

Drain the coolant from the low-temperature and high-temperature cooling systems by disconnecting the hoses to each heat exchanger. The inlet/outlet connections implement a retaining clip that must be removed before disconnecting each hose.

**PROCEED WITH CAUTION; AVOID CONTACT WITH THE COOLANT.**

**STEP 10:**

Remove the thermal management systems heat exchanger assembly. It contains the thermal management system's low-temperature, high-temperature, and optional OEM hot-climate heat exchangers. The heat exchangers may be removed individually before removing the shrouding, or they may be removed as a complete assembly.

If your vehicle is not equipped with the optional OEM hot-climate heat exchanger, you may remove only the low-temperature heat exchanger from the vehicle if you prefer.

**STEP 11:**

Replace the OEM heat exchanger with the Dinan heat exchanger.

Some modification of the thermal management system's heat exchanger assembly shrouding may be required depending on the configuration of your vehicle. This may be achieved by removing the feature that shrouds the coolant lines protruding past the face of the assembly to the optional OEM hot-climate heat exchanger.

**STEP 12:**

Install the thermal management systems heat exchanger assembly. Connect each coolant hose to its respective heat exchanger; ensure the retaining clips are installed.

Fill the low-temperature and high-temperature cooling systems according to OEM specifications.

Check for leaks and ensure the thermal management system is operating correctly; this is the easiest time to resolve any conflicts and/or concerns.



**STEP 14:**

Install the chassis brace located above the thermal management system's heat exchanger assembly. There are six fasteners securing the front, and eight fasteners and a large circular retaining clip on each side.



**STEP 15:**

Install the front underbody protective shielding.

Install the fasteners securing the front underbody protective shielding; they are located around its perimeter.



**STEP 16:**

Install the fan shroud on the rear of the thermal management system's heat exchanger assembly.

Connect the thermal management system's primary fan electrical connection; it is located on the rear left of the fan shroud. Remove the harness from the fan shroud.



**STEP 17:**

Follow the outlet of the airbox down to the hose clamp near the turbo inlet; tighten this hose clamp. Install the stock air intake assembly.



**STEP 18:**

Attach the four clips securing the airbox lid.



**STEP 19:**

Connect the intake air mass flow sensor harness to the sensor.