
MOTORVAC[®] **OIL CLEAN** **SYSTEM**

ENGINE LUBE FLUSH SYSTEM

FOR

Gasoline (Petrol) and
Diesel Engines

OPERATORS MANUAL

MOTORVAC TECHNOLOGIES INC.

MOTORVAC OIL CLEAN
P/N 200-8501
Rev. B, 2002

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Introduction

Congratulations on your selection of the **MOTORVAC OILCLEAN SYSTEM™**. By choosing this product, you are acquiring the most technologically advanced method available for cleaning varnish, sludge, and other contaminants from gasoline and diesel engine oiling systems.

The **OILCLEAN** is a self-contained cleaning system, designed to connect to any gasoline or diesel engine (up to 9.5L / 10 qts of crankcase capacity). Once the unit is connected, it temporarily replaces the regular oil filter, allowing a specially formulated **MotorVac™ Cleaning Detergent** mixture to circulate throughout the engines lubricating system.

With the engine idling, the unit pumps the oil/detergent mixture through the engine's lubricating system. As the mixture passes through the engine's lubricating system, it loosens and dissolves accumulated deposits, which then pass harmlessly out of the engine and are removed by the unit's

5-micron filter. Removing contaminants from the engine's lubricating system creates better oil flow, which improves horsepower, increases fuel economy, and reduces exhaust emissions.

Please refer to the chart below for the recommended service intervals:

Recommended Service Intervals	
Type of Vehicle	Mileage
Automobile - Gasoline	12,000 – 15,000 miles or 19,000 – 24,000 kilometers or once a year
Automobile - Diesel Light-Duty Trucks	12,000 – 15,000 miles or 19,000 – 24,000 kilometers or once a year

Please study this *User Guide* to become thoroughly familiar with the **OILCLEAN** before using it.

IMPORTANT

**The OILCLEAN SYSTEM Machines are designed to work
EXCLUSIVELY
with MotorVac™ Cleaning Detergents.**

**Use of any other chemicals during this process may cause operational failure
of the OILCLEAN and voids the manufacturer's warranty.
See warranty card for details.**

Overview

This manual contains all the information you need to use the **MOTORVAC OILCLEAN**. Please make sure all technicians have 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 **OILCLEAN** gauges, control switches, and connections.

Safety Information

Adhere to the safety guidelines in this chapter at all times!

Before You Begin

Follow the instructions for before using the unit for the first time.

Oil System Cleaning Procedures

These chapters contain step-by-step setup and cleaning procedures for using the unit.

Troubleshooting and Additional Help

Turn to this chapter in the unlikely event you have problems with your **OILCLEAN**.

Appendices – Maintenance, Accessories, Parts, and MSDS reports.

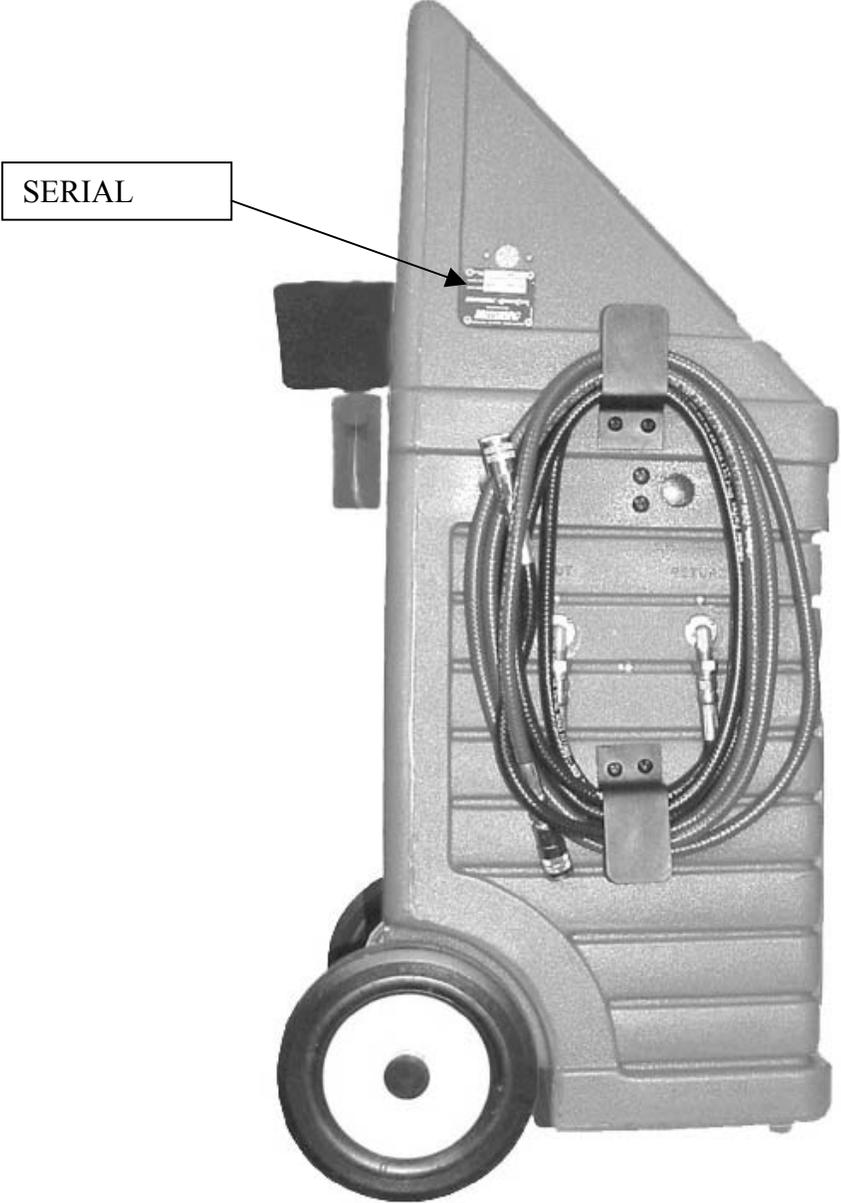
The appendices contain routine maintenance procedures the **OILCLEAN**, such as changing the filters, and the Material Safety Data Sheets.

System Features and Functions

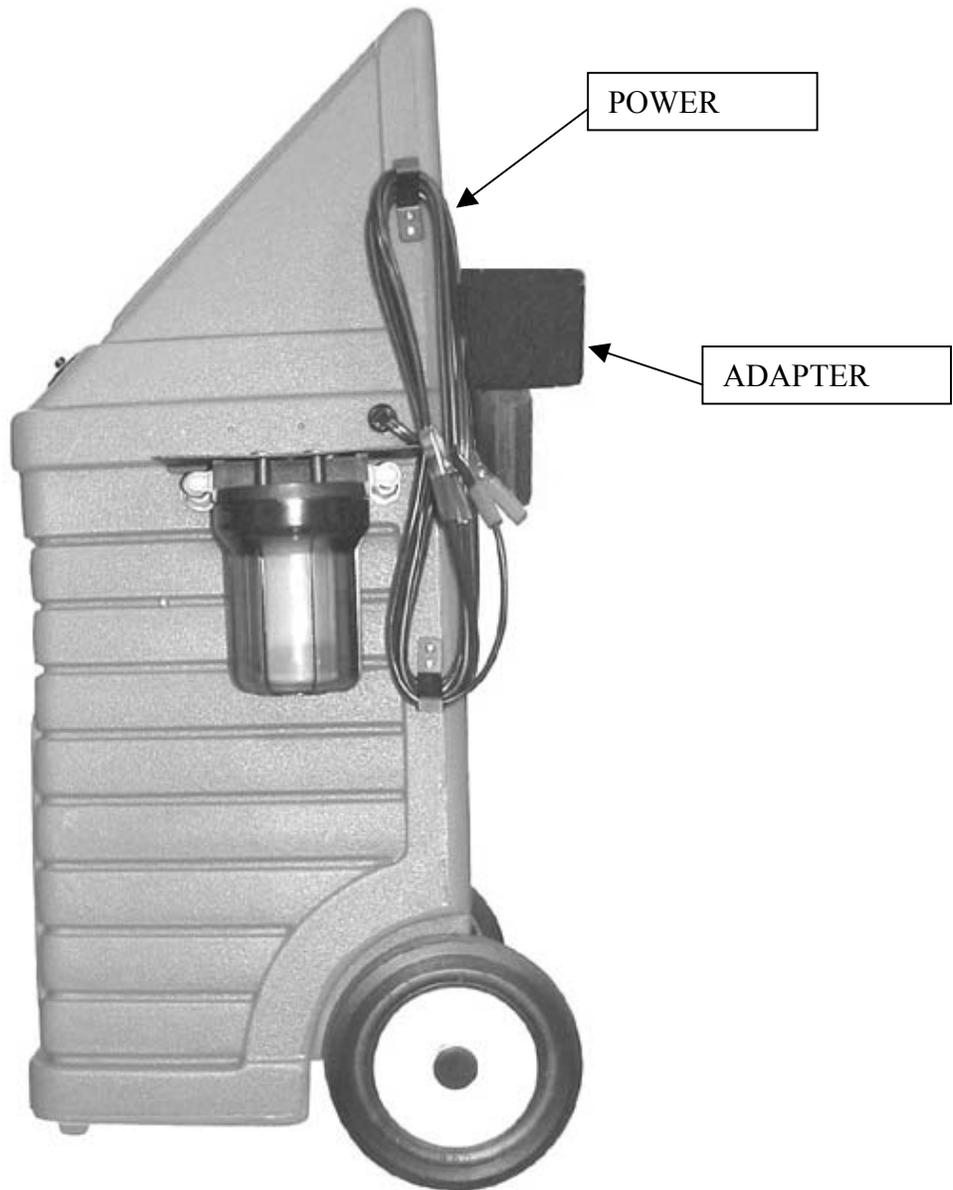
The front of the **MotorVac OilClean System™** cabinet contains the control panel, control switches and status indicators. The oil filter is mounted on the side of the cabinet. The detergent, air reservoirs and internal detergent filter are located inside the unit.



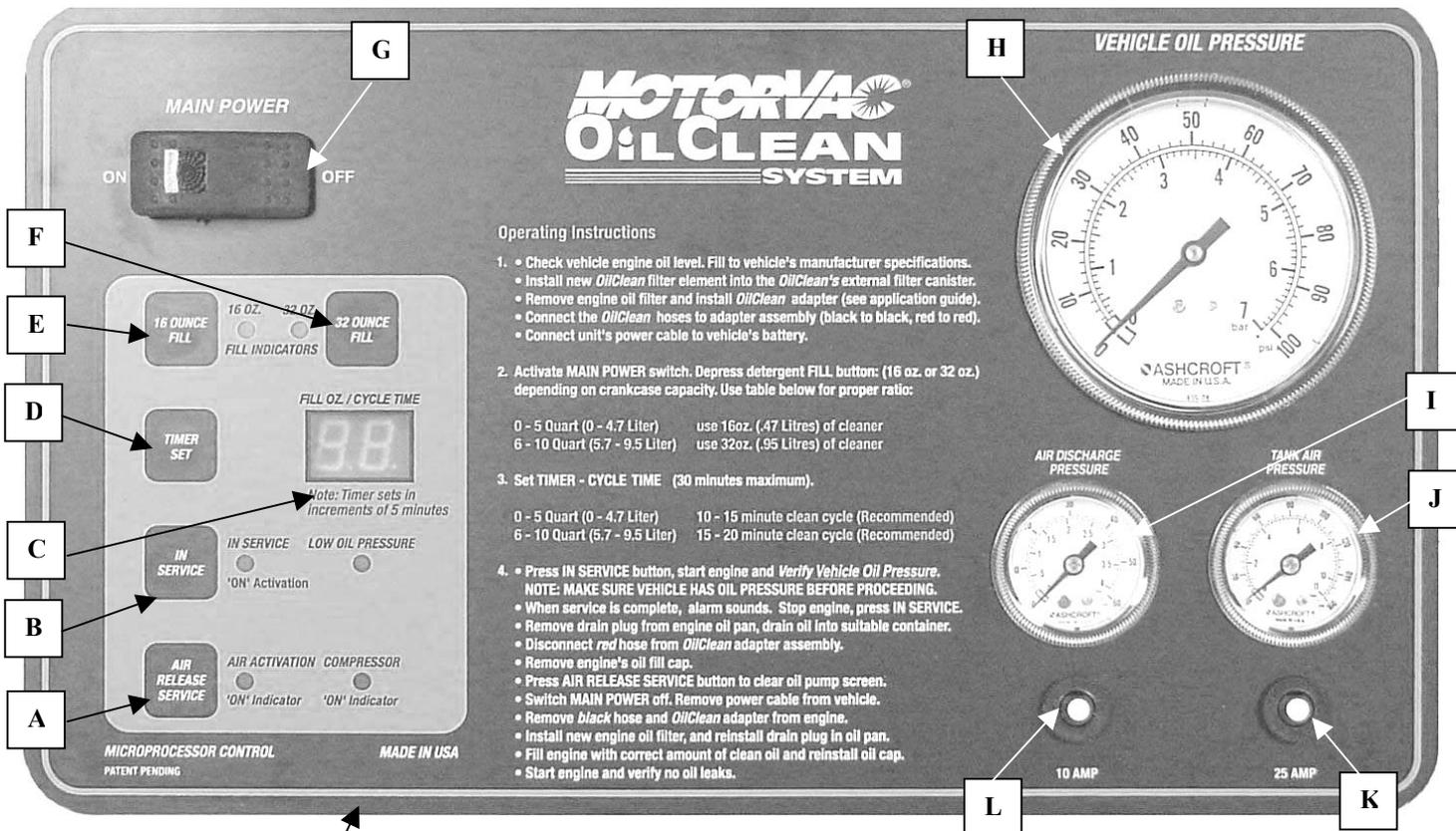
Left Side View



Right Side View



OilClean Control Panel Functions



Operating Instructions

- Check vehicle engine oil level. Fill to vehicle's manufacturer specifications.
 - Install new *OilClean* filter element into the *OilClean*'s external filter canister.
 - Remove engine oil filter and install *OilClean* adapter (see application guide).
 - Connect the *OilClean* hoses to adapter assembly (black to black, red to red).
 - Connect unit's power cable to vehicle's battery.

- Activate MAIN POWER switch. Depress detergent FILL button: (16 oz. or 32 oz.) depending on crankcase capacity. Use table below for proper ratio:

0 - 5 Quart (0 - 4.7 Liter)	use 16oz. (.47 Litres) of cleaner
6 - 10 Quart (5.7 - 9.5 Liter)	use 32oz. (.95 Litres) of cleaner

- Set TIMER - CYCLE TIME (30 minutes maximum).

0 - 5 Quart (0 - 4.7 Liter)	10 - 15 minute clean cycle (Recommended)
6 - 10 Quart (5.7 - 9.5 Liter)	15 - 20 minute clean cycle (Recommended)

- Press IN SERVICE button, start engine and Verify Vehicle Oil Pressure. NOTE: MAKE SURE VEHICLE HAS OIL PRESSURE BEFORE PROCEEDING.
 - When service is complete, alarm sounds. Stop engine, press IN SERVICE.
 - Remove drain plug from engine oil pan, drain oil into suitable container.
 - Disconnect red hose from *OilClean* adapter assembly.
 - Remove engine's oil fill cap.
 - Press AIR RELEASE SERVICE button to clear oil pump screen.
 - Switch MAIN POWER off. Remove power cable from vehicle.
 - Remove black hose and *OilClean* adapter from engine.
 - Install new engine oil filter, and reinstall drain plug in oil pan.
 - Fill engine with correct amount of clean oil and reinstall oil cap.
 - Start engine and verify no oil leaks.

CONTROL PANEL
ASSEMBLY 200-8698

OilClean Features and Functions

Descriptions of the gauges, control switches, and status indicators making up the control panel are listed below. Please become familiar with these features and functions before using the unit.

- | | |
|--|--|
| A. Air Release Service Switch | Pressed at end of service to purge any remaining oil/sludge deposits remaining in engine's oil pan and to clear oil pump screen. |
| B. In Service Switch | Press to begin service. Press at end of service after alarm sounds. |
| C. Fill Oz. / Cycle Time | Displays fill ounces of detergent / time entered for cleaning cycle, and time remaining on cleaning cycle. |
| D. Timer Set Switch | Press to enter appropriate time. See set up on page 4-3. |
| E. 16 Ounce Fill Switch | Selects 16 ounces of detergent. See mixing ratios on page 3-1. |
| F. 32 Ounce Fill Switch | Selects 32 ounces of detergent. See mixing ratios on page 3-1. |
| G. Main Power Switch | Turns unit on or off. |
| H. Oil Pressure Gauge 0 – 100 psi | Reads vehicle <i>engine oil pressure</i> when engine is running. Reading should meet vehicles manufacture specifications. |
| I. Air Discharge Pressure Gauge 0 – 60psi | Reads air pressure used to clear engine's oil pump screen. (Factory preset to 30psi maximum at sea level.) |
| J. Tank Air Pressure Gauge 0-160psi | Reads tank reservoir air pressure. |
| K. 25 Amp Circuit Breaker | Protects unit's built in air compressor. |
| L. 10 Amp Circuit Breaker | Protects unit's control panel and other components. |
| M. Automatic Reset Fuse
Not Shown. | If Display does not power up, verify correct battery connection. Otherwise, disconnect power cable clamp, wait five seconds and reconnect clamp. |

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, and potent chemicals are present during the use of the fuel system cleaner.

Read and understand the operator's manual before using the *MotorVac OilClean System*™.

When using 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 OILCLEAN SYSTSEM or exposure to exhaust gases or cleaning chemicals can cause injury.

Spilled oil cleaner and vapors can ignite.

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

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

Cleanup any chemical spills immediately.

Dispose of contaminated cleanup material according to governing environmental laws.

Keep Cleaner container closed except when filling reservoir.

Always verify hose adaptor connections to the engines oil filter adaptor before starting the vehicle's engine.

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

Flammable liquid could splash out of reservoir when pump is on and/or unit is being moved.

Always keep Reservoir Cap secure except when filling reservoir.

Explosion or flame can cause injury.

Wear safety goggles.

Wear chemical resistant gloves when connecting or disconnecting fitting and adaptors.

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

Chemicals can cause harmful byproducts.

Use only approved chemicals (refer to operator's manual).

Do not swallow or ingest any chemicals.

Use with adequate ventilation. Avoid breathing vapors.

Do not store chemicals on or in the machine.

Improper use of chemicals can cause injury.

Over exposure can have harmful effect on eyes, skin, respiratory system and possible unconsciousness and asphyxiation.

See next page

Improperly blocked vehicles can move.

Set the parking brake and chock the wheels.

Moving vehicles can cause injury.

Moving engine parts.

The engine-cooling fan will 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 or radiators and hoses.

Hot surfaces can cause injury.

Catalytic converters become extremely hot.

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

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

For tests allowing unburned hydrocarbons or service involving operation of an overly rich condition, minimize the time of rich operation, monitor the catalytic converter temperature, and allow at least two minutes of operation at normal mixture subsequent to testing or service for converter cooling.

Catalytic converters can cause burns.

Cracked fan blades 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 tools or equipment is connected to the battery, make sure the equipment power switch is off. Connect the positive lead of the equipment to the positive lead of the battery first; connect the negative lead of the equipment to a solid ground point as far from the 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

The following is used to **PRIME** your new **MOTORVAC OILCLEAN SYSTEM**, and is only necessary the first time you use the unit.

NOTE

Do **Not** Operate Machine **Below 50° Fahrenheit (10° Celsius)**.
Detergent should be used / stored above 50°(10° Celsius).

1. Remove OILCLEAN from box.
2. Install new filter in unit's filter bowl. (See page 4-4) Verify that the O'Ring is securely in place in the plastic filter bowl. **NOTE: Hand tighten filter only. Do not over tighten.**
2. Check the output/return hoses, battery connections, and all external components for damage.
3. Open the one-gallon container of OILCLEAN cleaner detergent included with the starter kit (This Starter Kit supplied in USA & Canada only). Shake container, place a funnel into unit's fill neck and carefully pour the entire contents into the unit's tank. **Note: The maximum capacity of the unit's reservoir is 5qts.**
4. Attach the unit to the vehicle's battery by connecting the **red** battery clip to the positive (+) battery terminal and the **black** battery clip to a solid ground point as far from the battery as possible. Press the **MAIN POWER** switch to *on*.
5. Attach the adaptor #065-1033 to *red* OILCLEAN hose and insert into units tank fill neck.
6. Press and release the 16-OUNCE FILL or 32-OUNCE FILL switch (See mixing ratios below). CYCLE TIME L.E.D. display will begin counting ounces dispensed. When display begins flashing, the pump has cavitated. Press the 16 or 32-OUNCE FILL switch again to restart pump. Repeat as necessary until air is completely purged from system and display reads the requested ounces.
7. The *MOTORVAC* OilClean System is now ready for service. Refer to the Mixing Ratios table below for the correct mixture (based on engine crankcase capacity). Press unit's **MAIN POWER** switch *off*. This resets the unit.
8. Proceed to Oil System Cleaning Procedures, page 4-1.

Mixing Ratios:

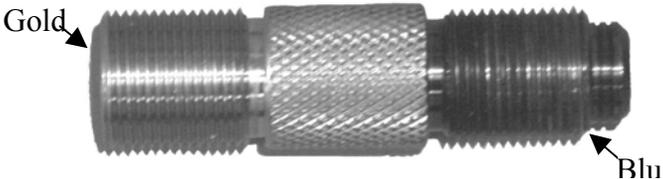
CRANKCASE CAPACITY	DETERGENT DISPENSED
0 – 5 Quart (0 – 4.7 Liter)	Use 16 ounces (.47 Liters) of cleaner
6 – 10 Quart (5.7 – 9.5 Liter)	Use 32 ounces (.95 Liters) of cleaner

OILCLEAN System Cleaning Procedure

Determining the Vehicle's Oil Filter Type

It is important to determine the Oil Filter type on the vehicle to be serviced before performing any setup or cleaning procedure on the vehicle. This can be done by referencing the Application Guide & using the Adaptor Insert Thread Gauge (below). Also refer to the Insert Guide Below.

FILTER THREAD SIZE-PITCH	ADAPTER INSERT COLOR	SPIN-ON FILTER ADAPTER HOUSING / COLLAR	CANISTER STYLE See Optional Adaptors in Appendix B
3/4 -16	SILVER	YES with 1-12	
13/16 - 16	BLUE*	YES with 1-12	
18m - 1.5	RED	YES with 1-12	
20m - 1.5	BLUE*	YES with 1-12	
22m - 1.5	YELLOW	YES with 1-12	
1-12	NO INSERT	YES with 1-12	
1-16	NO INSERT	YES with 1-16	
1½ -16	NO INSERT	YES with 1½ -16	
*NOTE: The BLUE insert is used for both (13/16-16 and 20m-1.5)			

 <p>Red</p> <p>Silve</p>	<p>THREAD GAUGE 080-1206 Silver / Red 3/4 - 16 / 18m - 1.5</p>
 <p>Gold</p> <p>Blu</p>	<p>THREAD GAUGE 080-1207 Gold / Blue 22m - 1.5 / 13/16 - 16, 20m - 1.5</p>

NOTE

Once you have determined the oil filter type, turn to page 4-3 in this chapter for instructions on how to perform the OilClean setup and cleaning procedure.

Troubleshooting and Additional Help

Refer to the list below in the unlikely event that you have problems with your **MotorVac OilClean**.

Problem:

Solution:

- 1. The OilClean is not operational or trips breaker immediately.**

Polarity is reversed on vehicle battery connection. Check connections for correct polarity. Check circuit breakers on front of the cabinet.
Note: If still not operational, disconnect power and wait five seconds (pcb has internal auto reset).
- 2. Units *Vehicle Oil Pressure Gauge* on the OilClean displays no pressure upon Engine start up.**

Output and Return hoses may be reversed. Set **Timer** to zero and check hoses for correct connection.
- 3. Main Power switch is on but operation does not commence.**

Check **TIMER SET**. If fill indicator is not lit, select either **16 or 32-OUNCE FILL**. If no time is set, then set the **CYCLE TIME**.
- 4. The OilClean performs poorly.**

Check all hoses and wires for cuts or frays. Check cabinet for dents or impact markings. Verify that the oil filter was replaced.
- 5. Sudden pressure increase on Units *Vehicle Oil Pressure Gauge*.**

Blockage or restriction in red hose.
- 6. Sudden pressure drops on Units *Vehicle Oil Pressure Gauge*.**

Blockage or restriction in black hose.
- 7. L.E.D. Display begins flashing.**
 - Verify level of detergent in Detergent Reservoir. Add if empty. Press last selection to restart.
 - Verify that hoses are not kinked or pinched.
 - If unable to clear Display, Call MotorVac Technical support at 800-841-8810.

ADDITIONAL HELP

Please verify that items 1- 7 above have been reviewed before calling for additional assistance have your model and serial numbers available:

In the unlikely event that problems persist with the OilClean, call: Your *Local Distributor*

Or: MOTORVAC TECHNOLOGIES INC.
1431 S. VILLAGE WAY
SANTA ANA, CA 92705 USA

714.558.4822
800.841.8810

NOTE

Do Not Operate Machine Below 50° Fahrenheit (10° Celsius).

Detergent should be used / stored above 50°(10° Celsius).
Shake detergent container well before using.

Service Procedure

Bring engine to operating temperature, and then check engine oil level. Fill or top off to vehicle manufacturer specifications.

1. Verify new *OilClean* filter element is installed in unit and that the *OilClean*'s filter bowl O'Ring is in place. Refer to page 4-4 showing filter installation. If unit was previously used, see line 21 below for filter bowl purge procedure. Dispose of used filter element in appropriate manner.
2. Remove engine's oil filter and install correct *OilClean* oil filter adapter housing with insert. (See application guide). Ensure that adapter housing O'Ring is in place.
3. Connect the *OilClean* hoses to oil filter adapter housing assembly (black to black, red to red).
4. Connect the unit's power harness to the vehicle's battery by connecting the red battery clip to the positive (+) battery terminal and connecting the black (-) battery clip to a solid ground point as far from the battery as possible.
5. Verify the *OilClean* MAIN POWER switch is in the ON position.
6. Press and release the "16 OUNCE FILL or 32 OUNCE FILL" button. **Note: Response is time delayed a few seconds.** Select fill depending on vehicle crankcase capacity.
0 – 5 Quart (0 – 4.7 Liter)..... Use 16ounces (.47 Liter) of cleaner
6 – 10 Quart (5.7 – 9.5 Liter)..... Use 32ounces (.95 Liter) of cleaner
7. Set CYCLE TIME (Thirty minutes maximum). **Note: Response is time delayed a few seconds.**
0 – 5 Quart (0 – 4.7 Liter).....10 – 15 minute clean cycle (Recommended)
0 – 10 Quart (5.7 – 9.5 Liter)...15 – 20 minute clean cycle (Recommended)
8. Press and release the IN SERVICE button (alarm will sound until engine oil pressure is achieved). Start engine and *Verify Engine Oil Pressure.*
9. When service is complete, alarm sounds. Stop engine. Press and release IN SERVICE button.
10. Remove drain plug from engine oil pan and drain oil into suitable container.
11. Disconnect red hose from the *OilClean* filter adapter assembly.
12. Remove engine's oil filler cap.
13. Press and release AIR RELEASE SERVICE (**Note: Response is time delayed a few seconds**) to purge any remaining oil/sludge in the engine oil pan and to clear oil pump screen.
14. Press MAIN POWER to OFF position. Remove power cable from vehicle.
15. Remove black hose from *OilClean* adapter.
16. Remove *OilClean* adapter from engine.
17. Install new engine oil filter, and reinstall drain plug in oil pan.
18. Fill engine with correct amount of clean oil and reinstall oil fill cap.
19. Start engine and verify no oil leaks.

Test drive vehicle. Stop engine and do final engine oil level check.

The *OilClean* service is now complete.

20. Filter Bowl Purge Procedure:

To lower oil level in the filter bowl and decrease oil spillage when replacing units filter:

- Attach the unit to the vehicle's battery by connecting the red battery clip to the positive (+) battery terminal and the black battery clip to a solid ground point as far from the battery as possible. Press the *OilClean* MAIN POWER switch to the ON position. Verify tank pressure is at 90psi. If not, install open-end adaptor (#065-1033) into black hose and place into appropriate waste container. Press and release the 32-OUNCE FILL

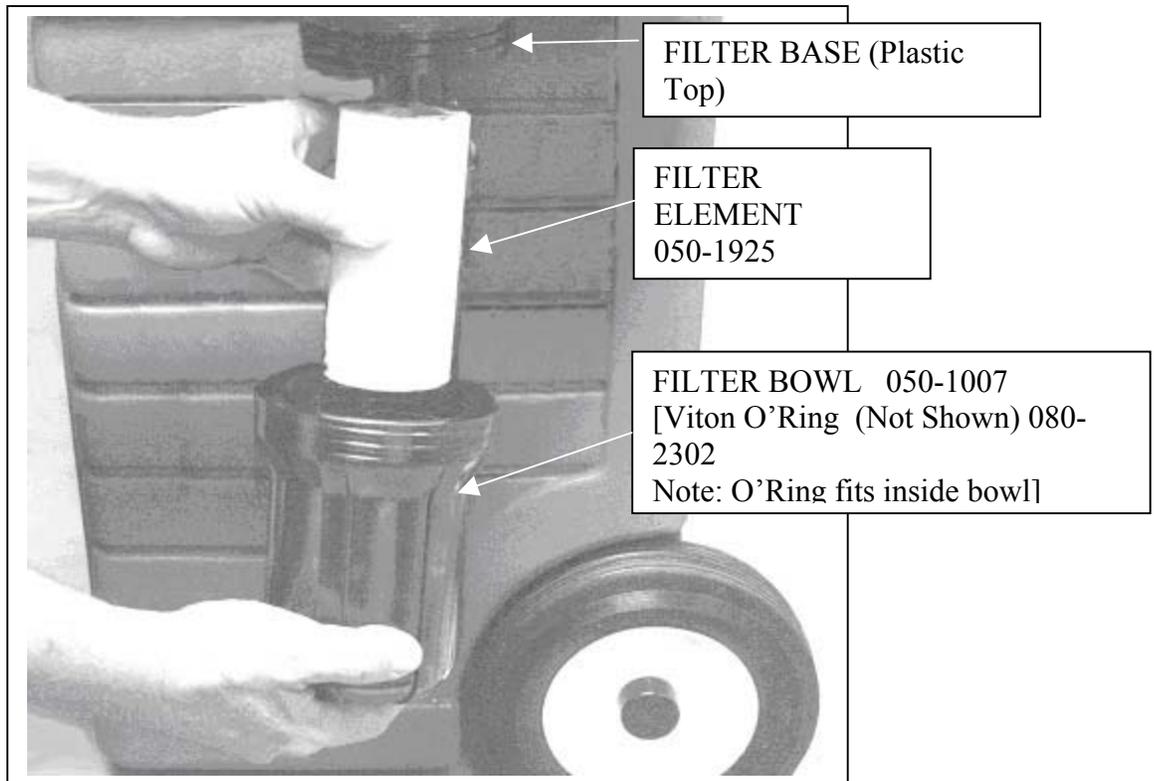
button to cycle compressor until oil is flushed from hose and detergent begins to flow, and then press Power Switch OFF. Place black hose into fill neck of unit and repeat procedure as necessary to fill air tank. After air compressor cycles off, remove adaptor from black hose.

- Next install open-end adaptor (#065-1033) into red hose and place into suitable container. Press the *AIR RELEASE. SERVICE* button. Allow to purge into suitable container until air discharge ends. Filter bowl is now purged. Turn off unit and disconnect power harness from battery. Remove adaptor from red hose. Unit is now ready for filter replacement.

EXTERNAL FILTER, REMOVE / REPLACE

NOTE: See page 4-3, line 21 for filter bowl purge. Place drain pan underneath filter bowl. Turn filter bowl counter clockwise to remove. Remove old filter. Install new filter (050-1925) by pushing up into filter base 050-1926. Before installing filter bowl, verify Viton O'Ring is installed in filter bowl. Install filter bowl and turn clockwise to tighten. Caution, hand tighten only.

Part number for ***FILTER BASE AND BOWL ASSEMBLY*** is **200-8611**, which does include two elbow fittings (030-4805). Note: does ***not*** include steel mounting bracket (011-0068).

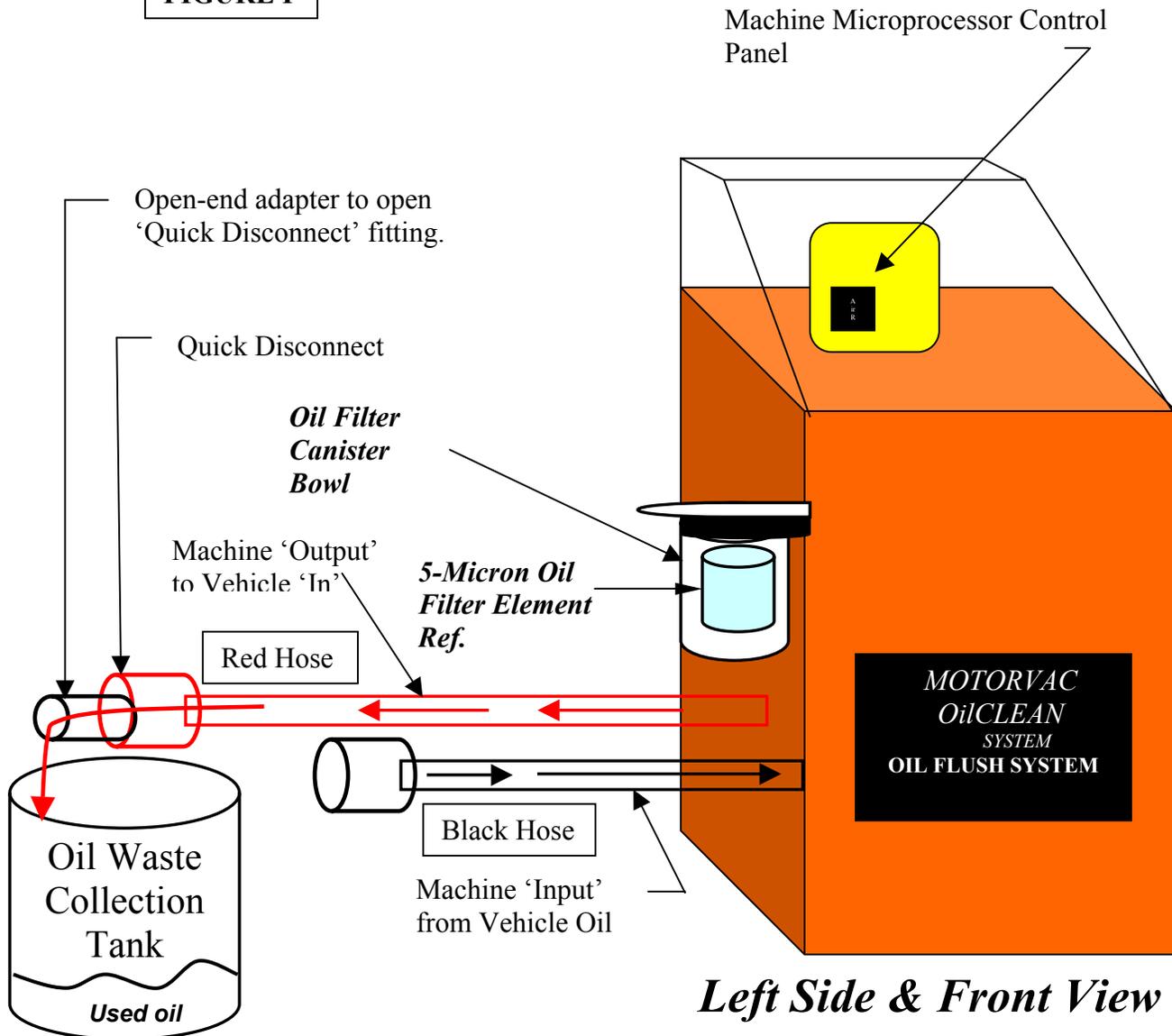


Oil Filter bowl Purge instructions.

To purge used residual motor oil in the oil filter bowl after servicing the vehicle oil system, perform the following:

Install open-end adapter 065-1033 into the Red Hose Quick Disconnect as shown below. Place adapter hose into appropriate waste container. Leave the black hose disconnected. Activate the Air Release button on the control panel. Drain used motor oil from filter bowl in a suitable waste collection container.

FIGURE I



Appendix A

Maintenance Procedures

The following maintenance procedures should be performed on a routine basis:

1. Drain the unit's air reservoir at least once a month to remove any possible moisture build up. Unit's air supply is drawn from the bottom of reservoir reducing the chance of any moisture remaining in reservoir during normal operation. If unit is not used more than thirty days, drain reservoir. *See operation below.*
2. Clean the exterior with a non-abrasive cleaning agent or similar product to keep the cabinet looking new. Check the cabinet for dents or impact markings.
3. Check all hoses and wires for cuts or frays.
4. Verify *Air Discharge* Pressure gauge reads 30psi. If not, see adjusting procedure below.

Adjusting the *Air Discharge* Pressure.

1. Attach the unit to the vehicle's battery by connecting the **red** battery clip to the positive (+) battery terminal and the **black** battery clip to a solid ground point as far from the battery as possible. Turn *on* the **ON/OFF** switch.

NOTE: This procedure is best done just before performing an OilClean service.

2. Remove front panel, locate *pressure regulator* and turn the *pressure regulator* knob clockwise to increase pressure, or counterclockwise to decrease pressure. Tank reservoir is automatically filled when IN SERVICE is pushed. Reinstall front panel.

NOTE: -Air Release Pressure Gauge should read 30psi.

- Maximum Tank Reservoir Pressure is 90psi. This is non adjustable.

Draining the Air Reservoir Tank.

1. Attach the unit to the vehicle's battery by connecting the **red** battery clip to the positive (+) battery terminal and the **black** battery clip to a solid ground point as far from the battery as possible. Turn *on* the **ON/OFF** switch. Verify tank pressure is at 90psi. If not, install open-end adaptor (#065-1033) into black hose and insert into fill neck of unit. Push 16-OUNCE FILL button to cycle compressor. Next install open end adaptor (#065-1033) into red hose and put into suitable container. Activate the *AIR RELEASE SERVICE* button. Allow to drain into suitable container until empty. Reservoir is now purged of any moisture. Disconnect power harness from battery and remove adapter hose.

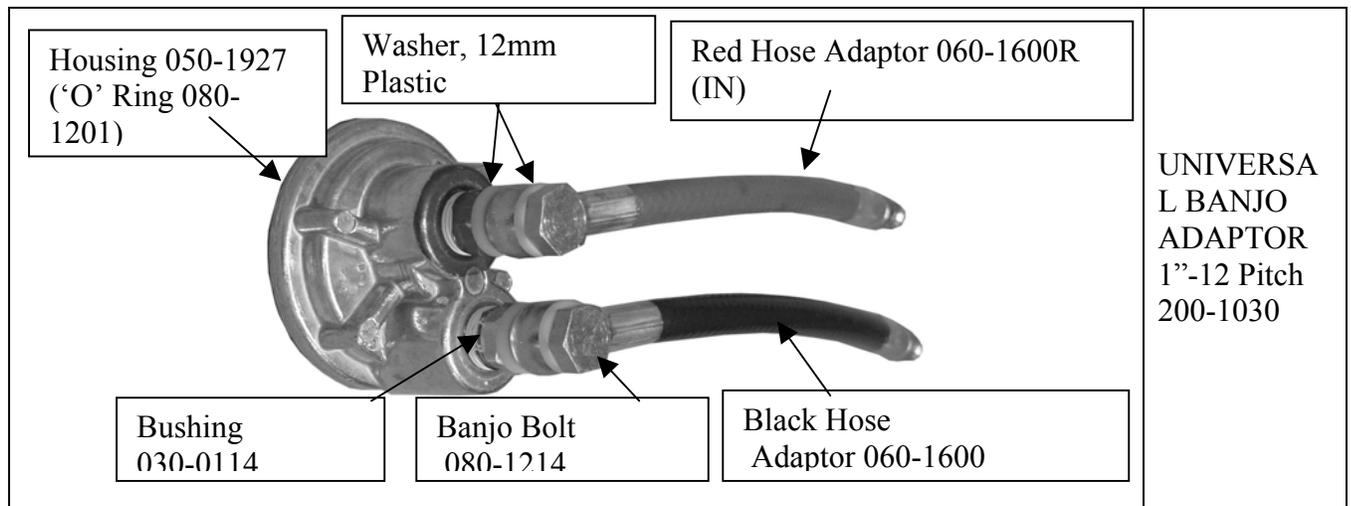
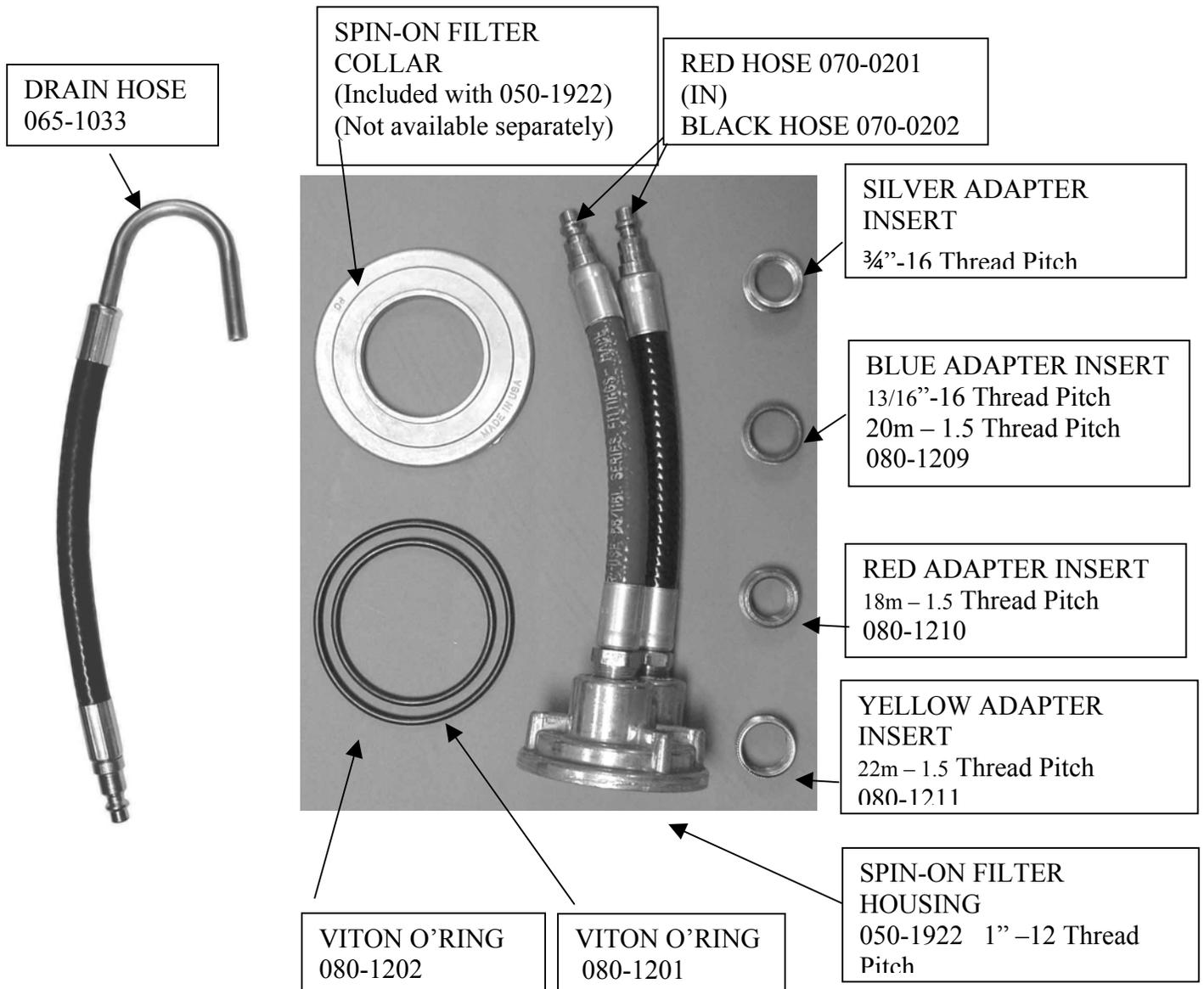
Enter initials, date, and a check mark in the appropriate boxes of the Maintenance Record at the end of the chapter.

Cleaning the Detergent Tank *In-line Detergent Filter*.

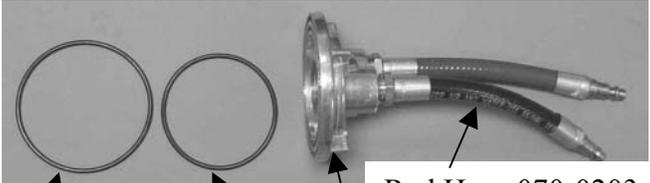
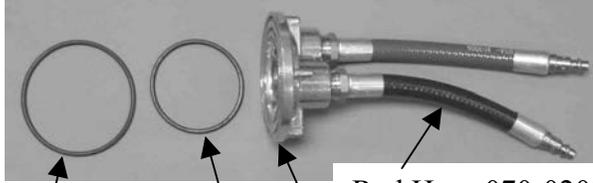
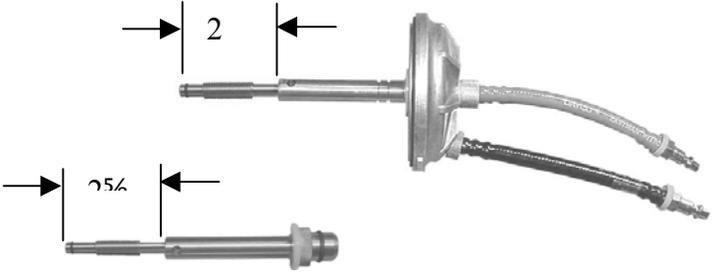
1. Once a year remove back of unit. Remove hairpin clip from filter (050-1000). Separate halves of filter by rotating to line up slots. Pull filter apart. Clean screen and reassemble.

Appendix B - System Accessories

Basic Adaptor Kit 200-3112



Optional Adaptors

PARTS INCLUDED	DESCRIPTION & NO
 <p>080-1203 O'Ring (Large)</p> <p>080-1202 O'Ring (Medium)</p> <p>050-1923 Housing</p> <p>Red Hose 070-0203</p>	<p>200-1028 SPIN-ON FILTER HOUSING ASSEMBLY FORD Diesel Application 1 ½" –16 Thread Pitch (Includes two Viton O'Ring) Red Hose 070-0203 (IN) Black Hose 070-0204</p>
 <p>080-1202 O'Ring (Medium)</p> <p>080-1201 O'Ring (Small)</p> <p>050-1924 Housing</p> <p>Red Hose 070-0203</p>	<p>200-1029 SPIN-ON FILTER HOUSING ASSEMBLY DODGE Diesel Application 1" –16 Thread Pitch (Includes two Viton O'Ring) Red Hose 070-0203 (IN) Black Hose 070-0204</p>
	<p>065-1034 CANNISTER STYLE Mercedes Benz Application V6 2.8, 4.3 (1998-2000)</p>
	<p>065-1035 CANNISTER STYLE BMW Application L6 2.5 (1997-2000)</p>
 <p>2</p> <p>2 5/8</p>	<p>065-1036 CANNISTER STYLE BMW Application L6 3.2 (1993-2000) Note: Two stems are supplied with this adaptor. Select the correct length stem to match the vehicles stem.</p>

Optional Adaptors

PARTS INCLUDED	DESCRIPTION & NO
	<p>065-1037 CANNISTER STYLE BMW Application L4 1.9 (1995-1999)</p>
	<p>065-1038 CANNISTER STYLE BMW Application V8 4.0 (1990-2000)</p>
	<p>065-1039 CANNISTER STYLE BMW Application V8 4.0, 4.4, V12 (1990-2000)</p>
	<p>065-1040 CANNISTER STYLE Olds Intrigue Application V6 3.5</p>
	<p>065-1041 CANNISTER STYLE Mercedes Benz Application V8 4.2 (1971-1991)</p>
	<p>065-1042 CANNISTER STYLE VW Diesel Application L4 1.9</p>
	<p>065-1043 CANNISTER STYLE Mercedes Benz Application L4 2.2 & 2.3 (1992-2000)</p>

Optional Adaptors

PARTS INCLUDED	DESCRIPTION & NO
	<p>065-1044 CANNISTER STYLE Mercedes Benz Application L4 Diesel (1984-2000)</p>
	<p>065-1045 CANNISTER STYLE Mercedes Benz Application L4 & L5 Diesel (1976-1995)</p>
	<p>065-1046 CANNISTER STYLE PORSCHE Application F6 3.2, 3.6</p>
	<p>065-1047 CANNISTER STYLE Mercedes Benz Application V8 5.0 (1991-2000)</p>
	<p>065-1048 CANNISTER STYLE ACURA Application (1991-2000)</p>
	<p>065-1049 CANNISTER STYLE VW, Application V6 2.8 (1991-2000)</p>
	<p>065-1050 CANNISTER STYLE Catera, Saturn Application V6 3.0 (1997-2000)</p>

Appendix C - Parts

Service Parts for the OilClean

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

<u>Part #</u>	<u>Description</u>
010-0027	Wheel – 8” x 1.75” Rubber
010-6060	Reservoir Cap, Vented
010-5602	Adapter Box
010-1052	Bottle (for Adapter Box)
040-1200	Screw 5/8 php x #6 (for adapter box)
040-2000	Flat washer #6 (for adapter box)
040-2200	Threaded standoff (for adapter box)
020-1022	Harness, power
020-8204	Circuit Breaker, 10 ampere
020-8205	Circuit Breaker, 25 ampere (for Air Compressor only)
200-8100	Air Pressure Regulator Assembly
200-8699	OIL Pressure Gauge Assembly 0-100psi
200-8722	AIR Reservoir Tank Pressure Gauge 0 - 160psi
200-8723	AIR Discharge Pressure Gauge Assembly 0-60psi
020-1204	On / Off Switch
200-8713	Air Tank Assembly
200-8102	Air Compressor Assembly
200-8103	Red Output hose Assembly
200-8104	Black Return hose Assembly
080-0230	Female Quick Disconnect Coupler
080-1207	Adaptor Insert Thread Gauge (Blue/Yellow)
080-1206	Adaptor Insert Thread Gauge (Silver/Red)
200-3112	Basic Adaptor Kit (included)
200-8501	Operator Manual
100-0470	Application Guide
200-8800	Starter Kit (8 Filters, 1gal of Cleaner Detergent)
050-1925	Filter Cartridge (one)
400-0145	1 Gallon Cleaner Detergent
050-1007	Filter Bowl
080-2302	O’Ring - Filter Bowl

ORDERING PARTS

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

**MOTORVAC TECHNOLOGIES INC.
1431 S. VILLAGE WAY
SANTA ANA, CA 92705 USA**

PHONE: 800.841.8810 - 714.558.4822

FAX: 714.558.0754