

## MAHLE VCX-32HD

EN

Operation Manual  
Coolant Exchange System





**EVERY PERSON WHO OPERATES THIS  
EQUIPMENT NEEDS TO KNOW AND  
UNDERSTAND ALL OF THE INFORMATION IN  
THIS MANUAL – FAILURE TO DO SO COULD  
RESULT IN SERIOUS INJURY OR DEATH.**

**READ THIS MANUAL  
CAREFULLY AND  
RETAIN FOR YOUR  
RECORDS**

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# 1. Warranty

## MSS One-Year Limited Warranty

(Applies only to equipment owned and operated in North America)

During the One-Year Warranty period, MAHLE Aftermarket Inc., Service Solutions (MSS) is solely responsible for costs associated with parts and labor for repairs needed due to defects in material and/or workmanship. MSS is not responsible for the costs associated with repairs needed due to improper use or a lack of normal maintenance. MSS's goal is to provide a timely turn-around of the covered product requiring warranty repair.

**The Customer is responsible to ASSIST AND PARTICIPATE with MSS Technical Support in the over-the-phone diagnosis process of:**

- A) Determining that a legitimate failure has occurred and that the complaint is not just the result of inadequate training and/or improper use that could be easily remedied by over-the-phone instructions.**
- B) Determining the nature of the failure and that it is reasonable for MSS Technical Support to judge over the phone that the failure is warrantable.**
- C) Determining the parts necessary to make the repairs so that those parts can be shipped via the appropriate expedited method at the expense of MSS if the failure is warrantable.**

During the One Year Warranty period for failures that are deemed by MSS to be warrantable, MSS is solely responsible for providing Field Repair Service within a reasonable period of time after a warrantable failure is reported. Field Repair Service is generally available in all areas within 150 miles of major metropolitan areas of the US. A reasonable period of time will depend on the location of the customer and the time of the year. MSS maintains a large network of Service Providers in the US. When Field Repair Service is needed, in most locations near a major US metropolitan area, and during most times of the year, a reasonable period of time for Field Service is 24 to 48 hours after parts are received by the Customer.

Since repair parts from MSS will normally arrive 24 to 48 hours after the Customer reports a failure, the Customer may at his sole option and discretion, choose to make the necessary repairs, with over-the-phone support from MSS Technical Support so as to minimize downtime. In such case, MSS will compensate the Customer or the Customer's employee as appropriate for the time necessary to make repairs if the failure is covered by warranty.

It is the Customer's responsibility to maintain the MSS Equipment according to instructions in the MSS Operation Manual for the covered product as well as to operate the equipment in a commercially reasonable manner as generally described in the MSS Operation Manual. MSS provides free Technical Support over toll-free telephone lines in the US to assist the customer in this regard for the life of the covered product.

The Customer should review the legal Warranty Disclaimer for more details of coverage and limitations.

Ancillary accessories such as Refrigerant Identifiers, Leak Detector Lights and Leak Detectors must be returned to MSS for repair or replacement with a new or refurbished unit, at MSS's sole discretion, in case of a warrantable defect.

## **WARRANTY DISCLAIMER FOR PRODUCTS OF MAHLE AFTERMARKET INC., SERVICE SOLUTIONS (MSS)**

### **1. MSS'S WARRANTY**

This is to certify that MAHLE Aftermarket Inc., MSS Division warrants to the first retail purchaser only, the described new product manufactured by it to be free from defects in materials and workmanship, when properly maintained, **under normal use and service for a period of ONE YEAR**. All spare parts supplied by MSS will have a 90 day warranty. This warranty includes the reasonable cost of parts and materials as well as non-overtime labor. MSS shall be the sole judge of whether failure is warrantable.

### **2. PURCHASER'S REMEDY**

**Purchaser's sole and exclusive remedy under this warranty shall be limited to the repair or replacement, at MSS's option, of any defective part of the product. Purchaser shall call MSS Technical Support who will assist Purchaser in diagnosing the problem and, if deemed necessary, will immediately ship replacement parts for installation by Purchaser if so requested. If Purchaser requests Factory service, repairs under this warranty shall only be made at a location designated by MSS.**

### **3. DURATION**

This warranty will expire one year from date of delivery to the first retail purchaser.

### **4. PURCHASER'S DUTIES**

- (a) Register product with MSS by returning completed Warranty Registration within 90 days of delivery of unit.
- (b) Transportation Expense: Transportation expenses to and from the MSS's facility are to be borne by the Purchaser.
- (c) Notice of breach: Purchaser shall give written notice to MSS of any alleged refusal or failure of MSS to repair or replace as promised by this warranty no later than fifteen days after the Purchaser learns of such alleged failure or refusal.

### **5. DISCLAIMER**

THE EXPRESS WARRANTY HEREIN IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. NO IMPLIED WARRANTY OF MERCHANTABILITY IS MADE AND THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

### **6. EXCLUSIONS**

The warranty and obligations stated here shall not apply to:

- (a) Any product not registered within 90 days of delivery.
- (b) Any product repaired or altered without prior approval of MSS so as to affect adversely its stability or reliability.
- (c) Any product subjected to misuse, abuse or accident as well as products used in a manner contrary to written instructions or normal operating procedure.
- (d) Any damage to product during original shipment or subsequent shipments to MSS's facility for service.
- (e) Portions of products which are subject to warranties, if any, given by their manufacturers. MSS does not adopt these warranties.

### **6. EXCLUSIONS (Continued)**

- (f) Parts, accessories or other items manufactured by others which are used or installed on the product as a result of Purchaser's specifications.
- (g) Used items furnished by the Purchaser for installation on the product.
- (h) Items which are not defective, but must be replaced during the warranty period as a result of fair wear and tear or scheduled maintenance.
- (i) Hoses, field service couplings, adapters, gaskets and O-rings carry a ninety day warranty.
- (j) Filters, vacuum pump oil and compressor oil are considered consumables and are not covered by any warranty.
- (k) The Warranty may be considered void if evidence of any refrigerant system sealer is found in any of the internal components of an MSS recovery/recycling machine.
- (l) Refrigerant loss is not covered. The Purchaser is responsible for detecting system leaks and advising MSS of same if warrantable repair is required.
- (m) Calibration of equipment, having integrated solid-state controls and load cells for weighing fluids, is not covered beyond the initial setup and commissioning of the equipment. The requirement for calibration of load cell controls is considered normal maintenance and is dependent on many factors, the main one being the care taken when moving the equipment about the shop.

### **7. EXCLUSION OF LOST PROFITS AND OTHER CONSEQUENTIAL DAMAGES**

MSS will have no liability for any lost profit, cargo loss, usage loss or other consequential damages alleged to have been caused by any defect in the product or any failure of MSS to meet any obligation under this agreement including the obligation to repair and replace set forth in Paragraph 2.

### **8. LIMITATIONS OF ACTIONS**

No action for breach of this warranty shall commence more than one year after the accrual of the cause of action.

### **9. MERGER**

This written warranty is the complete, final and exclusive agreement of the parties with respect to the quality or performance of the goods and any and all warranties and representations, except warranty extensions, if any, in writing as applicable.

### **10. NO ORAL MODIFICATIONS OR WAIVERS**

No modification of this warranty or waiver of its terms shall be binding on either party unless approved in writing by an authorized official of the parties.

### **11. GOVERNING LAW**

This warranty and the rights and duties of the parties under this warranty shall be governed by the law of Pennsylvania, the state of the MSS's principle place of business.

**MAHLE Aftermarket Inc., Service Solutions**

10 Innovation Drive  
York, PA 17402 USA  
800-468-232

## 2. Safety Precautions

### 2.1 General safety

- ⚠ Before attempting to operate this equipment, thoroughly read and understand this manual to avoid injury.
- ⚠ Completely remove all tape and packaging. Inspect the equipment immediately upon delivery.
- ⚠ Keep this manual. If you need to replace the manual, call customer service at 1-800-468-2321 option 1 or visit [www.servicesolutions.mahle.com](http://www.servicesolutions.mahle.com) for a digital copy.
- ⚠ Read all product safety labels.
- ⚠ Refer to appropriate regulations for environmental and workplace safety rules.

### 2.2 Warnings

- ⚠ **To avoid serious injury or death**, read this manual carefully before operating this unit. Contact the manufacturer using contact information on the back cover of this manual if you have any questions.
- ⚠ **Eye protection**: Proper eye protection must be worn when operating the VCX-32HD.
- ⚠ **Avoid fluid spillage**: When disconnecting the quick disconnect fittings, wrap a shop rag around fitting to catch any residual fluid.
- ⚠ **Do not leave the VCX-32HD running unattended**. Always disconnect from power/air source when the VCX-32HD is not in use.
- ⚠ **Do not drink antifreeze or coolant solution**. If swallowed, drink two glasses of water, induce vomiting, and call a physician.
- ⚠ **Avoid inhaling mist or hot vapors (Ethylene glycol base)**. If inhaled, move to fresh air and call a physician. Use the unit in locations with mechanical ventilation that provides at least 4 air changes per hour. If accidental system discharge occurs, ventilate the work area before resuming work.
- ⚠ **Do not store ethylene glycol based solutions in open or unlabeled containers**. Ethylene glycol causes birth defects in laboratory animals; solution may taste pleasant to animals, but is poisonous to them.

- ⚠ **Contact with antifreeze/coolant may cause injury. Hot antifreeze/coolant can burn skin and injure eyes**. Wear protective equipment, including safety goggles and gloves, when operating this equipment. If contact with eyes occurs, call physician immediately, and flush eyes with cold water for 30 minutes. If contact with skin occurs, thoroughly wash area with soap and water.
- ⚠ **Vehicle cooling systems which are hot, are under pressure** – opening a hot system, except as described in this manual, can cause an uncontrolled release of engine coolant. Do not open the radiator cap, and do not remove hoses from a hot system except as directed in this manual.
- ⚠ **Do not pressurize the vehicle cooling system above its pressure rating**. Doing so may result in cooling system failure and the release of engine coolant.
- ⚠ **Never run a vehicle engine without adequate ventilation**. Breathing vehicle emissions can cause sickness, injury, or death
- ⚠ **The ignition key must be in the off position**, unless otherwise directed. To avoid unintentional engine start up, use a lockout key and/or signage to alert personnel that work is being performed.
- ⚠ **The VCX-32HD is to be used with only antifreeze and coolant**. Do not use the VCX-32HD with any other fluid.
- ⚠ **Engine fluids (oil, fuel, and coolant) may be a hazard to human health and the environment**. Handle all fluids and other contaminated materials (such as filters and rags) in accordance with applicable regulations. Recycle or dispose of engine fluids, filters, and other contaminated materials according to applicable regulations.
- ⚠ Failure to understand and obey these warnings may result in personal injury and / or property damage.

## 3. Symbols Use

### 3.1 Signal words

Signal words call attention to a safety message or messages, or a property damage message or messages, and designate a degree or level of hazard seriousness. Signal words used in this manual include:

Keyword	Probability of occurrence	Severity of danger if instructions not observed
<b>DANGER</b>	<b>Immediate</b> impending <b>danger</b>	<b>Death</b> or <b>severe</b> injury.
<b>WARNING</b>	<b>Possible</b> impending <b>danger</b>	<b>Death</b> or <b>severe</b> injury
<b>CAUTION</b>	Possible <b>dangerous situation</b>	<b>Minor</b> injury
<b>NOTICE</b>	Possible <b>damage to property</b>	<b>Possible property damage</b>

## 4. Specifications

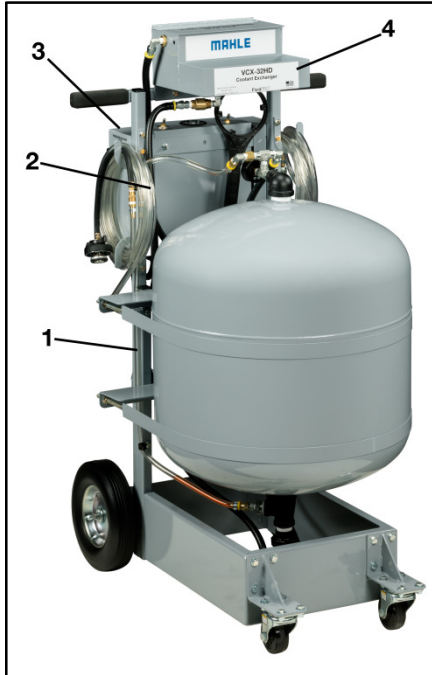
### 4.1 VCX-32HD

Model VCX-32HD	US units	Metric units
Air supply	125 PSIG	8.6 bar
Height	50 in	127.0 cm
Width	26 in	66.0 cm
Depth	36 in	91.4 cm
Net weight	157 lb	71.2 kg
Tank capacity	34 gal	128.7 L



## 5. Product Description

### 5.1 Component identification



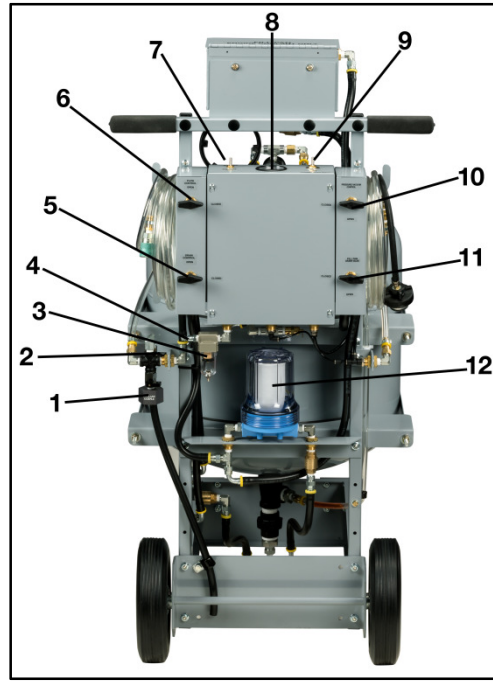
**Fig. 1: Component identification –right view**

- 1 Sight glass with indicator
- 2 15ft vacuum and pressure hose
- 3 Control box
- 4 Tool tray



**Fig. 2: Component identification –left view**

- 1 32 gallon (124 liter) steel tank
- 2 Filter wrench
- 3 15ft drain and fill hose
- 4 Coolant sample valve



**Fig. 3: Component identification - rear view**

- 1 Coolant sample valve
- 2 Bypass valve
- 3 Air inlet filter
- 4 Air inlet connection
- 5 Drain control valve
- 6 Flow control valve
- 7 Drain pump switch
- 8 Pressure/vacuum gauge
- 9 Fill pump switch
- 10 Pressure/vacuum control valve
- 11 Fill pan drain valve
- 12 Coolant filter

### 5.2 Features

⚠ The VCX-32HD is only approved for use with antifreeze and coolant. It is not approved for use with any other liquids.

The VCX-32HD is designed to:

- Drain coolant systems
  - Refill coolant systems
  - Pressure test coolant systems
  - Flush contaminated coolant systems
- ❗ The VCX-32HD service is fast and does not require technician to handle fluid.
  - ❗ The VCX-32HD is portable for use anywhere.



## 6. Operation

⚠ **WARNING** - This section discusses the appropriate and safe methods for using the equipment. Always ensure proper understanding of the equipment function prior to use to avoid injury.

### 6.1 Coolant system drain

⚠ The VCX-32HD is **NOT** to be used with hot coolant.

⚠ **If engine coolant is contaminated, use the bypass valve.** This will redirect the coolant through a hose that is on the machine to your waste container. This will keep the machine free of contaminated coolant.

- ❶ Follow these instructions to drain the coolant system.
- 1. Connect **COOLANT DRAIN/FILL HOSE COUPLER** to bottom radiator connection (adapter sold separately).
- ❷ If no bottom connection is installed, follow the step-by-step installation procedure found in section 6.4.
- 2. Connect the **PRESSURE/VACUUM HOSE** to the surge tank using the appropriate surge tank adapter (sold separately).
- ❸ To avoid coolant spill, DO NOT make the pressure / vacuum connection if a coolant system leak is known or suspected. In this case use the bottom connection only and vent the system by removing fill cap.
- 3. Flip the **DRAIN SWITCH** to **ON**. Open the **DRAIN CONTROL VALVE**.
- 4. Open the **FLOW CONTROL VALVE** and open the **PRESSURE/VACUUM CONTROL VALVE**. Only if pressure/vacuum hose is connected to top of radiator.
- 5. Take a coolant sample, if desired (optional) by opening **SAMPLER VALVE** on the left side of machine.
- 6. When air enters the on-board (clear) *filter*, the coolant system is empty.
- 7. Flip the **DRAIN SWITCH** to **OFF**.
- ❹ Drain time for 10 gallons is about 7 minutes when using both connection and a clean filter.
- 8. Close the **FLOW CONTROL VALVE**, the **PRESSURE/VACUUM CONTROL VALVE**, and the **DRAIN CONTROL VALVE**.

### 6.2 Coolant system fill

- ❶ Locking pliers may be needed to pinch the coolant overfill tube to build a vacuum. Vacuum should reach at least 15in-Hg on the gauge, which may take a few seconds.
- ❷ Follow these instructions to fill the empty coolant system.
- 1. Connect the **DRAIN/FILL HOSE** To the bottom radiator connection.
- 2. Connect the **PRESSURE/VACUUM HOSE** using the appropriate surge tank adapters (sold separately).
- 3. Pinch or plug the radiator overflow tube.
- 4. Open the **PRESSURE/VACUUM CONTROL VALVE**.
- 5. Flip the **FILL SWITCH** to **ON**.
- 6. Open the **FLOW CONTROL VALVE**.
- 7. VCX-32HD will then begin the filling process.
- 8. When coolant reaches 2 inches from the top of the coolant surge tank, close the **FLOW CONTROL VALVE** and flip the **FILL SWITCH** to **OFF**. Remove the surge tank adapter from the fill port to allow venting during completion of the fill.
- ❸ Unpinch/unplug the radiator overflow tube.
- 9. Close the **PRESSURE/VACUUM CONTROL VALVE**.
- 10. Flip the **FILL SWITCH** to **ON** and open **FLOW CONTROL VALVE**.
- 11. VCX-32HD will now fill the remaining coolant.
- 12. Be ready to close the **FLOW CONTROL VALVE** to prevent over-filling of the coolant system.
- ❹ No topping off of coolant should be necessary as the VCX-32HD has filled the same amount as it removed. No coolant should be left in sight gauge after filling.
- 13. Close the **FLOW CONTROL VALVE** and flip the **FILL SWITCH** to **OFF**.
- 14. Disconnect the hoses. See section 6.6 instructions to add more coolant if needed.
- ❺ The VCX-32HD on-board tank should be empty after every fill procedure.

### 6.3 Coolant system pressure test

- ❶ Follow these instructions to perform a pressure test on the coolant system.
- 1. Connect the **PRESSURE/VACUUM HOSE** using the appropriate adapter to the surge tank.
- 2. Close the **PRESSURE/VACUUM CONTROL VALVE** below the control box.
- 3. Flip the **DRAIN SWITCH** to **ON**.
- 4. Open the **PRESSURE/VACUUM CONTROL VALVE** slowly. The pressure gauge on the control box will rise quickly. Close the **PRESSURE/VACUUM CONTROL VALVE** when pressure reaches the maximum 20 PSIG.
- 5. Flip the **DRAIN SWITCH** to **OFF**.
- 6. Check for leaks and pressure drop. Pressure should stabilize at pressure cap rating.
- 7. After inspection, open the **PRESSURE/VACUUM CONTROL VALVE** to relieve the pressure.
- 8. Disconnect the **PRESSURE/VACUUM HOSE** from radiator.

### 6.4 Drain kit installation with vacuum test

- ❶ A portion of coolant may need to be drained first to prevent overfilling while the system is under vacuum.

#### 6.4.1 Remove coolant from surge tank

- 1. Connect the **PICKUP TUBE** (370 80283 00) supplied with the machine to the **DRAIN/FILL HOSE COUPLER**. Insert the tube into the fill port finding the lowest point.
- 2. Flip the **DRAIN SWITCH** to **ON**.
- 3. Open the **FLOW CONTROL VALVE** and the **DRAIN CONTROL VALVE**.
- 4. When air enters the filter, flip the **DRAIN SWITCH** to **OFF** and close both the **FLOW CONTROL VALVE** and the **DRAIN CONTROL VALVE**.
- 5. Remove **PICKUP TUBE** and return it to the tool box.

#### 6.4.2 Install drain kit and/or vacuum test

- 1. Connect the **PRESSURE/VACUUM HOSE** using appropriate adapter (sold separately) to surge tank.
- 2. Pinch or plug the radiator overflow tube.
- 3. Flip **FILL SWITCH** to **ON**.
- 4. Open the **PRESSURE/VACUUM CONTROL VALVE**. Vacuum will be applied to the surge tank.
- 5. When maximum vacuum is reached on the control box gauge, it is safe to install the drain kit. Vacuum should reach approximately 20in-Hg.
- 6. Install the drain kit as quick as possible to keep leakage to a minimum. Allow vacuum to build to 20in-Hg and close the **PRESSURE/VACUUM CONTROL VALVE** and flip the **FILL SWITCH** to **OFF** to perform the vacuum test. Check for the vacuum level to drop on the gauge.
- 7. Open the **PRESSURE/VACUUM CONTROL VALVE** after test to relieve vacuum.
- 8. Unpinch/unplug the radiator overflow tube.

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## 6.5 Flush engine coolant system

- ❶ When the coolant system becomes contaminated, it is necessary to flush the system.
- 1. Make the VCX-32HD top and bottom connections to the engine coolant system.
- 2. Keep the **FLOW CONTROL VALVE** and the **DRAIN CONTROL VALVE** closed and **OPEN** the **BYPASS VALVE** (located behind **SAMPLE VALVE**).
- 3. Place an approved container under the **BYPASS HOSE**.
- 4. Flip the **DRAIN SWITCH** to **ON**.
- 5. The VCX-32HD will push compressed air through the top connection and push out the contaminated coolant through the **BYPASS HOSE**.
- 6. Remove top hose connection and add the coolant system flush chemical to the engine coolant system.
- 7. Follow the standard flushing process.
- 8. After flushing, use the same instructions to drain the coolant system.
- 9. Repeat as necessary.

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## 6.6 Adding coolant to on-board tank







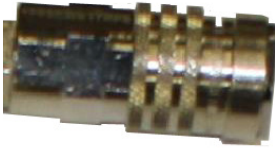


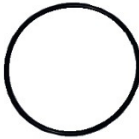


- 1. Use **SIGHT GAUGE INDICATOR** to monitor tank fluid level.
- 2. Flip the **DRAIN SWITCH** to **ON**.
- 3. Open the **FILL PAN CONTROL VALVE**.
- 4. Open the **DRAIN CONTROL VALVE**.
- 5. Pour coolant into the receptacle. The coolant will be filtered before entering the VCX-32HD on-board tank.
- 6. When the coolant reaches the level needed on the sight gauge, flip the **DRAIN SWITCH** to **OFF**.
- 7. Close both the **FILL PAN** and **DRAIN CONTROL VALVES**.
- 8. Add fresh coolant to engine using the VCX-32HD two-stage fill procedure. Any excess coolant in the unit should be emptied into a separate fresh-coolant container.

## 6.7 Decontamination

1. Remove coolant filter cartridge from filter bowl.
2. Reinstall bowl.
3. Connect pickup tube/standpipe (**P/N: 370 80283 00**) to the drain/fill hose.
4. Place pickup/standpipe in an approved waste container.
5. Connect air supply.
6. Flip **FILL SWITCH** to **ON**.
7. Open the **FLOW CONTROL VALVE**.
8. The contaminated coolant will flow into the waste container.
9. When the flow stops, the VCX-32HD tank will be empty.
10. Flip **FILL SWITCH** to **OFF**. Close **FLOW CONTROL VALVE**.
11. Add the appropriate amount of water along with coolant flush to a bucket/container and mix the solution. If coolant flush is not available, use 3-4 ounces of a low foaming liquid detergent.
12. Place pickup/standpipe in the bucket of solution.
13. Flip the **DRAIN SWITCH** to **ON**.
14. Open both **FLOW CONTROL** and the **DRAIN CONTROL VALVE**.
15. VCX-32HD will pull the solution throughout all the lines and valves decontaminating as it flows.
16. Once all the fluid has been introduced into the machine allow the machine to run for 1 minute. This will clean the tank as air will be introduced into the tank from the bottom.
17. Close both **FLOW CONTROL** and the **DRAIN CONTROL VALVE**.
18. Place the pickup/standpipe in an approved waste container.
19. Flip the **FILL SWITCH** to **ON**. Open **FLOW CONTROL VALVE**. When the flow stops, flip **FILL SWITCH** to **OFF**. Close **FLOW CONTROL VALVE**.
20. Add the appropriate of clean water to a bucket and place the pickup/stand pipe into the bucket.
21. Flip the **DRAIN** switch to **ON**. Open both **FLOW CONTROL** and the **DRAIN CONTROL VALVE**.
22. Once the appropriate of water have been introduced into the machine allow the machine to run for 1 minute. This will rinse the tank. Flip the **DRAIN SWITCH** to **OFF**.
23. Close the **DRAIN CONTROL VALVE**.
24. Place the pickup/standpipe in an approved waste container.
25. Flip the **DRAIN SWITCH** to **ON**. Open the **FLOW CONTROL VALVE**. This will rinse the fill circuit.
26. When the flow stops flip the fill switch to **OFF**. Close the **FLOW CONTROL VALVE**.
27. Check for foam and contamination in container.
28. Repeat rinse cycle until there is no foam or contamination in rinse container. Repeat solution flush if needed.
29. Replace coolant filter cartridge; **P/N: 026 80725 00**.



## 7. Replacement Parts

 <p>Universal drain nipple</p> <p>P/N: 370 80316 00</p>	 <p>TMC Nipple, 7/16-20 Thread Freightliner</p> <p>P/N: 370 80317 00</p>
<p><b>OEM ESOC</b></p>  <p>Freightliner, Cascadia, Columbia, and Sterling drain connector</p> <p>P/N: 370 80318 00</p>	<p><b>OEM ESOC</b></p>  <p>Freightliner M2 drain connector</p> <p>P/N: 370 80319 00</p>
<p><b>OEM ESOC</b></p>  <p>Freightliner, Classic, Coronado, Century, and Sterling drain nipple</p> <p>P/N: 370 80321 00</p>	 <p>Head unit</p> <p>P/N: 370 80273 00</p>
 <p>DD13, 15, 16 Engine block drain kit</p> <p>P/N: 370 80320 00</p>	 <p>Adapter for Volvo radiator drain</p> <p>P/N: 370 80284 00</p>
 <p>1/4" Radiator bottom coupler</p> <p>P/N: 023 80480 00</p>	 <p>Coolant filter cartridge</p> <p>P/N: 026 80725 00</p>

 <p>Pick up tube/stand pipe</p> <p>P/N: 370 80283 00</p>	 <p>Drain control valve</p> <p>P/N: 370 80269 00</p>
 <p>Fill pan drain valve</p> <p>P/N: 370 80271 00</p>	 <p>Flow control valve</p> <p>P/N: 370 80270 00</p>
 <p>Pressure/vacuum control valve</p> <p>P/N: 370 80272 00</p>	 <p>Coolant dispenser</p> <p>P/N: 370 80315 00</p>
 <p>Volvo radiator drain coupler</p> <p>P/N: 370 80314 00</p>	 <p>Inlet air filter</p> <p>P/N: 026 80729 00</p>
 <p>Pressure/vacuum gauge</p> <p>P/N: 026 80727 00</p>	 <p>Coolant filter bowl o-ring</p> <p>P/N: 028 80550 00</p>
 <p>Coolant filter wrench</p> <p>P/N: 026 80726 00</p>	 <p>Threaded adapter, 2-11/42"</p> <p>P/N: 370 80285 00</p>



	
Threaded adapter, M48 x 3 <b>P/N: 370 80286 00</b>	Threaded cap adapter, M48 x 3 <b>P/N: 370 80287 00</b>
	
Threaded adapter, M43.2 x 3 <b>P/N: 370 80288 00</b>	Threaded adapter, M52 x 4 <b>P/N: 370 80289 00</b>
	
Cap adapter, 32mm ID x 16mm deep <b>P/N: 370 80290 00</b>	Threaded adapter, M52 x 3 <b>P/N: 370 80291 00</b>
	
Cap adapter, 44mm OD <b>P/N: 370 80292 00</b>	Cooling sys. adapt., 42mm OD <b>P/N: 370 80293 00</b>
	
Threaded adapter, M52 x 2.5 <b>P/N: 370 80294 00</b>	System test adapter, 32mm ID, 16mm deep <b>P/N: 370 80295 00</b>

	
System test adapter, M57 x 3 <b>P/N: 370 80296 00</b>	Cooling sys. adapt., M52 x 2.5 <b>P/N: 370 80297 00</b>
	
Threaded system test adapter <b>P/N: 370 80298 00</b>	Threaded sys. adapt., 48mm ID <b>P/N: 370 80299 00</b>
	
Radiator cap adapt., 50mm OD <b>P/N: 370 80300 00</b>	Threaded system adapter, 49.25mm ID <b>P/N: 370 80301 00</b>
	
Threaded cap adapter, 57.5mm OD <b>P/N: 370 80302 00</b>	Threaded system adapter, 62.5mm OD <b>P/N: 370 80303 00</b>



*Threaded cap adapter, 59mm ID*

**P/N: 370 80304 00**



*Threaded cooling sys. adapter, 59.5mm ID*

**P/N: 370 80305 00**



*Threaded cap adapter, 62.5mm*

**P/N: 370 80306 00**



*Threaded cooling sys. adapter, M64 x 3*

**P/N: 370 80307 00**



*Truck adapter kit*

**P/N: 370 80308 00**



*Rubber plug, 7/8" thick*

**P/N: 370 80309 00**



*Rubber gasket for:  
CEX-AD12453 kit*

**P/N: 370 80310 00**



*Kit for GM x and J cars  
(1.8 & 2.0L engines)*

**P/N: 370 80311 00**



*Cap adapter*

**P/N: 370 80312 00**





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