V20230913

Vacuum Pump
User Manual



Read Carefully Before Use
Keep for Future Reference

Safety Information

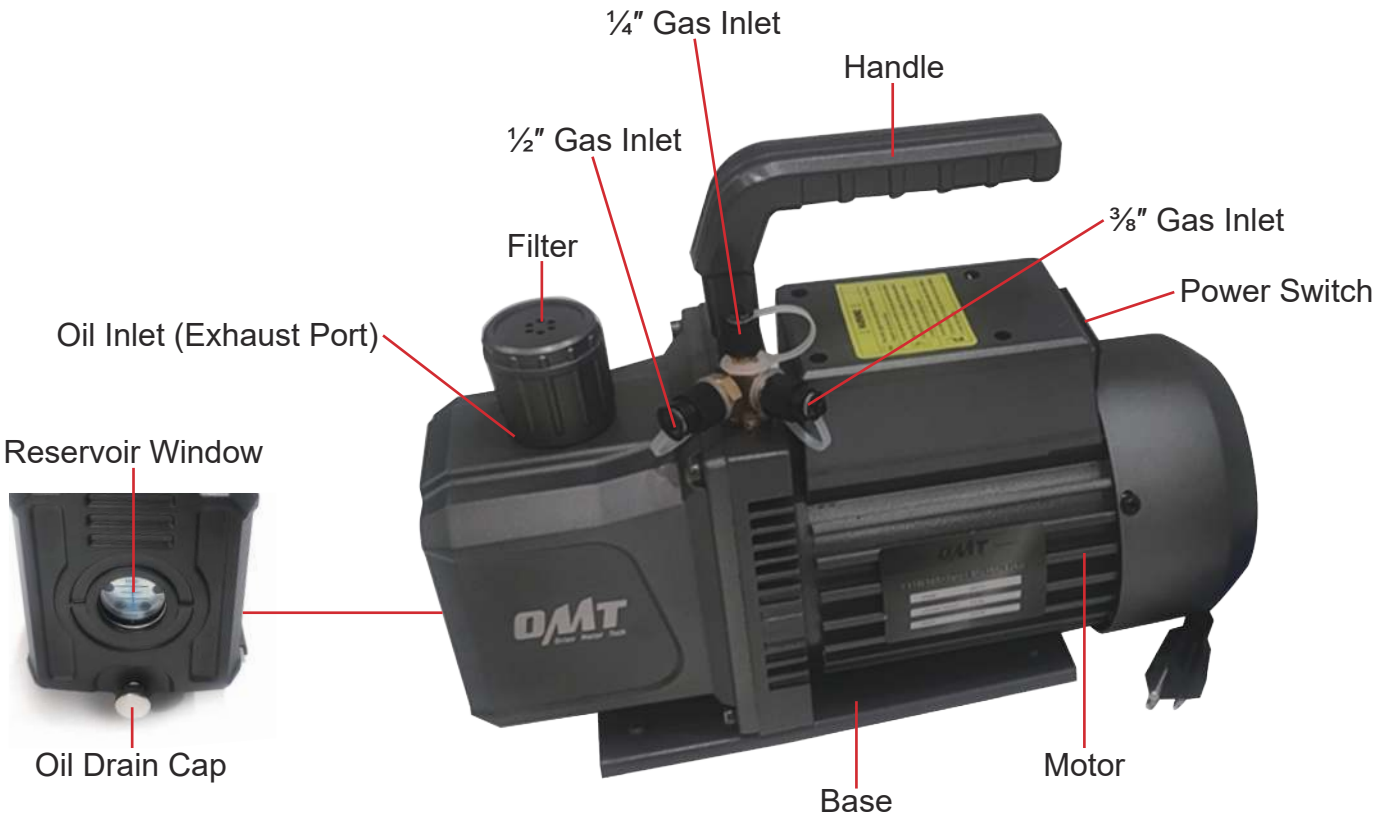
⚠ Warning!

- Read these instructions carefully before use and keep them for future reference. Provide them to anyone who will use this device and provide them with this device if it is ever given or sold to a third party. Failure to follow these instructions may lead to serious property damage and severe personal injury.
- **DO NOT** let children or persons with compromised physical or mental capabilities use this device. Keep children, bystanders, and pets away during use. Stay alert, watch what you are doing, and use common sense when using this device. Do not use it while you are tired or under the influence of drugs, alcohol, or medication.
- For any air-conditioning system, turn it off before evacuation. **ALWAYS** use with proper personal protective equipment (PPE) such as a dust mask, goggles, and work gloves in a well-ventilated place, as refrigerants can irritate your eyes, nose, throat, and skin or cause frostbite, heart arrhythmia, unconsciousness, and even death. Further, operating your vehicle in a closed environment may result in carbon monoxide poisoning and other problems. If you begin to develop symptoms such as headaches, dizziness, or nausea during use of this device, turn off your vehicle and get fresh air **IMMEDIATELY**. Do not continue work until the vehicle has been moved to an area with better ventilation. Use **EXTREME** caution when disconnecting any hoses after use as they may still contain some refrigerant under pressure.
- **ONLY** use this device with stable, compatible, and well-grounded power sources. Do not use 3-to-2 prong adapters, ungrounded extension cords, or extension cords of insufficient gauge for this device's expected electrical load. Never pull on the power cord or modify the power plug.
- **DO NOT** get this device wet or operate it with wet hands or in highly humid environments. If any electrical component accidentally becomes wet, disconnect the pump from power **IMMEDIATELY** and wait for it to completely dry before resuming use.
- **DO NOT** leave this device unattended during use.
- **DO NOT** operate this device if it is damaged or shows any sign of malfunction. Repair or replace any problematic components before further use. Do not replace any parts with nonidentical ones.

Specifications

Input Power		110 V~ 60 Hz
Rated Power	558 W	¾ HP
Evacuation Speed	9 cfm	0.25 m^3/min
Max Noise		70 dB
Oil Charge	9.2–10.8 fl oz.	270–320 ml
Power Cord Length	4.9 ft.	1.5 m
Dimensions	13.5×10.2×5.3 in.	34.3×26×13.5 cm
Net Weight	23 lb.	10.45 kg

Product Diagram



Package List

No.	Part	Qty.
1	Vacuum Pump	1
2	Vacuum Pump Oil	2
3	Work Gloves	1
4	Raw Tape	1

Not Included but Necessary

Micron Gauge

Operation

1. Put on your dust mask, goggles, work gloves, and any other PPE necessary for your work area.
2. Place the vacuum pump on a firm level surface and make sure the oil drain is tightly closed by screwing it manually.
3. Unscrew the filter by hand, exposing the oil inlet. Add the provided oil until the oil level is between the **MAX.** and **MIN.** fill line. Do not overfill or underfill. Replace the filter, screwing it into place.
4. Connect the ¼″, ⅜″, or ½″ gas inlet with the object for evacuation using an appropriate hose and a quick coupler (not included) if needed. To measure the vacuum degree, equip your hose with a vacuum gauge (not included). For best results, apply some raw tape to any joints.
5. Connect the pump to a stable, compatible, and grounded power source. Turn on the pump by flipping its power switch to **I** and evacuation should begin.
6. When your micron gauge reads less than 500 microns, evacuation is completed. Turn off the pump by flipping its power switch to **O**.
7. Carefully disconnect the pump from the object for evacuation.

Maintenance

Disconnect the pump from power between uses and before undertaking any cleaning, maintenance, or repair.

- The exterior of the pump can be cleaned with a soft damp cloth. Do not use harsh abrasives or caustic chemicals. Do not allow any electrical component to become wet or damp.
- When the oil turns turbid or its level falls below the **MIN.** fill line, replace it using the following procedure:
    1. Make sure the remaining oil is warm. If you are unsure of your oil's temperature, plug in and turn on your pump, running it for about 10 minutes to heat the oil sufficiently. Turn off the pump and unplug it before continuing.
    2. Remove the oil drain cap manually. Grip the handle of the pump and tilt it down to drain the remaining oil into a suitable container.
    3. Screw the cap into place and start filling it as instructed above. Once the provided oil has been used up, only use oil of equivalent weight (ISO 100 or SAE 30) as a replacement.
- **NEVER** drop the pump on hard or rough surfaces.
- If any part of the pump is damaged, worn, or shows signs of malfunction, repair or replace it with a new identical one before further use.
- If the pump will not be used for an extended period of time, store it and its accessories in a cool, dry, and clean place away from direct sunlight and inaccessible to children.

Troubleshooting

Problems	Typical Solutions
The vacuum pump cannot be turned on.	Check your power supply and the pump's power cord. Correct any problems as needed.
	Move the pump to a warmer location, wait a while, and activate your pump.
The vacuum pump turns off automatically during use.	The thermal protector will deactivate your pump if its motor reaches 160°F (70°C). Wait about 15 minutes to let it cool down and restart your pump

Disposal



Electrical products should not be disposed of with household products. In the EU and UK, according to the European Directive 2012/19/EU for the disposal of electrical and electronic equipment and its implementation in national laws, used electrical products must be collected separately and disposed of at the collection points provided for this purpose. Locations in Australia, Canada, and the United States may have similar regulations. Contact your local authorities or dealer for disposal and recycling advice.

Contact Us

Thank you for choosing our products! If you have any questions or comments, contact us at **support@orionmotortech.com** and we'll resolve your issue ASAP!

For a .pdf copy of the latest version of these instructions, use the appropriate app on your smartphone to scan the QR code to the right.