



CMS-240

Coolant Maintenance System



Operations Manual

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INTRODUCTION

Congratulations on the purchase of your CMS-240 Coolant Maintenance System.

The Flo-Dynamics CMS-240 Coolant Maintenance System, with dual 40-gallon tanks, allows a technician to quickly drain, fill or exchange coolant from large capacity cooling systems in minutes without the need to air bleed.

Using push/pull technology, the CMS-240 simultaneously uses pressure and vacuum, speeding up both the draining and filling processes. Refilling without the need to spend hours bleeding air from a cooling system is easy, using push/pull technology and a vehicle's Flush-Face Quick Connect Coupler cooling system adapter.

Without the need to use a drain pan, you can safely and quickly drain a 14-gallon cooling system in approximately 10 minutes, and refill without air pockets in approximately 13 minutes.

With two tanks — one for “used” and the other for “new” coolant — a technician can fully exchange coolant in a 14-gallon system in less than 14 minutes without the need to switch hoses or perform hours of bleeding air.

The CMS-240 will save repair time costs while creating a safer shop environment by preventing coolant spills.

Please take time to read through this manual to familiarize yourself with the machine before performing your first coolant drain or exchange.

CUSTOMER SERVICE CONTACT INFORMATION

For product information and tech support please call: **800-303-5874**
or visit: **www.flodynamics.com**

IMPORTANT SAFETY NOTICE

For your safety, read this manual thoroughly before operating this machine. This machine is intended for use by properly trained, skilled professional automotive technicians. The safety messages presented below and throughout this user's manual are reminders to the operator to exercise care when using this unit. Before using this machine, always refer to and follow the safety messages and applicable service procedures provided by the manufacturer of the vehicle being serviced.

• Read All Safety Instructions

Read, understand, and follow all safety messages and instructions in this manual. Safety messages in this section of the manual contain a signal word with a three-part message and, in some instances, an icon.

• Signal Words

The signal word indicates the level of the hazard in a situation:

DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury to the operator or to bystanders.

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury to the operator or to bystanders.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in moderate or minor injury to the operator or to bystanders.

IMPORTANT

Indicates a situation which, if not avoided, may result in damage to the machine, or the vehicle being serviced.

• Safety Messages

Safety messages in this section contain three different type styles:

- Normal type states the hazard.
- **Bold type** states how to avoid the hazard.
- *Italic type* states the possible consequences of not avoiding the hazard.

• Safety Symbols

A safety symbol, when present, gives a graphical description of the potential hazard, and how to avoid the hazard:



Risk of Fire



Read Instructions Before Use



Risk of Explosion



Mandatory Eye Protection



Risk of Entanglement



Mandatory Protective Gloves



Dangerous Fumes



Mandatory Protective Clothing



Do Not Pull or Move



Risk of Burns

IMPORTANT SAFETY INSTRUCTIONS

DANGER



Engine exhaust contains toxic gases.

- **Vent vehicle's exhaust away from work area.**
- **Do not breathe exhaust.**

Exhaust gases will cause injury or death.

WARNING



Improper use and operation.

- **Read, understand and follow all safety messages and operational procedures in this manual before operating this machine.**
- **This equipment should be operated only by qualified personnel.**
- **Use this equipment only as described in this manual.**

Improper use and operation of this product can result in injury.

WARNING



Engine systems can malfunction expelling fuel, oil vapors, hot steam, hot toxic exhaust gases and other flying particles.

- **Wear safety goggles and protective clothing, user and bystander. Everyday eyeglasses only have impact resistant lenses; they are NOT safety glasses.**
- **Do not position head directly over or in front of carburetor or throttle body. Engine backfire can occur when air cleaner is out of normal position.**
- **Make sure gauge reads zero before connecting or disconnecting hose connections to adapters.**
- **Make sure cooling system pressure has been relieved before connecting or disconnecting hose connections and adapters.**
- **Keep a dry chemical (Class B) fire extinguisher rated for gasoline, chemical & electric fires in the work area.**

Fire, explosion, or flying particles may cause serious injury.

WARNING



Risk of expelling pressurized fluids.

- **Wear safety goggles and protective clothing, user, and bystander.**

- Engine systems can malfunction, expelling fuel, oil vapors, hot steam, hot toxic exhaust gases and other debris.
 - Always unplug the machine from its power source when not in use.
 - Keep the service hoses away from hot or moving engine parts. Hoses can split or burst causing fluid to be expelled.
 - Avoid contact with engine coolant.
 - Treatment methods are as follows:
 - Eyes: Flush eyes with plenty of water.
 - Skin: Wash with soap and water.
 - Inhalation: Move to uncontaminated area.
 - Ingestion: If large amount, get medical attention.
 - If any irritation persists, get medical attention.
 - Dispose of used fluid according to environmental laws and regulations.
- Fuel, oil vapors, hot steam, hot toxic exhaust gases, pressurized fluid, and other debris can cause serious injury.*

WARNING

Risk of unexpected vehicle movement.

- Block drive wheels before starting vehicle's engine to begin an exchange.
- Unless instructed otherwise, set parking brake and put gear selector in park.
- Do not leave a running vehicle unattended.
- If vehicle has an automatic parking brake release, disconnect release mechanism for testing and reconnect when testing is completed.

A moving vehicle can cause injury.

WARNING



Risk of entanglement. Engine has moving parts.

- Do not place tools on fenders or other places in engine compartment.
- Keep yourself, clothing, battery cables and service hoses clear of moving parts such as fan blades, belts, pulleys, hood and doors.
- Barriers are recommended to help identify danger zones in test area.
- Prevent personnel from walking through immediate test area.

Contact with moving parts can cause injury.

WARNING



Risk of fire or explosion.

- Do not operate in the vicinity of open containers of flammable liquids such as gasoline.
- Keep hoses and jumper cables away from heat sources and sharp edges.
- Do not operate equipment with damaged cords or hoses until they have been examined by a qualified serviceman.

Fire or explosion can cause injury.

WARNING



Risk of fire or explosion. Gases produced by a battery are highly explosive.

- **Wear safety goggles and protective clothing, user and bystander.**
 - **Do not smoke, place metal tools on battery or allow a spark or flame in vicinity of battery.**
- Battery explosion can cause injury.*

WARNING



Risk of burns.

- **Wear gloves when handling hot engine components.**
 - **Do not remove radiator cap unless engine is cold.**
 - **Pressurized engine coolant may be hot.**
 - **Do not touch hot exhaust systems, manifolds, engines, radiators, etc.**
- Hot fluid and engine parts may cause injury.*

WARNING



Battery acid is a highly corrosive sulfuric acid.

- **Wear safety goggles and protective gloves, user and bystander.**
 - **Have plenty of fresh water and soap nearby. If battery acid contacts skin, clothing, or eyes, flush exposed area with soap and water for 10 minutes.**
 - **Do not touch eyes while working near battery.**
- Battery acid can burn eyes and skin.*

WARNING



Risk of burns.

- **Wear gloves when working near hot engine components.**
 - **Do not touch hot exhaust systems, manifolds, engines, radiators, etc.**
 - **The fluid coming from the vehicle along with some of the machine's components that the fluid comes into direct contact with (i.e. hoses and fittings) may reach temperatures uncomfortable to the touch. Exercise caution in avoiding contact with these items.**
- Hot components can cause injury or discomfort.*



Risk of injury.

- This equipment should be operated by qualified personnel only.
- Use this equipment only as described in this manual.
- Always disconnect the machine from air source when not in use.
- Loop the pressure hose loosely in its proper location when machine is not in use.
- Do not operate equipment with a damaged hose, or if the equipment has been dropped or damaged, until it has been examined by a qualified service representative.
- Care should be taken to arrange the service hoses so that they will not be tripped over or pulled.
- Never pull on the service hoses to transport the machine. Damage may occur to these components, or machine may tip over.
- Keep area of operation clear of unnecessary tools and equipment. Utilize recessed tool storage areas on the top of the machine.
- Never leave the machine running unattended.
- This machine is not designed for any other purpose than the servicing of automotive cooling systems.

Operation of this machine by anyone other than qualified personnel may result in injury.

CAUTION

Misdiagnosis may lead to incorrect or improper repair and/or adjustment.

- Do not rely on erratic, questionable, or obviously erroneous test information or results. If test information or results are erratic, questionable, or obviously erroneous, make sure that all connections and data entry information are correct and that the test procedure was performed correctly. If test information or results are still suspicious, do not use them for diagnosis.

Improper repair and/or adjustment may cause vehicle or equipment damage or unsafe operation.

IMPORTANT

Risk of equipment damage.

- Servicing, transporting, or storing this machine in an attitude other than the normal operating position can result in fluid spillage and/or component damage.
- Never pull on the service hoses to transport the unit. Damage may occur to these components, or machine may tip over. Always use the handle to move.
- Periodically clean the machine by wiping down with a clean, soft, dry cloth.

Improper operation of equipment may result in damage to machine or components.

SAVE AND FOLLOW THESE INSTRUCTIONS!

MACHINE SPECIFICATIONS

Dimensions: 56" H x 28" W x 54" D

Weight: 288 lbs.

Fluid Capacity: Dual 40 gallon tanks

Power: 115 psi shop air

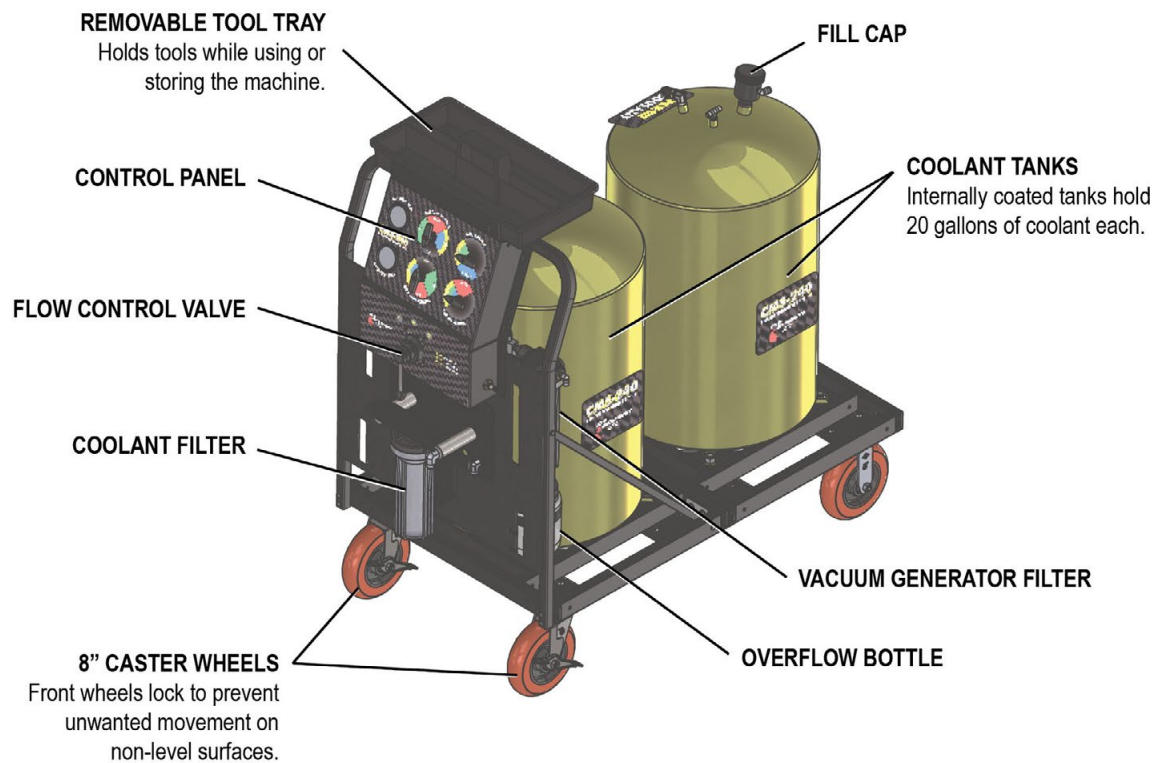
Hose Length: 13' outside of machine

FEATURES

- ✓ Dual 40-gallon tanks with fluid level sight tubes
- ✓ Easy mobility cart with heavy duty 8" casters
- ✓ Operates on shop air – no 120V or 12V power required
- ✓ Push/pull technology enables you to:
 - » Drain a 14-gallon cooling system in approximately 10 minutes
 - » Fill a 14-gallon cooling system without air pockets in approximately 13 minutes
 - » Perform a coolant exchange in <14 minutes, fully air bled
- ✓ Easily switch service hoses with the turn of a valve
- ✓ Filters and cleans coolant when draining a system
- ✓ Easily perform a cooling system pressure leak check
- ✓ Easy to see coolant level in tank
- ✓ Internally coated tank prevents rust contamination
- ✓ 13' polyurethane service hoses
- ✓ Flush-face quick connect couplers available
- ✓ Includes 3 adapters:
 - Upper Cooling System Adapter
 - Volvo / Mack Coolant Adapter
 - Peterbilt / Kenworth Coolant Adapter



MACHINE OVERVIEW



OPERATING INSTRUCTIONS

SAFETY RECOMMENDATIONS

Use extreme safety measures when working around a running engine, pressurized storage vessels, and automotive chemicals.

Always block the vehicle's drive wheels.

Ventilate the vehicle's exhaust if engine will be started.

Always wear safety glasses.

Protective gloves are recommended.

PREPARATION

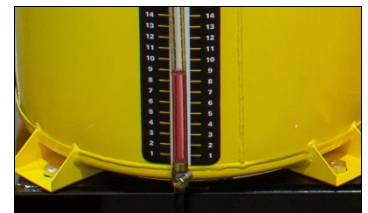
Inspect the engine and the visible coolant system components for any signs of damage or unusual wear.

Note the coolant level before beginning the service. If low, see "COOLING SYSTEM PRESSURE / LEAK CHECK" procedure to verify the system's condition.

Depending on the desired service, make appropriate connections (lowest and highest point) on the vehicle's coolant system.

Plug any open ports venting to the atmosphere (i.e. overflow hose or a system vent cap).

To prevent running out of coolant and ingesting air, ensure both **new** and **used** coolant tank levels are showing at least 3 gallons on the sight tubes.



PERFORM COOLANT RECOVER, CLEAN, AND RETURN (RCR) OPERATION

DRAIN COOLANT FROM VEHICLE INTO USED COOLANT TANK

Obtain a coolant sample if needed.

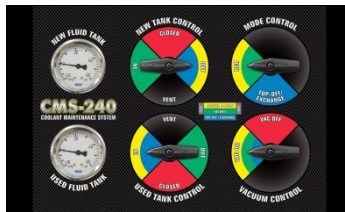
Move the **Switch Hose Valve** to "N" and connect shop air.

Connect the **red** service hose to highest point, the **black** service hose to the lowest point, and open the ball valves.

Turn **all** control panel valves to the **YELLOW** position.

Move the **Switch Hose Valve** to "1".

The system will begin to drain.



When air is seen in the black hose, turn New Tank Control and Used Tank Control to VENT and Vacuum Control to OFF. When air pockets/coolant stop moving in the service hoses, move the Switch Hose Valve to “N”. Close the ball valves and remove the service hoses.	   
RETURN USED COOLANT TO VEHICLE AFTER SERVICING Move the Switch Hose Valve to “N” and connect shop air. Connect the red service hose to highest point, the black service hose to the lowest point, and open the ball valves. Turn all control panel dials to the GREEN position. Move the Switch Hose Valve to “1”. The system will begin to fill.	     
When the coolant level is at the “cold” level of the expansion tank or seen in the red hose, the system is full. Turn New Tank Control to VENT and Vacuum Control to OFF. The coolant level will adjust.	 
When the coolant returns to the “cold” level on the expansion tank, turn Used Tank Control to VENT. When the cooling system stabilizes and both gauges show zero, move the Switch Hose Valve to “N”.	 

To adjust the coolant level if it is too high:

Move the **Switch Hose Valve** to “1”.

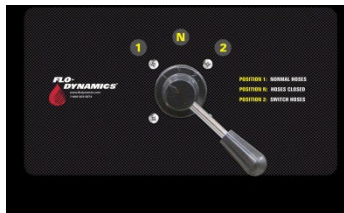
Turn **New Tank Control** and **Used Tank Control** to **YELLOW** until the desired coolant level is reached.

Move the **Switch Hose Valve** to “N” and turn **New Tank Control** and **Used Tank Control** to **VENT**.

If the coolant level is too low, see “Top-Off” procedure.

Close the ball valves and remove the service hoses.

NOTE: If cooling system overfills and coolant is seen in the top service hose going into the vacuum generator overflow filter, stop flow immediately by moving the **Switch Hose Valve** to “N”. See “VACUUM GENERATOR OVERFLOW FILTER REPLACEMENT” procedure to empty overflow filter assembly.



TOP-OFF PROCEDURE FROM NEW COOLANT TANK

NOTE: The following procedure is performed with the red and black service hoses still connected from filling the cooling system in the above procedure.

Turn **all** control panel dials to the **BLUE** position.

Move the **Switch Hose Valve** to “2”.

When the coolant is at the correct level, move the **Switch Hose Valve** to “N”.

Turn **New Tank Control** and **Used Tank Control** to **VENT**, and **Vacuum Control** to **OFF**.

When the cooling system stabilizes and both gauges show zero, close the ball valves and remove the service hoses.



COOLANT EXCHANGE – METHOD 1 (Push New / Extract Old Simultaneously)

Move the **Switch Hose Valve** to “N” and connect shop air to the machine.

Connect the **red** service hose to highest point, the **black** service hose to the lowest point, and open the ball valves.

Turn **all** control panel dials to the **BLUE** position.

Move the **Switch Hose Valve** to “1”.



When clean coolant is observed in the **black** service hose, turn **New Tank Control** and **Used Tank Control** to **VENT**, and **Vacuum Control** to **OFF**.

When the cooling system stabilizes and both gauges show zero, move the **Switch Hose Valve** to “N”.

Close the ball valves and remove the service hoses.

Check the coolant level, and if necessary, use the “TOP-OFF PROCEDURE” to add fluid.



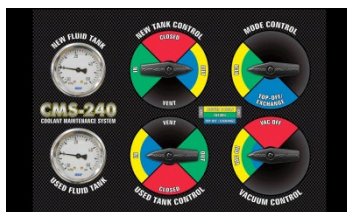
COOLANT EXCHANGE – METHOD 2 (Fully Drain Old and Fill with New)

Move the **Switch Hose Valve** to “N” and connect shop air to machine.

Connect the **red** service hose to highest point, the **black** service hose to the lowest point, and open the ball valves.

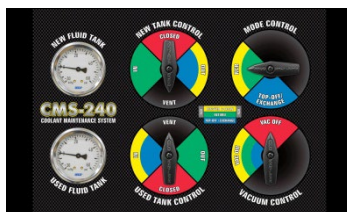
Turn **all** control panel dials to the **YELLOW** position.

Move the **Switch Hose Valve** to “1”.



When air is seen in the **black** service hose, move **New Tank Control** and **Used Tank Control** to **VENT**, and **Vacuum Control** to **OFF**.

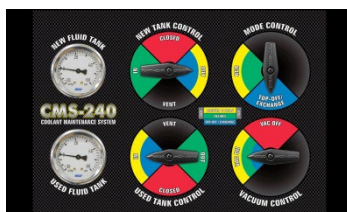
When air pockets/coolant stop moving in the hoses, move the **Switch Hose Valve** to “N”.



Turn **Mode Control** to **BLUE**, and **New Tank**, **Used Tank**, and **Vacuum Control** to **YELLOW**.

Move the **Switch Hose Valve** to “2”.

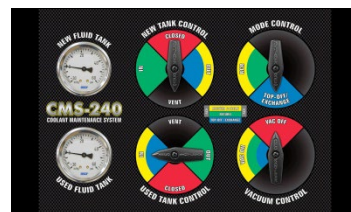
NOTE: This effectively switches the service hose positions without disconnecting the service hoses. New coolant will fill the system from the bottom service hose with pressure while the upper service hose, under a vacuum, removes air and aids in filling the system.



When the coolant level is at the “cold” level of the expansion tank, or seen in the **red** service hose, the system is full.

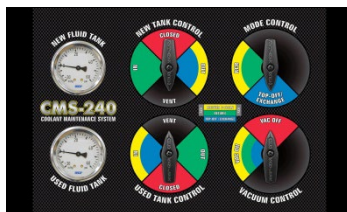
Turn **New Tank Control** to **VENT** and **Vacuum Control** to **OFF**.

The coolant level will adjust.



When the coolant returns to the “cold” level on the expansion tank, turn **Used Tank Control** to **VENT**.

When the cooling system stabilizes and both gauges show zero, move the **Switch Hose Valve** to “N”.



To adjust the coolant level if it is too high:

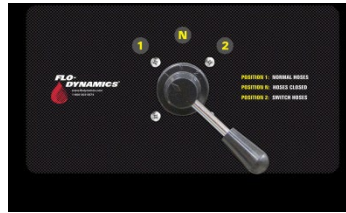
Move the **Switch Hose Valve** to “1”.

Turn **New Tank Control**, **Used Tank Control**, and **Mode Control** to **YELLOW** until the desired coolant level is reached.

Move the **Switch Hose Valve** to “N” and turn **New Tank Control** and **Used Tank Control** to **VENT**.

Check the coolant level, and if necessary, use the “TOP-OFF PROCEDURE” to add fluid.

Close the ball valves and remove the service hoses.



ADDITIONAL FUNCTIONS

COOLING SYSTEM PRESSURE / LEAK CHECK

Move the **Switch Hose Valve** to “N” and connect shop air to the machine.

Close the ball valve on the **red** service hose. Connect the **red** service hose to the top of the radiator using the appropriate adapter, and open the ball valve.



Turn **New Tank Control** and **Mode Control** to **YELLOW** position.

Move the **Switch Hose Valve** to “1”.

The system will pressurize to 10-15psi.

Turn **New Tank Control** to **RED** and observe the **new** coolant tank pressure gauge. If there is a loss of pressure, then there is a leak in the cooling system.



When enough time has elapsed to properly perform a pressure check, move the **Switch Hose Valve** to “N” and **New Tank Control** to **VENT**.

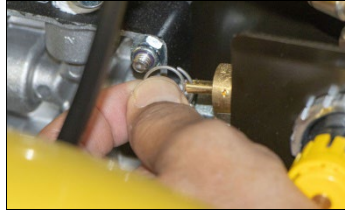
Close the ball valve on the **red** service hose and remove the **red** service hose. Remove the adapter from the radiator and replace the cap.



FILL NEW TANK – METHOD 1 POUR IN

Ensure there is no pressure or vacuum in the **new** coolant tank by pulling up on the relief valve ring on top of the tank.

Remove the fill cap. Add the required amount of new coolant and replace the fill cap.



FILL NEW TANK - METHOD 2 VACUUM MODE

If the **new** coolant tank gauge indicates pressure or a vacuum, turn **New Tank Control** to **VENT** to equalize the tank to zero.

Close the ball valve on the **red** service hose and connect the open-end adapter.



Turn **Mode Control** and **Vacuum Control** to **BLUE**, **New Tank Control** to **GREEN**, and **Used Tank Control** to **VENT**.

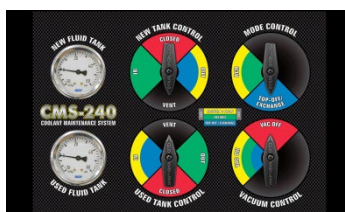
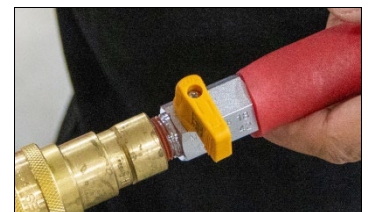
Move the **Switch Hose Valve** to "1".

Place the open-end adapter into a new coolant container and open the ball valve



When the coolant level in **new** coolant tank reaches the desired level, move the **Switch Hose Valve** to "N" and close the ball valve on the **red** service hose.

Move **Vacuum Control** to **OFF** and move **New Tank Control** to **ENT**.



DRAIN NEW COOLANT TANK

Close the ball valve on the **black** service hose and connect the open-end adapter.

Turn **New Tank Control** to **YELLOW** and **Mode Control** to **BLUE**.

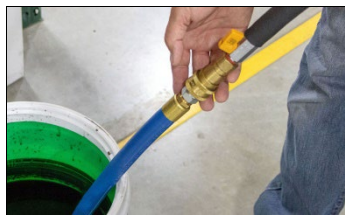
Move the **Switch Hose Valve** to "1"



Place the open-end adapter into an approved coolant waste container and open the ball valve. Drain until the tank is empty.

Move the **Switch Hose Valve** to "N" and **New Tank Control** to **VENT** to release the pressure in the tank.

Dispose of used coolant in accordance with local and state requirements.

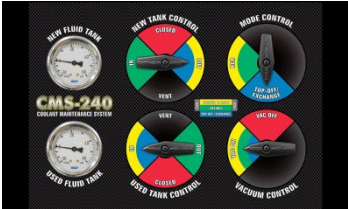


TRANSFER COOLANT FROM NEW TANK TO USED TANK

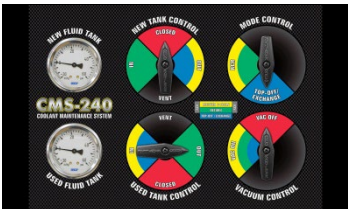
Move the **Switch Hose Valve** to "N" and connect shop air to the machine.

Install the hose transfer fitting between the **red** and **black** service hoses and open the ball valves.



Turn all control panel dials to the BLUE position. Move the Switch Hose Valve to “2”. When the coolant is at the correct level in the used coolant tank, move the Switch Hose Valve to “N”. Turn New Tank Control and Used Tank Control to VENT, and Vacuum Control to OFF.	   
When the cooling system stabilizes and both gauges show zero, move the Switch Hose Valve to “1” to equalize the hoses, then back to “N”. Close the ball valves and remove the hose transfer fitting.	  

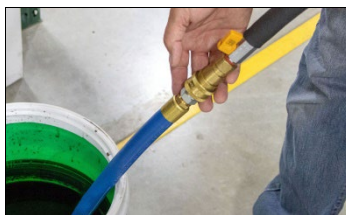
DRAIN USED COOLANT TANK

Close the ball valve on the black service hose and connect the open-end adapter. Move Used Tank Control to GREEN and Mode Control to BLUE. Move the Switch Hose Valve to “1”.	  
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Place the open-end adapter into an approved coolant waste container and open the ball valve. Drain until the tank is empty.

Move the **Switch Hose Valve** to "N" and **Used Tank Control** to **VENT** to release the pressure in the tank.

Dispose of used coolant in accordance with local and state requirements.



EMPTY OVERFLOW BOTTLE

Release the Velcro strap and remove the overflow bottle.

Empty contents into an approved coolant waste container.

Rinse out and replace using Velcro strap.

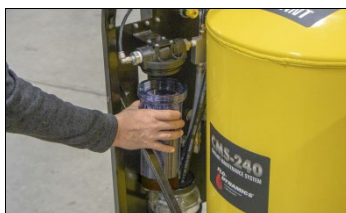


VACUUM GENERATOR OVERFLOW FILTER REPLACEMENT

The vacuum generator overflow filter should be emptied when it is more than 1/3 full.

Remove the reservoir by turning it counterclockwise. Empty the reservoir contents into an approved coolant waste container, rinse out the reservoir, and replace the filter if necessary.

After ensuring the rubber O-ring is in place, reinstall the reservoir by turning clockwise until seated.

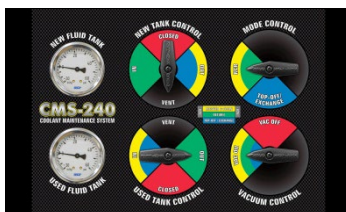
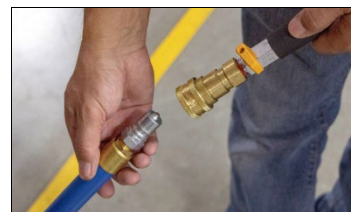


USED COOLANT FILTER REPLACEMENT

If pressure or a vacuum is shown on either tank gauge, depressurize the tanks by turning **New Tank Control** and **Used Tank Control** to **VENT**.

Close the ball valve on the **black** service hose and connect the open-end adapter.

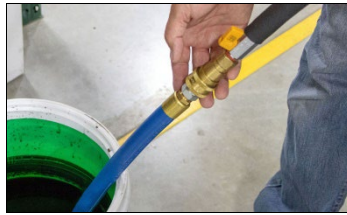
Turn **Used Tank Control** and **Vacuum Control** to **GREEN** and move the **Switch Hose Valve** to "1".



Place the open-end adapter into an approved coolant waste container and open the ball valve.

NOTE: The reservoir will not completely empty and will only empty past the threads, so the reservoir may be removed without spillage.

Once at this level, move the **Switch Hose Valve** to "1", turn **Used Tank Control** to **VENT**, and **Vacuum Control** to **OFF**.



Remove the reservoir by turning it counterclockwise. Empty the reservoir contents into an approved coolant waste container, rinse out the reservoir, and replace the filter if necessary.

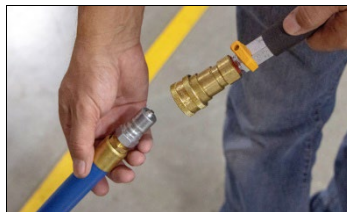
After ensuring the rubber O-ring is in place, reinstall the reservoir by turning clockwise until seated.



REMOVE COOLANT FROM EXPANSION / DE-GAS BOTTLE

Move the **Switch Hose Valve** to "N" and connect shop air to the machine.

Close the ball valve on the **black** service hose and connect the open-end adapter.



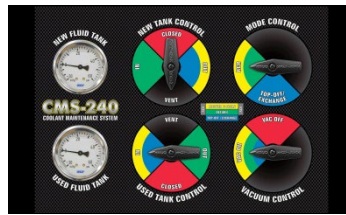
Turn **Used Tank Control** and **Vacuum Control** to **YELLOW**, and move the **Switch Hose Valve** to “1”.

Remove the cap on the expansion / de-gas tank and insert the open-end adapter.

Open the ball valve to adjust coolant to the desired level.

Once at the desired level, close the ball valve and replace the expansion / de-gas tank cap.

Move the **Switch Hose Valve** to “N”, turn **Used Tank Control** to **VENT**, and **Vacuum Control** to **OFF**.

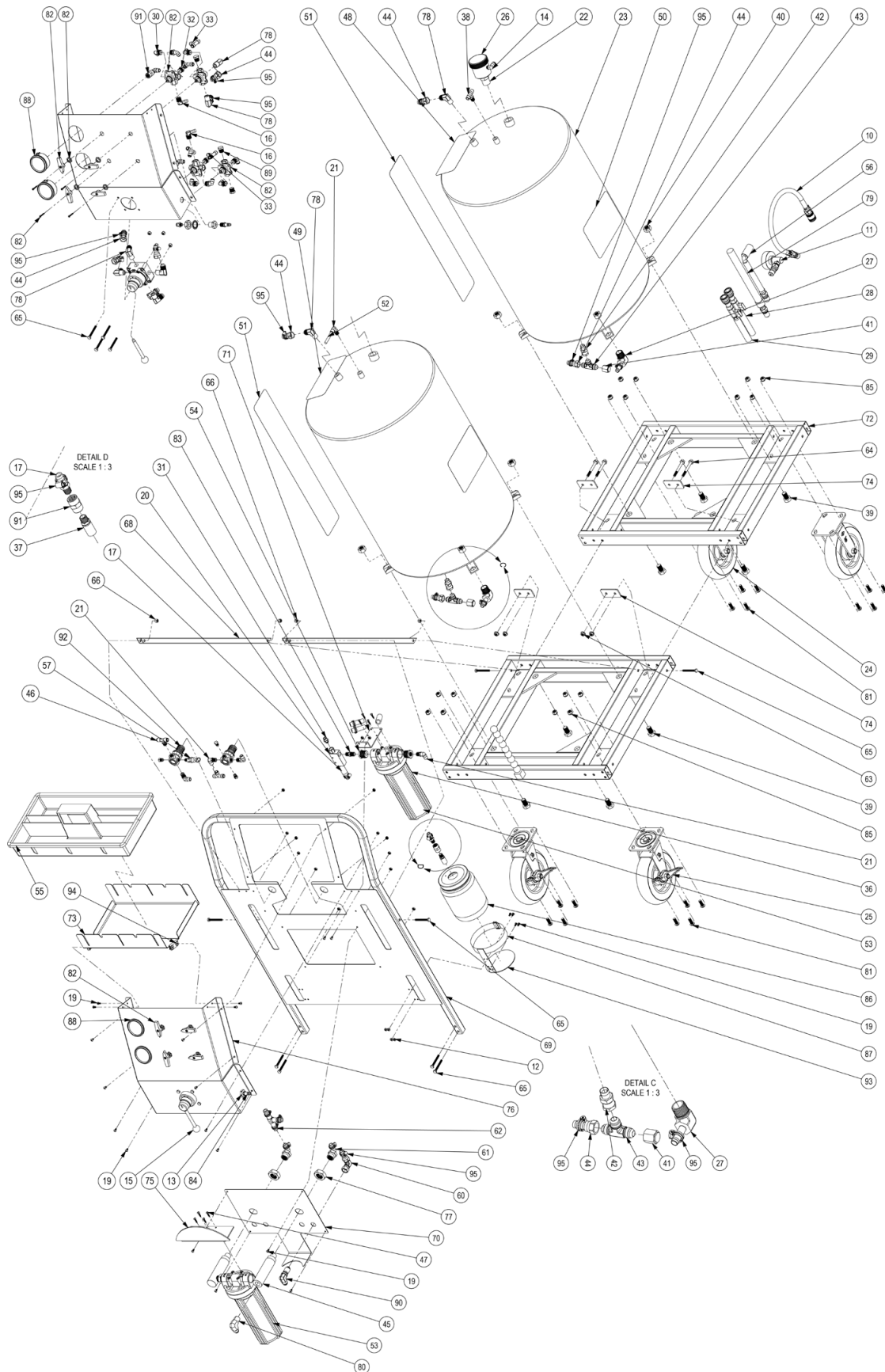


MAINTENANCE

To keep your machine working properly:

- Keep debris out of fluid tanks.
- Inspect and if needed clean filter before each use.
- Inspect air catch container and clean before each use.
- Avoid spilling fluid on control panel.

REPLACEMENT PARTS



#	PART NO.	DESCRIPTION	QTY.	#	PART NO.	DESCRIPTION	QTY.
10	40100163	COOLANT ADAPTER - VOLVO / MACK	1	53	40201180	FILTER ELEMENT - CMS-40	2
11	40201189	COOLANT ADAPTER - INTERNATIONAL / FREIGHTLINER	1	54	40201182	BUSHING ADAPTER, 3/4" MNPT x 1/4" FNPT	2
12	40200171	NUT-HEX 10-32 TOOTHED WASHER	18	55	40201186	TOOL TRAY	1
13	40200339	1/4 BRASS BULKHEAD FTTG	1	56	40100164	COOLANT ADAPTER - PETERBILT / KENWORTH	1
14	40200356	5/16 TUBE X 1/8 NPT ELBOW W169PLP3 5-2	1	57	40201192	PRESSURE RELIEF VALVE 1/8 NPT - 30 PSI	1
15	40200463	REVERSER - G TEC 7AR	1	58	40201197	OPS MANUAL CMS-240	1
16	40200534	ELBOW 6-6 - G TEC	2	59	40201198	JOB AID SHEET CMS-240	1
17	40200565	HOSE BARB 1/2 - G TEC ADAPTERS	2	60	40201201	90 ELBOW - 1/2 MALE JIC x 1/2 FEM JIC SWIVEL	1
18	40200577	3/8 ID BLACK HOSE	0.33	61	40201258	ELBOW ADAPTER 1/2" BARB X 1/2 NPT FEMALE PVDF	2
19	40200821	10-32 X 3/8 BUTTON HEAD SCREW STAINLESS	22	62	40201263	PLASTIC TEE CONNECTOR 1/2 HOSE BARB	1
20	40200875	VACUUM GENERATOR CV15H	1	63	40201284	5/16-18 SERRATED FLANGE LOCK NUT BLK PHOS	4
21	40201025	MALE ELBOW 5/16" TUBE 1/4NPT	7	64	40201285	5/16-18 X 2.75" FLANGED HEX HEAD BLACK PHOSPH	4
22	40201040	NEW FLUID FUNNEL FITTING	1	65	40201288	SCREW - HEX SS-316, FT 1/4-20 X 2-1/4	12
23	40201054	STEEL TANK 40 GAL - COMM FLUSH	2	66	40201289	NUT - SS-316 NYLON, 1/4-20	12
24	40201056	CASTER 8IN DIA NO BRAKE	2	67	40201296	TUBING CLEAR BRAIDED PVC - 1/2 ID X 3/4 OD	1
25	40201057	CASTER 8IN DIA WITH BRAKE	2	68	40300361	GUSSET BAR	2
26	40201075	COOLANT TANK CAP W/ SEAL ONLY	1	69	40300370	PUSH CART HANDLE ASSEMBLY	1
27	40201099	ELBOW 90 DEG. 1/2 BARB HOSE ID X 3/4 NPT MALE	2	70	40300373	CART FILTER PANEL	1
28	40201122	RED SERVICE HOSE	1	71	40300396	FILTER HOUSING MNT BRKT	1
29	40201123	BLACK SERVICE HOSE	1	72	40300398	ASSEMBLY-COMMFLUSH CART MODULE	2
30	40201124	ELBOW, 5/16" TUBE OD x 3/8" NPT MALE	7	73	40300410	ADAPTER TRAY BRACKET	1
31	40201127	STUD N2 - 5/16 TUBE X 1/4 NPT	2	74	40300411	SMALL MODULAR CART BRKT	4
32	40201128	STUD 5/16 TUBE 3/8NPT	2	75	40300422	HOSE RACK HD CMS	1
33	40201129	UNION TEE 5/16 TUBE	5	76	40300423	FRONT COWL, HD CMS	1
34	40201132	OVERLAY UPPER CONTROL PANEL CMS-40	1	77	40201264	HEX NUT THIN 1"-14 ZINC	2
35	40201133	OVERLAY LOWER CONTROL PANEL CMS-40	2	78	940114	90 JIC ELBOW	8
36	40201140	10" FILTER HOUSING CMS	1	79	940144	HOSE,ATF2000,ADAPTER 4	1
37	40201147	HIGH-NOISE REDUCING MUFFLER	1	80	941109	ELBOW 1/2 NPT X 1/2 JIC	1
38	40201151	AIR INLINE TEE FOR 5/16" TUBE OD x 1/4 NPT MALE	1	81	941271	BOLT 3/8-16 x 1 BUTTON SOCKET	16
39	40201152	HEX SCREW 5/8-18 X 1"	8	82	941277	4WAY VALVE ANDERSON B 200CN-12	4
40	40201154	HEX NUT 5/8-18, 5	8	83	941328	CONNECTOR 1,4NPT 1,4NPT 216P-4	1
41	40201156	CAP - CMS-40	2	84	941335	AIR NIPPLE 1/4NPT H2C	1
42	40201157	TANK FITTING, 37° FLARE, TUBE TO NPT	2	85	941390	NUT 3,8-16 STAR LOCK	16
43	40201158	UNION TEE, 37 DEG FLARE	2	86	941424	BOTTLE-PLASTIC OVRFLO	1
44	40201159	BRASS BARB	11	87	941425	STRAP-VELCRO BOTTLE HOLDER	1
45	40201161	FILTER CHECK VALVE ASSEMBLY	1	88	941438	2.5 PANEL GAUGE AND U-CLAMP	2
46	40201166	INLINE TEE, 5/16" TUBE OD x 1/4" NPT MALE	1	89	941451	PLUG-3,8MPT	3
47	40201170	SCREW NO 8, 3/4" LENGTH	8	90	944009	BULKHEAD ELBOW W,NUT 1/2 JIC	1
48	40201175	NEW FLUID TANK ID LABEL - CMS-240	1	91	945011	FITTING-1/4FPT X 1/4FPT STRAIT	3
49	40201176	USED FLUID TANK ID LABEL - CMS-240	1	92	947001	4 WAY REGULATOR-PSICOO	2
50	40201177	LABEL CMS-240 PRODUCT LOGO	2	93	P941437	BOTTLE HOLD PLATE-BLK VACFILL3	1
51	40201178	TANK MEASURING STRIP - CMS-240	2	94	R942131	JACKNUT 10-24	4
52	40201179	BLACK POLY TUBING 5/16 OD	1	95	R942142	HOSE CLAMP 3/8 SCREW TYPE	22

LIMITED ONE (1) YEAR WARRANTY

Flo-Dynamics CMS-240

Flo-Dynamics warrants only to the original Purchaser that under normal use, care and service, the Equipment (except as otherwise provided herein) shall be free from defects in material and workmanship for one year from the date of original invoice. External hoses, remote control modules, adapters, and all other attachments, supplies and consumables (except as otherwise provided herein) are warranted for 90 calendar days from the date of original invoice. Filter elements are not warranted. Printed circuit boards purchased from, but not installed by Seller are not warranted.

SELLER'S OBLIGATIONS UNDER THIS WARRANTY ARE LIMITED SOLELY TO THE REPAIR OR, AT SELLER'S OPTION, REPLACEMENT OF EQUIPMENT OR PARTS WHICH TO SELLER'S SATISFACTION ARE DETERMINED TO BE DEFECTIVE AND WHICH ARE NECESSARY, IN SELLER'S JUDGEMENT, TO RETURN THE EQUIPMENT TO GOOD OPERATING CONDITION. NO OTHER WARRANTIES EXPRESS OR IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SHALL APPLY AND ALL SUCH WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED.

This warranty does not cover (and separate charges for parts, labor and related expenses shall apply to) any damage to, malfunctioning, inoperability or improper operation of the Equipment caused by, resulting from or attributable to (A) abuse, misuse or tampering; (B) alteration, modification or adjustment of the Equipment by anyone other than Seller's authorized representatives; (D) improper or negligent use, application, operation, care, cleaning, storage or handling; (E) fire, water, wind, lightning or other natural causes; (F) adverse environmental conditions, including, without limitation, excessive heat, moisture, corrosive elements, or dust or other air contaminants, radio frequency interference, electric power failure, power line voltages beyond those specified for the equipment, unusual physical, electrical or electromagnetic stress, and/or any other condition outside of Seller's environmental specifications; (G) use of the Equipment in combination or connection with other equipment, attachments, supplies or consumables not manufactured or supplied by Seller; or (H) failure to comply with any applicable federal, state or local regulation.

Repairs or replacements qualifying under this Warranty will be performed on regular business days during Seller's normal working hours within a reasonable time following Purchaser's request. **All requests for Warranty service must be made during the stated Warranty period.** This warranty is non-transferable.