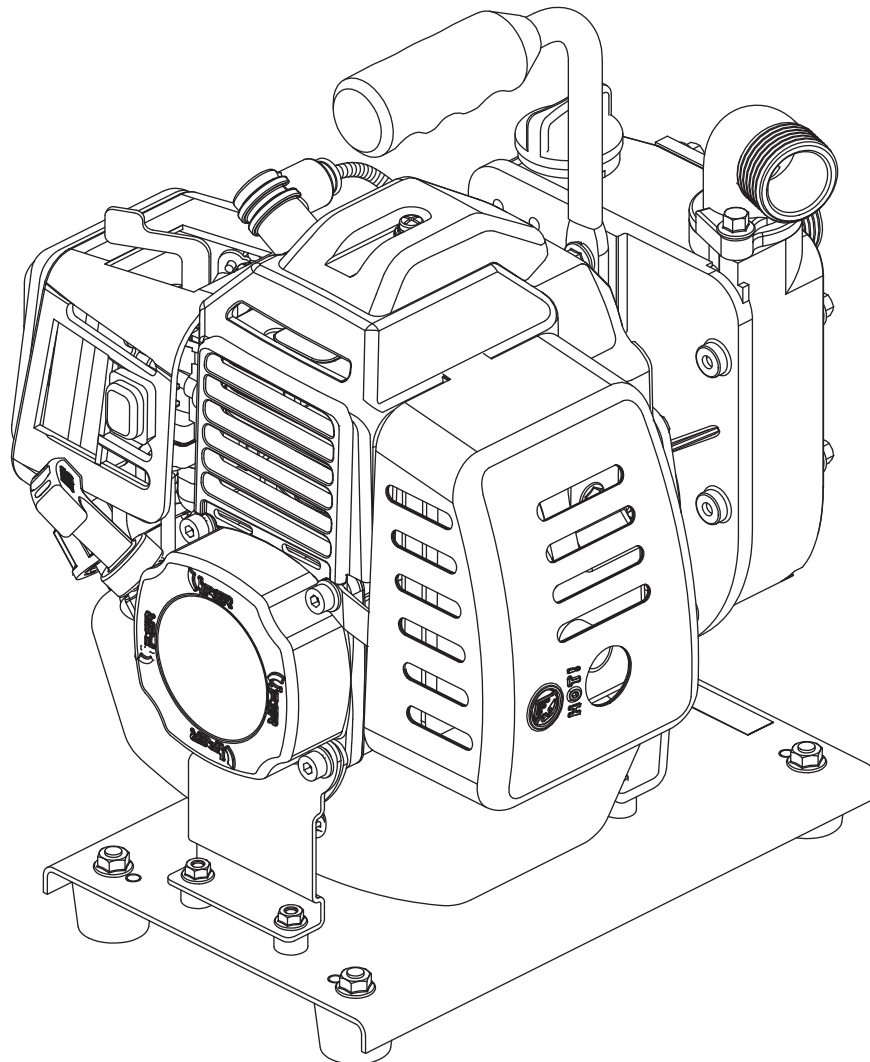




Operator's Manual
Original Operating Instructions

WP4310
43cc Water Pump



Get parts online at
www.getearthquake.com



P/N: OMWP4310
ECN: 10159
REV 2: 10/08/13
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INTRODUCTION

Congratulations on your investment in quality. Thank you for purchasing a 1-Inch Pump from *Earthquake*®. We have worked to ensure that the pump meets the highest standards for usability and durability. With proper care, your 1-Inch Pump will provide many years of service.

Please read this entire manual before installation and use. *Earthquake* reserves the right to change, alter or improve the product and this document at any time without prior notice.

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FEDERAL EMISSION INFORMATION

Earthquake 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).

REGISTRATION, SERVICE AND MAINTENANCE LOG

Record the model number and serial number in the space provided for easy reference. Warranty is valid only if the completed registration is received by *Earthquake* within 30 days of purchase. You can register your warranty online by visiting www.getearthquake.com. If you do not have a computer, call our customer service department at (800) 345-6007 Mondays through Fridays from 8 a.m. to 5 p.m. CST.

OWNERSHIP RECORDS		
Owner's Name:		
Owner's Address:		
City:	State/Province:	Zip Code/Postal Code:
Model Number:	Serial Number:	
Date of Purchase:		
Notes:		

This manual may contain information for several models. Read and keep this book for future reference. This manual contains important information on SAFETY, ASSEMBLY, OPERATION, AND MAINTENANCE. The owner must be certain that all the product information is included with the unit. This information includes the MANUAL, the REPLACEMENT PARTS and the WARRANTIES. This information must be included to make sure state laws and other laws are followed. All persons to whom rent/loan this unit must have access to and understand this information. This manual should remain with the product even if it is resold.

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.



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 pump 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.



IMPORTANT

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.

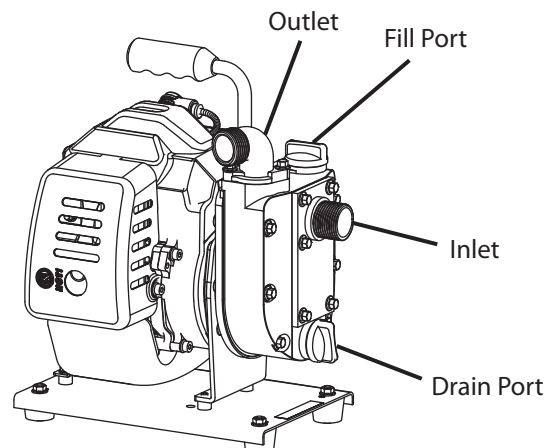
ASSEMBLY

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.



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
www.ardisam.com
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



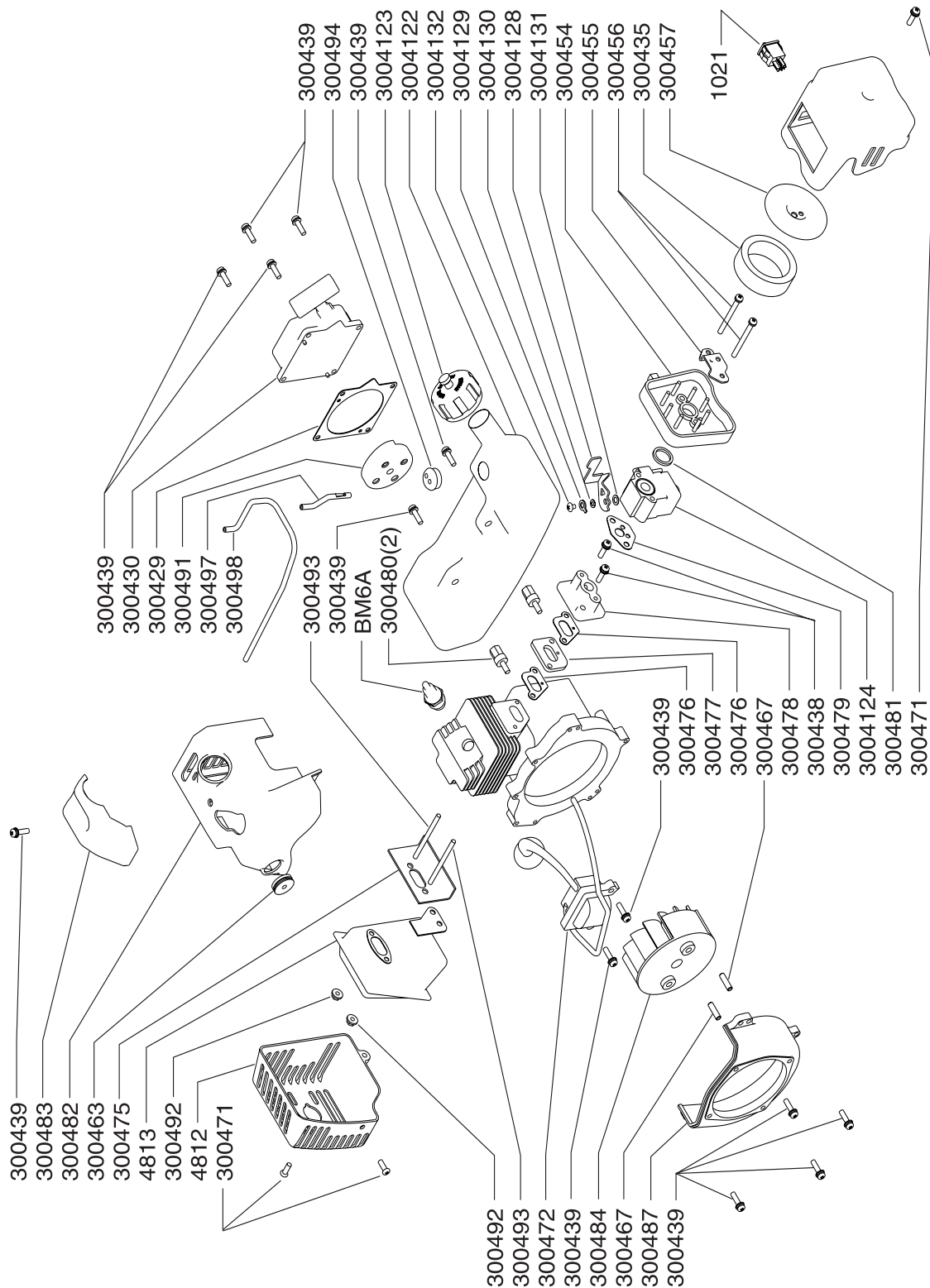
CAUTION

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.

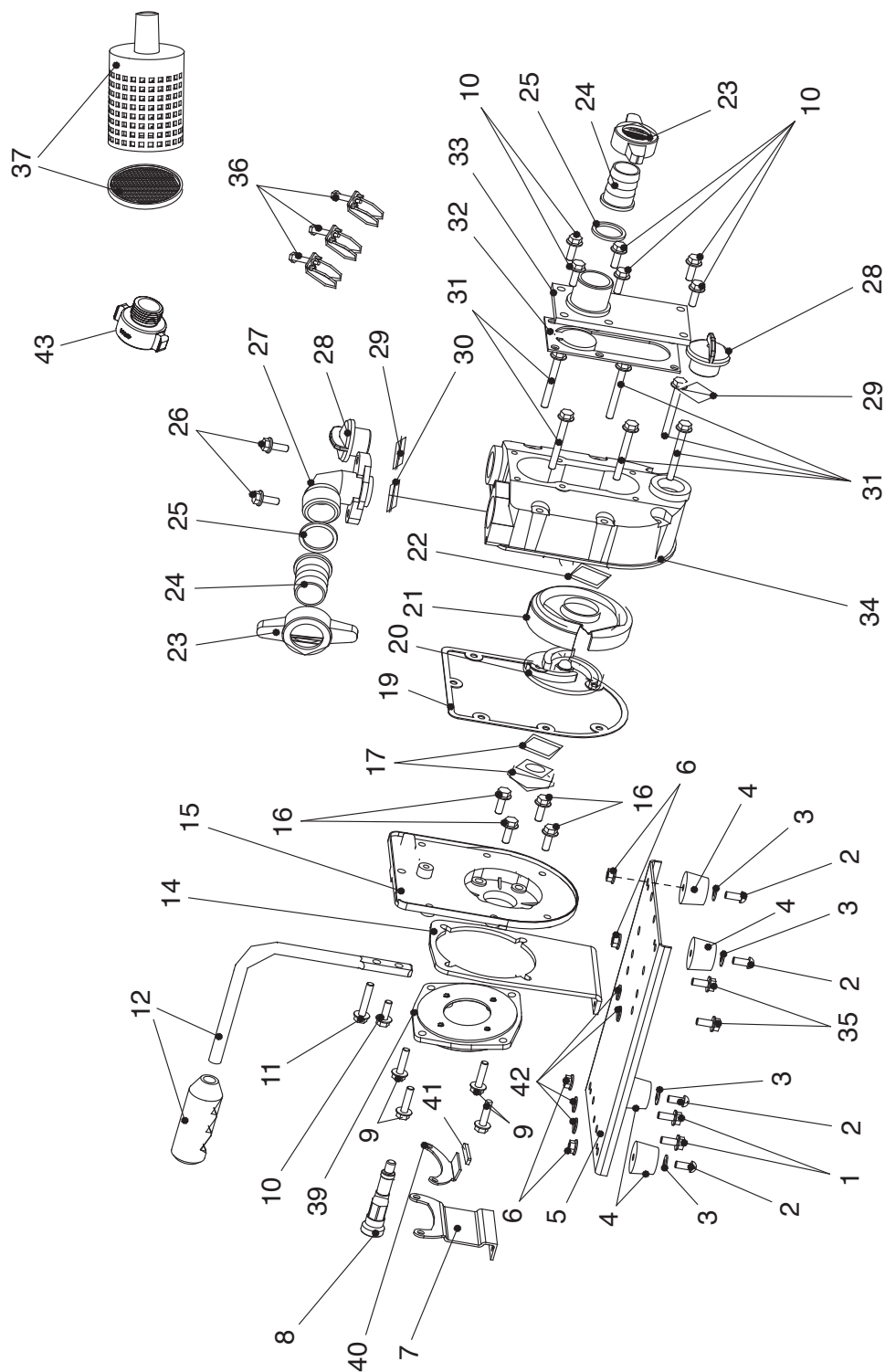
TROUBLESHOOTING

Problem	Possible cause	Remedy/Action
Engine will not start	<ol style="list-style-type: none"> 1. Power switch off 2. Spark plug wire disconnected 3. Spark plug has no spark 	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 1. Dirty air cleaner 2. Choke partially engaged 3. Carburetor out of adjustment 	<ol style="list-style-type: none"> 1. Clean or replace air cleaner 2. Turn off choke 3. Call factory
Engine is hard to start	<ol style="list-style-type: none"> 1. Stale fuel 2. Spark plug wire loose 3. Dirty carburetor 	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 1. Clogged fuel tank 2. Clogged air cleaner 3. Improper carburetor adjustment 4. Spark plug dirty, improper gap, or wrong type 	<ol style="list-style-type: none"> 1. Remove and clean 2. Clean or replace 3. Call factory 4. Replace spark plug and adjust gap
Engine runs, but has no power	<ol style="list-style-type: none"> 1. Choke on 2. Carburetor out of adjustment 3. Worn engine lower seal 	<ol style="list-style-type: none"> 1. Turn off choke after engine is running 2. Call factory 3. Call factory
Engine revs too high	<ol style="list-style-type: none"> 1. Low fuel in tank 	<ol style="list-style-type: none"> 1. Add fuel to tank
Engine runs, but doesn't pump water	<ol style="list-style-type: none"> 1. Pump not primed 2. Suction hose elevated too high 3. Strainer clogged 4. Hose(s) damaged 	<ol style="list-style-type: none"> 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
43	48166	ADAPTER ASSEMBLY, 1" NPSH FEMALE TO 3/4" GHT MALE	2
--	42100	ENGINE	1

NOTES

[illegible]



WARRANTY TERMS AND CONDITIONS

PRODUCT WARRANTY: 1-YEAR LIMITED WARRANTY

Ardisam, Inc. (Ardisam) warrants the product(s) under a one-year limited warranty to be free from defects in the material or workmanship or both for a period not exceeding twelve consecutive months from the date of original purchase by the first retail consumer or first commercial end user. "Consumer use" means personal recreational use by a retail consumer. "Commercial use" or "commercial application" means all other uses, including use for commercial, income producing or rental purposes. Once a product has experienced commercial use, it shall thereafter be considered as a commercial use product for the purpose of this warranty. This warranty applies to the original owner that provides a proof of purchase. The warranty is not transferable. The warranty period begins on the date of purchase by the first retail consumer or commercial end user, and continues for the twelve month consecutive period thereafter. Any unit used in a commercial application is covered for a period of 90 days after purchase by the first commercial end user. For the warranty to be valid, the product must be registered online, or the warranty card must be filled out and received by Ardisam, within 30 days of purchase. Ardisam shall not be obligated to ship any repair or replacement product to any location outside of the United States of America or Canada.*

ENGINE WARRANTY: 2-YEAR LIMITED EMISSIONS CONTROL WARRANTY (SEE EXPLANATION OF EMISSIONS CONTROL WARRANTY STATEMENT FOR DETAILS)

Ardisam warrants the Viper® engine(s) under a two-year limited emissions control warranty to be free from defects in the materials or workmanship or both for the service life of the product not to exceed twenty-four consecutive months from the date of purchase for consumer applications. As a Viper® small engine owner, you are responsible to perform periodic maintenance as specified in the product's operator's manual and/or engine manual. 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.*

For replacement parts, phone 800-345-6007.

*This warranty policy applies only to products which have not been subjected to negligent use, misuse, uses other than those indicated in the product's operator's manual, alteration, accident, use of unauthorized parts, failure to perform periodic maintenance as specified in product's operator's manual, normal wear and tear, use of unauthorized parts or repairs performed at unauthorized service centers. There is no other expressed warranty. Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to one year from purchase, or to the extent permitted by law. All other implied warranties are excluded. Liability for incidental or consequential damages are excluded to the extent exclusion is permitted by law. Ardisam does not assume, and does not authorize any other person to assume for Ardisam, any liability in connection with the sale of Ardisam products. **To be at "No Charge," warranty work must be sent directly to and performed by Ardisam or an Ardisam Authorized Warranty Service Facility.** To obtain warranty service and/or replacement instructions, contact the Ardisam Customer Service Department at 800-345-6007. If you choose to ship your product to Ardisam for warranty repair, you must first have prior approval from Ardisam by calling the Ardisam Customer Service Department for a return material authorization number (RMA#). Under these circumstances, all items must be shipped prepaid. For Viper® engine warranty repairs, Ardisam will cover the cost of shipping only for purchasers located more than 100 miles from an Ardisam Authorized Warranty Service Facility if it is determined that warranted repair is indeed necessary. Ardisam will at no charge, repair or replace, at the discretion of Ardisam, any defective part which satisfies all conditions stated above. Ardisam retains the right to change models, specifications and price without notice. Ardisam shall not be obligated to ship any repair or replacement product to any location outside of the United States of America or Canada.

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FEDERAL EMISSIONS CONTROL WARRANTY STATEMENT**YOUR WARRANTY RIGHTS AND OBLIGATIONS**

The United States Environmental Protection Agency (EPA), together with Ardisam, Inc. (Ardisam), are pleased to explain the Emission Control System Warranty on your small off-road engine (SORE). New small off-road engines must be designed, built and equipped to meet stringent anti-smog standards the federal government. Ardisam will warrant the emission control system on your engine for the periods of time listed below provided there has been no abuse, neglect, modification or improper maintenance of your engine.

The emission control system includes all components whose failure would increase the emissions of any regulated pollutant. These components are listed in the emission-related parts list located in a subsequent section of this emissions warranty statement. Ardisam will repair your engine at no cost to you for diagnosis, replacement parts and labor, should a warrantable condition occur.

MANUFACTURER'S WARRANTY COVERAGE:

The emission control system is warranted for two years. If, during such warranty period, any emission-related part on your engine is found to be defective in materials or workmanship, repairs or replacement will be performed by an Ardisam Authorized Warranty Service Facility.

PURCHASER'S/OWNER'S WARRANTY RESPONSIBILITIES:

As the SORE purchaser/owner, you are responsible for the completion of all required maintenance as listed in your factory supplied Manual(s). For warranty purposes, Ardisam recommends that you retain all receipts covering maintenance on your SORE. However, Ardisam cannot deny warranty solely because of the lack of receipts or for your failure to ensure the completion of all scheduled maintenance.

As the SORE purchaser/owner, you should, however, be aware that Ardisam may deny any and/or all warranty coverage or responsibility if your SORE or a part/component thereof, has failed due to abuse, neglect, improper maintenance or modifications, or the use of counterfeit and/or "grey market" parts not made, supplied or approved by Ardisam.

You are responsible for presenting your SORE to an Ardisam Authorized Warranty Service Facility as soon as a problem occurs. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

Warranty service can be arranged by contacting either your selling dealer or an Ardisam Authorized Warranty Service Facility. To locate the Ardisam Authorized Warranty Service Facility nearest you, call our free number:

800-345-6007

IMPORTANT NOTE: This warranty statement explains your rights and obligations under the Emission Control System Warranty (ECS Warranty), which is provided to you by Ardisam pursuant to federal law. See also the Ardisam "Product Warranty" (non-emission warranties), which is enclosed herewith on a separate sheet or located in additional materials accompanying this product. The ECS Warranty applies only to the emission control system of your new engine. If there is any conflict in terms between the ECS Warranty and the Ardisam

Warranty, the ECS Warranty shall apply except in circumstances where the Ardisam Warranty may provide a longer warranty period. Both the ECS Warranty and the Ardisam Warranty describe important rights and obligations with respect to your new engine.

Warranty service can be performed only by an Ardisam Authorized Warranty Service Facility. When requesting warranty service, evidence must be presented showing the date of the sale to the original purchaser/owner. Ardisam will not be responsible for any and/or all damages or losses incurred while the engine is being transported/shipped for inspection or warranty repairs.

IF YOU HAVE ANY QUESTIONS REGARDING YOUR WARRANTY RIGHTS AND RESPONSIBILITIES, YOU SHOULD CONTACT ARDISAM AT THE FOLLOWING ADDRESS:

Ardisam, Inc.
1160 Eighth Avenue; P.O. Box 666
Cumberland, Wisconsin 54829
800-345-6007 • Fax (715) 822-4180
E-mail: info@ardisam.com

II. EMISSION CONTROL SYSTEM WARRANTY

Emission Control System Warranty (ECS Warranty) for equipment using small off-road engines:

(a) Applicability: This warranty shall apply to equipment that uses small off-road engines. The ECS Warranty Period shall begin on the date the new engine or equipment is purchased by/delivered to its original, end-use purchaser/owner and shall continue for 24 consecutive months thereafter.

(b) General Emissions Warranty Coverage: Ardisam warrants to the original, end-use purchaser/owner of the new engine or equipment and to each subsequent purchaser/owner that each of its engines is...

(1) Designed, built and equipped so as to conform with all applicable regulations adopted by the EPA pursuant to their respective authority, and

(2) Free from defects in materials and workmanship which, at any time during the ECS Warranty Period, may cause a warranted emissions-related part to fail to be identical in all material respects to the part as described in the engine manufacturer's application for certification.

The ECS Warranty only pertains to emissions-related parts on your engine, as follows:

(1) Any warranted, emissions-related parts that are not scheduled for replacement as required maintenance in the Maintenance Schedule (located in the section of the Manual(s) pertaining to maintenance) shall be warranted for the ECS Warranty Period. If any such part fails during the ECS Warranty Period, it shall be repaired or replaced by Ardisam according to Subsection (4) below. Any such part repaired or replaced under the ECS Warranty shall be warranted for the remainder of the ECS Warranty Period.

(2) Any warranted, emissions-related part that is scheduled only for regular inspection as specified in the Maintenance Schedule (located in the section of the Manual(s) pertaining to maintenance)

shall be warranted for the ECS Warranty Period. A statement in such written instructions to the effect of "repair or replace as necessary" shall not reduce the ECS Warranty Period. Any such part repaired or replaced under the ECS Warranty shall be warranted for the remainder of the ECS Warranty Period.

(3) Any warranted, emissions-related part that is scheduled for replacement as required maintenance in the Maintenance Schedule (located in the section of the Manual(s) pertaining to maintenance) shall be 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 shall be repaired or replaced by Ardisam according to Subsection (4) below. Any such emissions-related part repaired or replaced under the ECS Warranty shall be warranted for the remainder of the ECS Warranty Period prior to the first scheduled replacement point for such emissions-related part.

(4) Repair or replacement of any warranted, emissions-related part under this ECS Warranty shall be performed at no charge to the owner at an Ardisam Authorized Warranty Service Facility.

(5) When the engine is inspected by an Ardisam Authorized Warranty Service Facility, the owner shall not be held responsible for diagnostic costs if the repair is deemed warrantable.

(6) Ardisam shall be liable for damages to other original engine components or approved modifications proximately caused by a failure under warranty of any emission-related part covered by the ECS Warranty.

(7) Throughout the ECS Warranty Period, Ardisam shall maintain a supply of warranted emission-related parts sufficient to meet the expected demand for such emission-related parts.

(8) Any Ardisam authorized and approved emission-related replacement part may be used in the performance of any ECS Warranty maintenance or repairs and will be provided without charge to the purchaser/owner. Such use shall not reduce Ardisam's ECS Warranty obligations.

(9) Unapproved, add-on, modified, counterfeit and/or "grey market" parts may not be used to modify or repair an Ardisam engine. Such use voids this ECS Warranty and shall be sufficient grounds for disallowing an ECS Warranty claim. Ardisam shall not be held liable hereunder for failures of any warranted parts of an Ardisam engine caused by the use of such an unapproved, add-on, modified, counterfeit and/or "grey market" part.

(2) Air Induction System

- (i) Controlled hot air intake system.
- (ii) Intake manifold.
- (iii) Air filter.

(3) Ignition System

- (i) Spark Plugs.
- (ii) Magneto or electronic ignition system.
- (iii) Spark advance/retard system.

(4) Exhaust Gas Recirculation (EGR) System

- (i) EGR valve body, and carburetor spacer if applicable.
- (ii) EGR rate feedback and control system.

(5) Air Injection System

- (i) Air pump or pulse valve.
- (ii) Valves affecting distribution of flow.
- (iii) Distribution manifold.

(6) Catalyst or Thermal Reactor System

- (i) Catalytic converter.
- (ii) Thermal reactor.
- (iii) Exhaust manifold.

(7) Particulate Controls

- (i) Traps, filters, precipitators, and any other device used to capture particulate emissions.

(8) Miscellaneous Items Used in Above Systems

- (i) Electronic controls.
- (ii) Vacuum, temperature, and time sensitive valves and switches.
- (iii) Hoses, belts, connectors, and assemblies.

**EMISSION-RELATED PARTS INCLUDE THE FOLLOWING
(IF EQUIPPED):**

(1) Fuel Metering System

- (i) Carburetor and internal parts (and/or pressure regulator or fuel injection system).
- (ii) Air/fuel ratio feedback and control system.
- (iii) Cold start enrichment system.
- (iv) Fuel Tank.



Earthquake®, Division of Ardisam, Inc.
1160 8th Avenue, PO Box 666
Cumberland, WI 54829
800-345-6007 | Fax 715-822-2223
E-mail: info@getearthquake.com

All weights, specifications and features are approximate and are subject to change without notice. Due to continuous product improvements, product images may not be exact. Items used for props not included. Some assembly may be required.

Check for parts online at **www.getearthquake.com** or call 800-345-6007 M-F 8-5