
MOTORVAC TECHNOLOGIES INC.

FLUIDVAC-1000



MODEL#9050

**Multiple Fluid System Service
MANUAL #100-9050**

Operator's Manual

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Introduction

Congratulations on your selection of the FLUIDVAC 1000 Service Unit.

By choosing this product, you are acquiring a simple and trouble free method for performing fluid system evacuation and refill services.

The FLUIDVAC 1000 System is designed to service most automotive applications by exchanging most of the fluid in engine oil pans, manual transmissions and differentials. Connections to the vehicle are achieved with the supplied adaptors.

Once connected, the unit can be safely used to:

- Vacuum out the old fluid.
- Refill vehicle with new fluid from “clean” tank.

- Refill vehicle with “used” fluid previously removed from vehicle.

Have all associated personnel study this Operators Manual completely to become thoroughly familiar with the FLUIDVAC 1000 Cooling System Service Unit & it's proper operation.

IMPORTANT

Use of additives or chemicals during services may cause operational failure of the FLUIDVAC 1000 Service System and will void the manufacturer's warranty.

See the warranty card for specific details.

Overview

This manual contains all the information you need to use the FLUIDVAC 1000 Service Equipment. Please make sure all technicians using the unit & performing services read this manual and have it within easy reach whenever the unit is being used.

The following is a quick reference to the information in this manual.

System Features and Functions

This chapter describes the FLUIDVAC 1000 Service System's Controls, Connections and their proper usage.

Safety Information

Read & adhere to the safety guidelines in this chapter at all times!

Before You Begin

Follow the instructions in this chapter to prime the unit & check operation before using the FLUIDVAC 1000 unit for the first time.

Service Procedure

This chapter contains a step-by-step setup and service procedures for:

- Relieving system pressure
- Evacuating fluids
- Refilling new or used fluids

Troubleshooting and Additional Help

Turn to this chapter in the unlikely event you have problems with your FLUIDVAC 1000 service equipment or need additional help.

Appendices - Maintenance, Accessories, and Parts

The appendices contain routine maintenance procedures for the FLUIDVAC 1000 such as cleaning the filter, lists of any available accessories & replacement parts.

System Features and Functions

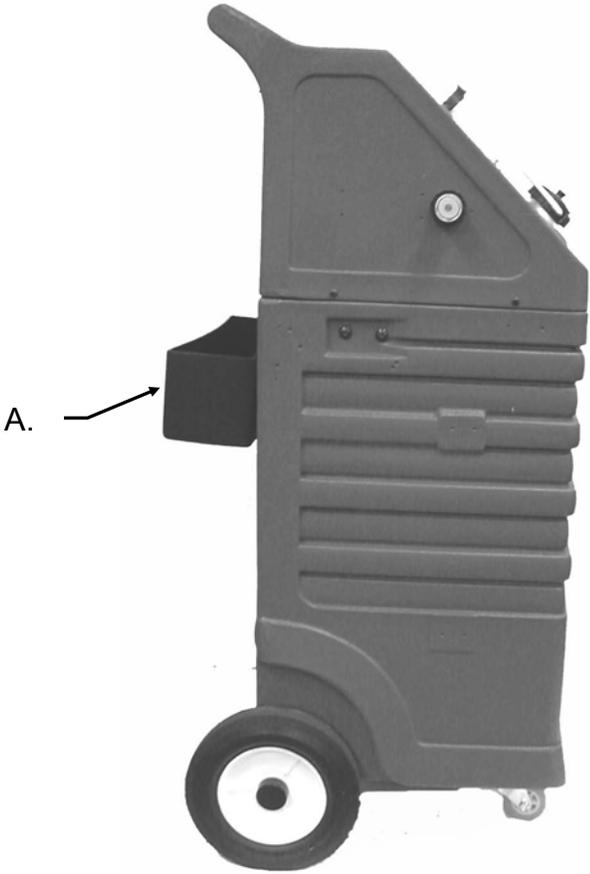
The front of the FLUIDVAC 1000 Service unit contains the Control Panel, Fluid Filler Neck for adding fluid to the unit's Reservoir Tank & Tank Level Indicator. System overview and descriptions follow.

Front View - Control Panel Features and Functions



- | | |
|--|---|
| A. Flow Control Valves | Controls flow directions for vacuum, hold vacuum, and fill functions |
| B. Air input control valve. | Turns on and off the 'shop' air flow to the pump. |
| C. Clean fluid tank fill neck | Access to clean fluid tank. (26 quarts maximum capacity) |
| D. Clean fluid tank level window | Visual access to monitor fluid level in clean fluid tank. |
| E. Used/waste fluid tank level window | Visual access to monitor fluid level in used fluid tank. |

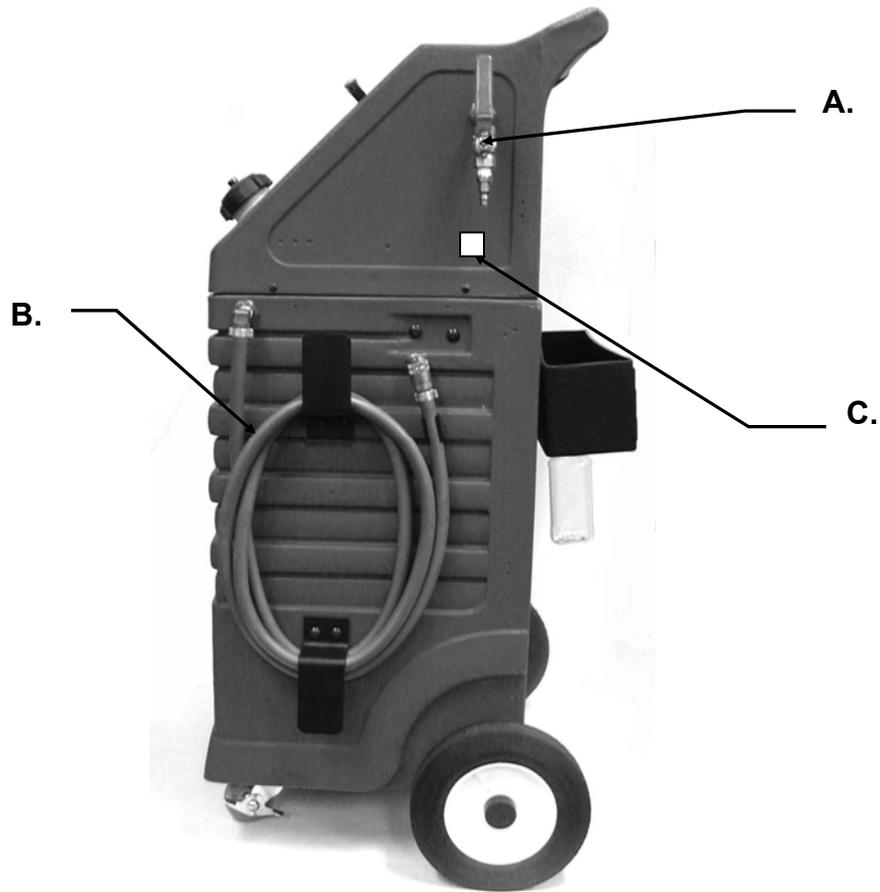
Left View



A. Adapter Tray

Used to store adapters used in vehicle hookups.

Right View



A. Air control valve

Turns the air pressure to the unit on or off.

B. Service Hose

- **Used to vacuum out used fluid.**
- **Used to vacuum out air from empty system.**
- **Used to refill system with clean or used fluid.**

C. Model/Serial number label

- **Identifies unit model and serial number.**

Theory of Operation

Detailed descriptions of the various operations, valves and indicators that make up the FLUIDVAC 1000's control panel are listed below.

3- Control valves:

◆ **When the valves are in the VACUUM position .**



(And unit connected to a vehicle) The unit will apply vacuum thru the "Green" hose when the air control valve is turned on.

◆ **When the valves are in the HOLD position:**



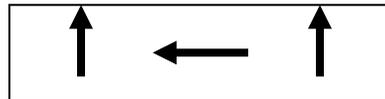
After maximum vacuum has been achieved (24 inch's of vacuum) you can turn the #3 valve to the 'HOLD' position. This allows for system leak tests after repairs have been completed on a vehicle.

◆ **When the valves are in the FILL-CLEAN position:**



The unit will pump New fluid from the clean fluid tank out of the "Green" hose.

◆ **When the valves are in the FILL-USED position:**



The unit will pump used fluid from the used/waste fluid tank out of the "Green" hose.

Safety Information and Precautions

!! DANGER

Vehicle exhaust gases contain Carbon Monoxide, which is a colorless and odorless lethal gas.
Only run engines in well-ventilated areas and avoid breathing exhaust gases.
Extended breathing of exhaust gases will cause serious injury or death.

!! WARNING

Exhaust gases, moving parts & hot surfaces are present during and after the vehicle's engine is running.
Hot coolant is present during the connection of the service equipment.

Read and understand the operator's manual before using the FLUIDVAC 1000 Service System.
When using petroleum products or chemicals always refer to the MSDS sheets and manufacturer's instructions for the proper procedure to handle emergency medical treatment, cleanup, handling and storage requirements.

Improper use of the FLUIDVAC 1000 equipment or exposure to exhaust gases and hot coolant can cause injury.

Spilled coolant on an engine can ignite.

Avoid exposure to flames, sparks, hot engine parts, and other ignition sources.

Always keep a fully charged fire extinguisher nearby. All extinguisher should have a class "B" rating suitable for gasoline, chemical and electrical fires.

Cleanup any oil or coolant spills immediately.

Dispose of contaminated cleanup material according to governing environmental laws.

Never look directly into the air plenum or carburetor throat when the engine is operating.

Always verify hose connections are secure to the radiator, upper hose & other connection points before starting the vehicle's engine. Pressure test if necessary.

Explosion or flame or exposure to flammable liquid and vapors can cause injury.

Flammable coolant can splash out of the unit's tank when filling or when unit is being moved.

Always keep unit's coolant tank cap secure except when filling with coolant.

Explosion or flame can cause injury.

Engine cooling systems may maintain residual pressure in connection lines to and from the radiator even after the engine has been turned off.

Wear safety goggles.

Wear chemical resistant gloves when connecting or disconnecting hoses and adapters.

Chemicals can cause harmful byproducts and undesirable effects on the unit,

Do not add any chemicals to the FLUIDVAC 1000's reservoir tank.

Use only approved coolants.

Do not swallow or ingest any chemicals.

Use with adequate ventilation. Avoid breathing vapors.

Do not store or use chemicals in or on the machine (other than coolant).

Improper use of coolant can cause injury.

Over exposure can have harmful effect on eyes, skin, respiratory systems & possible unconsciousness or asphyxiation.

Improperly blocked vehicles can move.

Set the parking brake and chock the wheels.

Moving engine parts:

The engine cooling fan may cycle on and off depending on the coolant temperature and could operate without the engine running.

Wear safety goggles.

Always keep objects, clothing, and hands away from the cooling fans and engine parts.

Moving engine parts can cause injury.

Hot surfaces are present during and after running the engine.

Do not contact hot surfaces such as manifolds, pipes, mufflers, catalytic converters, Radiators, hoses, adapters or other hot parts of the cooling system.

Hot surfaces can cause injury.

Catalytic converters become extremely hot.

Do not park converter-equipped vehicle's over dry grass, leaves, paper or other flammable material.

Do not touch a catalytic converter until the engine has been off for at least 45 minutes.

Catalytic converters can cause burns.

Cracked fan blade can become airborne.

Examine fan blades for cracks. If found, do not service the vehicle.

Flying objects can cause injury.

Batteries produce explosive gases and can explode.

Wear safety goggles when working on or near batteries.

Use in a well-ventilated area.

Keep sparks and flames away from the battery and never lay tools, equipment or other conductive objects on the battery. When connecting tools or equipment to a power source battery, assure the equipment's power switch is OFF. Connect the positive lead of the equipment to the positive battery lead first connect the negative lead equipment to a solid ground point as far from battery as possible.

Keep battery acid away from skin or eyes. In case of eye contact, flush with clean water for 15 minutes and get medical attention.

Battery explosion and ignited gases can cause injury.

Before You Begin

First Time Operation

NOTE:

This unit has been tested with water and is ready for use after receiving the unit & performing the following priming procedure.

Remember to send in your warranty card to properly register your machine.

CAUTION, DO NOT USE THIS UNIT FOR BRAKE FLUID EVACUATION. BRAKE FLUID WILL DAMAGE THE SEALS IN THE PUMP. WARRANTY WILL BE VOID.

1. Check the unit's service hoses, and all external components for damage.
2. Attach an adapter to the coupler of the service hose.
3. Fill the unit's reservoir with new fluid.
4. Insert the green hose with adapter into the fluid tank fill neck.
5. Attach air supply line to air input valve.
6. Set the control valves to the "FILL" Position, hold hose wand **securely** and turn on air valve. ***Pump and wand will "pulse"***.
7. Once the pump has been internally lubricated you can set the valves to vacuum and test the vacuum function.
8. Insert the wand into a bucket of fluid, turn the control valves to vacuum and turn on the air valve. Unit should draw fluid out of the bucket and pump it into the Used/Waste fluid tank. Turn air off.
9. Turn the control valves to FILL-USED, insert the wand into a fluid capture container and turn the air valve on. Unit should pump fluid from the used fluid tank out of the service hose. Unit is now "tested".
10. The unit is now ready to perform a service. See service instructions for procedure.

NOTE:

This procedure should be performed BEFORE operating the unit for the first time *or any time the unit's reservoir tank is completely emptied.*

!! WARNING



Verify that engine and machine are both off before connecting or disconnecting radiator hoses, lines or adapters.

Hot Coolant can spray out of pressurized lines when connecting or disconnecting.

Always wear safety goggles.

Wear chemical resistant gloves when connecting or disconnecting hot fittings and adapters.

Wrap a shop towel around pressurized fittings and adapters when disconnecting.

Avoid exposure to flames, sparks, hot engine parts, and other ignition sources.

Explosion or flame or exposure to flammable liquid and vapors can cause injury.

Troubleshooting and Additional Help

Refer to the list below in the unlikely event that you have problems with your **FLUIDVAC 1000 Service Unit**.

Problem:

Solution:

ADDITIONAL HELP

In the unlikely event that problems persist with the unit, call Technical Support. Have your model and serial numbers available before you call. Remember to send in your warranty card.

**In the U.S.
(714) 558-4822**

**International:
Call your local**

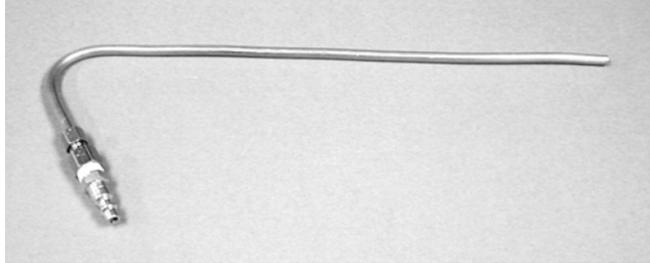
(800) 841-8810

distributor

Appendix B – System Accessories

Basic Adaptor

The following is a list of the adaptors available for use with your Fluidvac-1000 unit.

PART & NUMBER	QTY	DESCRIPTION
	1	1/4" Open End Adaptor

ORDERING PARTS

Parts for the unit may be ordered by calling
Customer Service, have your model and serial numbers available:
Call: 800.841.8810, 714.558.8810

Appendix C - Parts

Service Parts: Fluidvac System

Please refer to the part numbers below when ordering parts for the unit.

<u>Part #</u>	<u>Description</u>
010-0027	Wheel
010-0026	Hub cap
010-6100	Swivel caster
010-6101	Swivel caster with break lock
010-5500	Axle, 1/2" Diameter, (Rear wheels)
040-0604	Cap Nut, 1/2" ID
040-0507	Axle bushing 1/2" ID. (Plastic)
010-5004	Hose bracket
010-6060	Reservoir cap
010-5602	Adapter box
010-1052	Bottle for adaptor box
040-1200	Screw, Phillips, 6-32 x 1/2" SS. (Adapter box)
040-2000	Threaded standoff, 6-32 x 3/8 Al. (Adapter box)
040-2200	Flat washer, #6 orifice, SS (Adapter box)
040-6023	Screw, Phillips head, #8 x 3/4" blk (Control & Rear panel)
080-0236	Female Quick Disconnect Couplers, 1/4", Brass
050-1935	Filter-Screen (external canister insert)
200-8701	Output hose assembly, (Green)
100-5050	Operators Manual
????	Adapter
050-2411	Pump