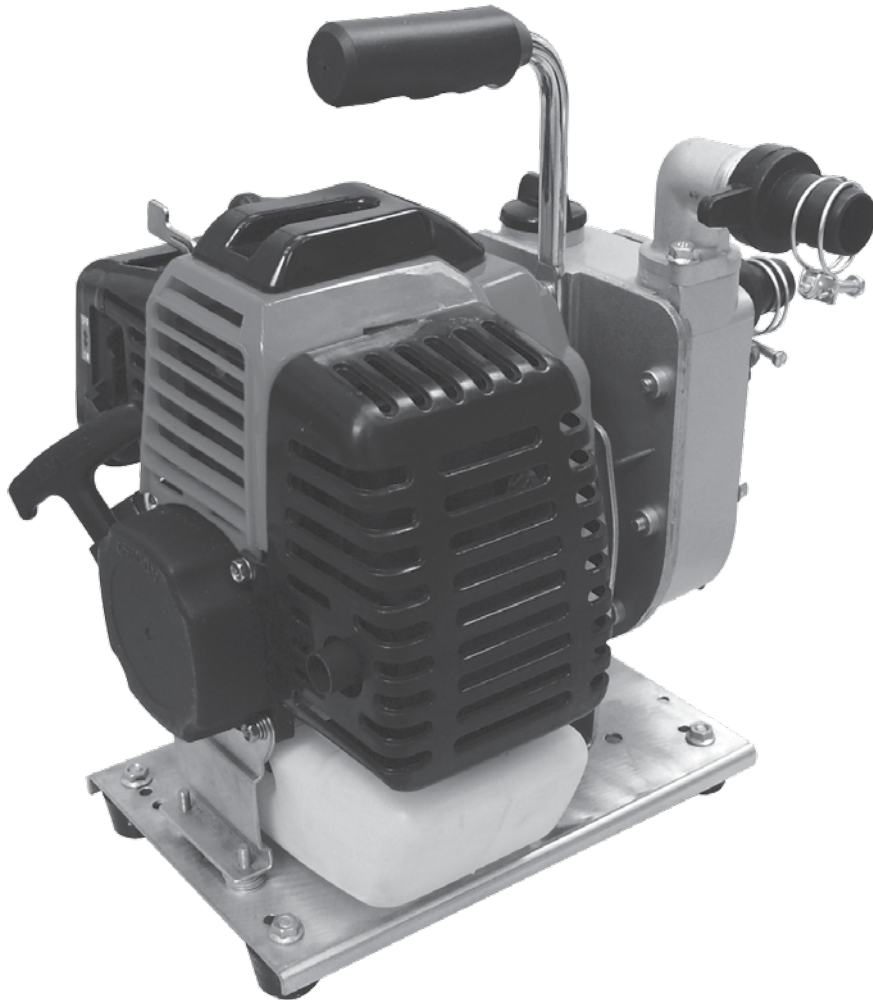


**Earthquake®**

Operator's Manual  
**WP4310**  
**43cc Water Pump**



OMWP4310  
Rev. 12-17-09  
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# INTRODUCTION, REGISTRATION AND WARRANTY

## THANK YOU . . .

*for purchasing an Earthquake™ Water Pump from Ardisam, Inc.  
We have worked to ensure that our product meets high standards  
for usability and durability. Please take the time to read this  
manual carefully to learn how to correctly operate and maintain  
your water pump. Congratulations on your investment in quality.*

## FEDERAL EMISSION INFORMATION

Ardisam, Inc. warrants to the retail purchaser, that this small, off-road engine was designed, built and equipped to conform at the time of initial sale to all applicable regulations of the U.S. Environmental Protection Agency (EPA).

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## REGISTRATION

Fill out and mail the registration card located in your Owner's Manual packet. Warranty is valid only if your completed registration card is received by Ardisam, Inc., within two weeks of the purchase date.

Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Date of Purchase \_\_\_\_\_  
Place of Purchase \_\_\_\_\_



Earthquake, A Division of Ardisam, Inc.  
1160 Eighth Avenue; P.O. Box 666  
Cumberland, Wisconsin 54829

800-345-6007 · Fax (715) 822-2223  
Email: [info@ardisam.com](mailto:info@ardisam.com)

## SAFETY

### OWNER'S RESPONSIBILITY

It is the owner's responsibility to accurately assemble the pump for safe and effective use.

- Read and follow all safety instructions.
- Carefully follow all assembly instructions.
- Maintain the pump according to directions and schedule included in this Earthquake operator's manual.
- Ensure that anyone who uses the pump is familiar with all controls and safety precautions.

### SPECIAL MESSAGES

Your manual contains special messages to draw attention to potential safety concerns, machine damage as well as helpful operating and servicing information. Please read all the information carefully to avoid injury and machine damage.



#### **CAUTION**

**AVOID INJURY! THIS SYMBOL AND TEXT HIGHLIGHT POTENTIAL HAZARDS OR DEATH TO THE OPERATOR OR BYSTANDERS THAT MAY OCCUR IF THE HAZARDS OR PROCEDURES ARE IGNORED.**



#### **IMPORTANT**

**AVOID DAMAGE! THIS TEXT IS USED TO TELL THE OPERATOR OF ACTIONS OR CONDITIONS THAT MIGHT RESULT IN DAMAGE TO THE MACHINE.**

**NOTE: General information is given throughout the manual that may help the operator in the operation or service of the machine.**

### IMPORTANT SAFETY PRECAUTIONS

**Please read this section carefully.** Operate the water pump according to the safety instructions and recommendations outlined here and inserted throughout the text. Anyone who uses this water pump must read the instructions and be familiar with the controls.



**This symbol points out important safety instructions which if not followed could endanger your personal safety. Read and follow all instructions in this manual before attempting to operate this equipment.**

- Always keep hands, feet, hair and loose clothing away from any moving parts on engine or pump.
- Do not allow children to operate this pump. Do not allow adults to operate the pump without proper instruction.
- Do not operate any power equipment under the influence of alcohol or drugs.
- Keep all screws, nuts and bolts tight.
- Engine should be turned off and cool, spark plug wire must be removed from spark plug before any repairs are attempted.
- Temperature of muffler and nearby areas may exceed 150° F (65° C). Avoid these areas.
- Never run engine indoors or in an enclosed area. Engine exhaust contains carbon monoxide, an odorless and deadly gas.
- Use only original equipment parts from Ardisam, Inc., including all nuts and bolts.
- Never attempt to operate the pump without priming water.

## ENGINE SAFETY PRECAUTIONS

### **Warning Carbon Monoxide Poisoning**

All engine exhaust contains carbon monoxide. Carbon monoxide is a deadly, colorless, tasteless, odorless gas which may be present even if you do not smell or see engine exhaust. Levels of carbon monoxide, which can be deadly, can be present for days in an enclosed area that has poor ventilation. Any level of carbon monoxide, if inhaled, can cause headaches, drowsiness, nausea, dizziness, confusion and eventually death. If you experience any of these symptoms, seek fresh air and **medical attention immediately**.

### **Preventing Carbon Monoxide Poisoning**

- Never run engine indoors or in a confined area.
- Never try to ventilate engine exhaust indoors. Carbon monoxide can reach dangerous levels very quickly.
- Never run engine outdoors where exhaust fumes may be pulled into a building.
- Never run engine outdoors in a poorly ventilated area where the exhaust fumes may be trapped and not easily removed. (Examples include large holes or areas where hills surround your working area.
- Never run engine in an enclosed or partially enclosed area. (Examples include: buildings that are enclosed on one or more sides, under tents, car ports or basements.
- Always run the engine with the exhaust and muffler pointed away from the operator.
- Never point the exhaust muffler towards anyone. Bystanders should always be many feet away from the operation of the engine.

### **Gasoline Fires and Handling Fuel Safely**

Fuel and fuel vapors are highly flammable. Never use fuel where a spark or flame may be present. Never use fuel where a potential source of ignition could occur. (Examples include: hot water or space heaters, clothes dryer, electric motors, etc.) Keep flames and sparks away from engine and fuel to prevent fires. Fuel fires spread very quickly and are highly explosive.

### **Prevention of Gasoline Fires**

- Always fill fuel tank outside in a well ventilated area with the engine stopped.
- Never remove the fuel cap or add fuel with the engine running. Stop engine and allow to cool before filling.
- Never drain fuel from engine in an enclosed area.
- Always wipe up excess (spilled) fuel from engine before starting. Clean up spilled fuel immediately.
- If fuel spillage occurs, wipe away carefully and allow fuel to dry before starting the engine.
- Allow fuel fumes/vapors to escape from the area before starting engine.
- Test the fuel cap for proper installation before starting and using engine.
- Always run the engine with fuel cap properly installed on the engine.
- Never smoke while refilling engine fuel tank.
- Prevent fire and explosion caused by static electric discharge. Use only nonmetal, portable fuel containers approved by the Underwriter's Laboratory (U.L.) or the American Society for Testing & Materials (ASTM).
- Do not store engine with fuel in fuel tank indoors. Fuel and fuel vapors are highly explosive.
- During storage, screw down gas cap vent screw tightly.
- Never pour fuel from engine fuel tank.
- Never siphon fuel by mouth to drain fuel tank.
- Always have an adult fill the fuel tank.
- Never allow anyone under the influence of drugs or alcohol to fill engine.
- Never allow children to fill the fuel tank.

## BURNS AND FIRES

The muffler, muffler guard and other parts of the engine become extremely hot during the operation of the engine. These parts remain extremely hot after the engine has stopped.

This engine is designed to operate using a catalytic converter which contributes to the engine's compliance with the EPA.

### Prevention of Burns and Fires

- Never remove the muffler guard from the engine.
- Never touch the muffler guard because it is extremely hot and will cause severe burns.
- Never touch parts of the engine that become hot during and after operation.
- Always keep materials and debris away from muffler guard and other hot parts of the engine to avoid fires.



### CAUTION

**AVOID INJURY! HOT GASES ARE A NORMAL BY-PRODUCT OF A FUNCTIONING CATALYTIC CONVERTER. FOLLOW ALL SAFETY INSTRUCTIONS TO PREVENT BURNS AND FIRES.**

## OPERATION

### STEPS FOR WORKING ON ENGINE OR PUMP



### CAUTION

**DO NOT ALTER/MODIFY ENGINE OR PUMP: AVOID INJURY! NEVER ALTER OR MODIFY THE ENGINE FROM THE FACTORY. SERIOUS INJURY OR DEATH MAY OCCUR IF ENGINE IS MODIFIED OR ALTERED.**



### CAUTION

**AVOID INJURY! WHEN WORKING ON OR REPLACING PARTS FOR THE ENGINE OR PUMP YOU MUST ALWAYS DISCONNECT SPARK PLUG WIRE FROM THE SPARK PLUG AND KEEP IT AWAY FROM THE SPARK PLUG.**

1. Turn off engine switch.
2. Disconnect the spark plug wire from the spark plug.

3. Securely place the disconnected spark plug wire away from the spark plug and any metal parts. This must always be done or arcing may occur between spark plug wire and metal parts.

4. Replace or repair the part on the engine or pump.
5. Check all parts that were repaired, or removed

during repair, that they are secure and fit correctly.

**NOTE: All repair parts must come from the factory. Never replace parts that are not specifically designed for the pump.**

6. Replace spark plug wire



### CAUTION

**AVOID INJURY! ALWAYS WEAR HEARING PROTECTION WHILE OPERATING ENGINE.**



### CAUTION

**AVOID INJURY! PLEASE DO NOT START YOUR WATER PUMP UNTIL YOU HAVE READ THE PREVIOUS SECTION OF THIS MANUAL. ONCE COMPLETED, FOLLOW THE STEPS BELOW TO START YOUR PUMP.**

## PREPARING ENGINE FOR STARTING GAS AND OIL

### Quality

To operate the engine you must use a high quality 2-cycle oil to ensure that the engine operates correctly for the life of the engine. Use unleaded regular, unleaded premium or reformulated automotive fuel only. It may contain up to 10% ethanol, 10% gasohol, 15% MTBE, and 15% ETBE. **DO NOT use Methanol or leaded fuels.**

### Mixture

Run earth auger with a ratio of 50:1. **DO NOT use marine 2-cycle oil.** See chart below.

GAS	OIL	RATIO
1 gallon	2.5 ounces	50:1
2 gallons	5 ounces	50:1
5 gallons	13 ounces	50:1

**MIXING FUEL AND FILLING FUEL TANK****CAUTION**

**AVOID INJURY! NEVER STORE ENGINE WITH FUEL IN THE TANK INDOORS. FUEL AND FUEL VAPORS ARE HIGHLY FLAMMABLE.**

**CAUTION**

**AVOID INJURY! NEVER MIX FUEL AND OIL DIRECTLY IN ENGINE FUEL TANK. USE ONLY NONMETAL, PORTABLE FUEL CONTAINERS APPROVED BY THE UNDERWRITER'S LABORATORY (U.L.) OR THE AMERICAN SOCIETY FOR TESTING & MATERIALS (ASTM).**

**CAUTION**

**AVOID INJURY! AN ADULT MUST ALWAYS HANDLE AND FILL THE ENGINE WITH FUEL.**

**Mixing Fuel**

1. Fuel must be mixed in a container outside in a well-ventilated area.
2. Fill certified fuel container 1/4 full of recommended fuel.
3. Add recommended amount of 2-cycle oil. **DO NOT use 2-cycle marine oil.**
4. Screw on container cap straight and tight.
5. Shake the container to mix fuel and oil.
6. Unscrew cap slowly to vent. Add the remainder of fuel requirements.
7. Wipe away any spilled fuel or oil and allow to evaporate before moving or transporting.

**CAUTION**

**AVOID INJURY! ALWAYS HANDLE GAS IN A WELL VENTILATED AREA, OUTDOORS, AWAY FROM FLAMES OR SPARKS.**



**THIS ENGINE USES A GAS/OIL MIXTURE. DO NOT RUN ON STRAIGHT GAS ONLY, ENGINE DAMAGE WILL RESULT.**

**Filling Fuel Tank**

1. Shut-off engine and allow engine to completely cool before filling the fuel tank.
2. Move to a well ventilated area or outdoors away from flames and spark.
3. Clean debris from area around the fuel cap.
4. Loosen fuel cap slowly. Place the cap on a clean, dry surface.
5. Carefully add fuel without spilling.
6. Do not fill gas tank completely full allowing space for fuel to expand.
7. Immediately replace fuel cap and tighten. Wipe off spilled fuel and allow to dry before starting engine.

**CAUTION**

**AVOID INJURY! DO NOT START ENGINE IF FUEL IS SPILLED. WIPE OFF EXCESS FUEL AND ALLOW TO DRY. REMOVE ENGINE FROM AREA TO AVOID SPARKS.**

**ASSEMBLY**

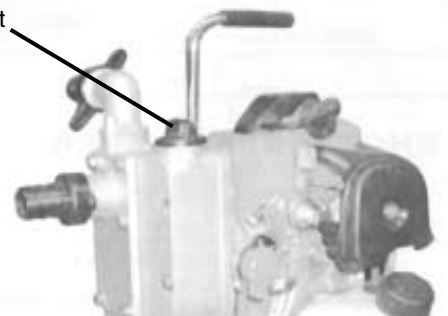
1. Connect the suction hose to water pump inlet and the discharge hose to pump outlet using provided hose clamps.
2. Attach suction screen to inlet hose.

**NOTE: 1" suction hose is required.**

**NORMAL OPERATION**

1. Always prime water pump fully with water before starting engine. Loosen the filler cap and fill the pump with priming water.

Fill Port



## OPERATION

### STARTING AND STOPPING ENGINE

1. Move engine to a well ventilated area or outdoor to prevent carbon monoxide poisoning.
2. Move to an area away from flames or sparks to avoid ignition of vapors if present.
3. Remove all debris from air cleaner holes and fuel cap to ensure proper air flow.
4. Turn switch to the **ON** position.
5. **PRIMING:**
  - When using the primer bulb, allow the bulb to return completely to its original position between pushes.
  - Choke must be in the **OFF or RUN** position when pushing or using the priming bulb.

**First Start:** Starting new engine for the first time or after running out of gas, prime three times.

**Cold Start:** Starting engine after it has been sitting or stored briefly with fuel in the tank, prime one time above 55° Fahrenheit or two times below 55° Fahrenheit.

**Warm Start:** Do not use primer or full choke if engine did not run out of gas or has not cooled completely. Flooding will occur.

6. **CHOKE:**
  - **Full choke** position is defined by moving the choke lever as far to the **ON or CHOKE** position as possible. **Half choke** is defined when the choke lever is between **ON or CHOKE** and **OFF or RUN**.

**First Start & Cold Start:** After priming, move choke lever to full choke.

**Warm Start:** No choke or half choke is needed.

 **CAUTION**  
**AVOID INJURY! STARTER ROPE CAN CAUSE AN UNANTICIPATED JERK TOWARDS ENGINE. PLEASE FOLLOW INSTRUCTIONS TO AVOID INJURY.**

7. Grasp starter handle and pull out slowly, until tension increases. Without letting handle retract, pull rope with a rapid full arm stroke. Let rope return to its original position very slowly. Repeat this step every time the starter rope is pulled.

8. Pull recoil until engine fires or runs.

**NOTE:** If engine fails to start after 5-6 pulls, push primer one time and pull starter rope again.

9. After engine starts running, move choke lever to

**HALF CHOKE.**

10. Move choke lever to **OFF or RUN** position and move throttle to desired speed.

 **CAUTION**  
**AVOID INJURY! IF ENGINE FAILS TO START AFTER THE ABOVE OPERATIONS, PLEASE CONTACT ARDISAM, INC. AT 800-345-6007.**

**DO NOT attempt to start engine in the following ways:**

- **DO NOT use starting fluid.**
- **DO NOT spray flammable liquids or vapors into air cleaner, carburetor or spark plug chamber.**
- **DO NOT remove spark plug and pull on starter rope. Flammable fuel can spray out and ignite from a spark caused by the spark plug.**

 **CAUTION**  
**AVOID INJURY! NEVER LEAVE ENGINE RUNNING WHILE UNATTENDED. TURN OFF AFTER EVERY USE.**



## MAINTENANCE AND STORAGE



### CAUTION

**TO PREVENT ACCIDENTAL STARTING:**  
**AVOID INJURY! ENGINE MUST BE TURNED OFF AND COOL, AND SPARK PLUG WIRE MUST BE REMOVED FROM SPARK PLUG BEFORE CHECKING AND ADJUSTING ENGINE OR EQUIPMENT.**



### CAUTION

**AVOID INJURY! TEMPERATURE OF MUFFLER AND NEARBY AREAS MAY EXCEED 150° F (65° C). AVOID THESE AREAS.**



### CAUTION

**AVOID INJURY! CHECK PUMP OFTEN FOR LOOSE NUTS AND BOLTS. KEEP THESE ITEMS TIGHTENED.**

## PUMP MAINTENANCE

1. Keep all screws, nuts, and bolts tight.
2. For cold weather operation, store the unit in a cool environment. Transferring the unit from a warm to a cold area can cause build up of harmful condensation.



### CAUTION

**AVOID INJURY! NEVER STORE ENGINE WITH FUEL IN THE TANK INSIDE A BUILDING. POTENTIAL SPARKS MAY BE PRESENT FOR IGNITION OF FUEL AND FUEL VAPORS.**



### CAUTION

**AVOID INJURY! AN ADULT MUST ALWAYS DO MAINTENANCE AND REPAIR ON ENGINE AND ATTACHMENTS.**



### CAUTION

**AVOID INJURY! ENGINE MUST BE SHUT-OFF, COOL, AND SPARK PLUG WIRE REMOVED BEFORE ANY REPAIR OR MAINTENANCE CAN BE DONE.**

## ENGINE MAINTENANCE

Please read the maintenance schedule and observe these recommendations to extend the life of your engine.

Good maintenance is essential for safe, economical, and trouble-free operation. It will also help reduce air pollution. To help you properly care for your engine, the following pages include a maintenance schedule, routine inspection procedures, and simple maintenance procedures using basic hand tools. Other service tasks that are more difficult, or require special tools, are best handled by professionals and are normally performed by a technician or other qualified mechanic.

Maintenance, replacement or repair of the emissions control devices and systems may be performed by any non-road engine repair establishment or individuals. However, items must be serviced by an authorized dealer to obtain "no charge" emissions control service.

The maintenance schedule applies to normal operating conditions. If you operate your engine under unusual conditions, such as sustained high-load or high-temperature operation, or use in unusually wet or dusty conditions, consult your servicing dealer for recommendations applicable to your individual needs and use.

## MAINTENANCE SCHEDULE

MAINTENANCE ITEM		Every 8 hours (daily)	Every 20 hours or seasonally	Each Year
Clean Engine and Check Bolts & Nut		X		
Air Filter (See Air Filter section)	Check	X		
	Clean *		X	
	Replace		X	X
Spark Plug (Gap .028") (See Spark Plug section)	Check/Adjust		X	
	Replace			X

\* Service more frequently under dusty conditions

### **Cooling Fins**

- Cooling fins, air inlets and linkages must be free from any debris before each use.

### **Air Filters**

- Never run engine without air cleaner properly installed. Added wear and engine failure may occur if air cleaner is not installed on engine.
- Service air cleaner every 3 months or after 20 hours of operation. **Clean more frequently if engine is operated in extremely dusty conditions.**

### **Steps for Cleaning Air Filters**



**NEVER TWIST AIR FILTERS WHEN CLEANING.  
ALWAYS PRESS.**

1. Wash in warm water with mild soap until dirt and debris are removed. Press filter when washing, do not twist.
2. Rinse in warm water until soap and dirt are removed.
3. Dry filter by wrapping in a clean cloth and pressing filter until dry.
4. Apply oil to the entire filter.
5. Remove excess oil.
6. Attach the filter and filter cover to the engine.

### **Spark Plug**

- Check spark plug every 50 operating hours.
1. Remove dirt and debris around the spark plug before removing.
  2. Remove spark plug and replace if any of the following have occurred: pitted electrodes, burned electrodes, cracked porcelain or deposits around the electrodes.
  3. Check spark plug for proper gap (.025" to .030").
  4. After analysis of the spark plug, install original or a new spark plug and tighten securely.

**NOTE: DO NOT OVERTIGHTEN!**

**NOTE: CROSS REFERENCE SPARK PLUG IS A CHAMPION CJ8.**

### **Carburetor**

- Never tamper with factory setting of the carburetor.

## **TRANSPORTING YOUR WATER PUMP**

1. Never transport engine inside an enclosed space or vehicle. Fuel or fuel vapors may ignite causing serious injury or death.
2. If fuel is present in the fuel tank, transport in an open vehicle in an upright position
3. If an enclosed vehicle must be used, remove gas into an approved red gasoline container. **DO NOT SIPHON BY MOUTH.**
4. Run engine to expand fuel in the carburetor and fuel tank. Always run engine in a well ventilated area.
5. Wipe away any spilled fuel from engine and pump. Allow to dry.

## **LONG TERM STORAGE**

- If your pump will not be used for more than one month, prepare it for long-term storage.

### **Steps for Long Term Storage**

1. Add fuel stabilizer before storing for long periods of time.
2. Run engine for 10-15 minutes to ensure that the stabilizer reaches the carburetor.
3. Remove the remaining fuel from the gas tank into an approved fuel container.
4. Drain water from pump if storing in temperatures below freezing.



### **CAUTION**

**AVOID INJURY! TO AVOID INJURY OR DEATH,  
NEVER SIPHON FUEL BY MOUTH.**



### **CAUTION**

**AVOID INJURY! NEVER STORE WATER PUMP WITH  
FUEL IN THE FUEL TANK INSIDE AN ENCLOSED  
AREA OR BUILDING.**

5. Store in an upright position.
6. Remove all debris from engine and water pump.

## SERVICE, TROUBLESHOOTING AND REPAIR

### SERVICE INFORMATION



**IN CASE OF A SERVICE PROBLEM, DO NOT SEND UNIT BACK TO RETAILER. CONTACT ARDISAM, INC. AT 800-345-6007. WE WELCOME YOUR CALL.**

At Ardisam, we build quality and durability into the design of our products. No amount of careful design by us, and careful maintenance by you, can guarantee a repair-free life for your water pump. Most repairs will be minor and easily fixed by following the suggestions in the troubleshooting guide in this section. This guide will help you pinpoint the causes of common problems and identify solutions.

For more complicated repairs, you may want to rely on your retailer, an authorized mechanic or Ardisam, Inc. Contact your retailer for a list of authorized mechanics in your area. A parts catalog is included in this section.

We will always be glad to answer any questions you have or help you find suitable assistance. To order parts or inquire about warranty, call or write us at the address found in the next column under the section "Order Repair Parts."

### ORDERING REPAIR PARTS

Parts can be obtained from the store where your water pump was purchased or direct from the factory. To order from the factory, call or write to:



**Ardisam, Inc.**  
**1160 Eighth Avenue; P.O. Box 666**  
**Cumberland, Wisconsin 54829**  
**800-345-6007 • Fax (715) 822-2223**  
**Email: [info@ardisam.com](mailto:info@ardisam.com)**  
**[www.ardisam.com](http://www.ardisam.com)**  
**[www.getearthquake.com](http://www.getearthquake.com)**

Please include the following information with your order:

1. Part numbers
2. Part description
3. Quantity
4. Model number and serial number

## SERVICE, TROUBLESHOOTING AND REPAIR



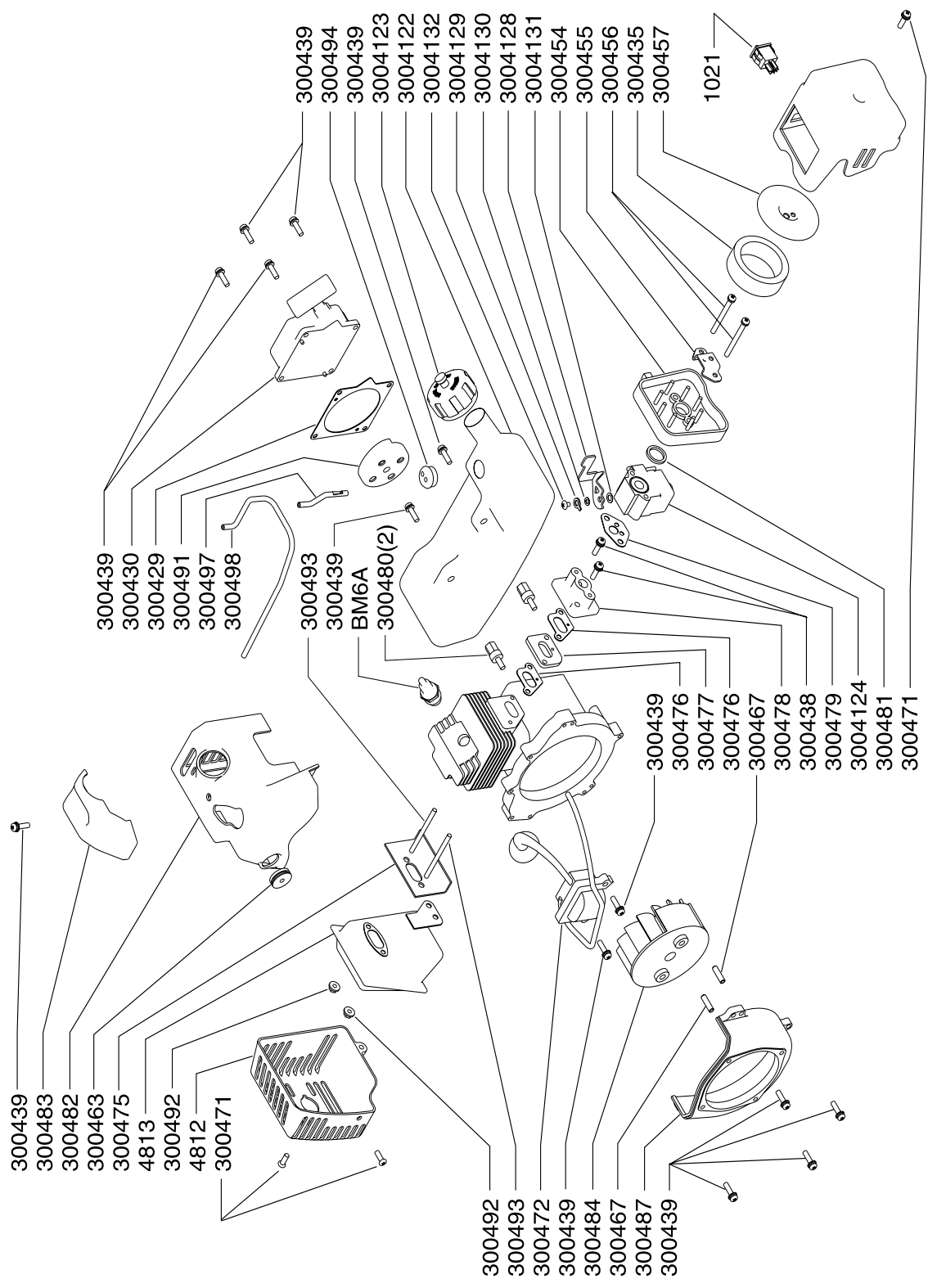
### CAUTION

**PRACTICE SAFETY AT ALL TIMES. ENGINE MUST BE TURNED OFF AND ALLOWED TO COOL, AND SPARK PLUG WIRE MUST BE DISCONNECTED BEFORE ATTEMPTING ANY MAINTENANCE OR REPAIR.**

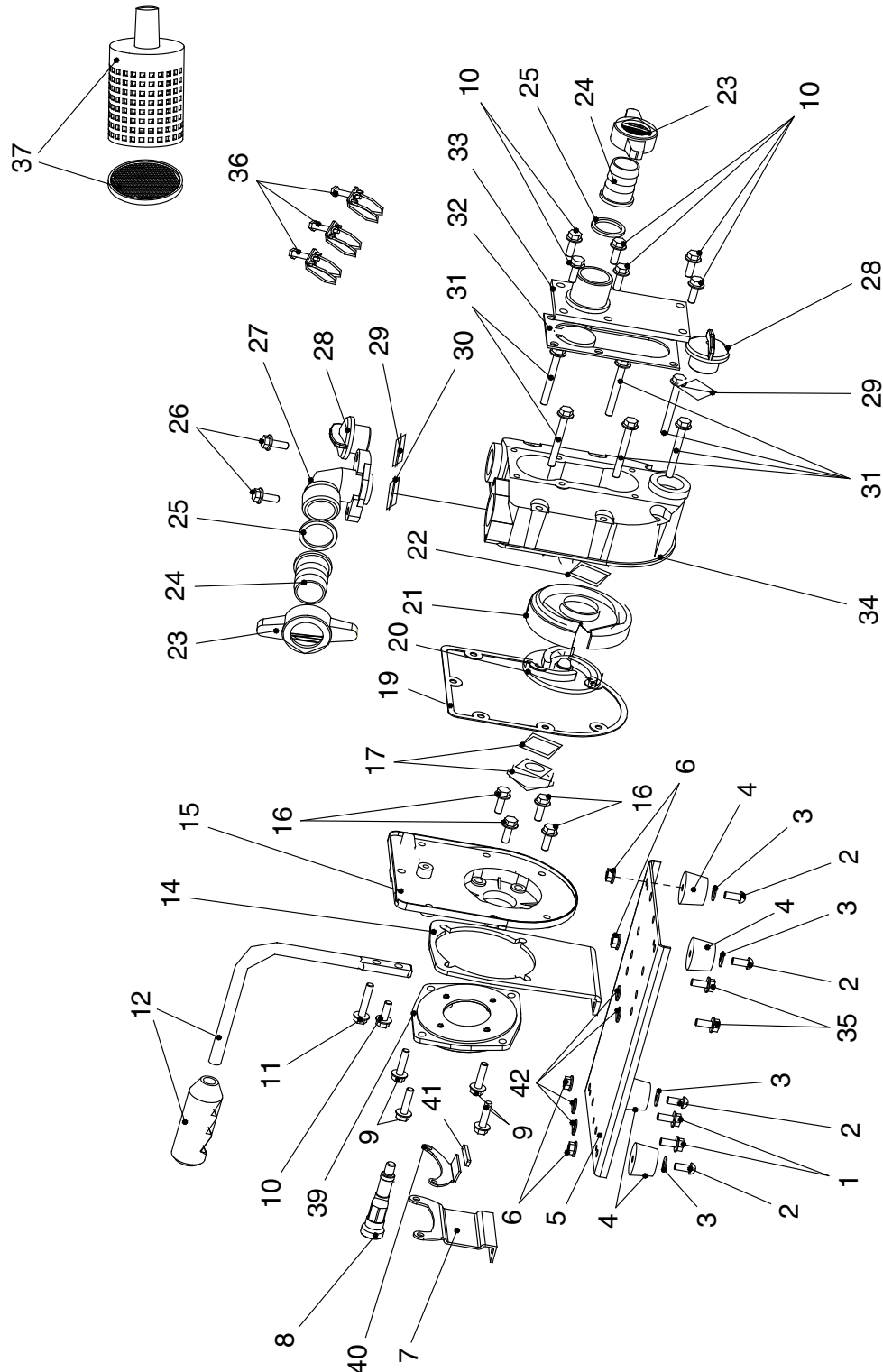
## TROUBLESHOOTING

Problem	Possible cause	Remedy/Action
Engine will not start	1. Power switch off 2. Spark plug wire disconnected 3. Spark plug has no spark	1. Flip switch to on position 2. Connect spark plug wire to spark plug 3. Clean or replace spark plug
Engine runs rough, floods during operation	1. Dirty air cleaner 2. Choke partially engaged 3. Carburetor out of adjustment	1. Clean or replace air cleaner 2. Turn off choke 3. Call factory
Engine is hard to start	1. Stale fuel 2. Spark plug wire loose 3. Dirty carburetor	1. Drain old fuel and replace with fresh. Use gas stabilizer at end of season 2. Make sure spark wire is securely attached to spark plug 3. Clean carburetor, use gas stabilizer, new gas can
Engine misses or lacks power	1. Clogged fuel tank 2. Clogged air cleaner 3. Improper carburetor adjustment 4. Spark plug dirty, improper gap, or wrong type	1. Remove and clean 2. Clean or replace 3. Call factory 4. Replace spark plug and adjust gap
Engine runs, but has no power	1. Choke on 2. Carburetor out of adjustment 3. Worn engine lower seal	1. Turn off choke after engine is running 2. Call factory 3. Call factory
Engine revs too high	1. Low fuel in tank	1. Add fuel to tank
Engine runs, but doesn't pump water	1. Pump not primed 2. Suction hose elevated too high 3. Strainer clogged 4. Hose(s) damaged	1. Prime water pump as directed in manual 2. Lower suction hose 3. Unclog foreign objects from strainer 4. Replace hoses

## WP4310 WATER PUMP ENGINE BREAKDOWN



## WP4310 WATER PUMP BREAKDOWN





## WP4310 WATER PUMP PARTS LIST

**MINIMUM ORDER .....\$10.00**

### ENGINE PARTS

Part #	Description	Qty.
1021	SWITCH, ROCKER .....	1
300429	PLATE, RECOIL .....	1
300430	RECOIL ASSEMBLY .....	1
300435	FILTER, AIR .....	1
300438	BOLT W/WASHER, M5 X 25MM .....	2
300439	BOLT W/WASHER, M5 X 18MM .....	13
300454	BASE, INTAKE .....	1
300455	PLATE, INTAKE COVER ADAPTER .....	1
300456	BOLT, M5 X 50MM .....	2
300457	COVER, AIR FILTER .....	1
300463	GROMMET, ENGINE SHROUD .....	1
300467	PIN, LOCATING .....	2
300471	BOLT, M5 X 12MM .....	3
300472	COIL, IGNITION .....	1
300475	GASKET, MUFFLER .....	1
300476	GASKET, INTAKE .....	2
300477	HEAT DISK .....	1
300478	WINDPIPE, INTAKE .....	1
300479	GASKET, CARBURETOR .....	1
300480	SPACER, FUEL TANK THREADED .....	2
300481	O-RING .....	1
300482	SHROUD, ENGINE .....	1
300483	COVER, ENGINE SHROUD .....	1
300484	FLYWHEEL, MAGNETO .....	1
300487	MOUNT RING AND SHROUD .....	1
300488	CHOKE (NOT SHOWN) .....	1
300491	RECOIL CLUTCH .....	1
300492	NUT, M6 .....	2
300493	BOLT, STUD M6 X 62MM .....	2
300494	GROMMET, FUEL TANK, 2-HOLE .....	1
300497	HOSE, PRIMER LINE 4" .....	1
300498	HOSE, PRIMER LINE 9" .....	1
3004103	FILTER, FUEL (NOT SHOWN) .....	1
3004106	GUARD, FLYWHEEL (NOT SHOWN) .....	1
3004109	PRIMER BULB (NOT SHOWN) .....	1
3004120	SCREW, CHOKE LEVER (NOT SHOWN) .....	1
3004122	FUEL TANK .....	1
3004123	CAP, FUEL, MANUAL VENTING .....	1
3004124	CARBURETOR .....	1
3004126	THROTTLE LEVER ASSEMBLY (NOT SHOWN) .....	1
3004127	ENGINE, 2-CYCLE 43CC VIPER .....	1
3004128	LEVER, THROTTLE .....	1
3004129	WASHER WITH TAB, THROTTLE LEVER .....	1
3004130	WASHER, FLAT, THROTTLE LEVER .....	1
3004131	WASHER, NYLON, THROTTLE LEVER .....	1
3004132	SCREW, THROTTLE LEVER .....	1
4812	COVER, MUFFLER, METAL .....	1
4813	MUFFLER, CATALYTIC CONVERTER .....	1
BM6A	SPARK PLUG (CHAMPION CJ8) .....	1

### CHASSIS PARTS

Key #	Part #	Description	Qty.
1	42128	BOLT, ENGINE MOUNT .....	2
2	42131	BOLT, RUBBER FOOT .....	4
3	42132	WASHER, RUBBER FOOT .....	4
4	42127	FOOT, RUBBER .....	4
5	42129	BASE PLATE, PUMP .....	1
6	42133	NUT, RUBBER FOOT .....	4
7	42118	MOUNT, ENGINE .....	1
8	42141	OUTPUT SHAFT, PUMP .....	1
9	42121	BOLT, PUMP ADAPTER PLATE .....	4
10	42123	BOLT, PUMP COVER PLATE .....	7
11	42104	BOLT, HANDLE LONG .....	1
12	42103	HANDLE W/ GRIP .....	1
14	42101	MOUNT, ENGINE PUMP .....	1
15	42140	BACK COVER, PUMP .....	1
16	42112	BOLT, PUMP HOUSING PLATE .....	4
17	42126	SEAL, MECHANICAL .....	1
19	42120	GASKET, RUBBER PUMP .....	1
20	42134	IMPELLER .....	1
21	42122	HOUSING, VOLUTE .....	1
22	42142	SEAL, VOLUTE HOUSING .....	1
23	42105	NUT, WING HOSE ADAPTER .....	2
24	42106	NIPPLE BARBED, 1" .....	2
25	42107	SEAL, 1" NIPPLE .....	2
26	42108	BOLT, OUTLET ELBOW .....	2
27	42139	OUTLET ELBOW .....	1
28	42109	CAP, FILL .....	2
29	42110	SEAL, FILL CAP .....	2
30	42114	SEAL, OUTLET ELBOW .....	1
31	42115	BOLT, PUMP HOUSING .....	6
32	42125	GASKET/FLOW STOP, COVER PLATE .....	1
33	42124	PLATE, PUMP COVER .....	1
34	42111	HOUSING, PUMP .....	1
35	42130	BOLT, ENGINE PUMP MOUNT .....	2
36	42135	CLAMP, HOSE .....	3
37	42137	SUCTION SCREEN, COMPLETE .....	1
39	42102	ADAPTER PLATE, PUMP .....	1
40	42116	MOUNT, ENGINE FUEL TANK .....	1
41	42117	GRIP, RUBBER FUEL TANK .....	1
42	42119	SPACER, ENGINE PUMP .....	4
--	42100	ENGINE .....	1



# **WP4310 WATER PUMP**

## **Warranty Terms and Conditions**

### **PRODUCT WARRANTY: 1-YEAR LIMITED WARRANTY**

Ardisam, Inc., a manufacturing company, warrants this **EARTHQUAKE® WATER PUMP** to be free from defects in the material or workmanship for a period of one year from the date of purchase. During the one year warranty of this product, Ardisam will furnish 100% parts and labor to correct any defect caused by faulty material or workmanship. Any unit used in a commercial application is covered for a period of 90 days after purchase. This warranty applies to the original owner with a proof of purchase and is not transferable. This guarantee is void unless the warranty card is properly filled out and received by Ardisam, Inc., within 30 days of purchase or go to [www.GetEarthquake.com](http://www.GetEarthquake.com) for online registration.

**For replacement parts, phone 800-345-6007 or go online to [www.GetEarthquake.com](http://www.GetEarthquake.com).**

### **ENGINE WARRANTY: 2-YEAR LIMITED WARRANTY**

Ardisam, Inc., a manufacturing company warrants its Viper Engines under a two-year limited warranty to be free from defects in materials and workmanship for the service life of the product not to exceed twenty four consecutive months from the date of purchase for consumer applications. As an Ardisam Viper small engine owner, you are responsible for executing proper maintenance listed in your Operating and Maintenance Instructions. The warranty period begins on the date of purchase by the first retail consumer or commercial end user, and continues for the period of time stated above.

\*These warranties apply only to products which have not been subjected to negligent use, misuse, alteration, accident, unauthorized parts, failure to use proper fuel and oil, or if repairs have been performed at non-authorized service centers. These warranties supersede all other warranties either expressed or implied and all other obligations or liabilities on our part. Ardisam, does not assume, and does not authorize any other person to assume for us, any liability in connection with the sale of our products. To be at "No Charge," warranty work must be sent directly to Ardisam, Inc. or one of our authorized service centers and performed by them. To obtain warranty service and/or replacement instructions, contact our customer service department at 800-345-6007 Monday through Friday from 8 a.m. to 5 p.m. or visit [www.ardisam.com](http://www.ardisam.com). If you choose to ship your product to Ardisam for warranty repair, you must first have prior approval from Ardisam by calling our customer service department at 800-345-6007 for a return material authorization number (RMA#). Under these circumstances, all items must be shipped prepaid. Ardisam will at no charge, repair or replace, at their discretion, any defective part which falls under the conditions stated above. Ardisam retains the right to change models, specifications and price without notice.



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## Explanation of Emissions Control Warranty Provisions

Viper Engines are designed, built and equipped to meet all EPA requirements. It warrants that it is free from defects in material and workmanship that could cause failure to the warranted part; and that it is identical in all material respects to the engine described in the manufacturer's application for certification. When a warrantable condition exists, Viper will repair your engine at no cost to you, including parts and labor. The engine emissions label will indicate certification information. If the purchaser is in need of a warrantable repair and is not within 100 miles distance from an Ardisam authorized repair center, Ardisam will pay for shipping costs to and from an authorized Ardisam repair center.

Listed below are the parts covered by the emissions control systems warranty. Some parts listed below may require scheduled maintenance and are warranted up to the first scheduled replacement point for that part. Coverage under this warranty includes only the parts listed below (the emission and evaporation control systems) if so equipped:

- Air Filter Assembly (only to the first scheduled replacement point)
- Fuel Filter (only to the first scheduled replacement point)
- Carburetor
- Fuel Lines, Fuel Line Fittings and Clamps
- Fuel Metering Valve (if equipped)
- Evaporative System (if equipped)
  - Canister (if equipped)
  - Canister filter (if equipped)
  - Vapor hose (if equipped)
  - Orifice connector (if equipped)
  - Fuel tank
  - Fuel cap
  - Primer bulb canister (if equipped)
- Spark Plugs
- Magneto Ignition System
- Muffler Assembly

## LIMITATIONS

The Emission Control Systems Warranty shall not cover any of the following:

- a) Repair or replacement required because of misuse or neglect, improper maintenance, repairs improperly performed or replacements not conforming to Ardisam, Inc. specifications that adversely affect performance and/or durability and alterations or modifications not recommended or approved in writing by Ardisam, Inc.
- b) Replacement of parts and other services and adjustments necessary for required maintenance at or after the first scheduled replacement point;
- c) Consequential damages such as loss of time, inconvenience, loss of use of the engine or equipment, etc.
- d) Diagnosis and inspection fees that do not result in eligible warranty service being performed; and
- e) Any add-on or modified part, or malfunction of authorized parts due to the use of add-on or modified parts.

These items will be covered for a period of **two years** from the date of the original purchase. Viper warrants that: the components are

designed, built and equipped so as to conform with all applicable regulations adopted by the EPA; that they are free from defects in material and workmanship that could cause failure to the engine or other; and that the components used are identical in all material respects to the engine described in the manufacturer's application for certification. The warranty period begins on the date the engine is originally purchased.

## MAINTENANCE AND REPAIR REQUIREMENTS

The owner is responsible for the proper use and maintenance of the engine. Ardisam, Inc. recommends that all receipts and records covering the performance of regular maintenance be retained in case questions arise. If the engine is resold during the warranty period, the maintenance records should be transferred to each subsequent owner. Ardisam, Inc. reserves the right to deny warranty coverage if the engine has not been properly maintained; however, Ardisam, Inc. may not deny warranty repairs solely because of the lack of repair maintenance or failure to keep maintenance records.

Normal maintenance replacement or repair of emission control devices and systems may be performed by any repair establishment or individuals; however, warranty repairs must be performed by an Ardisam authorized service center. Any replacement parts or service that is equivalent in performance and durability may be used in non-warranty maintenance or repairs, and shall not reduce the warranty obligations of the engine manufacturer.

The warranty on emissions-related parts is as follows:

- Any warranted part that is not scheduled for replacement as required maintenance in the owner's manual supplied, is warranted for the warranty period stated above. If any such part fails during the period of warranty coverage, that part will be repaired or replaced at no charge to the owner. Any such part repaired or replaced under the warranty will be warranted for the remaining warranty period.
- Any warranted part that is scheduled only for regular inspection in the owner's manual supplied, is warranted for the warranty period. Any such part repaired or replaced under warranty will be warranted for the remaining warranty period.
- Any warranted part that is scheduled for replacement as required maintenance in the owner's manual supplied, is warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part will be repaired or replaced at no charge to the owner. Any such part repaired or replaced under warranty will be warranted for the remainder of the period prior to the first scheduled replacement point for the part.
- Add on or modified parts that are not exempted by the Air Resources Board may not be used. The use of any nonexempted add on or modified parts by the owner will be grounds for disallowing a warranty claim. The manufacturer will not be liable to warrant failures of warranted parts caused by the use of a nonexempted add on or modified part.



## NOTES

This image shows a full page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page, typical of notebook paper. There are no margins, text, or other markings on the page.



## NOTES

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