

Please read and save these instructions. Read through this owner's manual carefully before using product. Protect yourself and others by observing all safety information, warnings, and cautions. Failure to comply with instructions could result in personal injury and/or damage to product or property. Please retain instructions for future reference.



MANUAL FLUID EXTRACTOR

UNPACKING

After unpacking unit, inspect carefully for any damage that may have occurred during transit. Check for loose, missing, or damaged parts. If any damage is observed, a shipping damage claim must be filed with carrier. Do not use Manual Fluid Extractor if broken, bent, cracked or damaged parts (including labels) are noted. Any Manual Fluid Extractor that appears damaged in any way, operates abnormally or is missing parts should be removed from service immediately. If you suspect that the Manual Fluid Extractor was subjected to a shock load (a load that was dropped suddenly, unexpectedly, etc.) immediately discontinue use until it has been checked by a factory authorized service center.



Explanation of Safety Signal Words

▲ WARNING

: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

▲ CAUTION

: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

: Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

Notes

: Provide clarity and helpful information.

▲ WARNING

The following safety information is provided as guidelines to help you operate your Manual Fluid Extractor under the safest possible conditions. Any tool or piece of equipment can be potentially dangerous to use when safety or safe handling instructions are not known or not followed. The following safety instructions are to provide the user with the information necessary for safe use and operation. Please read and retain these instructions for the continued safe use of your service system. Failure to follow instructions listed below may result in serious injury. In addition, make certain that anyone that uses the equipment understands and follows these safety instructions as well.



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Thank you very much for choosing an OEMTOOLS Product!

For future reference, please complete the owner's record below:

Model: _____ **Purchase Date:** _____

Save the receipt, warranty and these instructions. It is important that you read the entire manual to become familiar with this product before you begin using it. This machine is designed for certain applications only. OEMTOOLS cannot be responsible for issues arising from modification. We strongly recommend this machine is not modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the machine until you have first contacted OEMTOOLS to determine if it can or should be performed on the product.



IMPORTANT INSTRUCTIONS AND SAFETY RULES

1. Know your tool. Read this manual carefully. Learn the tool's applications and limitations, as well as, potential hazards specific to it.
2. Keep work area clean and well lit. Cluttered or dark work areas invite accidents.
3. Keep children away. All children should be kept away from the work area. Never let a child handle a tool without strict adult supervision.
4. Do not operate this tool if under the influence of alcohol or drugs. Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not attempt to operate.
5. Use safety equipment. Eye protection should be worn at all times when operating this tool. Use ANSI approved safety glasses. Everyday eyeglasses are NOT safety glasses. Dust mask, non-skid safety shoes, hard hat or hearing protection should be used in appropriate conditions.
6. Wear proper apparel. Loose clothing, gloves, neckties, rings, bracelets or other jewelry may present a potential hazard when operating this tool. Keep all apparel clear of the tool.
7. Don't overreach. Keep proper footing and balance at all times when operating this tool.
8. Check for damage. Check your tool regularly. If part of the tool is damaged it should be carefully inspected to make sure that it can perform its intended function correctly. If in doubt, the part should be repaired. Refer all servicing to a qualified technician. Consult your dealer for advice.
9. Keep away from flammables. Do not attempt to operate this tool near flammable materials or combustibles. Failure to comply may cause serious injury or death.
10. Store idle tools out of the reach of children and untrained persons. Tools may be dangerous in the hands of untrained users.
 - Maintain tools with care.
 - Keep tools dry and clean.
 - Properly maintained tools are less likely to bind and are easier to control. Do not use a damaged tool. Tag damaged tools "Do not use" until repaired.
 - Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation.
 - If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.
 - Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one tool may become hazardous when used on another tool.
 - Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
 - When servicing a tool, use only identical replacement parts. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of injury.
 - Maintain a safe working environment. Keep the work area well lit. Make sure there is adequate surrounding workspace. Keep the work area free of obstructions, grease, oil, trash, and other debris. Do not use this product in a damp or wet location.
 - Maintain labels and nameplates on this product. These carry important information. If unreadable or missing, contact OEM for a replacement.
 - Keep the handle dry, clean, and free from brake fluid, oil, and grease.



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- Before use, read and understand all warnings, safety precautions, and instructions as outlined in the vehicle manufacturer's service manual. It is beyond the scope of this manual to properly describe the correct procedure and test data for each vehicle.
- Always perform vehicle service in a properly ventilated area. Never run an engine without proper ventilation for its exhaust. Stop work and take necessary steps to improve ventilation in the work area if you develop momentary eye, nose, or throat irritation as this indicates inadequate ventilation.
- Engine parts that are in motion and unexpected movement of a vehicle can injure or kill. When working near moving engine parts, wear snug fit clothing and keep hands and fingers away from moving parts. Keep hoses and tools clear of moving parts. Always stay clear of moving engine parts. Hoses and tools can be thrown through the air if not kept clear of moving engine parts. The unexpected movement of a vehicle can injure or kill. When working on vehicles always set the parking brake or block the wheels.
- Be alert for hot engine parts to avoid accidental burns.
- If you drove your car recently, fluids could be very hot. Allow at least 2 hours before you handle any fluids. Oil and Coolant burns are very dangerous.
- Avoid accidental fire and/or explosion. Do not smoke near engine fuel and battery components.
- Never remove the cap from the radiator or expansion tank while the engine is at operating temperature.
- Always allow the engine to cool before removing the radiator cap or expansion tank cap. The cooling system is under pressure. Failure to allow the engine to cool before attempting to remove the cap could result in serious injuries.
- The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.
- For safety purposes and the prevention of damage to expensive components it is advised that the user have an understanding of basic automotive repair and a working knowledge of automotive systems.
- We believe the information contained herein to be reliable. However, general technical information is given by us without charge and the user shall employ such information at his own discretion and risk. We assume no responsibility for results or damages incurred from the use of such information in whole or in part. Always refer to specific instructions and technical information supplied by vehicle manufacturer.
- The manufacturer declines any and all responsibility for damage to vehicles or components if said damage is the result of unskillful handling by the operator or of failure to observe the basic safety rules set forth in the instruction manual.
- Used oil, antifreeze, brake fluid and transmission fluid contains chemical compounds that can be harmful to humans and other animals. When managed properly, used oil may again be of beneficial use. Used oil may be blended and recycled as a heating or industrial fuel and also may be re-refined and made into new lubricants. Persons who perform maintenance on their own vehicles are responsible for managing the used fluids in a manner that is protective of human health and the environment and to follow all local laws and regulations concerning their disposal.

DISPOSAL

At the end of the useful life of the Manual Fluid Extractor, dispose of the components according to all state, federal, and local regulations

PURPOSE

The 24397 Manual Fluid Extractor is designed for the extraction of all types of engine, transmission and lubricating oils from cars, motorcycles, marine engines and industrial machinery. Also suitable for low viscosity fluid such as water or coolant

PRODUCT SPECIFICATIONS

Reservoir Capacity	5.5L (1.45 Gallons)
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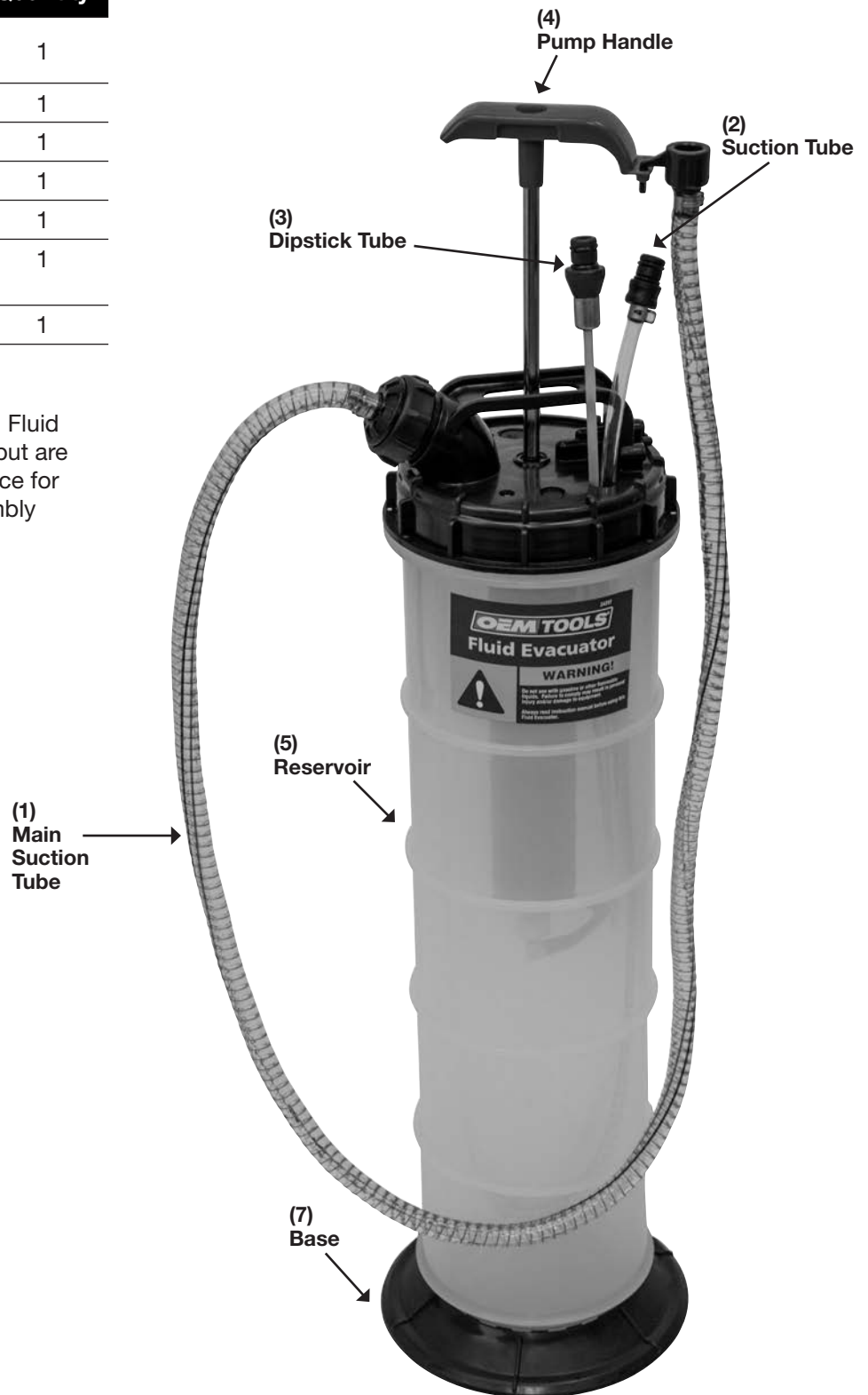


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Figure	Description	Quantity
24397-1	Main Suction Tube	1
24397-2	Suction Tube	1
24397-3	Dipstick Tube	1
24397-4	Pump Handle	1
24397-5	Reservoir	1
24397-6	Float Assembly (Not Shown)	1
24397-7	Base	1

NOTE

Not all components of the Manual Fluid Extractor are replacement items, but are illustrated as a convenient reference for location and position in the assembly sequence.





MANUAL FLUID EXTRACTOR

WARNING

Always wear safety glasses and gloves!

OPERATING INSTRUCTIONS

- This equipment is intended only for professional use by personnel trained in performing the service functions for which it is has been designed
- This equipment is designed for servicing a variety of vehicles in a safe, convenient manner. However, differences in vehicle makes and models may make it impossible to use this equipment as it is intended. Do not attempt to force the use of this equipment on an application for which it is not designed to perform.
- The procedures documented in this manual are to serve as guidelines for the use of this equipment.
- In addition to these guidelines, always follow the manufacturer's recommended procedures when servicing each unique vehicle.
- The use of this equipment is simple and straightforward if you follow the instructions. However, always keep in mind that you are working with a system that may be under pressure, with fluid that is just waiting to be expelled. When operating this equipment, use common sense, and always stop to think before disconnecting a hose or other component.

WARNING

DO NOT USE THIS EQUIPMENT WITH GASOLINE OR OTHER FLAMMABLE LIQUIDS OR WITH FLUIDS AT TEMPERATURES ABOVE 175° FAHRENHEIT (80° CELSIUS). KEEP AWAY FROM OPEN FLAMES OR EXCESSIVE HEAT

EXTRACTING MOTOR OIL THROUGH THE DIPSTICK TUBE

1. Park vehicle on level ground. Ensure the transmission of the vehicle is in "neutral" or "park" position and apply the parking brake.
2. Start the engine. Allow the engine to idle until it has reached normal operating temperature. Turn the engine off.
3. Insert the appropriate diameter dipstick tube into the dipstick fill hole until it reaches the bottom of oil pan.
Note: Do not bend the suction tube during the inserting procedure.
4. Connect the main suction tube to the dipstick tube.
5. Insert the O-Ringed plug of the main suction tube into the reservoir adapter and then insert the adapter into the top of the reservoir. Ensure the tube connections are tight to prevent leakage.
6. Extract the used motor oil by pumping the evacuator handle several times to create a vacuum. Once the fluid begins to flow into the reservoir, continue to operate the pump until all the fluid has been drained from the engine crankcase.
Note: When oil in the tank reaches the maximum level, the vacuum will release to prevent overflowing.
7. Remove the main suction hose from the reservoir adapter; pour the used oil from the reservoir into a suitable container, then dispose of the fluid in an appropriate manner

NOTE

If no vacuum can be created after emptying the Reservoir, the user may need to remove the Red Vacuum Release Plug below the Pump Handle and reinstall it. This will release vacuum inside the Pump and restore operation.



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EXTRACTING TRANSMISSION FLUID THROUGH THE DIPSTICK TUBE

In some applications, this may require jacking or lifting the vehicle. Use appropriate safety stands to avoid serious or fatal injury.

1. Operate the vehicle to warm the transmission fluid to a normal operating temperature.

Caution: Do not attempt to extract fluids at temperatures greater than 175° Fahrenheit (80° Celsius).

2. Properly park the vehicle on level ground and turn the engine off.
3. Remove the transmission fluid dipstick.
4. Insert the dipstick tube into the dipstick fill hole until it reaches the bottom of the transmission pan.
5. Connect the main suction tube to the dipstick tube.
6. Insert the O-Ringed plug of the main suction tube into the reservoir adapter and then insert the adapter into the top of the reservoir. Ensure the tube connections are tight to prevent leakage.
7. Extract the used transmission fluid by pumping the evacuator handle several times to create a vacuum. Once the fluid begins to flow into the reservoir, continue to operate the pump until all the fluid has been drained from the transmission pan.
8. Remove the main suction hose from the reservoir adapter; pour the used transmission fluid from the reservoir into a suitable container, then dispose of the fluid in an appropriate manner.

NOTE

If no vacuum can be created after emptying the Reservoir, the user may need to remove the Red Vacuum Release Plug below the Pump Handle and reinstall it. This will release vacuum inside the Pump and restore operation.

WARNING

EXTRACTING COOLANT FROM A RADIATOR OR EXPANSION TANK

Never remove the cap from the radiator or expansion tank while the engine is at operating temperature. Always allow the engine to cool before removing the radiator cap or expansion tank cap. The cooling system is under pressure. Failure to allow the engine to cool before attempting to remove the cap could result in serious injuries.

1. Properly park the vehicle on level ground and turn the engine off.
2. Allow engine to cool completely. Caution: Do not attempt to extract fluids at temperatures greater than 175° Fahrenheit (80° Celsius).
3. Remove the radiator or expansion tank cap.
4. Insert the suction tube into the radiator or expansion tank until it reaches the bottom.
5. Connect the main suction tube to the suction tube.
6. Insert the O-Ringed adapter into the pour spout on the top of the reservoir. Ensure the tube connections are tight to prevent leak.
7. Extract the used coolant by pumping the evacuator handle several times to create a vacuum. Once the coolant begins to flow into the reservoir, continue to operate the pump until all the coolant has been drained from the radiator or expansion tank.



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8. Remove the reservoir adapter from the reservoir; pour the used coolant from the reservoir into a suitable container, then dispose of the coolant in an appropriate manner.

NOTE

If no vacuum can be created after emptying the Reservoir, the user may need to remove the Red Vacuum Release Plug below the Pump Handle and reinstall it. This will release vacuum inside the Pump and restore operation.

EXTRACTING BRAKE FLUID FROM THE MASTER CYLINDER

1. Properly park the vehicle on level ground and turn the engine off.
2. Clean the exterior of the master cylinder and master cylinder cap to prevent dirt from entering the master cylinder when the cap is removed.
3. Remove the cap from the master cylinder reservoir.
4. Insert the suction tube into the master cylinder reservoir.
5. Connect the main suction tube to the suction tube.
6. Insert the O-Ringed adapter into the pour spout on the top of the reservoir. Ensure the tube connections are tight to prevent leak.
7. Extract the used brake fluid by pumping the evacuator handle several times to create a vacuum. Once the fluid begins to flow into the reservoir, continue to operate the pump until all the fluid has been drained from the master cylinder.
8. Remove the reservoir adapter from the reservoir; pour the used brake fluid from the reservoir into a suitable container, then dispose of the fluid in an appropriate manner.

NOTE

If no vacuum can be created after emptying the Reservoir, the user may need to remove the Red Vacuum Release Plug below the Pump Handle and reinstall it. This will release vacuum inside the Pump and restore operation.

EXTRACTING POWER STEERING FLUID FROM THE POWER STEERING FLUID RESERVOIR

1. Properly park the vehicle on level ground and turn the engine off.
2. Clean the exterior of the power steering fluid reservoir to prevent dirt from entering the reservoir when the cap is removed.
3. Remove the cap from the power steering fluid reservoir.
4. Insert the suction tube into the master cylinder reservoir.
5. Connect the main suction tube to the suction tube.
6. Insert the O-Ringed adapter into the pour spout on the top of the reservoir. Ensure the tube connections are tight to prevent leak.
7. Extract the used power steering fluid by pumping the evacuator handle several times to create a vacuum. Once the fluid begins to flow into the reservoir, continue to operate the pump until all the fluid has been drained from the power steering fluid reservoir.
8. Remove the reservoir adapter from the evacuator reservoir; pour the used power steering fluid from the reservoir into a suitable container, then dispose of the fluid in an appropriate manner.

NOTE

If no vacuum can be created after emptying the Reservoir, the user may need to remove the Red Vacuum Release Plug below the Pump Handle and reinstall it. This will release vacuum inside the Pump and restore operation.



MANUAL FLUID EXTRACTOR

MAINTENANCE

1. Always store the Manual Fluid Extractor in a well-protected area where it will not be exposed to inclement weather, corrosive vapors, abrasive dust, or any other harmful elements.
2. Keep the Manual Fluid Extractor clean for better and safer performance.
3. Inspect Reservoir, Hoses, Caps, Gaskets, Seals, Gauge and Adapters periodically, and if damaged, replace them.
4. Rinse the evacuator reservoir, pump, adapter, and tubes with clean solvent or engine degreaser, and allow them to dry thoroughly.