Coolant Vacuum Refill Kit

User Manual

Read Carefully Before Use
Keep for Future Reference



OMT
Orion Motor Tech

RCP-0013-BL-V1

Disclaimer

Read this disclaimer completely and carefully before proceeding with the rest of the manual content.

1. **Product Modifications**

   Any modifications or alterations to Orion Motor Tech (OMT) products void any warranties and may result in damage or injury. OMT shall not be liable for any damages resulting from such modifications or alterations.

2. **Compliance with Laws**

   Customers shall be liable for ensuring that the use of OMT products complies with all applicable laws and regulations in their respective jurisdictions. OMT shall not be responsible for any violations of laws or regulations resulting from the use of OMT products.

3. **Correct Use**

   Always use OMT products only as directed in the accompanying manuals. Failure to follow instructions may result in injury or damage.

   Always ensure the assembly, installation, operation, maintenance, or repair of OMT products is carried out by a competent person.

   Regular maintenance should be performed throughout the lifecycle of OMT products. You are responsible for ensuring the products operate as intended.

   Always wear appropriate protective gear.

4. **Third-Party Products**

   OMT shall not be liable for any damages or losses resulting from the use of third-party products in conjunction with OMT products. Customers shall refer to the third-party's guidelines and/or warranties (if any) for any third-party products used.

5. **Limitation of Liability**

   OMT shall not be liable for any direct, indirect, punitive, incidental, special, or consequential damages to property or life, whatsoever arising out of or connected with the use or misuse of OMT products. In no event shall OMT's liability exceed the value of the products sold.

6. **Warranty**

   Refer to the sales page for warranty information.

This disclaimer states the entire obligation of OMT with respect to OMT products. If any part of this disclaimer is determined to be void, invalid, unenforceable, or illegal, including but not limited to the warranty disclaimers, liability disclaimers, and liability limitations set forth above, the invalid or unenforceable provision will be deemed superseded by a valid and enforceable provision that most closely matches the intent of the original provision and the remainder of the agreement shall remain in full force and effect.

Contact Us

Thank you for choosing our products! If you have any questions or comments, contact us and we'll address your issues ASAP!

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Safety Information

Danger

- The instructions provided here are for general information only. **ALWAYS** perform all repairs in full compliance with your vehicle's service manual. After completing any repair, test your vehicle in your workshop at a low speed before resuming regular use. Failure to do so may result in serious property damage and severe personal injury.
- **DO NOT** allow use by children, individuals with mental or physical conditions that may impair safe operation, or persons unfamiliar with this product and its compatible air conditioning, fuel, and transmission systems.
- **ALWAYS** use personal protective equipment (PPE) suitable for your task. While using this product, always wear ANSI-approved eye and hand protection. Nonslip footwear is also highly recommended. Other equipment, such as ear, head, and body protection, may also be necessary depending on your work.
- **ALWAYS** read and understand your vehicle's specific safety warnings and instructions before using this kit. Use the correct fluids, pressures, adapters, and other necessary components for your vehicle. Ensure the parking brake is engaged before beginning any work. Use a jack and jack stands that can fully support the necessary weight. Never touch any heated surface with exposed skin.
- **DO NOT** overreach. Keep proper footing and balance at all times.
- Maintain this product. Check for misalignment, binding, wear, or other damage before use. If any damage is detected, repair or replace the faulty components before further use. In a large shop, mark such tools "**DO NOT USE**" until they have been repaired. **ONLY** replace components with identical parts.

Warning

- **DO NOT** use this product if you are tired or under the influence of drugs, alcohol, or strong medication.
- For best results, keep the kit clean and dry. Remove any fluid, oil, or grease before and after work, particularly from the handle and fittings.
- **DO NOT** use excessive pressure on this product and do not force it or its attachments.
- **ENSURE** the vehicle is secure when supported by a jack or lift.
- Dress appropriately for automotive servicing. Do not wear loose clothing or jewelry. Keep hair, clothing, gloves, hoses, and tools away from moving parts during use.
- In case of an accident or injury, keep a first aid kit and a communication device (e.g., a phone) readily available. Be familiar with the location of nearby emergency medical facilities.
- Automotive repair is an inherently dangerous activity. This manual and the separate vehicle service manual cannot cover all possible situations that may arise. **ALWAYS** exercise discretion and good judgement. Seek training if needed.

Specifications

Gauge Range	0 to −30 inHg	0 to −76 cmHg
Dimensions	10.6 × 8.7 × 2.0 in	27 × 22 × 5 cm
Weight	3.1 lb	1.4 kg

Parts List

A



1 × Vacuum Generator with Gauge

B



1 × Venturi Adapter with American Air Fitting

C



1 × European Air Fitting

D



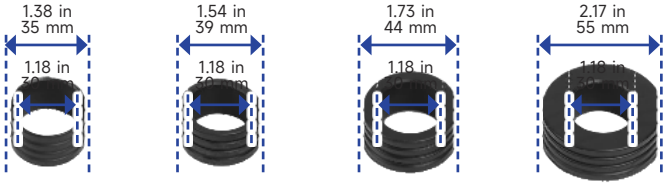
1 × Japanese Air Fitting

D



1 × Universal Conical Adapter

E



4 × Round Adapters

F



1 × Filling Hose

G



1 × Exhaust Hose

H



1 × Seal Tape

I



9 × O-Rings

F



1 Pair × Protective Gloves

Operation

Warning

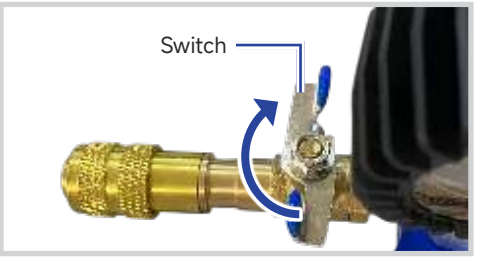
- **Before servicing, shut off the engine, engage the parking brake (or hand brake), and chock the remaining wheels.** Ensure the vehicle is stationary and the engine has cooled to room temperature before performing maintenance or adjustments.
- **ALWAYS** use the correct tools and personal protective equipment (PPE) before performing any operation. Be extremely careful with possible pinching points, moving parts, or parts that may suddenly spring out.
- **ALWAYS** ensure the vehicle is secure when it is supported by a jack or lift.
- For your safety, we recommend completing training before using these tools. Serious injury could happen due to a lack of training.

Evacuating the Cooling System

1. Remove the radiator cap and drain all the coolant from the radiator.

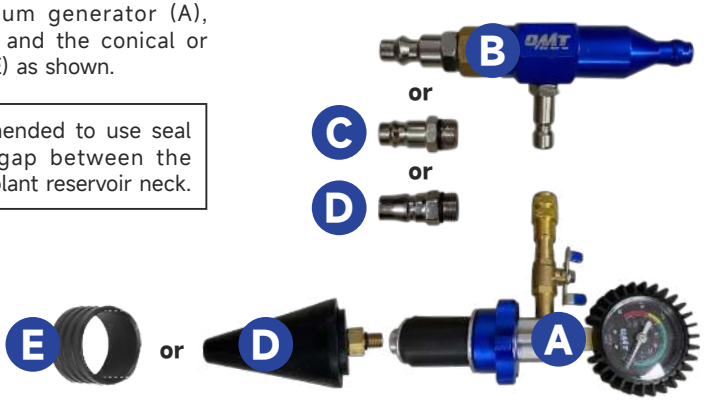
   Note: If you are unsure whether the cap is still hot, place a cold, damp towel over it or use protective gloves to avoid burns.

2. Turn the switch of the vacuum generator (A) clockwise to close the port as shown.



3. Assemble the vacuum generator (A), Venturi adapter (B), and the conical or round adapter (D or E) as shown.

   Note: It is recommended to use seal tape to seal the gap between the adapter and the coolant reservoir neck.



4. Connect the venturi adapter to the inlet of the vacuum pump and the exhaust hose as shown.

5. Ensure the free end of the exhaust hose is directed toward the ground.

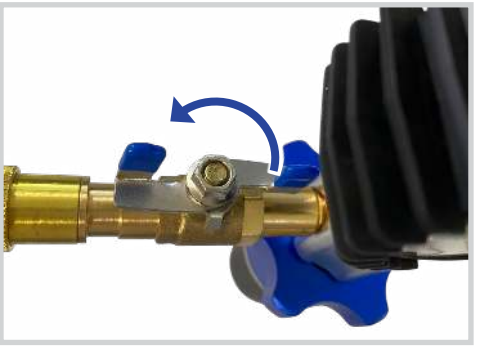
   This helps maintain proper ventilation and prevents residual fluid from flowing back into the system.



6. Insert the adapter securely into the radiator opening, applying firm pressure to ensure a tight seal.



7. Turn on the vacuum pump and open the port by turning the switch counterclockwise.



8. Close the port and turn off the vacuum pump when the gauge indicates a vacuum between −15 inHg (−40 cmHg) and −20 inHg (−50 cmHg).

   Wait for about five minutes. If the gauge reading remains steady, the cooling system has been fully purged.

> **⚠ Warning**
>
> If a pressure drop is observed, this indicates a leak in the system possibly in the hoses, fittings, radiator, or other components. **DO NOT** proceed with refilling until the leak has been found and repaired.

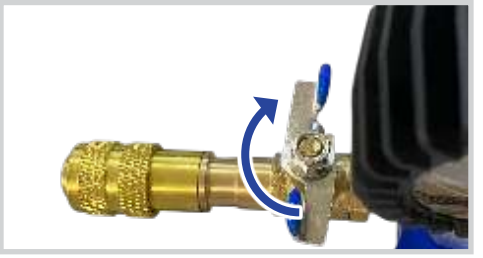
9. Remove the tools and reinstall the radiator cap.

   If refilling the cooling system is required, refer to the following section for detailed instructions.

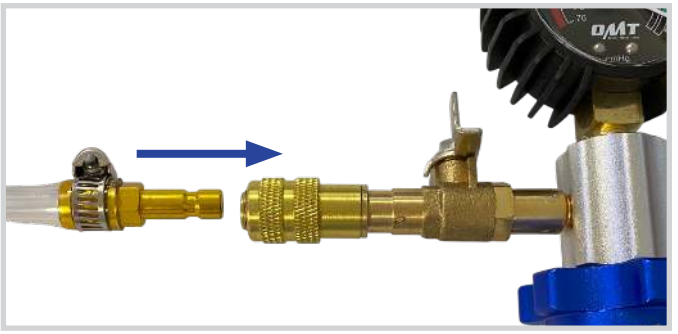
Refilling the Coolant System

> **⚠ Warning**
>
> **ALWAYS** evacuate the cooling system before refilling to remove air and allow the coolant to fill all internal passages evenly.

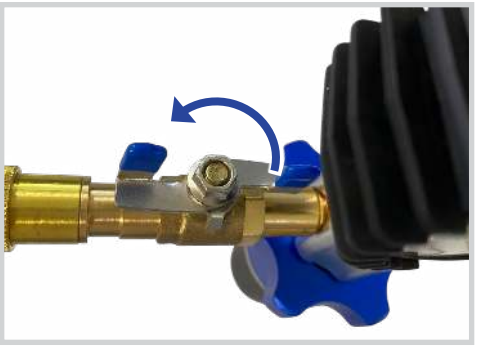
1. Turn the switch of the vacuum generator (A) clockwise to close the port as shown.



2. Connect the filling hose to the port of the vacuum generator.



3. Remove the radiator cap and insert the adapter of the generator.
4. Put the other end of the filling hose into the coolant container, and ensure the tip is fully submerged in the coolant.
5. Open the port by turning the switch counterclockwise.



6. Periodically turn off the switch and check the coolant level in the container.6.

   If the coolant in the container is running out, refill the container before the refilling hose is exposed to air.
7. Turn off the switch when the gauge reads close to 0.
8. Remove the tools and reinstall the radiator cap.

Maintenance

- **DO NOT** scrape or abrade the hose or drop the pump on hard or rough surfaces.
- Clean the tools after each use with a soft, damp cloth and a mild detergent. Do not rinse them directly with water or use abrasive cleaners or caustic chemicals.
- Check all parts periodically for any wear or damage. Repair or replace any faulty parts before further use.
- If the tools are not going to be used for a long time, clean and lubricate them before storage. Keep them in a cool, dry place out of reach of children.

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