



Series 1200 Hand Rotary Pumps

Installation/Operation/Parts Manual

MDE-4425
(formerly 035244A)

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This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

Approvals

Gasboy International, Greensboro, is an ISO 9001:2000 registered facility.

Underwriters Laboratories:

New York

City:

NYFD of A #

Product

California Air Resources Board (CARB):

Executive Order #

Product

U.L. File#	Products listed with U.L.	NYFD of A #	Product	Executive Order #	Product
MH4314	All dispensers and self-contained pumping units	4823	9100A, 9140A, 9152A, 9153A, 9800A, 9840A, 9850A, 9852A, 9853A, 9140	G-70-52-AM G-70-150-AE	Balance Vapor Recovery VaporVac
MH6418	Power operated Transfer Pump Models 25, 25C, 26, 27, 28, 72, 72S, 72SP, 72X, 73 and 1820	4997	9822A, 9823A		
MH7404	Hand operated Transfer Pump Models 1230 Series, 1243 Series, 1520 and 1720 Series	5046	9100Q, 9140Q, 9152Q, 9153Q, 9800Q, 9840Q, 9852Q, 9853Q		
MH10581	Key control unit, Model GKE-B Series Card reader terminals, Models 1000, 1000P Site controller, Model 2000S CFN Series Data entry terminals, Model TPK-900 Series Fuel Point Reader System				

NCWM – Certificate of Compliance

Gasboy pumps and dispensers are evaluated by the National Conference of Weights and Measures (NCWM) under the National Type Evaluation Program (NTEP).

NCWM has issued the following Certificates of Compliance (COC):

COC#	Product	Model #	COC #	Product	Model #	COC #	Product	Model #
95-179A2	Dispenser	9100 Retail Series	91-019A2	Dispenser	9100 Commercial Series			
95-136A5	Dispenser	9800 Series	91-0573A3	Dispenser	1000 Series 2000-CFN Series			

Patents

Gasboy products are manufactured or sold under one or more of the following U.S. patents:

Dispensers

5,257,720

Point of Sale/Back Office Equipment

D335,673

Trademarks

Non-registered trademarks

Atlas™
Consola™
Infinity™

Registered trademarks

ASTRA®

Fuel Point®
Gasboy®

Keytrol®
Slimline®

Additional U.S. and foreign trademarks pending.

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Additional U.S. and foreign patents pending.

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IMPORTANT WARNINGS AND SAFEGUARDS

Gasoline and petroleum products are flammable. To avoid injury or death to persons or damage to equipment or property, follow these listed warnings and other warnings and precautions outlined in this manual when installing, using, or working around this equipment. Check with Gasboy Technical Services for compatibility of liquids with pump materials.

TURN OFF AND LOCK OUT ALL POWER TO PUMP BEFORE PERFORMING SERVICE, MAINTENANCE OR IN THE EVENT OF A FUEL SPILL.

All products must be installed by a qualified installer and used in conformance with all building, fire, and environmental codes and other safety requirements applicable to its installation and use, including, but not limited to, NFPA 30, NFPA 30A, NFPA 395 & NFPA 70. A qualified installer is familiar with fuel systems installations under the above stated building, fire, and environmental codes and other safety requirements for the particular type of installation.

This product is only part of a fuel dispensing system and additional equipment and accessories, such as, but not limited to, breakaway connectors, shear valves, pressure regulators, flow limiters, and other safety devices may be necessary to meet the applicable codes.

For maximum safety, we recommend that all employees be trained as to the location and procedure for turning off power to the entire system. Instructions regarding proper operation of the equipment along with the appropriate safety warnings should be posted in plain view at the fuel island.

Before performing service or maintenance (including changing of fuel filters or strainers) or in the event of a fuel spill, turn off and lock out all power to the system. In battery-powered pumps, disconnect power source. In submersible pump applications, turn off and lock out power at the master panel and close any impact valves to the submersible pump and any other dispensers which use that submersible pump. AC power can feed back into a shut-off dispenser when dispensers share a common submersible pump or starter relay. Also block islands so no vehicles can pull up to the dispenser when performing maintenance on the dispenser.

DO NOT use Teflon tape for any pipe threads in the product.

DO NOT use consumer pumps for pumping fuel or additives into aircraft.

DO NOT use commercial pumps for direct fueling of aircraft without filters and separators necessary to ensure product purity.

DO NOT use where sanitary design is required (for food products for human consumption) or with water-based liquids.

DO NOT smoke near the pump or when using the pump.

DO NOT use near open flame or electrical equipment which may ignite fumes.

DO NOT permit the dispensing of gasoline or other petroleum products into a vehicle with its motor running.

DO NOT permit the dispensing of gasoline or other petroleum products into unapproved containers or into approved containers in or on vehicles including trucks. All containers must be filled on the ground to prevent static discharge. Always use Approved and Listed hoses and nozzles with electric pumps and dispensers.

DO NOT block open the nozzle in any manner. Nozzles shall conform to UL and NFPA code requirements for attended or unattended service.

DO ensure that the pump is equipped with proper filters based on the product being dispensed and its intended use.

DO wear safety goggles and protective clothes when dispensing any liquid which may be potentially harmful or hazardous.

DO keep all parts of body and loose clothing clear of belts, pulleys, and other exposed moving parts at all times.

DO require washing and changing of clothes if fuel is spilled on a person or his/her clothing. Keep away from open flames, sparks, or people smoking.

DO provide a receptacle for catching product from pump/meter when servicing.

DO clean up product spills on the driveway. Turn off and lock out all power prior to cleanup.

DO ensure pump is properly grounded.

DO ensure hose is compatible with fluid being dispensed.

DO inspect hose, nozzle, and pump on a regular basis for wear, damage, or other conditions which may create a safety or environmental hazard.

DO make sure all pipe threads are properly cut and the inside reamed to remove burrs. Use UL classified gasoline-resisting compound on all joints of gasoline handling piping. Sealing compound must also be resistant to Gasohol (Ethanol and Methanol). Use gasoline-resistant pipe compound on male threads only; ***pipe compound used on female threads can be squeezed into the supply line where it can enter the product stream and become lodged in the pump or meter.***

DO ensure that junction box covers are in place and properly tightened. Mating surfaces between the box and cover must be free of dirt, nicks, and scratches. Properly plug all unused entries into the junction box.

Section 1

OVERVIEW

INTRODUCTION

Series 1200 rotary hand pumps are durable and easy to use. The Series 1200 pumps feature an exclusive floating rotor, vane-type pumping unit for smooth operation. The Series 1200 rotary hand pump will pump any petroleum product with a viscosity of less than 3000 SSU. The pump delivers 12 GPM at 84 RPM (7 turns per gallon).

All of the Series 1200 rotary hand pumps have a built-in check valve to keep pump fully primed for immediate delivery. A vacuum breaker prevents siphoning. Most models are equipped with vented bases eliminating the need for pressure vent caps on tanks; however, threaded-base models do require tank vent caps.

The pump locks securely to prevent theft; the sturdy lock arm mates with a groove in the crank when locked.

NOTE: If pumps are used to pump flammables, such as gasoline, a UL-Listed model is required.

MODELS SUPPORTED/SPECIFICATIONS

The models and features covered in this manual are:

12	Rotary pump, vacuum breaker, check valve, strainer, base adapter.
12U	Model 12 with threaded base.
1230	Rotary pump, vacuum breaker, check valve, strainer, base adapter. Plus, hose, 3/4 x 8', nozzle, telescopic suction tube, 1 x 42"
1230U	Model 1230 with threaded base.
1230-7	UL-listed 1230: includes static wire hose, slip collar base, two-piece metal suction tube.
1223	Rotary pump with spout, check valve, strainer, base adapter, telescopic suction tube, 1 x 42"
1235	Rotary pump with positive shut-off spout, check valve, strainer, base adapter, telescopic suction tube, 1 x 42"
12CU	Rotary pump with 20 gallon/liter counter, vacuum breaker, check valve, strainer, base adapter.
1230C	Rotary pump with 20 gallon/liter counter, vacuum breaker, check valve, strainer, base adapter. Plus, hose, 3/4 x 8', nozzle, telescopic suction tube, 1 x 42"
1230CU	Model 1230C rotary pump with threaded base.
1230C-7	UL-listed rotary pump with static wire hose, nozzle, vacuum breaker, strainer, slip collar base, two-piece metal suction tube.
1230CF	Model 1230C rotary pump with filter.
1230RT	Rotary pump with 99.9 gallon or 999 liter register, totalizer, vacuum breaker, check valve, strainer, base adapter. Plus, hose, 3/4 x 8', nozzle, telescopic suction tube, 1 x 42"
1230RTU	Model 1230RT pump with threaded base.
1230RTF	Model 1230RT pump with filter.
1230M	Rotary pump with nutating disk meter register reading to 99.9 gallon, 99.9 or 999 liters, with totalizer, vacuum breaker, check valve, strainer, base adapter. Plus, hose, 3/4 x 8', nozzle, telescopic suction tube, 1 x 42"

OPTIONS

- **Automatic Shut-off Nozzle, 038455**
This automatic shut-off nozzle is available for all hose-equipped GASBOY diesel hand pumps and warns the operator when a vehicle tank is full to prevent overfilling and spillage losses.
- **Conversion To Unleaded Nozzle Kit, 032852**
Converts the rotary counter or rotary register hand pumps with leaded gas nozzles to unleaded nozzles
- **Conversion of Standard Pump to Counter Model: 032829 Gallon**
- **Conversion to Metric Measure**
See instructions in Installation, section 2.

Section 2

INSTALLATION

GASBOY hand rotary pumps are available in three mounting styles, the self-venting adapt-a-socket, the slip-collar non-venting type, and the 2" threaded, non-venting base. All models mount quickly, easily and simply. Follow the appropriate instructions for your model.

SELF-VENTING ADAPT-A-SOCKET

1. Make sure all pipe joints are tight. Apply gasoline-resistant compound to male threads only.
2. Install and tighten the standpipe into the 2" flange of the tank.
3. Tighten the threaded end of the telescoping suction into the pump case. If the telescoping suction is not used, tighten the threaded end of the appropriate length of 1" suction pipe into the pump case.
4. Insert the extended telescoping suction or suction pipe through the standpipe and 2" flange opening in the drum or tank.
5. Lower and position the adapt-a-socket base on the standpipe to locate hand crank and hose for your convenience. Tighten the set screw. The side holes at the end of the suction pipe allow pump operation with the suction resting on the bottom of the tank; however, you must ensure that the tank bottom is clean and completely free of water and foreign matter.

NON-VENTING, SLIP COLLAR

NOTE: Be sure the tank is vented.

1. Make sure all pipe joints are tight. Apply gasoline-resistant compound to male threads only.
2. Install and tighten slip collar into either 1-1/2 or 2" flange of tank.
3. Tighten the 1" suction pipe into the pump case.
4. Insert the suction pipe through the slip collar.
5. Tighten the slip collar set screw against the 1" (schedule 40) suction pipe.

NON-VENTING, 2" THREADED

NOTE: Be sure the tank is vented.

1. Make sure all pipe joints are tight. Apply gasoline-resistant compound to male threads only.
2. Install and tighten the standpipe into 2" flange of the tank.
3. Tighten the threaded end of the telescoping suction (or the 1" suction pipe if the telescoping suction is not used) into the pump case.
4. Insert the extended telescoping suction or suction pipe through the standpipe and 2" flange opening in the drum or tank.
5. Tighten the 2" threaded pump case onto the standpipe and position it for convenient location of the hand crank and hose. Tighten the set screw. The telescoping suction will handle drums and tanks to a depth of 40 inches.

CONVERSION TO UNLEADED NOZZLE

To convert the rotary counter hand pumps with leaded gas nozzles to unleaded nozzles, install kit #032852.

On pump equipped with counter:

1. Remove and discard the screws holding the counter to the pump body.
2. Mount the nozzle boot using the two spacers and longer screws in place of the discarded short screws (See **Parts** section for illustration).
3. Install the unleaded nozzle on the hose. Holster and hook the nozzle in boot to hang up.

On pump without a counter:

1. Mount the nozzle boot using the two spacers and two long screws (See **Parts** section for illustration).
2. Fasten the spacers and screws with the hex nuts (which take the place of the missing tapped register or counter housing).
3. Install the unleaded nozzle on the hose. Holster and hook the nozzle in boot to hang up.

COUNTER CONVERSION OPTION

The patented design of the GASBOY rotary pump permits quick, simple, field conversion from a non-counter to a counter model.

Conversion of Non-Counter Pump to a Pump With Counter

1. Remove the hand crank and slide drive pinion (provided with the kit) over the pump shaft with the D-shaped hole facing away from pump.
2. Mount the counter assembly over the shaft and fasten it to the pump with two cap screws (included with kit).
3. Replace the hand crank.

Totalizer

Simplicity in design of the GASBOY register assembly readily permits the addition, in the field, of a totalizer converting the Model 1230R to a Model 1230RT. The totalizer assemblies and replacement dial face covers are available.

Adding Totalizer to Register

1. Remove the bezel, the dial-face assembly and mask.
2. Next, remove the number discs overthrow stop, detent spring retainer and spring.
3. Lift out lefthand, center and righthand count-gear assemblies.

4. Put the totalizer assembly in place so that the totalizer bracket and totalizer drive gear fit over the shaft pin and meshes with the gear and shaft assembly. Tighten the bracket in position with the screw.
5. Pry apart the count gear-center wheel and reset the gear-center wheel. Place reset gear-center wheel on center shaft pin.
6. Place left hand count-gear assembly on left shaft pin making sure RED arrows on left hand and center gear meet.
7. Place right hand wheel assembly on right shaft pin, again making sure RED arrows on right hand and center gear meet. Make sure that the right hand assembly meshes with the gear and shaft assembly.
8. Remount count gear-center wheel on top of the reset gear-center wheel and press into place.
9. Replace detent-spring retainer and spring (the foot of the retainer should be right of center).
10. Reinsert the overthrow stop over the overthrow-stop pawl.
11. Replace the number discs (center, left and right) so the zeros are in line horizontally.
12. Lay in the dial face and glass.
13. Reinstall and tighten screws, replace and fasten the bezel.
14. Operate reset lever several times to make sure register zeros.

METRIC MEASURE

To convert US Gallons delivery to metric measure, loosen the set screw and remove crank. Next, remove two screws and slide the register assembly off the pump shaft. Disassemble register and adapter housing by removing screws. Take pinion drive, US Gallons off pump shaft.

1. To reassemble with metric components, mount liter pinion drive on pump shaft.
2. Withdraw cotter pin and remove the cluster gear from shaft on back of register. Turn the cluster gear over, place it back on shaft with smaller gear of cluster up, and reinsert cotter pin. Put register and replacement meter adapter housing together (shaft fits into bearing hole in adapter). Fasten with screws.
3. Place metric idler gear on pin provided in the replacement adapter housing so that it meshes with the cluster gear; fasten with an E-ring.
4. Remove bezel, dial face and dial glass. Replace gallon dial face with liter dial face and reassemble.
5. Finally, slide replacement metric assembly onto pump shaft so that metric idler gear mates with the metric pinion. Insert screws and anchor new adapter housing assembly to the pump case; reinstall crank.

Section 3

OPERATION AND MAINTENANCE

OPERATION

WARNING

GASBOY hand-operated pumps utilize a normally-open type nozzle. When fuel is added to an empty storage tank, fuel trapped in the pump may be displaced by the air trapped in the pump suction tube and may cause a spill. To prevent a spill, raise the nozzle above the height of the pump until all air is purged from the piping.

Rotary hand pumps provide maximum uninterrupted continuous flow. To operate, turn crank clockwise.

MAINTENANCE

GASBOY rotary pumps are designed for trouble-free operation and are easy to maintain. Normally, hose replacement and periodic painting (except for the stainless steel shaft) will be all the maintenance needed.

Strainer, Check Valve, Tank Vent

When used in a clean environment to dispense petroleum products, the strainer, check valve, and tank vent should be checked on a yearly basis. In a less perfect environment, accumulations of foreign matter (leaves, grass, dirt, etc.) may occur in the strainer or under the check valve or may enter the tank when gauging or filling. If the pump begins to work harder and deliver less, clean the strainer and/or check the tank vent for clogging.

Access to the strainer and check valve is available behind plainly marked cover plates. Upon reassembling, make sure the cover plate gaskets are not broken and are bolted tight to prevent air leaks leading to loss of prime and pump efficiency.

Vacuum Breaker

An additional maintenance problem that could occur is a vacuum breaker leak. This is generally due to foreign matter becoming lodged in the Buna-N-Rubber nipple. Current production employs a duckbill which can be cleaned without removing it from the pump. To clean, insert an opened paper clip into the vent hole in the breaker body, work wire gently back and forth a few times and withdraw. If this does not correct the problem, remove threaded assembly and replace.

Storage, Inactivity, and Accidental Pumping of Water

During extended periods of non-use or storage, pump a small quantity of SAE 10 motor oil through the pump to coat and protect internal working parts and to prevent gum deposits. Flush pump with gasoline before reuse to remove oil.

This pump should never be used to pump water; however, if this happens accidentally, the pump should be thoroughly purged with oil to prevent corrosion. Water resulting from condensation in the storage tank will not adversely affect pump operation.

REPAIR

Always clean pump shaft down to bare metal before removing seal or pump cover to prevent damage to the seal or bearing in the pump cover.

Pump Shaft

Pump shaft seal leaks can be corrected easily by cleaning or replacing the 2-piece seal under the triangular-shaped cover. When reassembling this seal, make sure the o-ring encloses the lip of the shaft seal. Double check that the o-ring and lip face the pump when the seal is slipped over the shaft into the bevel in the pump cover. Lubricate the seal parts with a low-temperature grease for easy assembly.

Pump

The Series 1200's floating rotor design guarantees the pump will not jam, stick, or freeze. Occasional small amounts of foreign matter will not damage the pump; however, quantities of dirt or sludge passing through the pump or a build-up of gum deposits through improper storage will tend to collect behind the vanes causing sticking and scoring of the vanes. If this occurs, the pump will require cleaning to restore original performance.

After removing register, disassemble the pump by removing the six cap screws holding the pump cover in place. When removing the slide pump cover off the shaft; do not pull the rotor and shaft assembly out of pump case with the cover (the 3 spring-loaded vanes will fly off in different directions). Clean the vanes, rotor, pump case and cover. If vanes appear substantially scored, or pump does not prime itself, replace with new vanes.

When removing or reinserting vanes in rotor, do one at a time, turning the rotor each time to present the widest possible distance between the bottom of the vane slot in the rotor and the inside of the pump case. To keep them from flying out of the vane, hold the spring-loaded guide pins in as each vane is removed. When reinserting the vanes, press the guide pins with fingers until the pins are able to bear against and slide along the bottom of the vane slot in the rotor.

Whenever the pump cover is removed, use a new pump case gasket to insure proper performance. Do not use any type of sealing compound or gasket material of indeterminate thickness. A thin coat of shellac applied to the outer edge of the pump cover inner face will make lining up gasket with the bolt holes easier.

PARTS LIST

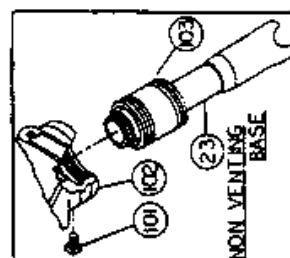
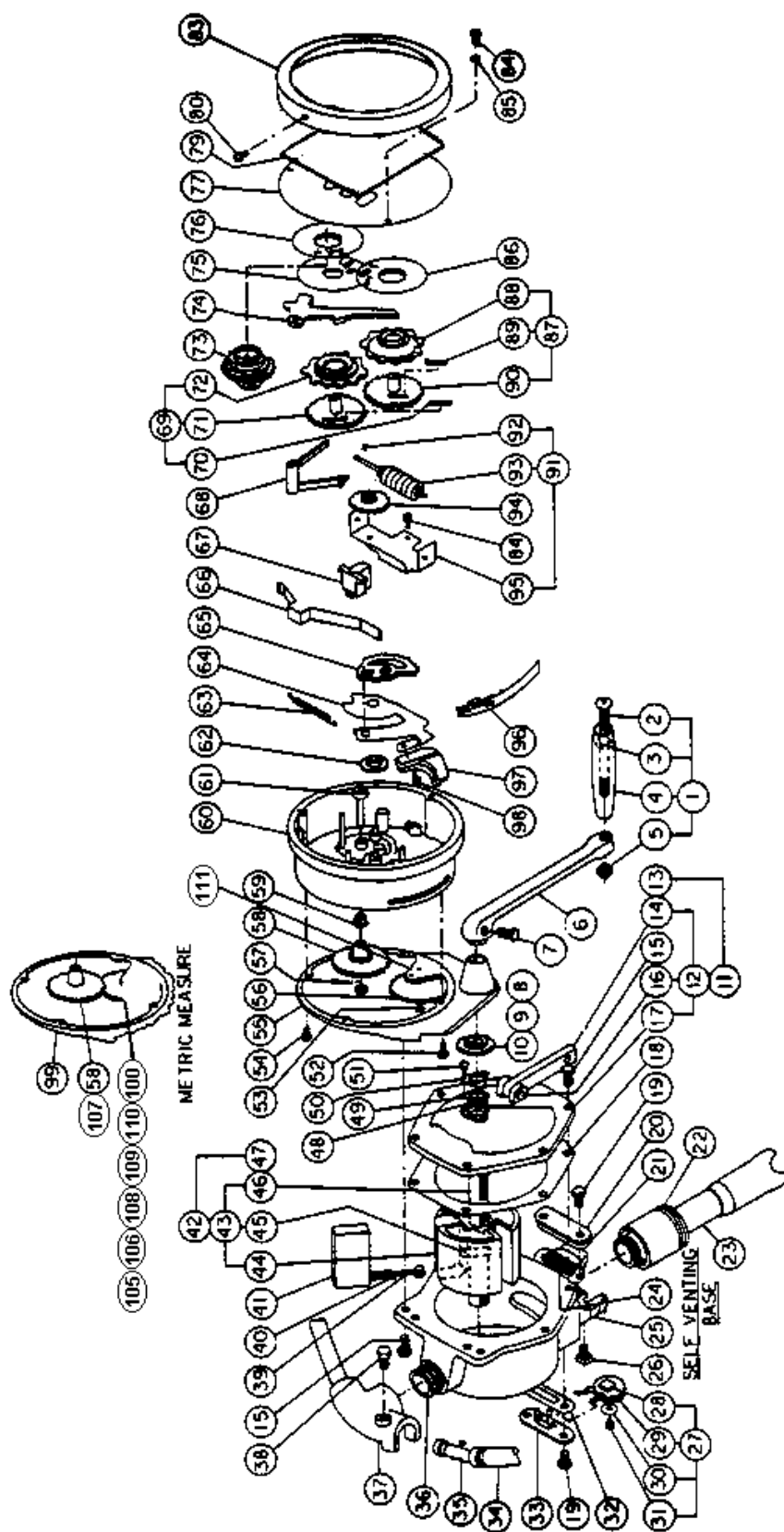
USING THIS PARTS LIST

This manual lists parts information for the 1200 Series Hand Rotary Pumps. Using part numbers when ordering will expedite your order and reduce the possibility of the wrong parts being shipped. When ordering replacement parts, be sure to give the complete name and part number as shown in the appropriate parts lists. It is also helpful to supply the serial number of the equipment.

This manual is arranged from general to specific, presenting the complete unit first, then further breakdowns of the individual components. If you can't find the part you need from the unit drawing, be sure to check the appropriate parts breakdown for your model.

1200 SERIES, ROTARY REGISTER HAND PUMP

Models 1230RT, 1230RTU, 12 12U, 1230, 1230U, 1230-7, 1223, 1235



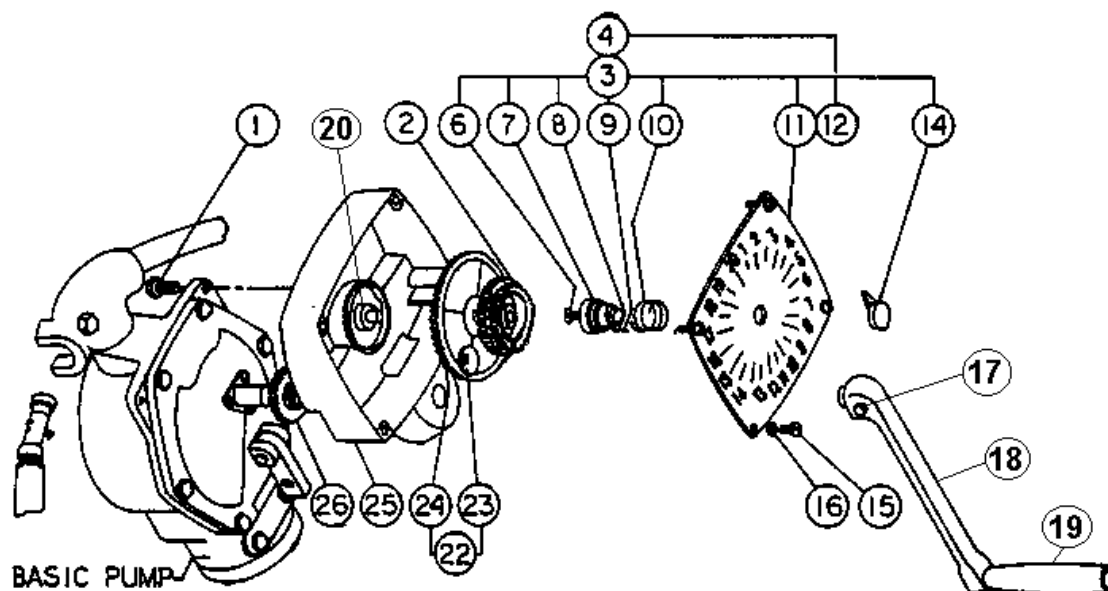
048433 Register Assembly, US, IMP with Totalizer (incl. 52-77, 79-80, 83-98, 111)

048434 Register Assembly, Ltr. with Totalizer (incl. 52-54, 57-80, 83-100, 111)

048480 Register Assembly, Full Ltr. With Totalizer (incl. 52-54, 58, 75, 77-80, 83-99, 105-110)

Item	Part No.	Description	Item	Part No.	Description
1	033040	Knob Assy. (incl. 2-5)	57	K02137 29	Cotter Pin, Gal. or Ltr.
2	052525	Screw	58	027656	Cluster Gear, Gal. or Ltr.
3	068605	Washer		028453	Cluster Gear, Full Ltr.
4	032935	Knob	59	014095	Bearing and Seal
5	038725	Nut	60	022662	Register Cover, Gal. or Ltr.
6	003530	Crank		030836	Register Cover, Full Ltr.
7	Q10624 15	Screw	61	055692	Shaft and Gear, Gal. or Ltr.
8	027852	Drive Gear, US, RT		055268	Shaft and Gear, Full Ltr.
9	027851	Drive Gear, IMP, RT	62	012085	Reset Lever Bearing
10	043450	Drive Gear, Ltr/Full Ltr, RT	63	057895	Reset Lever Spring
11	022766	Pump Cover Assy., RT	64	033821	Reset Lever
12	022765	Pump Cover Assy., 1200	65	054325	Reset Sector
13	010737	Lock Arm, RT	66	057580	Detent Spring
14	010750	Lock Arm, 1200	67	048805	Detent Spring Retainer
15	Q10624 01	Screw	68	042055	Overthrow Stop Pawl
16	049585	Rivet	69	068993	Center Wheel Assy. (incl. 70-72)
17	003480	Pump Cover	70	042040	C.W. Reset Pawl
18	026830	Pump Cover Gasket	71	027600	C.W. Reset Gear
	Q10067 53	O-Ring (See Note)	72	027580	C.W. Count Gear
19	Q10624 13	Screw	73	068995	R.H. Wheel
20	022915	Strainer Cover	74	063220	Overthrow Stop
21	027355	Gasket	75	024220	C.W. Number Disc.
22	045520	Pipe Nipple	76	Q10038 26	R.H. W. Number Disc. Gal/Ltr
23	064895	Telescopic Suction, Plastic		024315	R.H. W. Number Disc. Full Ltr
	M03681A002	Telescopic Suction, Alum.	77	035394	Dial Face, Gal.
24	063280	Strainer		035380	Dial Face, Ltr.
25	003405	Pump Case, 1200, 1200RT, 1200RTU, 1235, 1223		035381	Dial Face, Full Ltr.
26	053245	Set Screw	79	028780	Dial Glass
27	066670	Check Valve Assy. (incl. 28-31)	80	Q11769 02	Self-Tapping Screw
28	012760	Check Valve Body	83	012250	Bezel
29	024341	Valve Disc	84	Q11270 351	Screw
30	067315	Washer	85	067780	Fiber Washer
31	052990	Screw	86	024280	L.H. W. Number Disc.
32	026995	Check Valve Gasket	87	068994	L.H. Wheel Assy. (incl. 88-90)
33	022376	Check Valve Cover	88	028225	L.H. W. Count Gear
34	030460	Hose	89	042070	L.H. W. Reset Pawl
35	000785	Nozzle, Plastic	90	028245	L.H. W. Count Gear
	038455	Nozzle, Auto-Shut Off (Opt.)	91	065305	Totalizer Assy., Gal/Ltr (incl. 92-93, 95)
	000784	Nozzle, Plastic, Unleaded (Opt.)		065309	Totalizer Assy., Full Ltr. (incl. 92-93, 95)
36	R11935 20	Pipe Nipple	92	049375	Retaining Ring
37	003880	Hose Drain Valve Body	93	039866	Odometer, Gal/Ltr
38	066570	Vacuum Breaker		039867	Odometer, Full Ltr.
39	042865	Guide Pin	94	028615	Totalizer Drive Gear
40	058105	Spring	95	015775	Totalizer Bracket
41	067015	Vane	96	056425	Reset Lever Shoe
42	055497	Shaft Rotor Assy., 1200RT (incl. 44-45, 47)	97	029410	Lever Handle
43	055495	Shaft Rotor Assy., 1200 (incl. 44-46)	98	053900	Self-Tapping Screw
44	003830	Rotor	99	003042	Register Adapter, Ltr/Full Ltr
45	043240	Spirol Pin	100	028183	Idler Gear, Ltr
46	054460	Pump Shaft, 1200	101	053245	Set Screw, 1200U, 1200RU
47	055361	Pump Shaft, 1200RT	102	003410	Pump Case, 1200U, 1200RU
48	Q10067 06	O-ring	103	044935	Pipe Nipple, 1230U, 1230RU, 1235U, 1235RU
49	054160	Shaft Seal			
50	M05203B001	Seal Cover	104	003406	Pump Case, 1230-7
51	Q10624 15	Screw	105	011787	Bearing, Full Ltr.
52	K05287	Screw	106	028452	Idler Gear, Full Ltr.
53	K76238 41	Retaining Ring	107	043210	Pin, Full Ltr.
54	052316	Screw	108	049390	E-Ring, Full Ltr
55	003037	Register Adapter, Gal.	109	055277	Shaft, Full Ltr
56	028182	Idler Gear, Gal.	110	068490	Washer, SS, Full Ltr
			111	055242	Shaft, Gal. or Ltr.

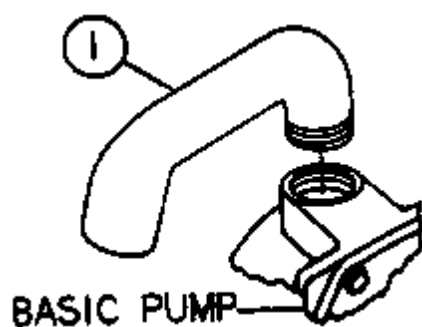
NOTE: Item 18, 026830 Gasket was replaced with O-Ring Q10067 53. All pumps with serial numbers higher than 1237594 should use the O-ring.

ROTARY COUNTER HAND PUMP**Models 12CU, 1230C, 1230CU, 1230C-7**

021805 Counter Assembly (US, IMP Non-Totalizer) (incl. 2-3, 6-11, 14-16, 22-25)

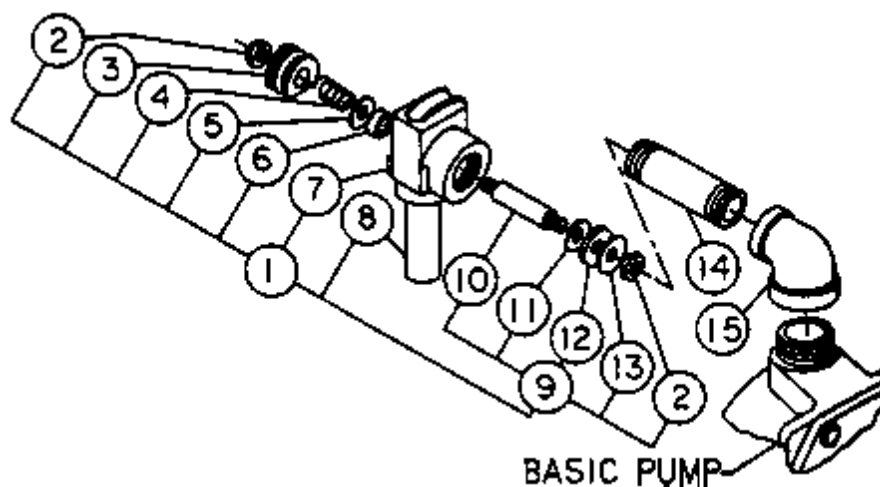
021835 Counter Assembly (Ltr. Non-Totalizer) (incl. Items 2, 4, 6-10, 12, 14-16, 22-25)

Item	Part No.	Description
1	Q10624 01	Screw
2	027805	Counter Drive Gear
3	023890	Dial Assy., US, IMP Non-Totalizer (incl. 6-11, 14)
4	023905	Dial Assy., Ltr. Non-Totalizer (incl. Items 6-10, 12, 14)
6	052735	Screw
7	047395	Pointer Hub
8	058120	Zero Stop Spring
9	043420	Zero Stop Pin
10	057475	Clutch Spring
11	025555	Dial Face, Non-Totalizer
12	025720	Dial Face, Liter Non-Totalizer
14	015146	Pointer
15	Q11270 351	Screw
16	067765	Fiber Washer
17	Q10624 01	Screw
18	003530	Crank
19	033040	Knob Assembly
20	068635	Washer
22	024760	Drive Gear Assy. (incl. 23-24)
23	031165	Planetary Gear, Idler
24	027833	Drive Gear
25	021820	Counter Housing
26	043450	Drive Pinion

DISCHARGE SPOUT

Item	Part No.	Description
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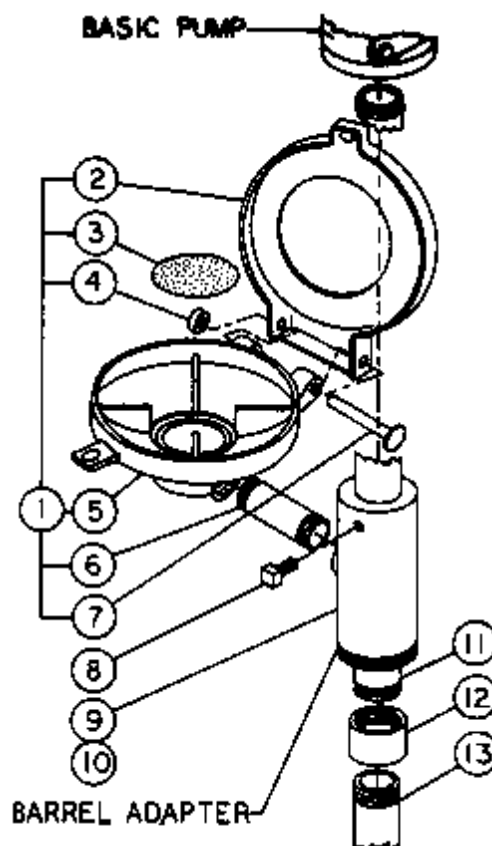
1	003855	Spout
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POSITIVE SHUT OFF VALVE

Item	Part No.	Description
1	025870	Nozzle Assy. (incl. 2-13)
2	038875	Lock Nut
3	032905	Knob
4	057190	Spring
5	067285	Washer
6	023230	U-cup
7	003215	Body
8	057145	Spout
9	062260	Stem Assy. (incl. 2, 10-13)
10	062215	Stem
11	067270	Washer
12	067540	Rubber Disc
13	068530	Washer
14	R11496 80	Pipe Nipple
15	K02323	Pipe Reducing Elbow

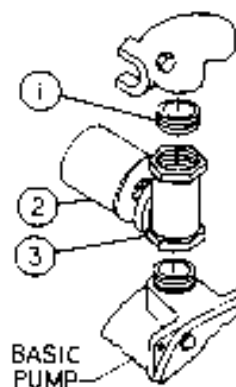
DRAIN TRAY ASSEMBLY & BARREL ADAPTER, MODELS 1223, 1243

Item	Part No.	Description
1		Drain Tray Assy., 1243, (obsolete)
2	034615	Lid, 1243
3	051610	Screen
4	039475	Push On Nut
5		Tray (obsolete)
6	R11496 80	Pipe Nipple
7	049945	Rivet
8	053320	Set Screw
9	003020	Barrel Adapter, 1243
10	003450	Barrel Adapter, 1223
11	R11495 105	Pipe
12	021955	Pipe Coupling
13	R11495 107	Pipe



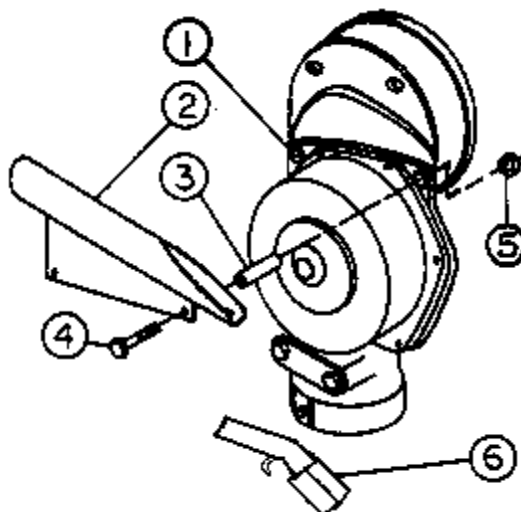
FILTERS, MODELS 1230F, 1230RTF

Item	Part No.	Description
1	R11935 20	Pipe Nipple
2	026005	Filter
	N17076	Filter Cap (if not using filter)
3	003044	Filter Adapter



1200RT ROTARY HAND PUMP WITH UNLEADED NOZZLE, 032852

Item	Part No.	Description
1	Q10624 01	Screw, 5/16" X 18 X 3/4" HHC
2	013649	Nozzle Boot Assembly
3	056788	Spacer
4	Q10624 23	Screw, 5/16" X 18 X 4 1/4" HHC
5	Q12068 06	Nut, 5/16"-18 Hex Keps
6	000784	Unleaded Nozzle

**OPTIONAL EQUIPMENT**

038455	Automatic Shut-off Nozzle (Diesel only)
032852	Unleaded Nozzle Conversion Kit
032829	Standard Pump to Counter Model Conversion Kit, Gallon

GASBOY

7300 West Friendly Avenue, P.O. Box 22087, Greensboro, NC 27420 • 1-800-444-5529



GASBOY WARRANTY POLICY STATEMENT

(Limited Warranty) New Product WARRANTY

GASBOY GUARANTEES NEW SERVICE STATION EQUIPMENT MANUFACTURED BY GASBOY IN ACCORDANCE WITH THE PROVISIONS STATED BELOW:

Gasboy will repair or replace parts and equipment found to be defective in materials or workmanship during the warranty period, subject to the following:

- Labor and travel costs incurred by the Authorized Service Contractor (ASC) while servicing Gasboy equipment are included, unless excepted, and will be paid at previously contracted rates to the qualified ASC.
- Warranty services must be performed by the nearest Authorized Service Contractor qualified to perform service on the defective equipment.
- Gasboy will supply new or rebuilt parts to replace parts which are found to be defective within the warranty period. Parts returned to Gasboy must be shipped with transportation charges paid and will be replaced with parts with transportation charges prepaid by Gasboy.
- New Equipment installations must be registered with the Gasboy Call Center within 24 hours of installation to receive full warranty benefits; otherwise, the warranty period commences at the date of invoice.
- Warranty service response time is 24 hours from time service is requested, Monday through Friday (8:00 am until 5:00 pm), excluding weekends. Emergency warranty response time is on-site within 4 hours. Hazardous warranty response time is on-site within one hour. Priority situations, emergency and hazardous, include imminent release of hazardous of dangerous materials, situations with imminent danger to life or property, and a complete site-down situation or 50 percent or more of the fuel dispensing capacity for any one product is inoperative. Overtime will be paid for priority situations only occurring outside routine warranty service hours.
- Warranty repair requiring rented equipment, overtime premium, lodging or charter travel must be approved in advance of service expenditure by the Gasboy Warranty Administration Department.

Commercial Pumps and Dispensers, Full -Cabinet Consumer Pumps

Commercial Pumps and Dispensers, Full-Cabinet Consumer Pumps are warranted against defects in material and workmanship for one year from date of installation or 24 months from date of original invoice, whichever occurs first. Warranty coverage includes parts and labor.

Exclusions: This warranty excludes hose breakaways, nozzles, hoses and fittings, nozzle-end swivels, retriever cables, graphics materials specified by the customer, fuel filters, belts adjustments, meter calibration, fluorescent lamps, vapor recovery testing and balance system piping, customer-specified items manufactured by others, and customer requested reprogramming of equipment. Some of these excluded items may be warranted by their manufacturer, and warranty claims in connection with these items should be presented directly to the manufacturer.

Small Transfer Pumps, Meters, Pressure Regulators

Small Transfer Pumps, Meters and Pressure Regulators are warranted against defects in material and workmanship for 24 months from date of installation or 30 months from date of original invoice, whichever occurs first. Non-registered equipment warranty will default to invoice date. The warranty covers parts only. Excepting the Model 2020 Hand Pump, which has a 90-day part warranty from date of original invoice.

New Spare Parts

All new spare parts or warranted replacement parts are warranted against defects in material and workmanship for one year from date of original invoice. The warranty covers parts only.

Keytrol

The Keytrol is warranted against defects in material and workmanship for one year from date of installation or 24 months from date of original invoice, whichever occurs first. Warranty coverage includes parts and labor

Fuel Management Systems

CFN/Profit Point, Series 1000/FleetKey, TopKAT, and factory installed Fuel Point Reader are warranted against defects in material and workmanship for one year from date of installation or 24 months from date of original invoice, whichever occurs first. Warranty coverage includes parts and labor.

Standalone and Retrofit Fuel Point Readers, and Fuel Point-vehicle and dispenser components are warranted against defects in material and workmanship for one year from date of installation or 24 months from date of original invoice, whichever occurs first. The warranty covers parts only.

The warranty for field installed/retrofitted Fuel Point Readers is non-transferable. The removal and installation of such components into another pump/dispenser will void the warranty.

Fuel Management Systems

Peripherals (Modems, CRT's, Flat Screen, Scanner, PIN Pad, Customer Display,) are warranted against defects in material and workmanship for one year from date of installation or 24 months from date of original invoice, whichever occurs first. The warranty covers parts and labor.

Printers (Logger, Receipt, etc.) are warranted against defects in material and workmanship for 90 days from date of installation or 180 days from date of original invoice. The warranty coverage is parts and labor.

Peripherals (Encoders and Embossers) are warranted against defects in material and workmanship for six months from date of original invoice. The warranty covers parts only.

General Exclusions

1. Problems caused by faulty installation are not covered by this warranty. This warranty applies only if equipment has been installed and used in accordance with Gasboy Installation, Operating and Service Instructions. Problems caused by improper maintenance of equipment are not covered by this warranty.
2. Use of service personnel other than qualified Gasboy service providers without prior approval of the Warranty Administration Department will void payment of the warranty claim in question.
3. Damage suffered by Gasboy's equipment resulting from shipping, accident, power surges, neglect, misuse, act of Nature, or abuse is not covered by this warranty.
4. Use of non-Gasboy replacement parts, defects caused by the unauthorized addition of non-Gasboy items to Gasboy equipment or by the unauthorized alteration of Gasboy equipment voids this warranty.
5. THIS WARRANTY DOES NOT COVER ANY INDIRECT DAMAGES OR LOSS OF PRODUCT OR REVENUE. Repair or replacement of the defective part or component under the terms of this warranty is the EXCLUSIVE REMEDY. Gasboy is not liable for incidental, consequential or indirect damages or loss, including without limitation personal injury, death, property damage, environmental damages, product damages, loss of product, or loss of revenue or profits. Gasboy is not liable for any claims or lawsuits against the customer.
6. This warranty does not cover any pump or dispenser components in contact with fuels containing more than 5% methanol or 10% ethanol or 15% MTBE by Volume. This warranty does not cover any component(s) exposed to M85/E85 fuel or other alcohol rich fuel.

THE WARRANTY CONTAINED HEREIN IS EXCLUSIVE AND THERE ARE NO OTHER EXPRESSED, IMPLIED OR STATUTORY WARRANTIES. WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

GASBOY • Warranty Department F-43 • 7300 W. Friendly Ave., P.O. Box 22087 • Greensboro, NC 27420 • Phone 1-800-444-5529 • Fax: 336-547-5393

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