

U.S.SAWS™



U.S.SAWS 5 GALLON BATTERY OPERATED WATER FEED TANK OWNER'S MANUAL

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U.S.SAWS™

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DIVISION**

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INTRODUCTION & SPECIFICATIONS

1.0 INSTRUCTIONS FOR USE OF MANUAL SECTIONS

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Foreword/Introduction

This manual outlines the maintenance and operation of the Battery Pump. This is a professional tool and is intended for use by trained and experienced operators. To get maximum benefit from your tool and to ensure maximum safety, be sure to read this manual thoroughly. You should also periodically review safety instructions. Keep all manuals provided with your equipment in a safe place at all times.

The information and specifications included in this publication were in effect at the time of approval for printing. U.S.SAWS reserves the right, however, to discontinue or change specifications or design at any time without notice and without incurring any obligation.

The 5 gallon pump has a flow rate of up to 1 gallon per minute and battery life of up to 8 hours. The oversized wheels and lifting handle allow you to get around the job site easily.

Includes: 5 Gallon Battery Operated Water Feed Tank, Charger, Collapsible Handle & (2) 6" Wheels

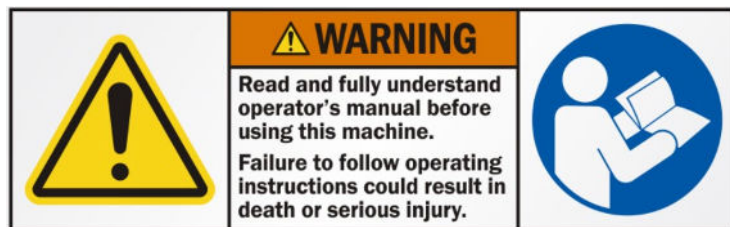
Disclosure

By purchasing and using the 5 Gallon Pump, you agree to release U.S.SAWS of any and all liability. Under no circumstances will U.S.SAWS be held liable for incidental or consequential damages resulting from the use of this product and/or defective parts or products associated with this product.

- It is the responsibility of the owner/user to ensure that the operating instructions have been read and understood by the operator before the operation of the equipment begins.
- It is the responsibility of the owner/user to understand and perform the maintenance and storage procedures as explained in the operating instructions.



WARNING: DO NOT modify this equipment as it will void Warranty benefits.



2.0 SPECIFICATIONS

Model	5 Gallon Battery Powered Pump
Power Source	12V Battery
GPM	1
Weight	16 lbs
Part Number	US27815



SYMBOLS & DECALS

3.0 SYMBOLS & DECALS

For Safe Operation

You must be qualified for safe operation of the U.S.SAWS 5 Gallon Pump machine. You must clearly understand the written instructions supplied by U.S.SAWS, be trained - including actual operation - & know the safety rules & regulations for the job site. It is a safety practice to point out & explain safety signs & practices to others & to make sure they understand the importance of following these instructions.

Be Safe

Human error is the result of many factors: carelessness, fatigue, sensory overload, preoccupation, unfamiliarity with the machine or attachments, or drugs or alcohol, to name a few. You can avoid serious injury or death caused by these & other unsafe work practices. Be safe and never assume accidents cannot happen to you.

For your safety and the safety of others, act safely and encourage your fellow workers to act safely as well.

Dangers, Warnings and Cautions.

The purpose of safety symbols and explanations are to attract your attention to possible hazards and how to avoid them. The safety symbols and explanations do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.



DANGER: Indicates an imminently hazardous situation that if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations.



WARNING: Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.



CAUTION: Indicates a potentially hazardous situation that, if not avoided may result in minor or moderate injury. It may also be used to alert against unsafe practices that may cause property damage.



Read and understand operator's manual before using this machine. Failure to follow operating Instructions could result in injury or damage to equipment.



Wear proper electrostatic grounding equipment at all times.



Wear appropriate clothing



Wear hand protection



Wear safety boots when operating this machine



SAFETY INSTRUCTIONS

4.0 SAFETY INSTRUCTIONS

4.1 KNOW THE RULES & YOUR EQUIPMENT.

Most job sites have rules governing equipment use & maintenance. Before starting at a new work location, check with the supervisor or safety coordinator. Ask about any rules or regulations you need to abide.

Do not operate this equipment unless you have read the operations and maintenance manual carefully.

4.2 RECEIVE PROPER TRAINING.

Do not operate this machine unless you have received operational and maintenance training from a U.S. SAWS representative or from an authorized distributor for U.S.SAWS.

4.3 PROTECT YOUR FEET.

Observe all applicable local, state and federal safety regulations. Wear OSHA approved foot protection.

4.4 PROTECT YOUR EYES.

Observe all applicable local, state and federal safety regulations. Wear OSHA approved safety glasses.

4.5 PROTECT YOUR HEARING.

Observe all applicable local, state and federal safety regulations. Wear OSHA approved hearing protection.

4.6 DRESS PROPERLY.

Do not wear loose clothing or jewelry that can be caught in moving parts. Wear protective hair covering to contain long hair. Keep hair away from motor air vent. Rubber gloves and non-skid footwear are recommended when working outdoors.

4.7 AVOID A DANGEROUS ENVIRONMENT.

Do not expose machine to rain. Do not use machine in wet conditions. Water entering a power tool will increase the risk of electric shock. Keep work area well lit.

4.8 AVOID ANY AREAS OR ACTIONS THAT EXPOSE YOU TO CARBON MONOXIDE.

Exhaust gas from gasoline engines contains dangerous carbon monoxide. Breathing it can cause unconsciousness and even kill you. Always operate gasoline engine machines in a well-ventilated area. Do not operate in areas where exhaust fumes could accumulate without wearing appropriate respiratory protection. Consult your employer and OSHA regarding use of appropriate respirator for dangerous carbon monoxide gases.

4.9 KEEP WORK AREA CLEAN. DO NOT RUN OVER ANYTHING.

Loose objects could be thrown from crack. Make sure area to be cut is clear from people and any loose objects, nuts, bolts, etc. Never run over any loose objects.

4.10 KEEP CHILDREN AND VISITORS AWAY.

Do not let children or visitors contact machine or extension cord. Keep children and visitors away from the work area.

4.11 DO NOT OVERREACH.

Keep proper footing and balance at all times.

4.12 MAINTAIN EQUIPMENT WITH CARE.

Keep machine clean and follow maintenance procedures for better and safer performance. Keep handles dry, clean, and free from oil and grease. Follow instructions for lubricating and changing accessories.

4.13 REMOVE ADJUSTING TOOLS.

Form a habit of checking to see that tools such as adjusting wrenches are removed from the machine and properly stored before starting the engine.

4.14 STAY ALERT.

Watch what you are doing. Use common sense. Do not operate machine when you are tired or fatigued.

4.15 DO NOT USE DRUGS, ALCOHOL, MEDICATION.

Do not operate machine while under the influence of drugs, alcohol, or any medication.

4.16 KEEP THE RIGHT PARTS IN THE RIGHT POSITIONS.

Do not operate machine with parts missing or improperly mounted.

4.17 CHECK DAMAGED PARTS.

Verify all machine guards are in good condition and will function properly before using the machine. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect machine operation.

4.18 WHEN REPLACING A PART, USE THE SAME TYPE AND QUALITY.

When replacing a component part with a new one, use only the same type and quality of new part. Never attempt to repair a machine if you are unfamiliar with proper procedures and techniques required.

4.19 LOAD AND UNLOAD SAFELY.

Use proper heavy lifting procedures. Read & understand manuals before loading & unloading.

4.20 SAVE THESE INSTRUCTIONS.

Refer to this operations and maintenance manual as well as any additional instructions included from other manufacturers and organizations such as Honda® and the Masonry and Concrete Saw Manufacturers Institute®. Never permit anyone to operate the machine without proper instructions.



ASSEMBLY•OPERATION•WARRANTY

5.0 ASSEMBLY

This unit comes fully assembled

6.0 GENERAL INFORMATION

The purpose of this manual is to assist you in assembling, operating and maintaining your sprayer. Please read it carefully as it furnishes information which will help you achieve years of dependable trouble-free operation.

7.0 WARRANTY/PARTS/SERVICE

Products are warranted for one year from date of purchase against manufacturer or workmanship defects.

Your authorized dealer is the best source of replacement parts and service. To obtain prompt, efficient service, always remember to give the following information:

1. Correct part description and part number.
2. Model number of your sprayer.

Part description and part numbers can be obtained from the illustrated parts list section of this manual.

Whenever you need parts or repair service, contact your distributor / dealer first. For warranty work always take your original sales slip, or other evidence of purchase date, to your distributor/ dealer.

8.0 BATTERY CHARGING

It is recommended to charge the battery for 8-10 hours before using, or if the battery has been stored for 6 or more months without usage. Once fully charged you should be able to spray 40 gallons of fluid, or 8 consecutive tanks.

To charge the battery ...

1. Plug the charger into a 110 Volt AC electrical receptacle.
2. Insert the plug on the opposite end of the charger into the charging jack located on the back panel of the sprayer.
3. Reverse the above steps when charging is complete.

CAUTION: Never leave the charger connected to the battery for more than 20 hours, as this may damage the battery.

9.0 OPERATION

This sprayer is designed to be pulled or pushed by hand. Pour solution into the tank and stir to mix. For liquid chemicals it is possible to mix by spraying the handgun into the tank.

Turn the switch to the "ON" position and spray by squeezing the lever on the handgun. The unit is supplied with a demand pump that will only operate while the lever on the handgun is depressed.

10.0 TROUBLE SHOOTING

Pump will not run:

1. Check inline fuse on the wiring harness. If blown or damaged replace with a new 5 Amp fuse.
2. Insure the battery is fully charged.
3. Check that the on/off switch is in the on position
4. Insure that strainer located on bottom of tank is free of debris.

11.0 AFTER SPRAYING

After use fill the sprayer part way with water. Start the sprayer and allow clear water to be pumped through the plumbing system and out through the spray wand. Refill the tank about half full with plain water and use a chemical neutralizer such as Nutra-Sol® or equivalent and repeat cleaning instructions. Flush the entire sprayer with the neutralizing agent. Follow the chemical manufacturer's disposal instructions of all wash or rinsing water.

12.0 WINTER STORAGE

Drain all water and chemical out of sprayer, paying special attention to pump and valves. These items are especially prone to damage from chemicals and freezing weather. The sprayer should be winterized before storage by pumping a solution of RV antifreeze through the entire plumbing. Proper care and maintenance will pro long the life of the sprayer.



ASSEMBLY•OPERATION•WARRANTY

13.0 OPERATION PRECAUTIONS

1. Do not operate pump in an explosive environment. Arcing from the motor brushes, switch or excessive heat from an improperly cycled motor may cause an explosion.
2. Do not pump gasoline or other flammable liquids.
3. Do not assume fluid compatibility. If the fluid is improperly matched to the pumps' elastomers, a leak may occur.
4. Intermittent duty is defined as operation and/or frequent starting within a period of time that would cause the motor to reach its maximum thermal limits.

Once the maximum is obtained, the motor must be allowed to return to ambient temperature before resuming operation.

14.0 TROUBLE SHOOTING GUIDE

PROBLEM/CAUSES AND REMEDIES

Pump will not Start

Check:

- Correct voltage ($\pm 10\%$) and electrical connections Fuse or breaker
- Pressure switch operation and correct voltage at switch
- Rectifier or motor for open or grounded circuit Locked drive assembly

Pump will not Prime (No discharge with motor running)

Check:

- Debris in strainer
- Restriction (kinks) in inleVoutlet tubes Debris or swelling in inleVoutlet valves

Pump will not Shut Off (Output line closed and no leaks)

Check:

- Air trapped in outlet line or pump head Correct voltage to pump
- Debris in pump inlet/outlet valves
- Loose drive assembly or pump head screws Pressure switch operations/adjustments

Leaks from Pump Head or Switch

Check:

- Loose screws at switch or pump head
- Switch diaphragm ruptured or pinched
- Punctured diaphragm if fluid is present

15.0 STANDARD WARRANTY

Delavan warrants PowerFLO Series Pumps for a period of one year from date of manufacture.

All products sold by Delavan are warranted only to purchasers from Delavan for resale or for use in purchasers' own business or original equipment manufacture, against defects in workmanship or materials under normal use, maintenance and service (rental use excluded). The sole and exclusive obligation of Delavan under this or any implied warranty shall be to replace or, at its option, to repair, without charge, any product which is determined by Delavan to be defective in workmanship or materials after the product is returned to the Delavan factory*, shipping costs prepaid.

In no event shall Delavan be liable to any person for indirect or consequential damages or for injury or commercial loss resulting from any use or inability to use any Delavan product. Delavan expressly negates any other warranty, express or implied, including any warranty of merchantability or fitness for a particular purpose, or arising from any course of dealing or custom or usage of trade.

No person, including any dealer or representative of Delavan, is authorized to make any representation or warranty on behalf of Delavan in addition to or inconsistent with these provisions. Purchasers to whom these provisions apply agree to hold Delavan harmless from claims by their customers in excess of the obligations of Delavan expressly set forth herein.

16.0 IMPORTANT RETURN SAFETY INSTRUCTIONS

When you return your pump for warranty or repair, you must always do the following:

1. Flush chemical residue from the pump (best done in the field).
2. Tag pump with type of chemicals having been sprayed.
3. Include complete description of operation problem, such as how pump was used, symptoms of malfunction, etc.

Since pumps can contain residues of toxic chemicals these steps are necessary to protect all the people who handle return shipments, and to help pinpoint the reason for the breakdown



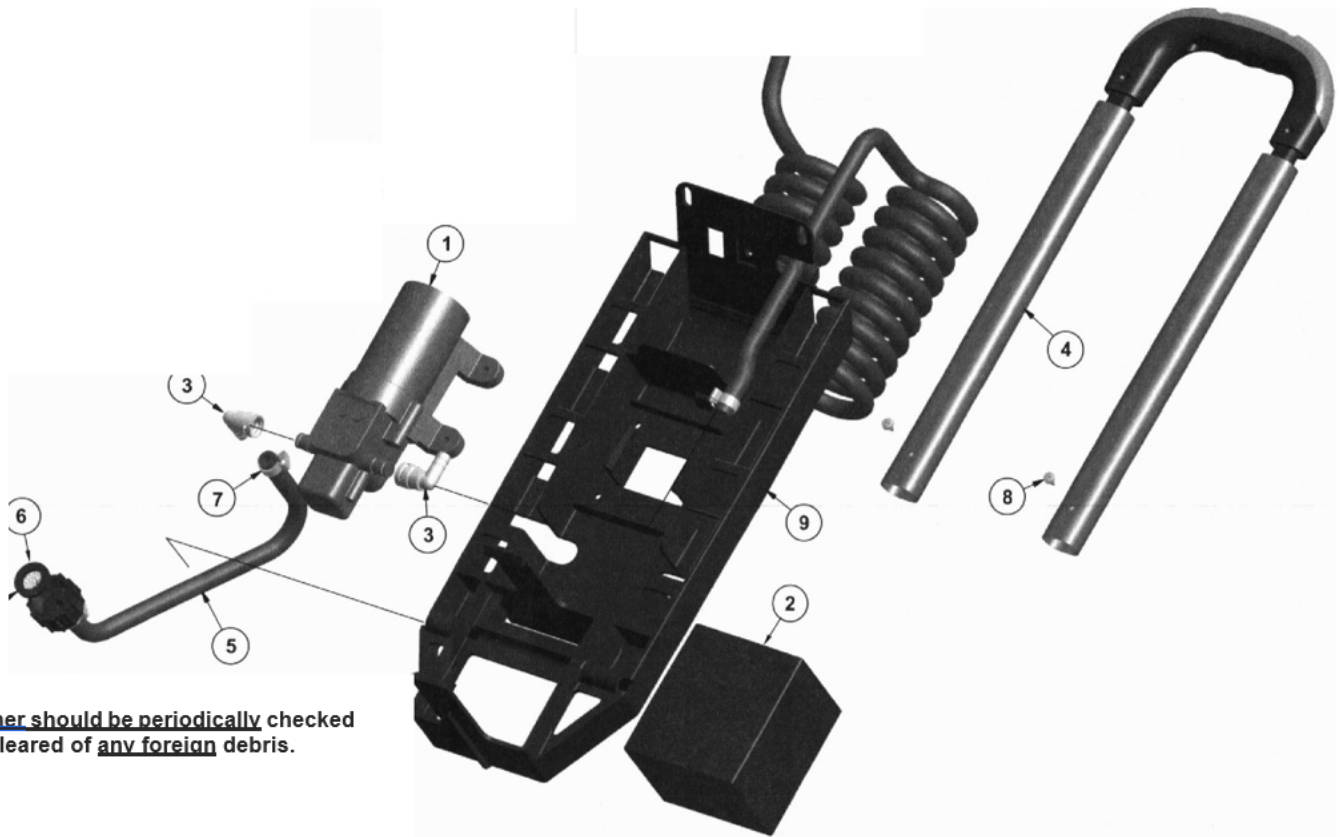
ASSEMBLY

17.0 PUMP, HOSE FT BATTERY ASSEMBLY

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	610007	1 GPM quick disconnect pump
2	1	610008	12V 5AH/20HR battery size 6FM5
3	2	610024	EL 14 QD P Quick Disconnect Fitting
4	1	610006	Retractable Handle Assembly
5	1	610025	Suction Hose Assembly
6	1	610023	W 40650 S Strainer Washer
7	4	610022	Pinch Clamp
8	2	600199	#8 x 3/4" PH TEK Screw
9	1	610002	Back Panel
11	1	610010	Wiring Harness
12	1	610009	12V DC 500 mA Battery Charger

@wiring Harness (Not Shown)

@Battery Charger (Not Shown)

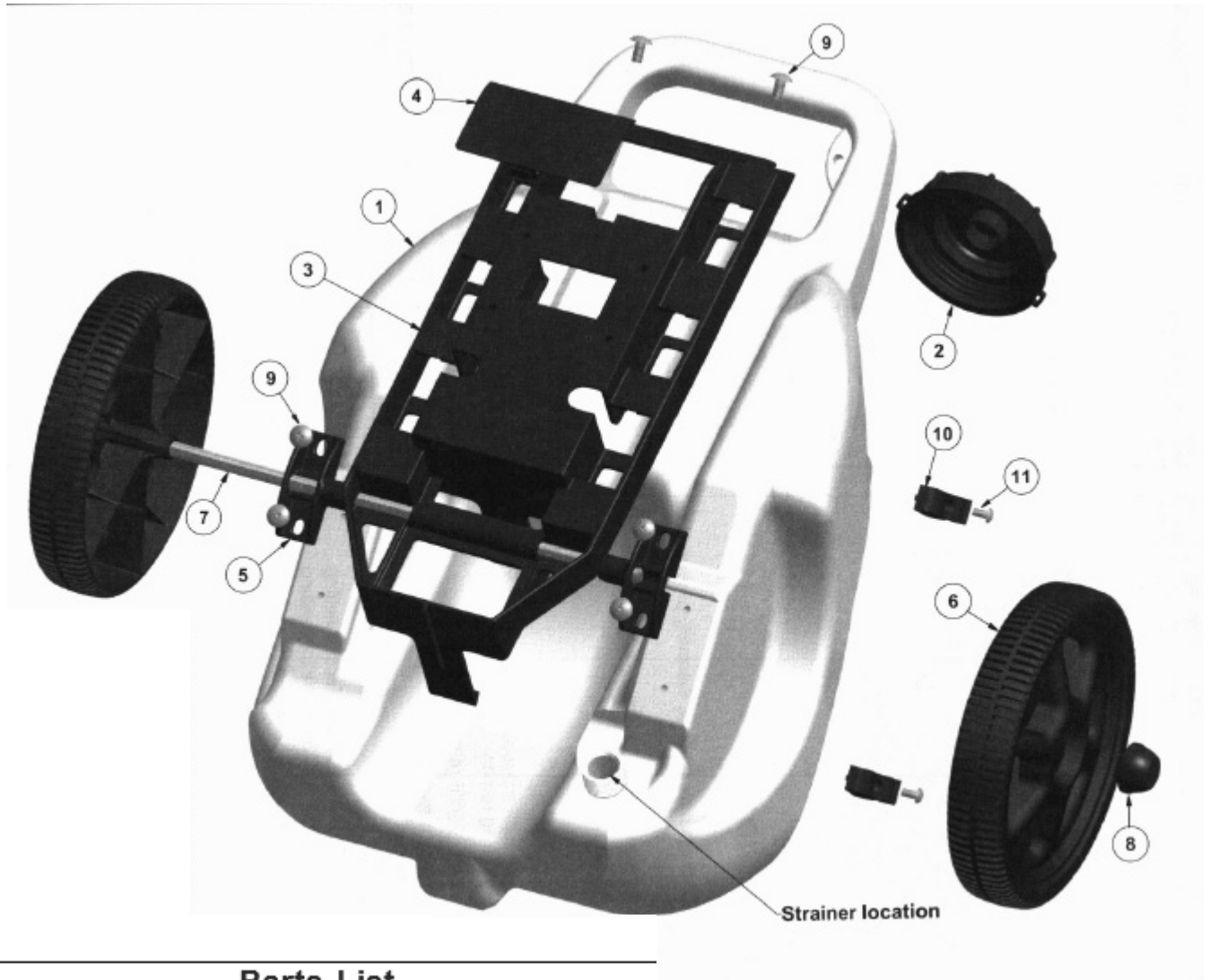


Strainer should be periodically checked and cleared of any foreign debris.



ASSEMBLY

18.0 REAR COMPARTMENT ASSEMBLY



Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
		610000	5 Gallon Tank
2	1	610001	5 Gallon Tank Lid
3	1	610002	Back Panel
4	1	610003	Charger Panel Door
5	2	610005	cp3/8" Axel Mounting Bracket
6	2	610004	Wheel
7	1	610013	cp3/8" x 14 7/8" Axel
8	2	610019	cp3/8 Cap Nut Black
9	6	610017	1/4-20 x 1/2" Pan Head Screw
10	2	600151	Wand Clip
11	2	600152	Wand Clip Screw



ASSEMBLY

19.0 POWERFLO 220 SERIES



Specifications

Motor

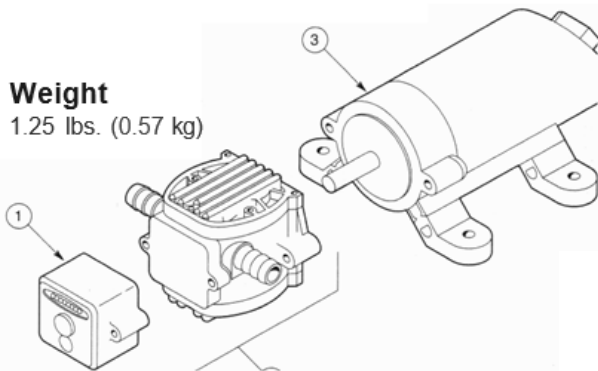
Type: 12 VDC, permanent magnet, thermally protected, splashproof
 Leads: 2200-2 Model: 18 AWG, 4.5" long w 2-pin connector
 Duty Cycle: Intermittent

Pump

Type: 2-chamber positive displacement, self priming, capable of being run dry
 Liquid Temperature: 110°F (43°C) Max.
 Priming Capabilities: 4 feet (1.2 m) suction lift
 Max Pressure: 40 PSI (2.8 bar)
 Pressure Demand Switch:
 Shut-Off: 40 ±5 PSI (2.8 ±0.3 bar) factory setting
 Turn-On: 25 ±5 PSI (1.7 ±0.3 bar) factory setting
 Inlet/Outlet Ports: Quick Disconnect

Weight

1.25 lbs. (0.57 kg)



Parts List

Ref #	Description	Part Number
1	Switch Assembly	5157201
2	Pump Head w Switch Assembly	5275064
3	Motor with connector, no switch	P39-045B

Performance

Pressure/Flow/Amp Draw

PSI	Bar	GPM	LPM	Amps
0-3	0.2	1.00	3.7	1.5
10	0.7	0.85	3.1	1.9
20	1.4	0.71	2.6	2.1
30	2.1	0.61	2.3	2.4
40	2.8	0.42	1.6	2.6

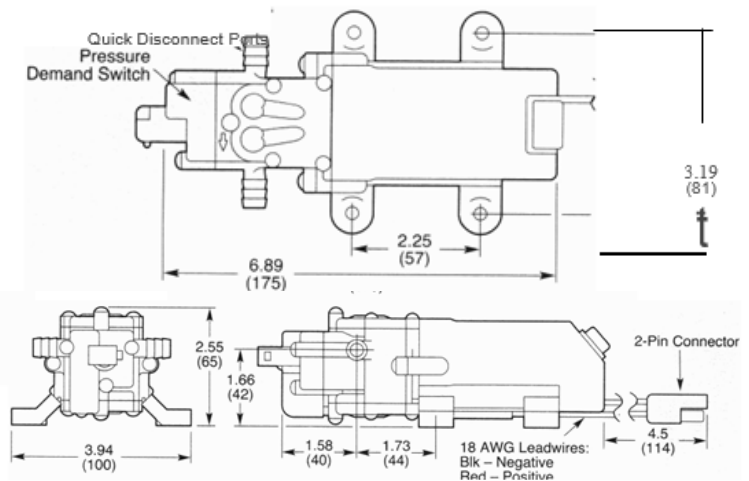
Materials of Construction

Motor Housing: Nylon 6/6
 Pump Housing: Polypropylene
 Valves: Viton
 Diaphragm: Santoprene
 Fasteners: Stainless steel and zinc plated

Ordering Model Number

Item#	Description
2200-201	1 GPM Demand Pump, Viton Valves, Santoprene Diaphragm, 40 PSI, Quick Disconnect Ports 2-pin molded connector

Dimensions Inches (mm)



WARRANTY AND SERVICE

6.0 WARRANTY AND SERVICE

6.1.1 Warranty

This document is to be used as a guide in determining warranty policies and procedures for U.S.SAWS and its U.S.SAWS products. It is to be used in determining whether a warranty is justified and as a procedural guide in completing a U.S.SAWS warranty claim form.

6.1.2 Warranty Responsibility

The distributor or the end user must prepare a Machine Warranty Information Card when the machine is delivered. Failure to comply will make any and all warranties on this equipment null and void. Credit for warranty repairs will be given only after receipt of the WARRANTY CLAIM FORM, properly completed with all the required details. Submittal details are described later in this document.

6.1.3 Warranty Policy

6.1.3.1 U.S.SAWS warrants its U.S.SAWS products against defects in material and workmanship under normal and proper use for a period of one year (365) days from the date of delivery; in the case of Rental Fleet Machines, date of assignment to Rental Fleet. Such warranty is extended only to the buyer who purchases the equipment directly from U.S.SAWS or its authorized distributor. This warranty does not include expendable parts such as, but not limited to, plugs, cutters, blades, blast wheel, wear parts, liners and seals.

6.1.3.2 The obligation under this warranty is strictly limited to the replacement or repair, at US SAWS's option, of machines and does not include the cost of transportation, loss of operating time, or normal maintenance services.

6.1.3.3 This warranty does not apply to failure occurring as a result of abuse, misuse, negligence, corrosion, erosion, normal wear and tear, alterations or modifications made to the machine without express written consent of U.S.SAWS .

6.1.3.4 Warranty request must be submitted in writing within thirty (30) days after failure.

6.1.3.5 Written authorization to return merchandise under warranty must first be obtained from U.S.SAWS .

6.1.3.6 U.S.SAWS reserves the right to inspect and make the final decision on any merchandise returned under warranty.

6.1.3.7 U.S.SAWS offers no warranty with respect to accessories, including but not limited to, engines, motors, batteries, electrical boards, tires and any other parts not manufactured by us but which the original manufacturer warrants.

6.1.3.8 U.S.SAWS reserves the right to make product changes or improvements without prior notice and without imposing any obligation upon itself to install the same on its products previously sold.

6.1.3.9 The above warranty conditions can only be altered by US SAWS. US SAWS must confirm alterations in writing for each specific transaction.

6.1.3.10 U.S.SAWS reserves the right to establish specific warranty terms for used or demo machines on an individual transaction basis. Invoices covering such merchandise will clearly state the provisions of the applicable warranty for each specific transaction.

6.1.3.11 WE DO NOT AUTHORIZE ANY PERSON, REPRESENTATIVE OR SERVICE OR SALES ORGANIZATION TO MAKE ANY OTHER WARRANTY OR TO ASSUME FOR US ANY LIABILITY IN CONNECTION WITH THE SALE OF OUR PRODUCTS OTHER THAN THOSE CONTAINED HEREIN.

6.1.3.12 UNDER NO CIRCUMSTANCES SHALL US SAWS BE LIABLE TO CUSTOMER OR ANY OTHER PERSON FOR ANY DIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF ANY WARRANTY OR FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER, INCLUDING WITHOUT LIMITATIONS, DAMAGES FOR ANY LOSS OF GOODWILL, WORK STOPPAGE, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES.

6.1.3.13 U.S.SAWS MAKES NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE US SAWS PRODUCTS SOLD PURSUANT THERETO.



MACHINE WARRANTY INFORMATION CARD

TO ENSURE THE PROPER WARRANTY COVERAGE IS EXTENDED TO THE OWNER OF THIS MACHINE, FILL OUT THE ATTACHED CARD COMPLETELY AND ACCURATELY.

WARRANTY REGISTRATION CARD

IMPORTANT! To ensure that your U.S.SAWS machine is covered under warranty, please fill in the following information and mail or fax it to U.S.SAWS, 8004B E. Broadway Ave. Tampa, FL 33619, Fax No. 714-434-7299

COMPANY
NAME
ADDRESS
INTENDED USE
DATE OF PURCHASE
INTENDED USE
SERIAL NUMBER

If you are not the owner of record as shown on the manual copy of the warranty registration card, do not operate this machine before contacting U.S.SAWS at 1-866-987-7297 Verify the following before operating the equipment:

CHANGE OF OWNER OR NEW ADDRESS REGISTRATION CARD

IMPORTANT! To ensure that your U.S.SAWS machine is covered under warranty, please fill in the following information and mail or fax it to U.S. SAWS, 8004B E. Broadway Ave. Tampa, FL 33619, Fax No. 714-434-7299

COMPANY
NAME
ADDRESS
INTENDED USE
DATE OF PURCHASE
INTENDED USE
SERIAL NUMBER

11

