Mityvac MV8500

Mityvac MV8500 Silverline Elite Automotive Vacuum/Pressure Testing and Bleeding Kit Instruction Manual

Introduction

This manual provides comprehensive instructions for the Mityvac MV8500 Silverline Elite Automotive Kit. This versatile tool is designed for professional and DIY mechanics, offering dual vacuum and pressure capabilities for various automotive applications. It is ideal for brake and clutch bleeding, diesel fuel priming, and conducting vacuum/pressure tests on fuel, hydraulic, coolant, and differential systems.

Product Overview

The Mityvac MV8500 Silverline Elite kit includes the robust MV8510 hand pump, a 4.5 oz fluid reservoir, and a comprehensive assortment of adapters and hoses, all housed in a durable carrying case. The MV8510 pump features a zinc-aluminum die-cast body for enhanced durability and corrosion resistance.

Kit Contents

- MV8510 Hand Pump with Gauge
- 4.5 oz (135 ml) Fluid Reservoir with Cap
- Various Tapered and Straight Adapters
- Rubber Cup Adapters
- Hoses and Tubing
- Durable Carrying Case



Image: All components of the Mityvac MV8500 Silverline Elite kit displayed outside its case.



Image: The Mityvac MV8500 kit neatly organized within its durable carrying case.

Safety Information

Always wear appropriate personal protective equipment, including eye protection and gloves, when operating this tool. Ensure the work area is well-ventilated. Refer to vehicle manufacturer's service manual for specific procedures and safety precautions.

California Proposition 65 Warning: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Setup

Before initial use, familiarize yourself with all components and ensure they are clean and free from damage.

Assembling the Pump

1. Ensure the gauge is securely attached to the MV8510 hand pump.
2. Verify that the vacuum/pressure selector switch operates smoothly.

Connecting Accessories

1. Connect the appropriate length of hose to the pump's vacuum or pressure port as required for your application.
2. Attach the 4.5 oz fluid reservoir when performing fluid extraction or bleeding procedures. Ensure all connections are tight to prevent air leaks.
3. Select the correct adapter for the specific component you are working on.



Image: Detailed view of the Mityvac MV8510 hand pump, highlighting the gauge and ergonomic design.



Image: Side profile of the MV8510 pump, illustrating the vacuum/pressure selector switch.

Operating Instructions

The MV8510 pump can generate both vacuum and pressure. A selector switch on the pump allows you to toggle between these modes.

General Operation

- **Switching Modes:** Locate the selector switch on the side of the pump. Move it to the 'VACUUM' position for vacuum applications or 'PRESSURE' for pressure applications.
- **Releasing Pressure/Vacuum:** A release lever is located near the selector switch to safely relieve any accumulated vacuum or pressure.



Image: Close-up of the MV8510 pump's gauge, showing both vacuum and pressure readings, and the control lever.

Brake and Clutch Bleeding

This procedure requires careful attention to fluid levels and proper sealing.

1. Connect the fluid reservoir to the pump and attach the appropriate adapter and hose to the bleeder screw of the brake caliper or clutch slave cylinder.
2. Ensure the bleeder screw is slightly opened according to the vehicle manufacturer's specifications.
3. Set the pump to 'VACUUM' mode.
4. Operate the pump handle to create a vacuum, drawing fluid and air from the system into the reservoir.
5. Monitor the fluid in the hose for air bubbles. Continue pumping until no air bubbles are visible.
6. Close the bleeder screw while maintaining vacuum.
7. Release the vacuum from the pump.
8. Refill the master cylinder with fresh brake fluid as needed throughout the process. Do not allow the master cylinder to run dry.



Image: An individual performing brake bleeding using the Mityvac MV8500 kit on a vehicle's wheel.

Vacuum and Pressure Testing

The MV8500 kit is suitable for testing various automotive systems, including fuel, hydraulic, coolant, and differential components.

1. Connect the appropriate adapter and hose to the component being tested (e.g., vacuum lines, fuel pressure regulators, EGR valves, turbocharger wastegates).
2. Set the pump to 'VACUUM' or 'PRESSURE' mode as required by the test procedure.
3. Operate the pump handle to achieve the specified vacuum or pressure reading on the gauge.
4. Observe the gauge for any pressure or vacuum decay, which may indicate a leak or faulty component.
5. Refer to the vehicle's service manual for specific test values and procedures.



Image: An individual using the Mityvac MV8500 kit to extract fluid from a reservoir within an engine bay.

Maintenance

To ensure the longevity and optimal performance of your Mityvac MV8500 kit:

- **Cleaning:** After each use, especially when handling fluids, clean the pump, reservoir, hoses, and adapters thoroughly. Avoid drawing fluids directly into the pump.
- **Lubrication:** If lubrication is required for the pump's internal components, use silicone oil, DOT 5 silicone-based brake fluid, or vegetable oil. Do not use petroleum-based fluids or sprays (e.g., WD-40, motor oil) as they can damage the tool's seals.
- **Storage:** Store all components neatly in the provided carrying case in a clean, dry environment.

Troubleshooting

This section addresses common questions and issues related to the Mityvac MV8500 kit.

Frequently Asked Questions

- **Q: Is this product serviceable?**
  A: Yes, this product is serviceable, and repair parts are available as reflected in the product manual.
- **Q: Is the MV8500 a pump or kit?**
  A: The model MV8500 is a kit which includes the hand pump model MV8510, accessories for a variety of applications, and a carrying case.
- **Q: How much vacuum and pressure can the MV8500 create?**
  A: The MV8500 is designed to reliably pull 25" Hg (85kPa) of vacuum and build up to 30 psi (205 kPa) pressure.
- **Q: What fluids are compatible with the pump?**

A: Fluids should not be drawn into the pump but captured in the external reservoir included. Do not use petroleum-based fluids or sprays (WD-40, motor oil, etc.) to lubricate the tool. If lubrication is required, silicone oil, DOT 5 silicone-based brake fluid, or vegetable oil should be used.

Specifications

Key specifications for the Mityvac MV8500 Silverline Elite Automotive Kit:

Feature	Detail
Brand	Mityvac
Model	MV8500
Pump Model	MV8510
Material	Zinc-aluminum Die-Cast (Pump)
Max Vacuum	25" Hg (85 kPa)
Max Pressure	30 psi (205 kPa)
Fluid Reservoir Capacity	4.5 oz (135 ml)
Product Dimensions	9.8"L x 12"W x 3.5"H
Item Weight	4.85 pounds (2.21 Kilograms)
Power Source	Manual
UPC	646541004116, 600153546242, 646541000392

Warranty and Support

For warranty information, repair parts, or technical assistance, please refer to the official Mityvac website or contact Mityvac customer support. This product is designed to be serviceable, and replacement parts are available.
Visit the Mityvac Store for more information.

Ask a question about this manual

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

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