

# **ASTRA**

*ABOVEGROUND STORAGE TANK REMOTE ACCESS* **PUMP**

## **SERIES 9820A**

## **PARTS LIST**

**035338**

**Rev. 03/07/03**

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**GASBOY INTERNATIONAL LLC LANSDALE, PA**

# 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 the dispenser is being worked on.

**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** insure pump is properly grounded.

**DO** insure 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. All unused entries into the junction box must be properly plugged.

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# PARTS LIST

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## USING THIS PARTS LIST

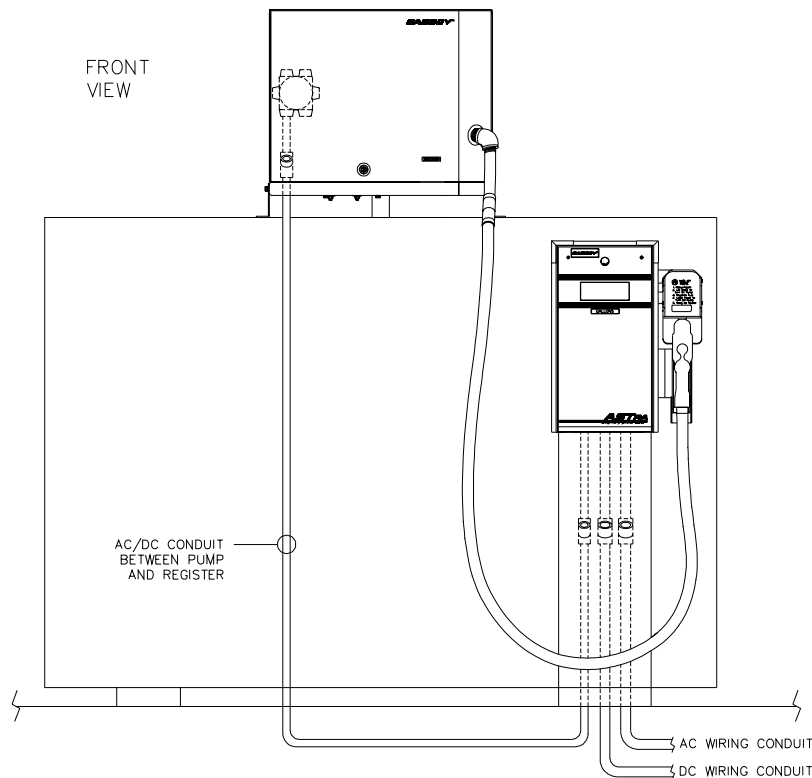
This manual lists parts information for the GASBOY Series 9820A ASTRA (aboveground storage tank remote access) pumps. Using part numbers when ordering will expedite your order and reduce the possibility of the wrong parts being shipped. When ordering replacement parts, be sure to give the complete name and part number as shown in the appropriate parts list. It is also helpful to supply the serial number of the equipment.

This manual is arranged with the remote register first followed by the pumping unit and any individual breakdowns. If you can't find the part you need from the chassis drawing, be sure to check the appropriate parts breakdown.

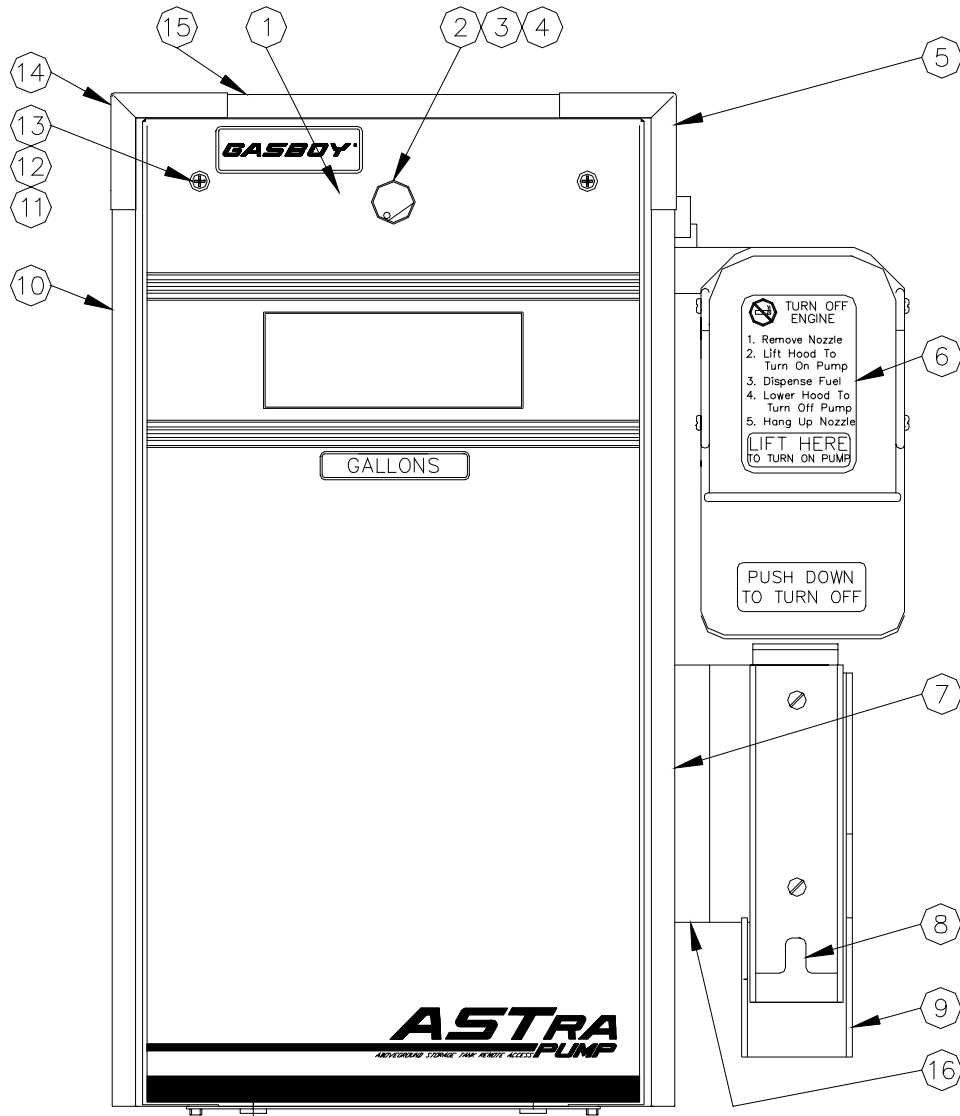
Procedures requiring disassembly of portions of the pump/dispenser should be performed by competent service personnel. Do not depend upon the repair service of a general mechanic unless he is thoroughly familiar with the mechanism. GASBOY has a distributor network which services fuel dispensing equipment and management systems in every section of the country.

### WARNING:

*To reduce the risk of electrical shock when servicing, turn off and lock out all power to the pump. Also block islands so no vehicles can pull up to the pump when the pump is being worked on.*



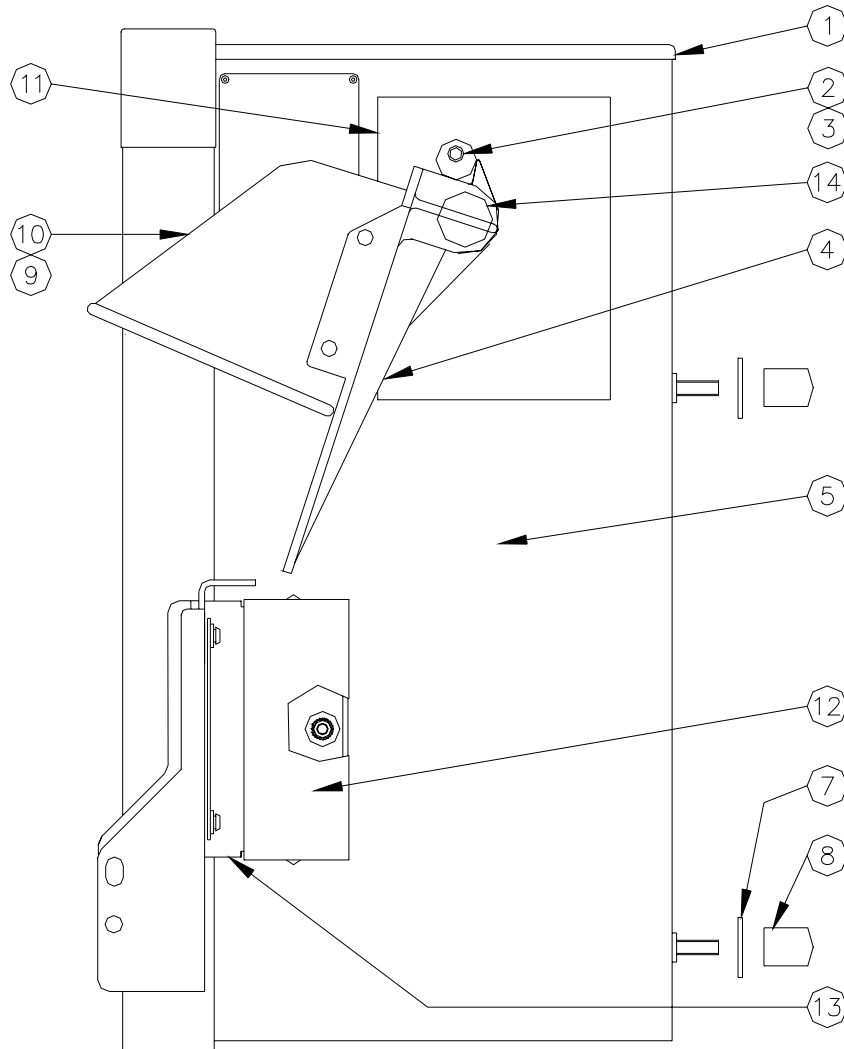
**REMOTE REGISTER - FRONT VIEW**



Item	Part No.	Description	Item	Part No.	Description
1	040994	Door Assy., Remote Register (Specify brand and measure)	8	015784	Bracket, Nozzle Support
2	*035009	Lock, 90°, w/Cover and Seal	9	015782	Bracket, Nozzle Locking
	*099400	Key (Not Shown; Must supply WMX # from lock)	10	065521	Trim, PVC, Left
3	C35698	Cam, Lock, Bezel, Series 900	11	C08867	Screw, Captive 8-32 x 1/2
4	*026808	Gasket, Lock, Black	12	067666	Washer, Nylon Sealing
5	065523	Trim, Corner, RH	13	C08851	Washer, 8-32, Screw Retain
6	023613	Decal, Operating Instructions	14	065524	Trim, Corner, LH
7	065522	Trim, PVC, Right	15	065520	Trim, Top
			16	015694	Bracket, Tamper-proof

\*Indicates part is a subpart of the preceding part.

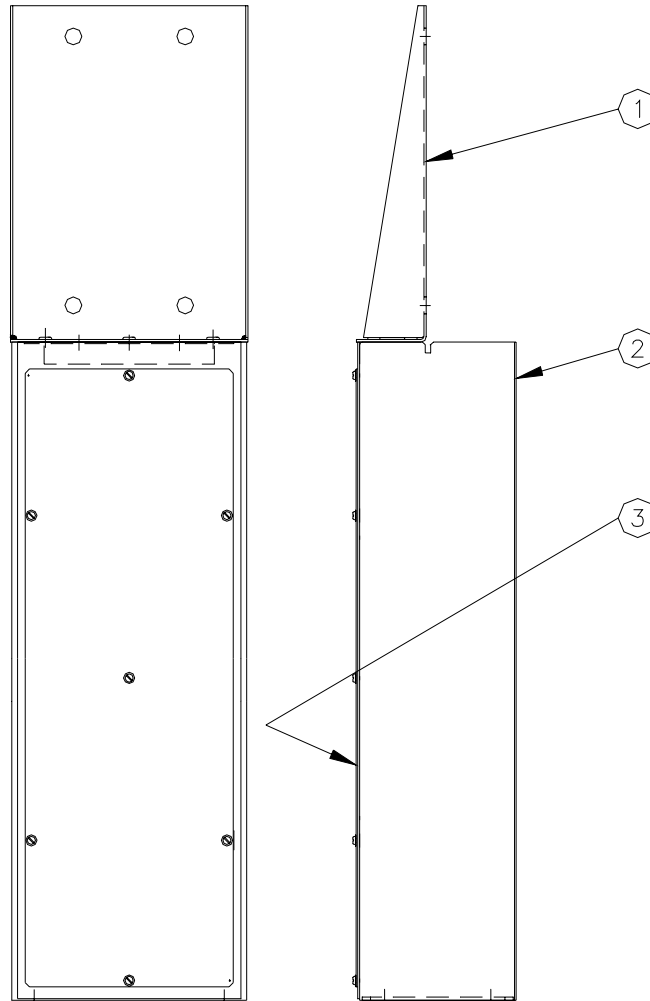
**REMOTE REGISTER - SIDE VIEW**



Item	Part No.	Description
1	040996	Panel, Top Cover, 9820 Register (See Note)
2	C09585	Stop
3	C09584	Cushion Sleeve
4	003771	Lever, Control, 9820 Mach
5	040999	Housing Weld Assy. (See Note)
7	042083	Bracket, Mounting
8	C08849	Cover, Bolt
9	029416	Hood
10	063507	Hood, Support Assy.
11	045988	Bearing Plate Assembly (See breakdown)
12	015760	Cover
13	015694	Bracket, Tamper-proof
14	042657	Roll Pin, 1/8 x 1-3/8 (Not Shown)

**NOTE:** Specify standard color (black, white, red). If not a standard color, specify serial number of pump/dispenser.

## REMOTE REGISTER MOUNTING OPTIONS



### Pedestal (Shown at Left) - 042082

Item	Part No.	Description
1	042073	Bracket Housing Mounting
2	042080	Weld Assy., Pedestal Body
3	042081	Cover

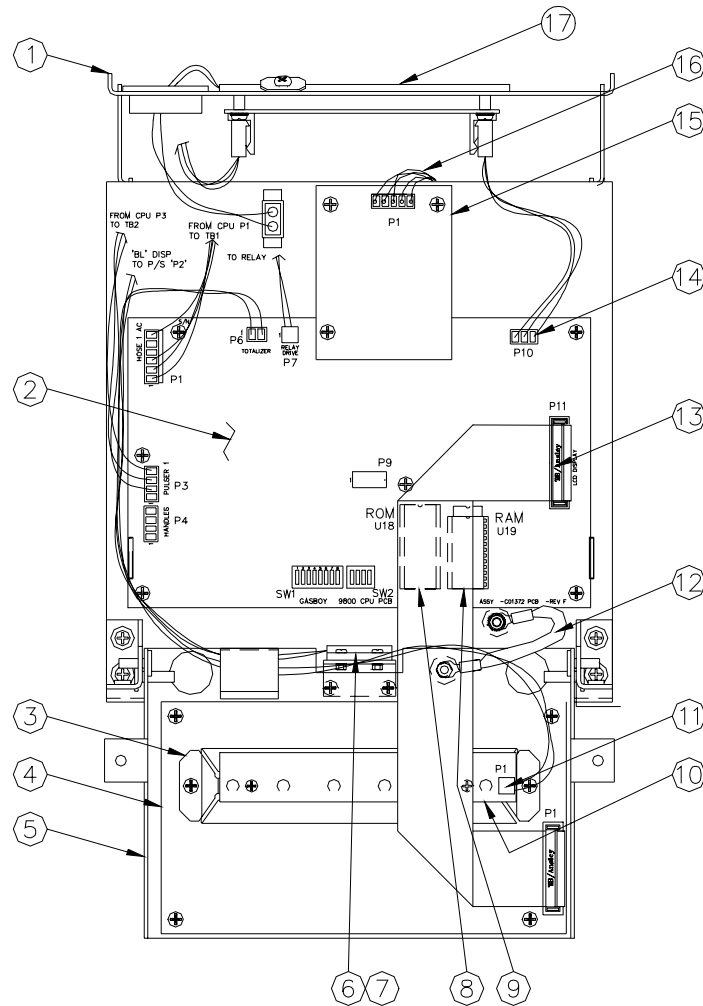
### Side Mounting Bracket (Not Shown\*) - 015128

### Rear Mounting Bracket (Not Shown\*) - 015127

\*For installation diagrams, see the *ASTRA Installation/Operation Manual*.



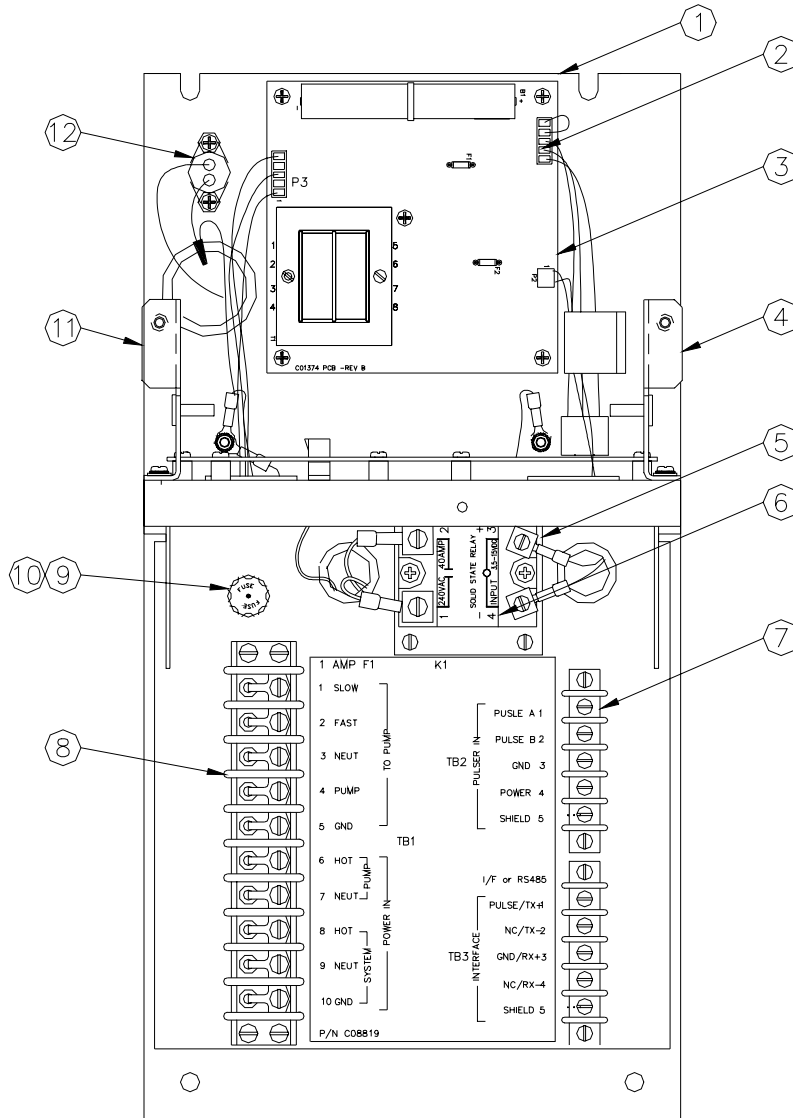
## REMOTE REGISTER CHASSIS ASSEMBLY - TOP VIEW



Item	Part No.	Description	Item	Part No.	Description
1	C35584	Weld Assy., Chassis	12	C06454	Cable Assy., Ground Strap
2	C06391	PCB Assy., CPU 120VAC	13	C06672	Cable Assy., CPU/Disp Ribbon
	C06500	PCB Assy., CPU 240 VAC	14	C06679	Cable Assy., DC Power
3	C35399	Reflector, LCD Backlight		<b>C07092</b>	<b>Optional RS-485 PCB Kit</b>
4	C06387	PCB Assy., LCD Display	15	C06389	PCB Assy., RS-485
5	C35543	Bracket Assy., Display Door	16	C06678	Cable Assy.
6	C06673	Cable Assy., Totalizer w/ Bracket		<b>C07057</b>	<b>Optional Pump I/F Kit</b>
7	C01342	Actuator, Totalizer (Not Shown)	15	C06425	PCB Assy., Pump I/F
8	C06426	IC. Programmed, 32K EPROM (NOTE: You must specify program type: 9800, 9800 Liter)	16	C06678	Cable Assy
9	C01383	IC, RAM 2k x 8	17	C06677	Cable Assy., Heater, 120VAC
10	C06372	PCB Assy., LED Backlight		C06721	Cable Assy., Heater 240VAC
11	C06668	Cable Assy., Display/Power Supply			

\*Indicates part is a subpart of the preceding part.

**REMOTE REGISTER CHASSIS ASSEMBLY - FRONT VIEW**

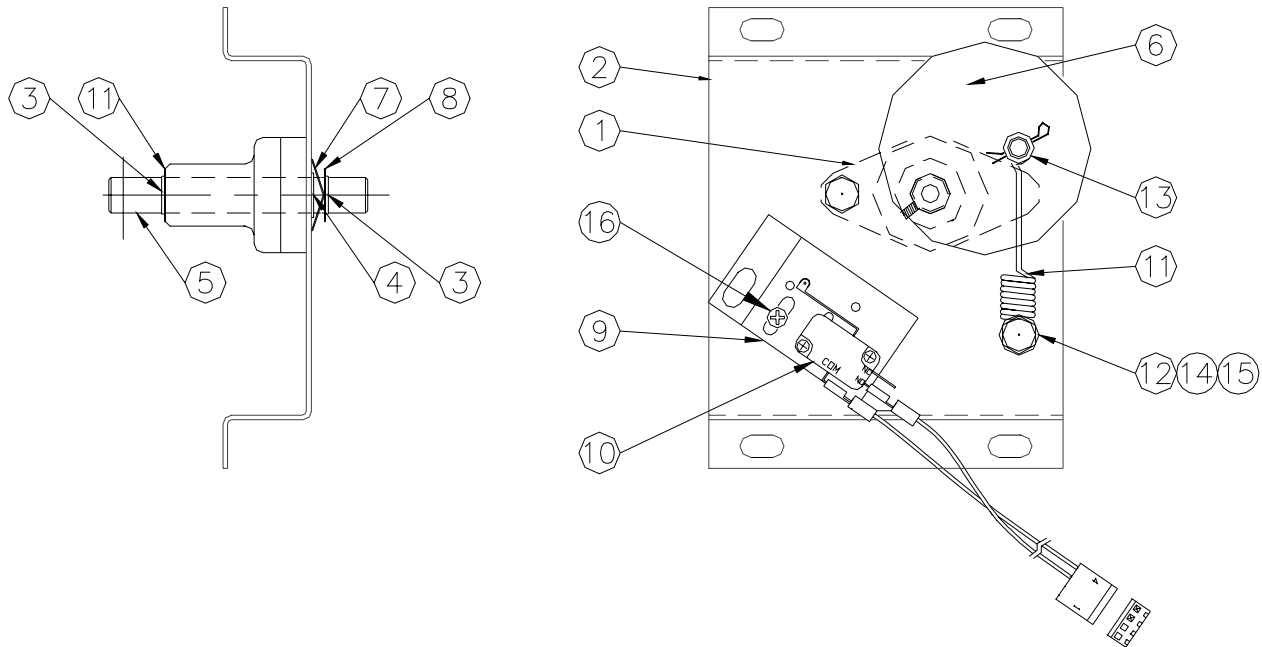


FRONT VIEW  
DISPLAY DOOR REMOVED

Item	Part No.	Description	Item	Part No.	Description
1	C35584	Weld Assy, Chassis	7	C06674	Cable Assy., 5-pos. TB
2	C06679	Cable Assy., DC Power	8	C06675	Cable Assy., 10-pos. TB
3	C06396	PCB Assy., PS w/o Batt, 115V	9	C02065	Fuse Holder, 3AG, Solder
	C06397	PCB Assy., PS w/ Batt, 115V		C09546	Fuse Holder, Quick Conn.
	C06488	PCB Assy., PS w/o Batt, 230V	10	C04044	Fuse, 1 Amp SB 3 AG Glass
	C06489	PCB Assy., PS w/ Batt, 230V	11	C35539	Bracket Assy., LH Hinge
4	C35538	Bracket Assy., RH Hinge	12	C06677	Cable Assy., Heater, 120 VAC
5	C06681	Relay Assy.		C06721	Cable Assy., Heater, 240 VAC
6	*C08746	Relay, Solid State			

\*Indicates part is a subpart of the preceding part.

## REMOTE REGISTER BEARING PLATE ASSEMBLY BREAKDOWN



Item	Part No.	Description	Item	Part No.	Description
1	003184	Start Shaft Bearing	9	C06670	Cable Assy., CPU/Handle
2	015990	Bracket, Start Switch	10	*C03334	Switch, SPDT, Snap-Action
3	048612	Retaining Ring, Truarc	11	029358	Handle, Spring
4	011958	Bearing, Nyliner	12	C08914	Bushing, Shoulder, Nylon
5	054447	Shaft-Start 9800 Series	13	C08913	Bushing, Shoulder, Nylon
6	046054	Plt, Start Shaft (F)	14	038605	Nut 5/16 Hex
7	068951	Wave Washer, 12V/24V	15	051940	Bolt, 5/16
8	067109	Washer, Brass	16	052735	Screw, 8/32

\*Indicates part is a subpart of the preceding part.

## NOZZLES

Acceptable nozzles for Vapor Recovery models (V suffix) are: Emco Wheaton A4015, Husky 5010, and OPW 211V.

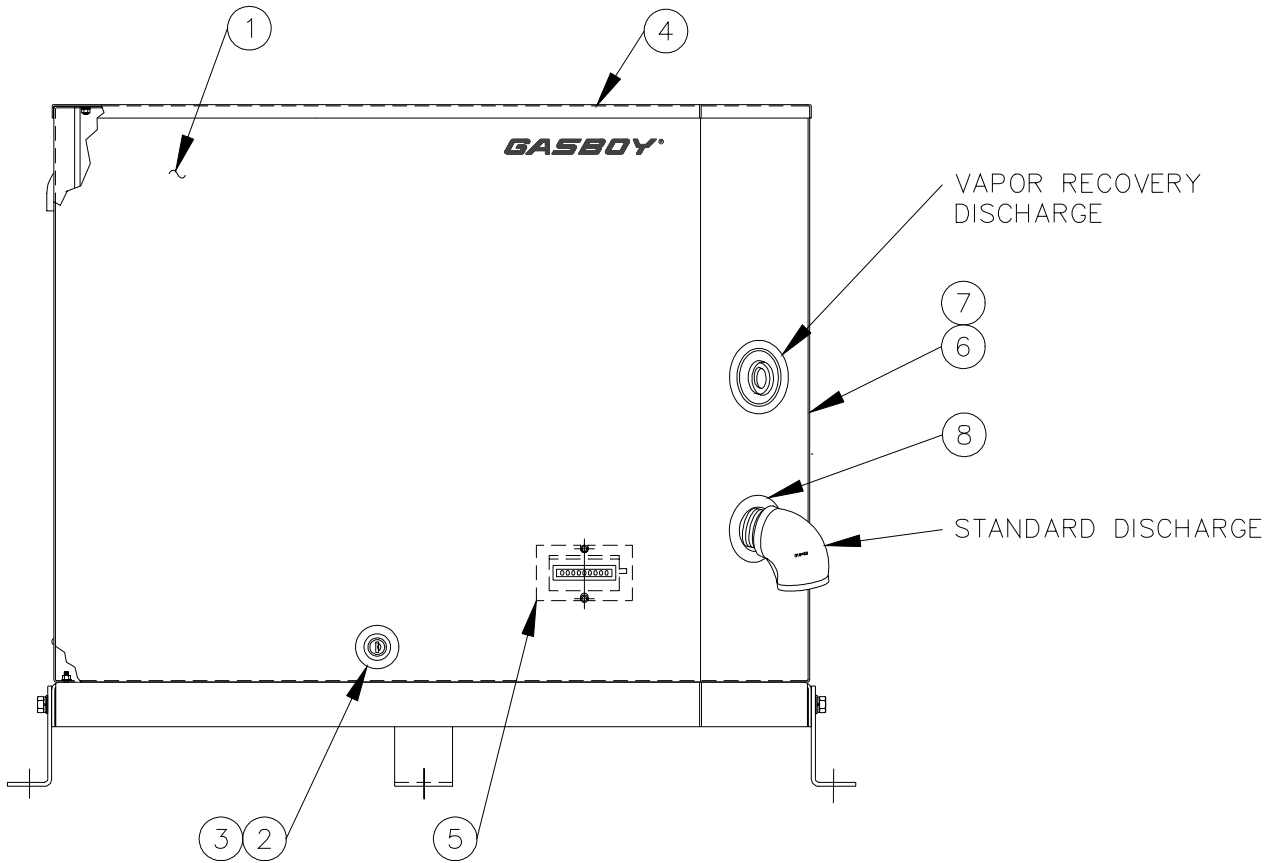
Vapor Recovery Ready models (Y suffix) can use the above nozzles after retrofit for vapor recovery.

Nozzles for all other models must be UL-Listed Service Station type hose nozzle valves.

## SWITCH ADJUSTMENT

To adjust switch, loosen screw (item 16). Pivot bracket (item 9) close to start plate (item 6), then tighten screw (item 16).

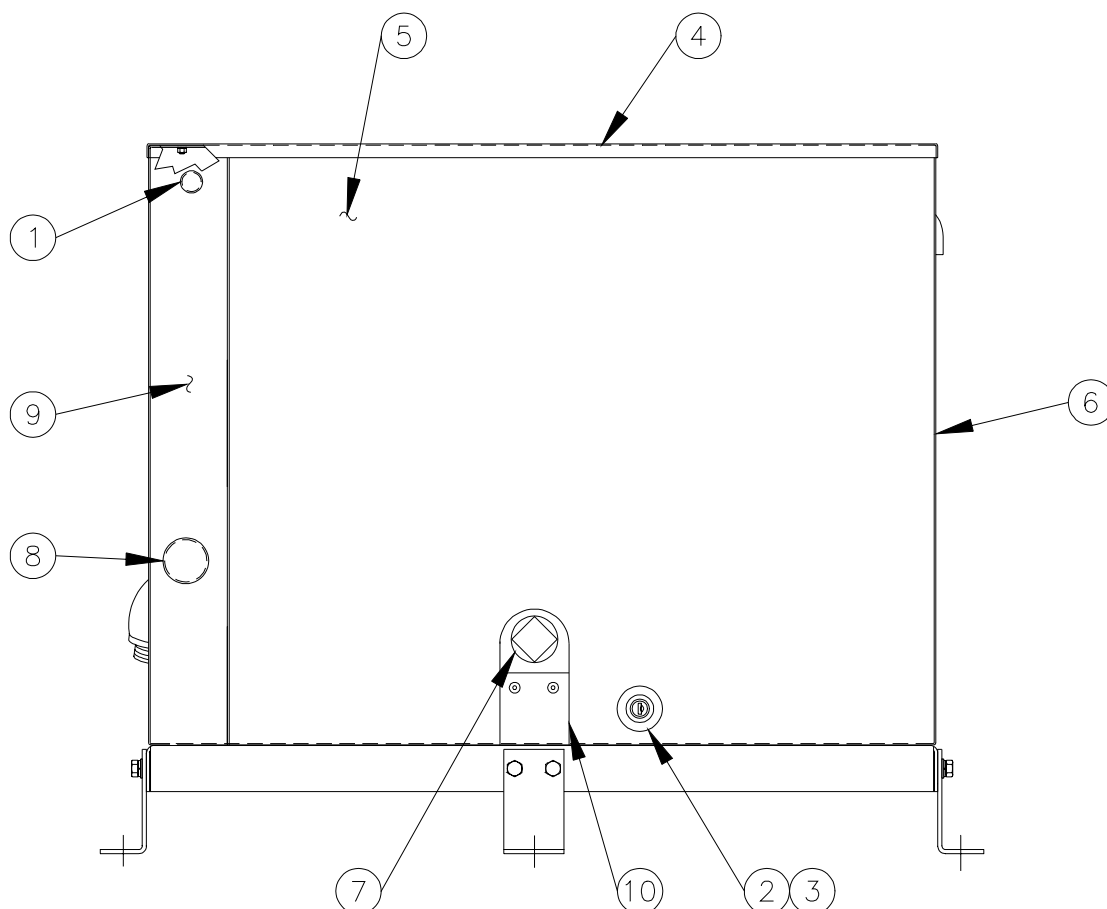
**METER AND PUMP CABINET - FRONT VIEW**



Item	Part No.	Description
1	041643	Panel, Front Lockable (See Note)
2	035017	Lock, Door with Clip
3	026799	Gasket, Lock
4	041639	Cover, Top Panel (See Note)
5	069076	Window, Totalizer (If equipped with optional totalizer, see <b>Mechanical Odometer Option</b> breakdown.)
6	041636	Panel (See Note)
	041645	Panel, Vapor Recovery (See Note)
7	047214	Plug, 1/2 Heyco
8	028960	Grommet, Discharge

**NOTE:** Specify standard color (black, white, red). If not a standard color, specify serial number of pump/dispenser.

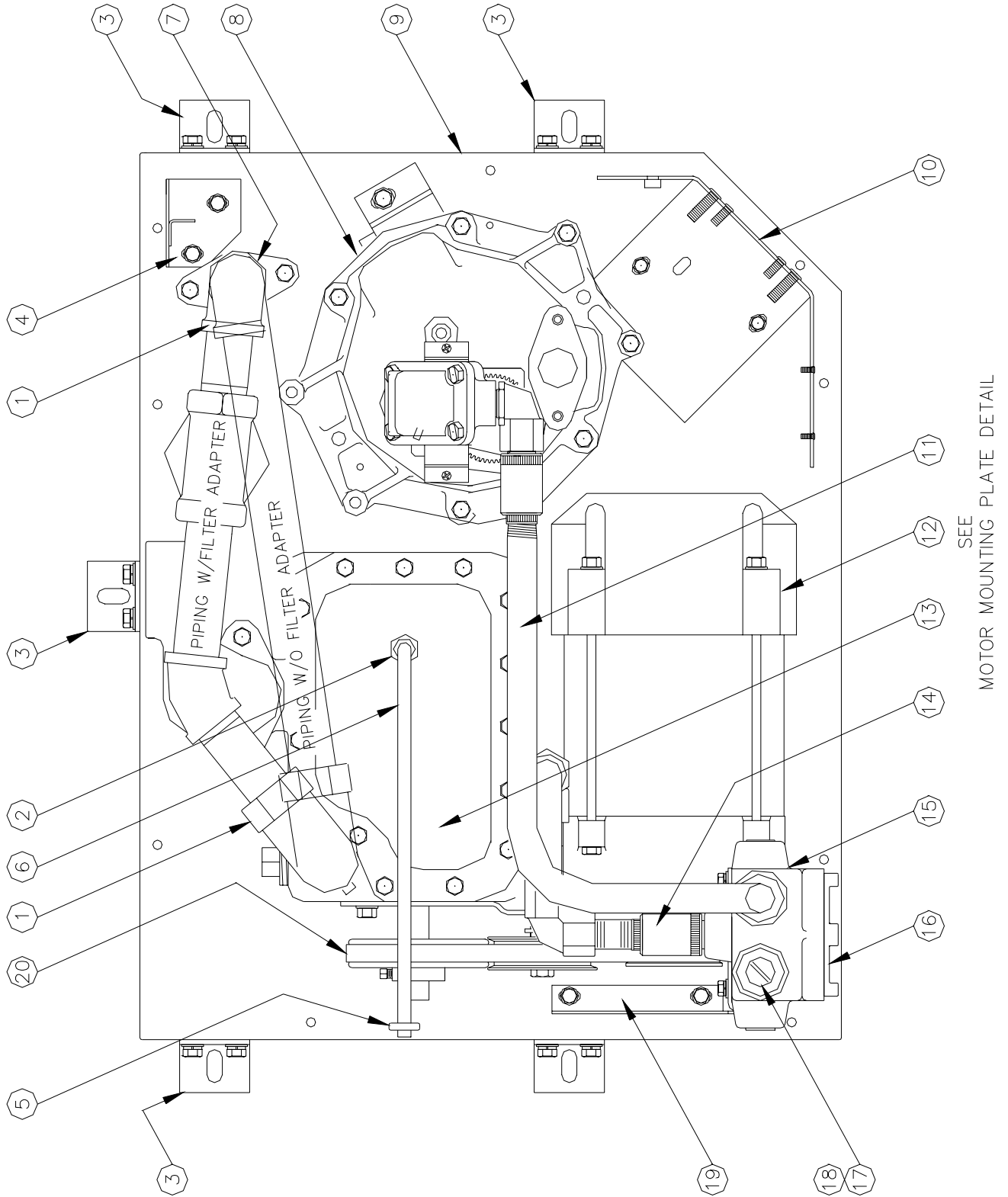
## METER AND PUMP CABINET - REAR VIEW



Item	Part No.	Description
1	C02828	Plug Button, 5/8
2	035017	Lock, Door With Clip
3	026799	Gasket Lock
4	041639	Cover, Top Panel (See Note)
5	041644	Panel, Rear (See Note)
6	041637	Panel, Left (See Note)
7	047243	Plug, 1-1/2 - 11-1/2 NPT
8	047211	Plug, 1-3/8, Heyco
9	041636	Panel, Right (See Note)
10	041655	Bracket, Inlet Casting

**NOTE:** Specify standard color (black, white, red). If not a standard color, specify serial number of pump/dispenser.

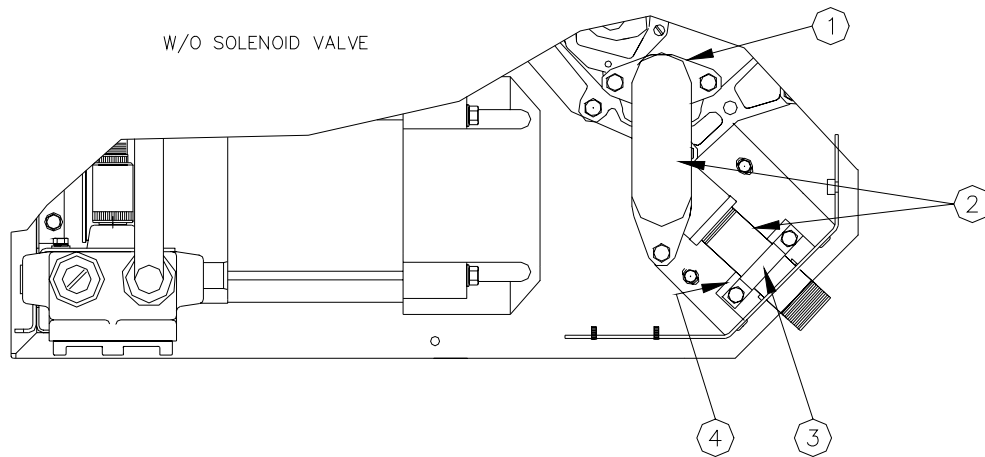
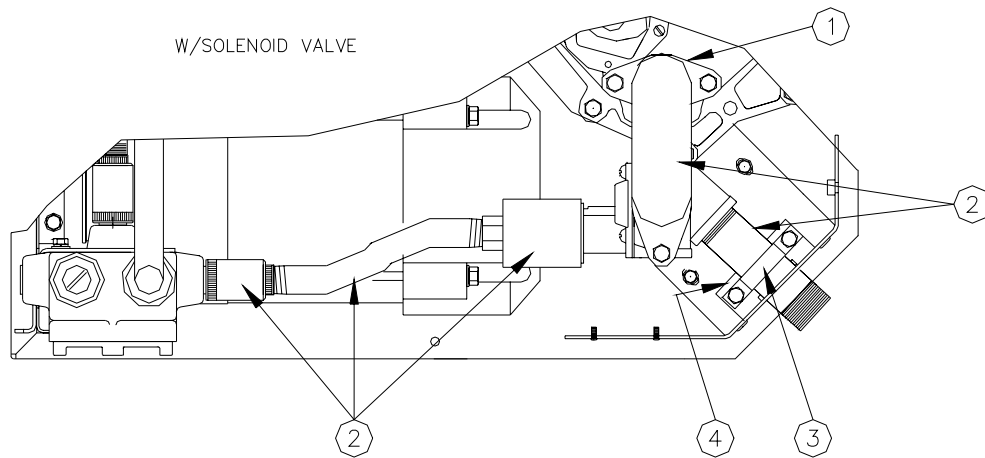
### METER AND PUMP CABINET CHASSIS - TOP VIEW



**METER AND PUMP CABINET CHASSIS - TOP VIEW**

Item	Part No.	Description
1	045600	Piping Assy., Meter, w/Filter, 9822
	045602	Piping Assy., Meter, w/Filter, 9823
	045601	Piping Assy., Meter, w/o Filter
2	026047	Fitting, 3/8 Ct Conn Inv Fl
3	026401	Bracket, Mounting Foot
4	041468	Bracket, Rear Vents, VR only
5	058021	Grommet
6	063614	Vent Tube Assy.
7	027004	Gasket, ID 1.234; OD 1.502
8		Meter Assy with pulser ( <i>See Meter Assembly with Pulser breakdown</i> )
9	041638	Base, Frame w/ Hardware
10	041646	Bracket, Weld Assy., Disc. Support
11	023099	Conduit, Bent Pulser
12	037344	Motor Conduit Assy, 60 Hz., 9822
	037343	Motor Conduit Assy, 60 Hz., 9823
	037366	Motor Conduit Assy, 50 Hz., 9822
	037365	Motor Conduit Assy, 50 Hz., 9823
13	048222	Pump Assy., 9822
	048223	Pump Assy., 9823
14	066400	1/2 UNY Explosion-proof Conduit Union
15	003344	Junction Box, Machin, 7 opening
16	022140	Junction Box Cover Assy.
17	047247	Plug, 1/2 Conduit, Slotted
18	047248	Plug, 3/4 Conduit, Slotted
19	041647	Bracket Weld Assy., Jbox support
20	012130	V Belt, 4L280

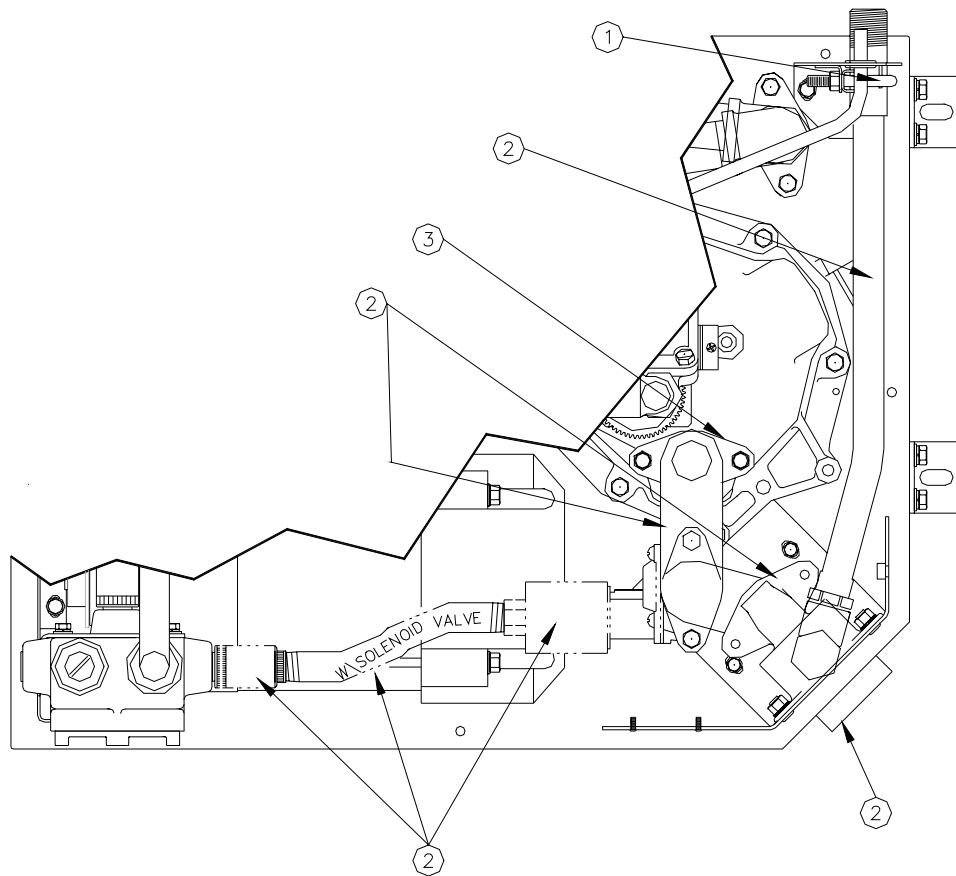
**DISCHARGE ASSEMBLY, STANDARD WITH OR WITHOUT SOLENOID**



Item	Part No.	Description
1	027004	Gasket, ID 1.234; OD 1.502
2	042777	Discharge Assy., with 3/4" Solenoid
	042778	Discharge Assy., with 1" Solenoid
	042775	Discharge Assy., Piping 1" Std
3	020740	Clamp, Junction Box
4	015110	Bracket, Pipe Discharge Support

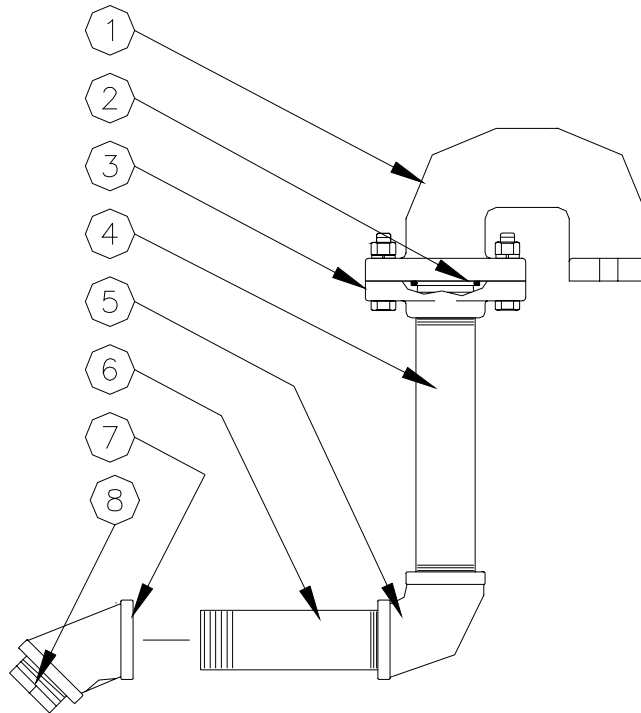


**DISCHARGE ASSEMBLY, VAPOR RECOVERY WITH OR WITHOUT SOLENOID**



Item	Part No.	Description
1	013295	Bolt, U, 1-3/8 ID Walker
2	042776	Discharge Assy., w/o Solenoid
	042784	Discharge Assy., w/ 3/4" Solenoid
3	027004	Gasket, ID 1.234; OD 1.50

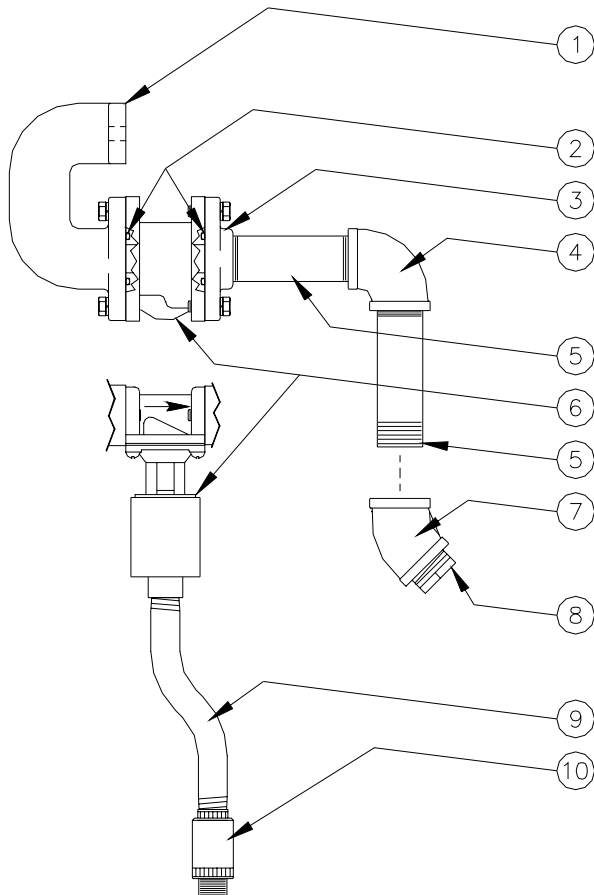
**DISCHARGE PIPING, STANDARD 3/4" OR 1" - SIDE VIEW**



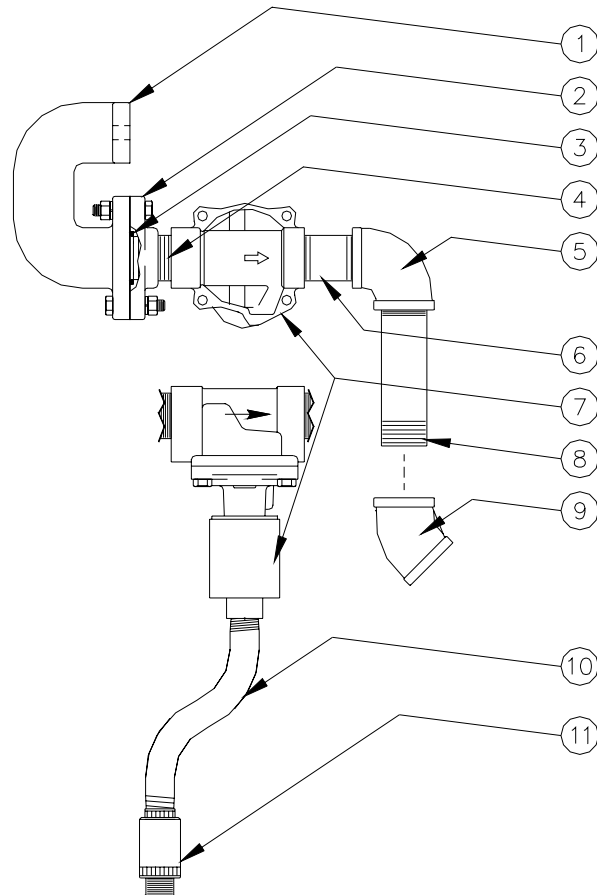
Item	Part No.	Description
1	003546	Discharge, 9820 Meter Outlet
2	027004	Gasket, ID 1.234; OD 1.502
3	026071	Meter Flange, 1" NPT w/Groove
4	044605	Pipe TBE, 1 x 6-1/2
5	024895	Elbow, 1" x 90° Std.
6	044590	Pipe TBE, 1 x 6
7	024937	Elbow, 1 x 45, Painted
8	017270	Bushing, 3/4 x 1

## DISCHARGE PIPING WITH 3/4" OR 1" SOLENOID

PIPING DISCHARGE ASSEMBLY  
WITH 3/4" SOLENOID



PIPING DISCHARGE ASSEMBLY  
WITH 1" SOLENOID



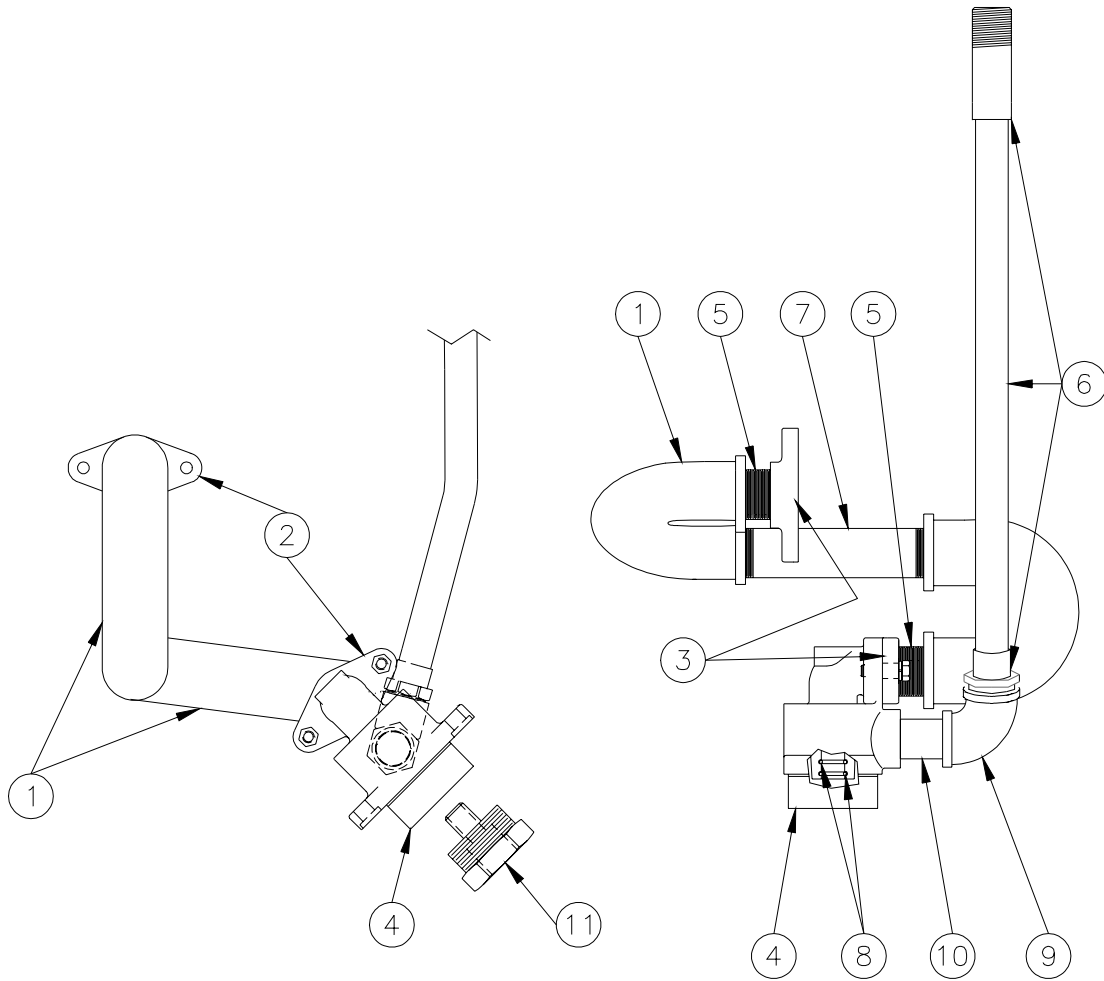
### Piping With 3/4" Solenoid

Item	Part No.	Description
1	003546	Discharge, 9820 Meter Outlet
2	027004	Gasket, ID 1.234; OD 1.502
3	026075	Meter Flange, 1" NPT
4	024895	Elbow, 1 x 90° Std
5	044590	Pipe TBE, 1 x 6
6	067026	VL Solenoid, 3/4, Skinner 2-Stg, 2-Bolt
7	024970	Elbow, 1 x 45, Black Mall.
8	017270	Bushing, 3/4 x 1
9	023098	Conduit, 3/4" Solenoid
10	066400	1/2 UNY Explosion-proof Conduit Union

### Discharge Piping With 1" Solenoid

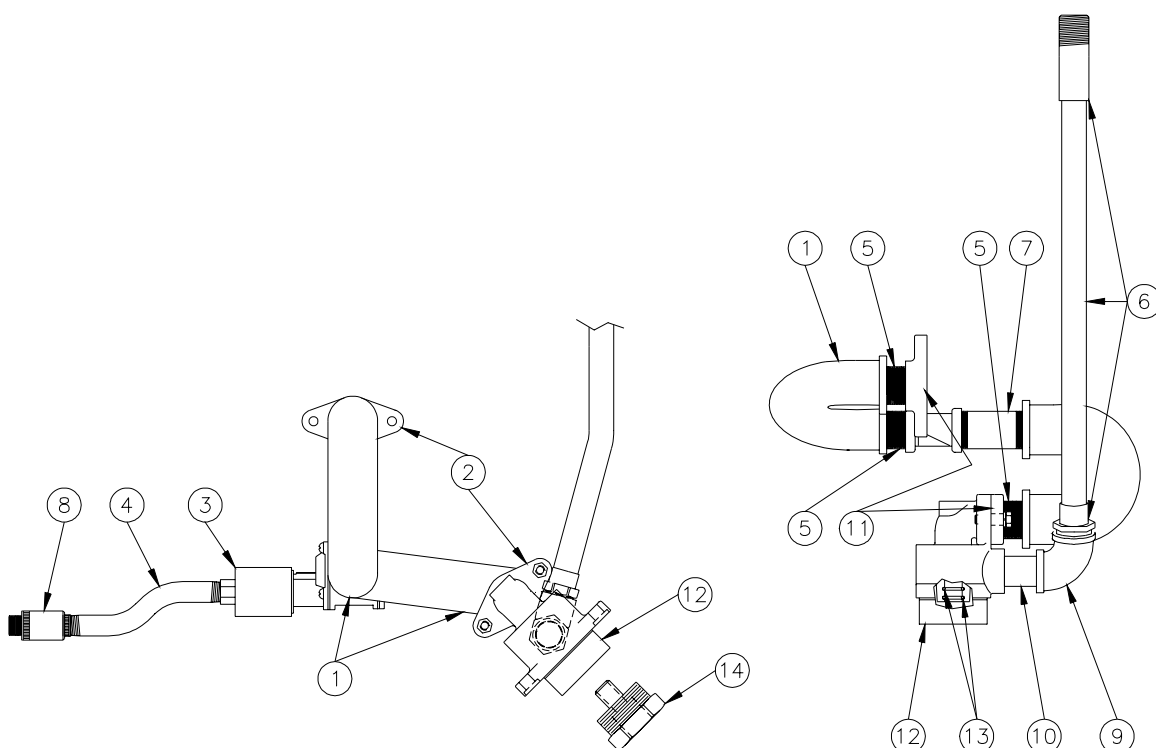
Item	Part No.	Description
1	003546	Discharge, 9820 Meter Outlet
2	026071	Meter Flange, 1" NPT w/Groove
3	027004	Gasket, ID 1.234; OD 1.502
4	038035	Pipe TBE, 1 x 1-1/2 Close Nipple
5	024895	Elbow, 1 x 90° Std
6	044515	Pipe TBE, 1 x 2-1/2
7	067034	VL Solenoid, 1" Skinner, 2-Stg, Top Conduit
8	044590	Pipe TBE, 1 x 6
9	024970	Elbow, 1 x 45, Black Mall.
10	023180	Conduit, Bent, 1", Valve to Junction Box
11	066400	1/2 UNY Explosion-proof Conduit Union

**DISCHARGE PIPING, VAPOR RECOVERY WITHOUT SOLENOID**



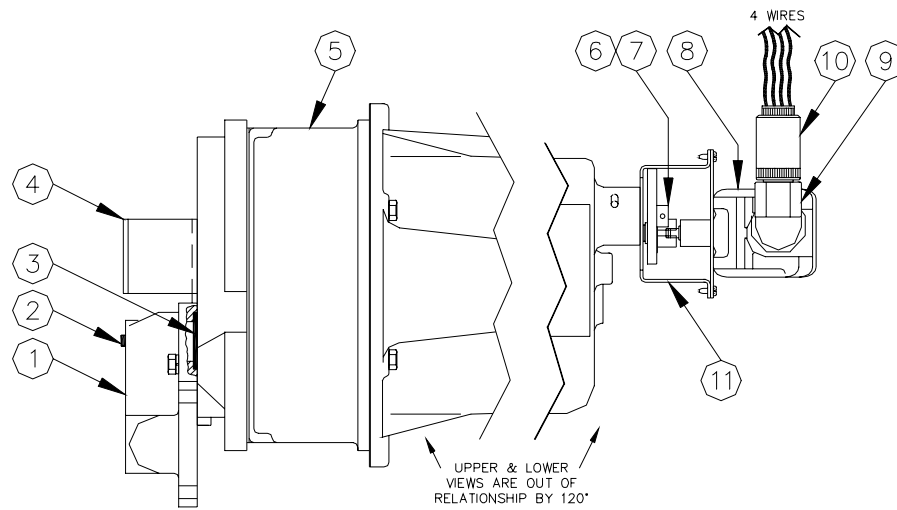
Item	Part No.	Description
1	066300	Return Bend, 1" NPS x 3-1/2 C-C
2	026071	Meter Flange, 1" NPT w/Groove
3	027004	Gasket, ID 1.234; OD 1.502
4	010124	Outlet Adaptor, Vapor Recovery
5	038035	Pipe TBE, 1 x 1-1/2 Close Nip
6	065665	Tubing, Brazed Vapor
7	044590	Pipe TBE, 1 x 6
8	049013	O-Ring
9	024935	Elbow, 3/4 x 90
10	044476	Pipe TBE, 3/4 x 2-1/4
11	064551	Non-Swivel Adaptor, Vapor Recovery Ready Models Only

## DISCHARGE PIPING, VAPOR RECOVERY WITH 3/4" SOLENOID

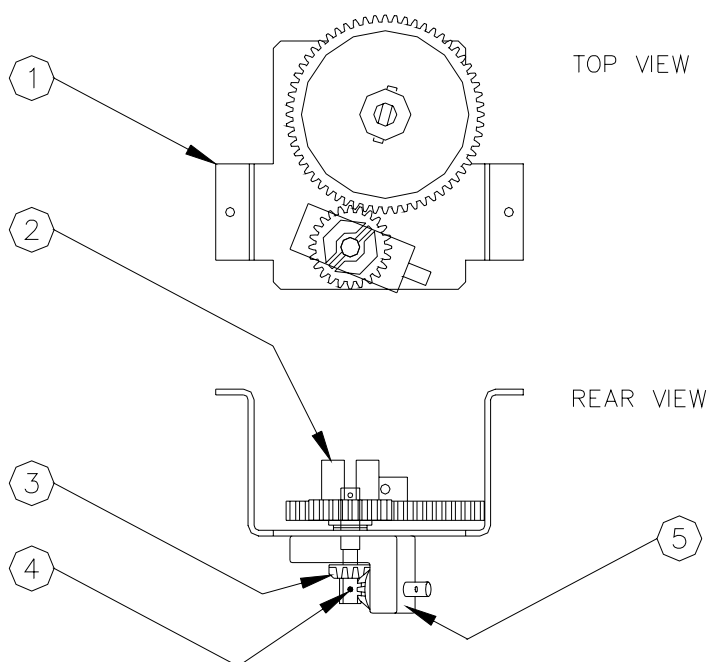


Item	Part No.	Description
1	066300	Return Bend, 1" NPS x 3-1/2 C-C
2	026071	Meter Flange, 1" NPT w/Groove
3	067026	VL Solenoid, 3/4, Skinner 2-Stg, 2-Bolt
4	023098	Conduit, 3/4" Solenoid
5	038035	Pipe TBE, 1 x 1-1/2 Close Nip
6	065665	Tubing, Brazed Vapor
7	044513	Pipe TBE 1 x 2
8	066400	1/2" UNY Explosion-Proof Conduit Union
9	024935	Elbow, 3/4 x 90
10	044476	Pipe TBE, 3/4 x 2-1/4
11	027004	Gasket, ID 1.234; OD 1.502
12	010124	Outlet Adaptor, Vapor Recovery
13	049013	O-Ring
14	064551	Non-Swivel Adaptor, Vapor Recovery Ready Models Only

**METER ASSEMBLY WITH PULSER - SIDE VIEW**

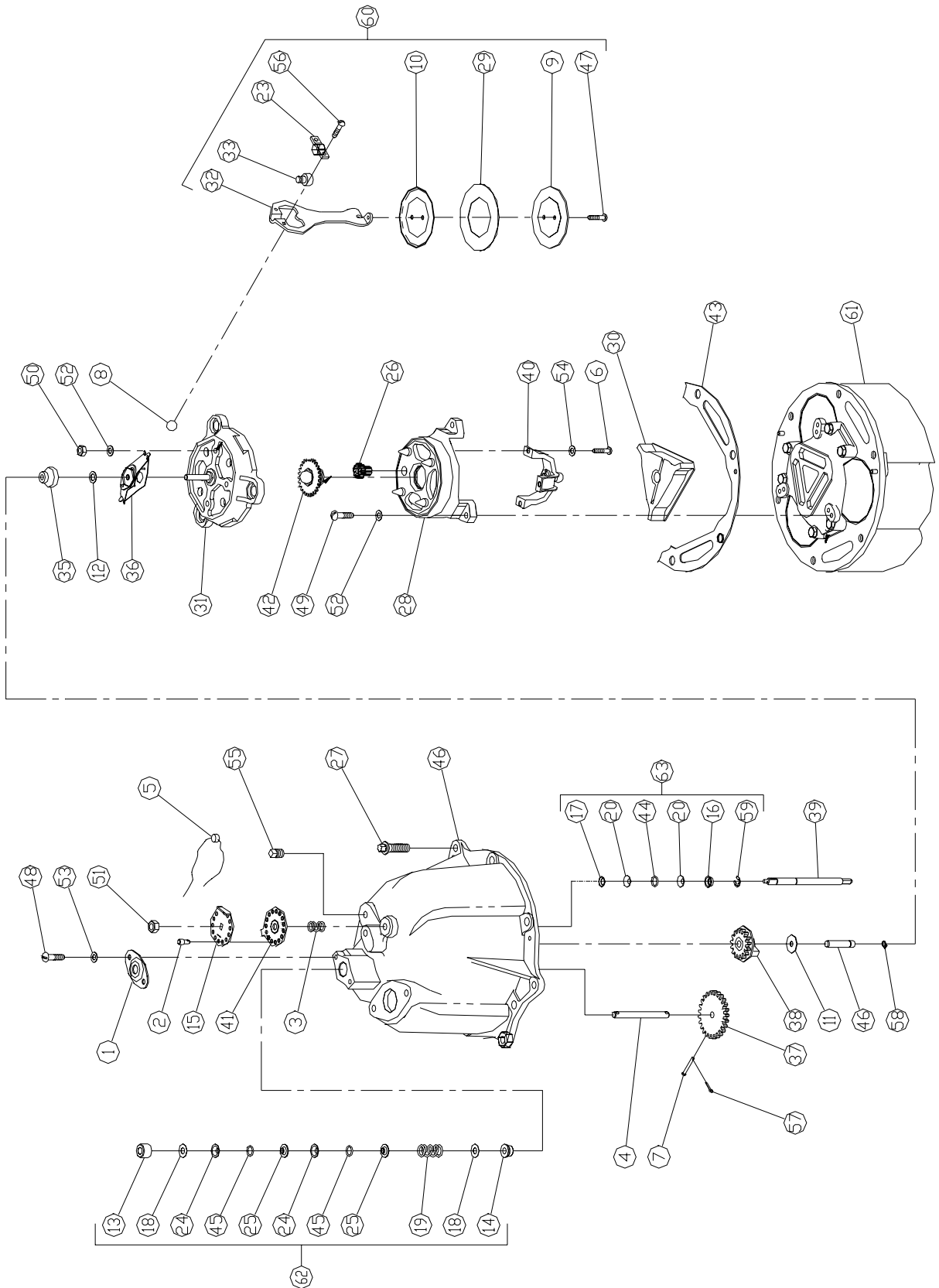


Item	Part No.	Description
1	021855	Connector, Meter Disc
2	047279	Plug Pipe, Soc Hd.
3	027004	Gasket
4	041654	Bracket, Meter Support
5	035528	Meter Assy., 4:1, Gallon
	035503	Meter Assy., 1:1, Liter
6	028202	Gear, Spur, 60T
7	042130	Pin, Groove, 1/8 x 5/8
8	047531	Pulser Assy.
	*013078	Optical Encoder
9	025045	Elbow, Conduit, 1/2 x 90° M/F
10	066400	1/2 UNY Explosion-proof Conduit Union
11	028203	Gear Train Assy (See breakdown <b>Meter Assy. Pulser Gear Train</b> )

**METER ASSEMBLY PULSER GEAR TRAIN BREAKDOWN**

Item	Part No.	Description
1	S00334	Bracket, Drive Gears, Support
2	S00333	Gear/Drive Assy., #88E
3	S00331	Gear, Bevel, 12T
4	S00332	Pin, Groove, 1/16 x 1/4
5	S00330	Gear Block Assy., 88E

**METER ASSEMBLY BREAKDOWN**

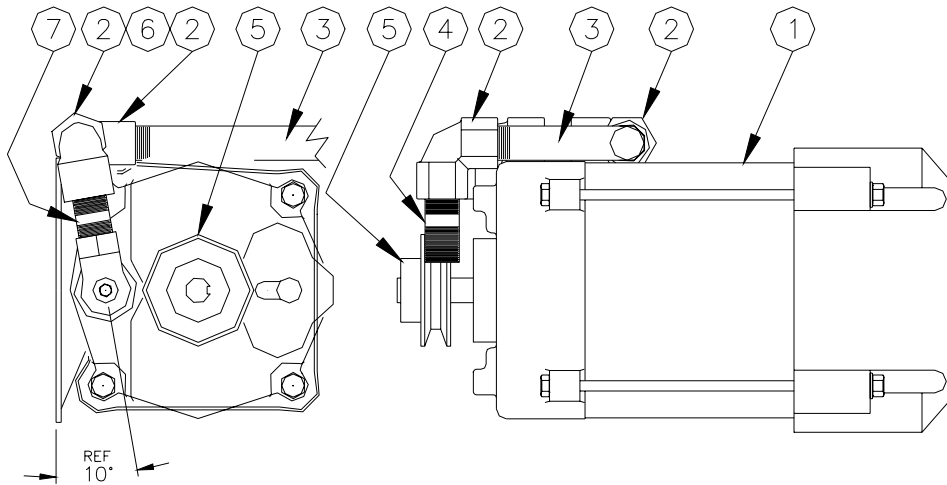




## METER ASSEMBLY BREAKDOWN

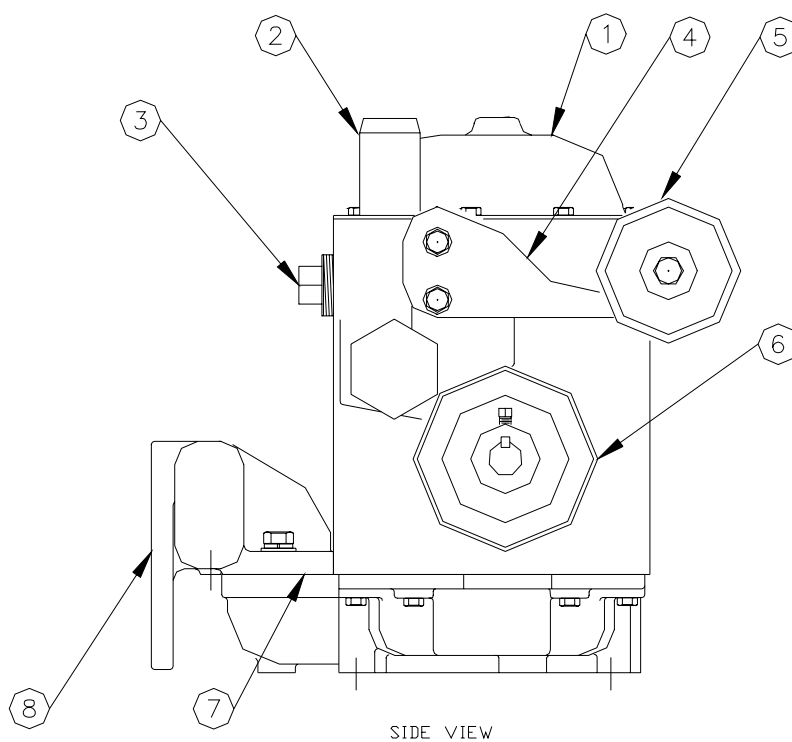
Item	Part No.	Description	Item	Part No.	Description
1	S00466	Packing Gland Plate	38	S00499	Counter Drive Gear Complete - Gal
2	S00467	Seal Pin		S00114	Counter Drive Gear Complete - Ltr
3	S00469	Compensator Screw Spring	39	S00497	Compensator Shaft
4	S00473	Drive Shaft	40	S00500	Bracket & Pin Assembly
5	069080	Seal & Seal Wire	41	S00468	Index Plate
6	S00475	Special Screw	42	S00479	Pivot & Ball Assembly
7	S00476	Drive Shaft Pin	43	S00470	Meter Body Gasket
8	S00477	1/2" Ball	44	S00471	"O" Ring (.362 Dia.)
9	S00480	Plunger Cup Support	45	S00472	"O" Ring (.487 Dia)
10	S00481	Plunger Disc	46	S00486	Meter Cover w/ Center Gear Post, Index Plate, Pipe Plug & Retaining Ring
11	S00482	Washer	47	S00509	#10-32 x 3/8 Lg. Rd. Hd. Mach. Screw
12	S00483	Washer	48	S00507	#12-24 x 1/2 Lg. Rd. Hd. Mach. Screw
13	S00484	Upper Bearing Assembly	49	S00508	1/4-20 x 3/4 Lg. Rd. Hd. Mach. Screw
14	S00485	Bearing Assembly	50	S00511	1/4-20 Hex Nut
15	S00487	Compensator Index Disc	51	S00510	5/16-18 Hex Nut
16	S00488	Seal Half	52	S00520	1/4 Lockwasher
17	S00489	Seal Wedge	53	S00513	#1212 Lockwasher
18	S00490	Washer	54	S00514	#1114 Lockwasher
19	S00492	Packing Spring	55	S00515	1/8 Sq. Hd. Pipe Plug
20	S00493	Seal	56	S00516	#10-32 x 3/8 Lg. Rd. Hd. Sems Fastener
23	S00494	Bearing Retainer	57	S00517	1/16 x 1/4 Lg. Cotter Pin
24	S00495	Seal (black)	58	S00518	Truarc Retaining Ring
25	S00491	Seal Retaining Ring	59	S00519	Truarc "E" Retaining Ring
26	S00478	Compensator Pinion	60	S00521	Plunger Assy. w/ Bearing Retainer, Bearing Seat & Sems Fastener
27	S00512	Screw	61	S00522	Body & Seat Assembly w/ Pins
28	S00498	Main Pivot Bracket Assembly w/ Pins	62	S00523	Meter Drive Shaft Kit
29	S00032	Plunger Cup Kit (Set of 3 Cups)	63	S00130	Shaft-Seal Kit
30	S00501	Valve			
31	S00502	Wobble Plate w/ Slack Roller Post			
32	S00503	Connector			
33	S00504	Bearing Seat			
35	S00505	Slack Roller Assembly			
36	S00506	Slack Spring Assembly			
37	S00496	Drive Shaft Gear - Gal			
	S00115	Drive Shaft Gear - Ltr			

**MOTOR/CONDUIT ASSEMBLY - SIDE AND TOP VIEW**



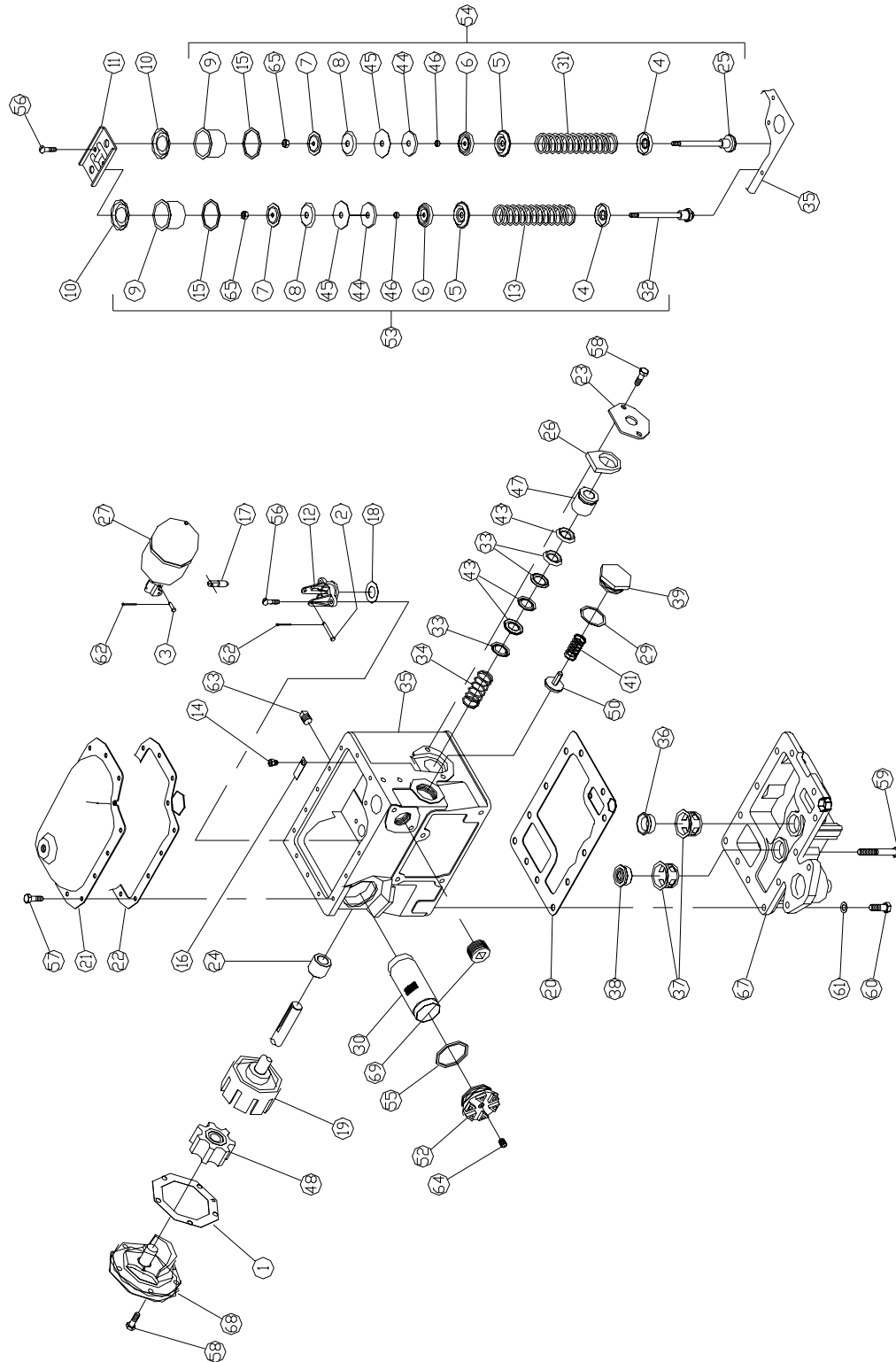
Item	Part No.	Description
1	F37711	Motor, 1/2 HP DV, 60 Hz.
	F37334	Motor, 1/2 HP, 230V, 50 Hz.
	F37696	Motor, 3/4 HP DV, 60 Hz.
	F37609	Motor, 3/4 HP, 115/230V, 50/60 Hz.
2	025030	Elbow, Conduit, 1/2 x 90° F/F
3	021843	Conduit, Bent, Motor to Junction Box
4	021549	Conduit, 1/2 x 2-1/8
5	047005	Pulley, 5/8 Bore, 2.4
	047006	Pulley, 5/8 Bore, 2-3/4
6	021532	Conduit, 1/2 x 1-3/4
7	021337	Conduit, 1/2 x 2

## PUMPING UNIT ASSEMBLY - SIDE VIEW



Item	Part No.	Description
1	048393	Pumping Unit 9822
	048392	Pumping Unit 9823
2	045218	Pipe Toe 1 x 2-1/2
3	047305	Plug Pipe Sq. Hd 1"
4	047007	Idler Arm
5	047009	Pulley-Idler
6	047598	Pulley-Pump 4" OD x 3/4 Bore 9822
	047597	Pulley-Pump 3.50" OD x 3/4 Bore 9823
7	027001	Pump Inlet Gasket
8	003289	Pump Inlet Fitting 9120

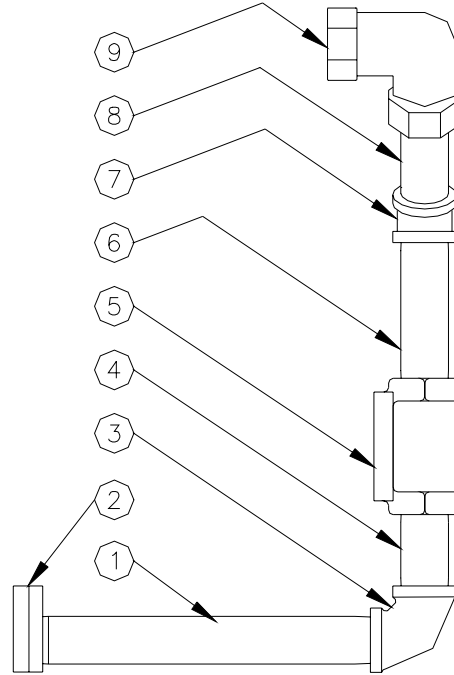
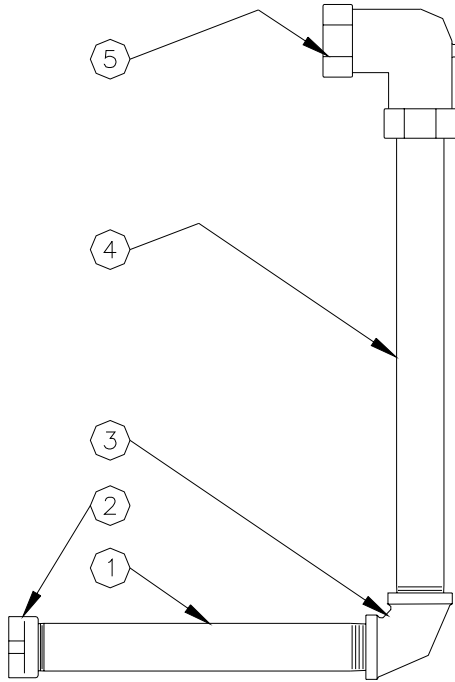
### PUMPING UNIT ASSEMBLY BREAKDOWN



## PUMPING UNIT ASSEMBLY BREAKDOWN

Item	Part No.	Description	Item	Part No.	Description
1	S00117	Gasket	36	S00092	Regulating Valve Seat
2	S00456	Float Lever Pin	37	S00093	Valve Seat Guide
3	S00066	Valve Pin	38	S00094	By-pass Valve Seat
4	S00067	Guide Plate	39	S00717	Check Valve Cap
5	S00068	Spring Plate	41	S00447	Poppet Spring
6	S00069	Plunger Head	43	S00116	"V" Packing
7	S00072	Plunger Plate	44	S00095	Plunger Guide
8	S00073	Plunger Follower	45	S00096	Plunger Disc
9	S00074	Valve Cylinder	46	S00097	Plunger Spacer
10	S00075	Cylinder Head	47	S00122	Drive Shaft Bearing
11	S00076	Clamp Plate	48	S00129	Rotary Pump Idler
12	S00077	Float Valve Body	50	S00098	Poppet Disc. & Relief Valve Assy
13	S00078	By-Pass Valve Spring (#34 to 35-1/2# spring, all 9822 Series)	52	063261	Suction Strainer Cap
	S00079	By-Pass Valve Spring (44-1/2# Spring, all 9823 Series)	53	S00125	By-pass Valve Assembly (34# to 35-1/2# spring, all 9822 Series)
14	S00080	Vent Screw		S00126	By-pass Valve Assembly (44-1/2# spring all 9823 Series)
15	S00062	Valve Cylinder Gasket			
16	S00081	Vent Screw Guard			
17	S00082	Float Valve Needle	54	S00127	Regulating Valve Assembly
18	S00083	Float Valve Gasket	55	026768	Gasket
19	S00128	Pump Rotor Shaft Assembly	56	S00451	1/4-20 x 7/8 Lg. Rd. Hd. Mach Screw
20	S00119	Bottom Head Gasket			
21	S00084	Separator Cover	57	S00452	1/4-20 x 1/2 Lg. Hex Hd. Cap Screw
22	S00120	Cover Gasket			
23	S00085	Retainer	58	S00453	5/16-18 x 7/8 Lg. Hex. Hd. Cap Screw
24	S00121	Bearing			
25	S00086	Regulating Poppet Assy	59	S00454	3/8-16 x 2-3/4 Lg. Hex. Hd. Cap Screw
26	S00124	Oil Well Felt			
27	S00061	Float Assembly	60	S00455	3/8-16 x 1-1/8 Lg. Hex. Hd. Cap Screw.
29	S00718	Gasket			
30	063312	Suction Screen (Gasoline, 100 mesh)	61	S00458	3/8 Lockwasher (TW2 Series Only)
	063313	Suction Screen (Diesel, 40 mesh)	62	S00457	1/16 x 1/2 Lg. Cotter Pin
			63	S00459	1/4 Sq. Hd. Pipe Plug
31	S00088	Regulating Valve Spring	64	S00460	1/4 Countersunk Pipe Plug (TW2 Series Only)
32	S00089	By-pass Valve Poppet			
33	S00056	Packing Gland	65	S00461	1/4 - 28 Hex. Nut
34	S00090	Packing Spring	67	S00462	Lower Pump Head w/Valve Seat Guides, Regulating Valve Seat & By-pass Valve Seat
35	S00091	Rotary Pump & Separator Body w/Gasket, Bearing, Screws & Spring	68	S00057	Rotary Pump Head Assembly
			69	S00465	1" Pipe Plug (Not used on this model)

**PUMP TO METER PIPING - FRONT VIEW**



**Piping Pump/Meter w/o Filter Adapter**

Item	Part No.	Description
1	044609	Pipe TBE, 1 x 10-1/4
2	026075	Meter Flange, 1" NPT
3	024895	Elbow, 1" x 90° Std
4	045333	Pipe TOE, 1 x 14-1/4
5	024910	Elbow, Dresser, 1 x 90
	*054207	Seal Ring

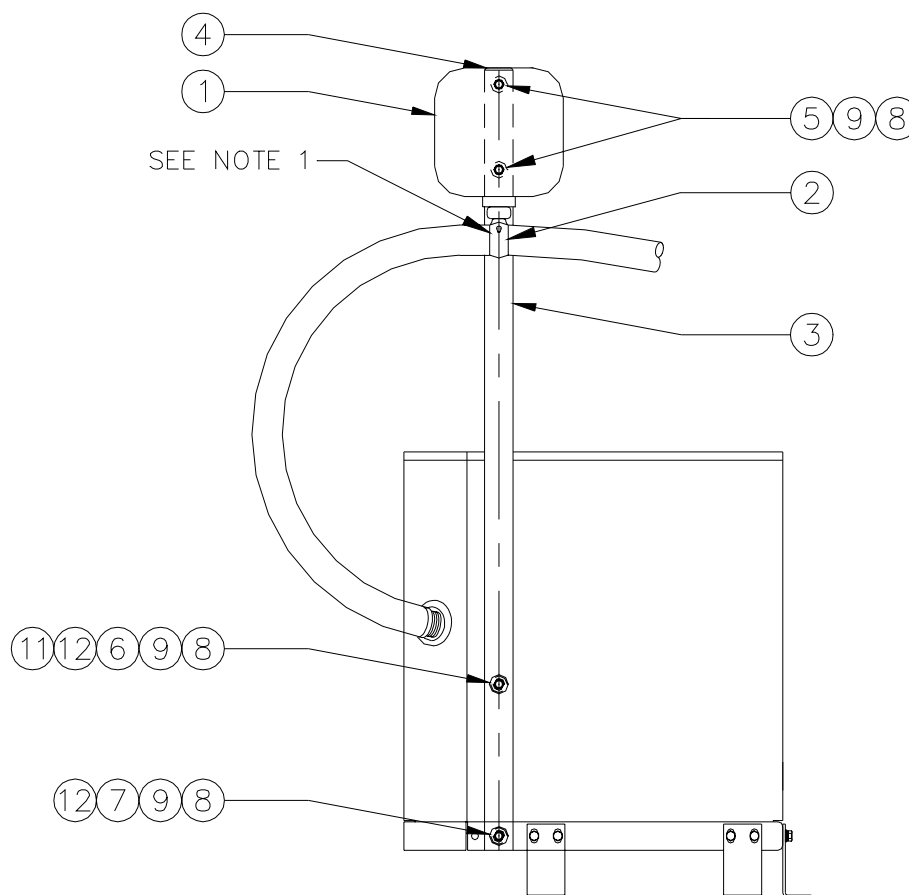
**Piping Pump/Meter w/Filter Adapter**

Item	Part No.	Description
1	044609	Pipe TBE, 1 x 10-1/4
2	026075	Meter Flange, 1" NPT
3	024895	Elbow, 1" x 90° Std
4	044515	Pipe TBE, 1 x 2-1/2
5	003044	Adapter, Filter, 1"
6	044590	Pipe TBE, 1 x 6
7	024970	Elbow, 1 x 45, #150 Blk Mall
8	045235	Pipe TOE, 1 x 4
9	024910	Elbow, Dresser, 1 x 90

**Filters (Not Shown)**

026018	Gas, 10 Micron
026019	Hydrosorb Diesel, 30 Micron
025909	Methanol, 1 Micron

## HIGH HOSE RETRIEVER OPTION



**NOTE 1:** Clamp should be positioned so that hose does not touch ground when nozzle is hung in nozzle boot.

032666 Kit, HHR, 5/8" & 3/4" Hardwall/Softwall  
 032667 Kit, HHR, 1" Softwall  
 032668 Kit, HHR, 1" Hardwall (Std. 1-7/16 OD)

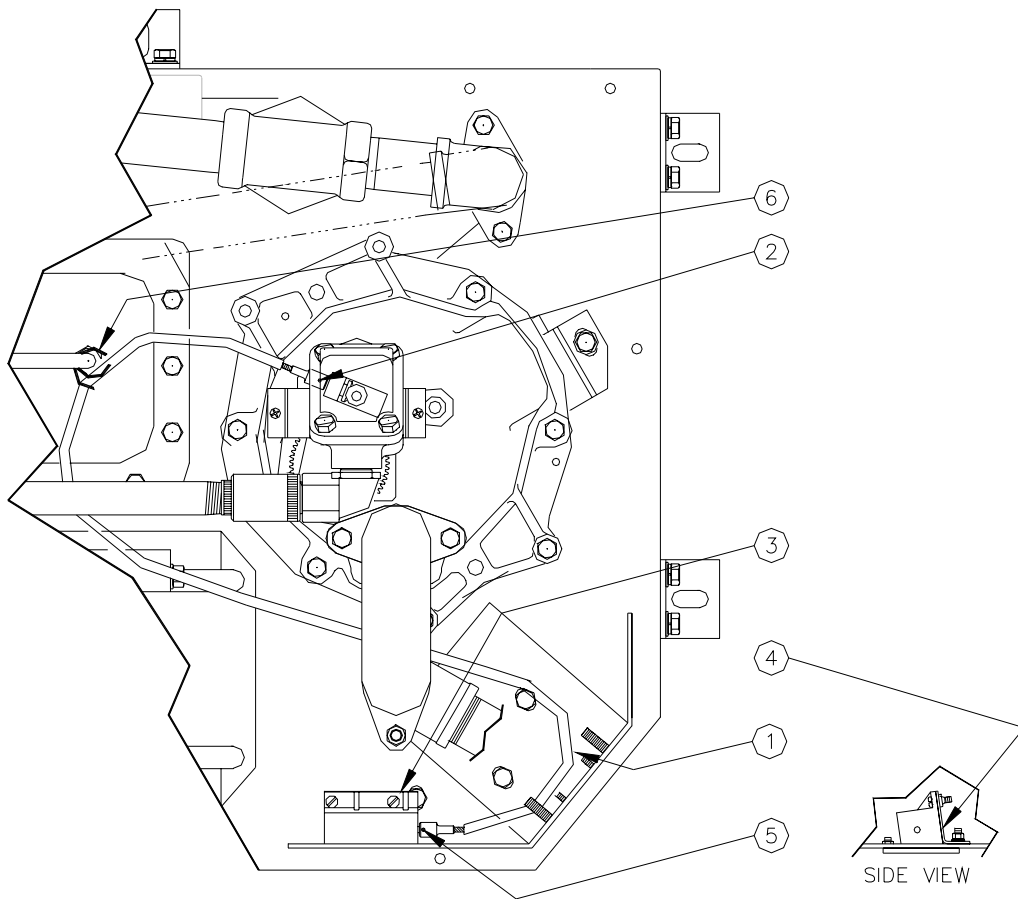
032669 Kit, HHR, 1" Hardwall (1-3/8 OD)  
 032671 Kit, HHR, GY Prem Coax, Vapor Rec  
 032670 Kit, HHR, 1-1/4" Softwall

Item	Part No.	Description
1	030804	Reel Assy, 5/8" & 3/4" Hardwall/Softwall
	030805	Reel Assy, 1" Softwall, 1" Hardwall; 1-1/4" Softwall; GY Prem Coax, Vapor Recovery
2	020714	Clamp, 5/8" & 3/4" Hardwall/Softwall
	020712	Clamp, 1" Softwall
	020718	Clamp, 1" Hardwall (Std. 1-7/16 OD)
	020719	Clamp, 1" Hardwall (1-3/8 OD)
	026732	Clamp, GY Prem Coax, Vapor Recovery
	020717	Clamp, 1-1/4" Softwall

Item	Part No.	Description
3	063957	Support Bar Assy.
4	017930	Caplug
5	051956	Bolt, 5/16-18 x 2, SS
6	051940	Bolt, 5/16-18 x 1-1/2
7	051821	Bolt, 5/16-18 x 3/4, SS
8	068080	Washer, 5/16 Pltd
9	068875	Lockwasher, 5/16 Pltd
10	047219	Plug Button, 7/8
11	057023	Spacer (See NOTE 2)

**NOTE 2:** Spacer should be positioned between discharge bracket and right side panel. Front door must be removed to do this.

**MECHANICAL TOTALIZER OPTION - TOP VIEW**  
**KIT #: 025937 GALLONS; 025938 LITERS**



Item	Part No.	Description
1	017365	Drive Cable Assy., 9-Digit Totalizer
2	042290	Cotter Pin, 3/64 x 1/2
3	039824	Totalizer, 9-Digit, Gallon
	039825	Totalizer, 9-Digit, Liter
4	015113	Bracket, 9-Digit Totalizer Mount
5	043220	Spirol Pin, 1/16 x 1/2 SS
6	0M0042	Tiewrap



## 9820A SERIES KITS AND ACCESSORIES

### Filter Kits and Replacement Elements

#### *Filter Elements for 9822 with Internal Filter Option*

- 026005 Standard (removes particulates only)
- 026042 Hydrosorb (removes water and particulates)
- 025909 Methanol (particulate removal in methanol and methanol blends where content exceeds 15%)

#### *Filter Elements for 9823 with Internal Filter Option*

- 026018 Standard (removes particulates only)
- 026019 Hydrosorb (removes water and particulates)
- 026284 Methanol (particulate removal in methanol and methanol blends where content exceeds 15%)

#### *Filter Elements for External Filter Kits*

- 025900 Standard (removes particulates only)
- 025901 Hydrosorb (removes water and particulates)
- 032754 External Single Element High Flow Kit (Includes adapter, one high flow element, and pipe fittings. A clearance of 14" below center line of discharge is required to allow room to mount assembly.)
- 032755 External Single Element High Flow Kit with Hydrosorb element (Same as above, except includes a high flow Hydrosorb element.)

### Fuel Management System Interface Field Kits

(Provides communication between the 9820 and a Fuel Management system. See "Resistor Assembly", which may also be required.)

- C07057 Pulse Output Field Kit
- C07092 CFN RS485 Interface Field Kit

### Heater Kits

(For field retrofit- Required for units with Battery Back-up ("B" option) when located in colder environments.)

- C06719 115V
- C06720 230V

### High Hose Retriever Option

(Complete set-up requires a Support Post Kit **and** a Hose Clamp/Spring Reel Kit). Specify (1) 6' hose (for between the discharge and hose clamp) plus another hose length to equal desired total length. High Hose Reel is designed to handle a maximum of 15 ft. of hose.

- 032674 Support Post Kit (Includes support post, mounting hardware, and mounting instructions)

#### *Hose Clamp/Spring Reel Kits for standard Gasboy hoses (Includes hose clamp and spring reel only.)*

- 032659 Kit for 3/4" Hardwall or Softwall Hose (recomm'd for 1-1/32" O.D. hoses. Clamp is p/n 020722.)
- 032669 Kit for 1" Hardwall Hose (recomm'd for 1-3/8" O.D. hoses. Clamp is p/n 020719.)

#### *Hose Clamp/Spring Reel Kits for other hoses (Includes hose clamp and spring reel only)*

- 032666 Kit for 5/8" Hardwall or Softwall Hose (recomm'd for 1" O.D. hoses. Clamp is p/n 020714.)
- 032663 Kit for 3/4" Dayco Hardwall Hose (recomm'd for 1-1/8" O.D. hoses. Clamp is p/n 020721.)
- 032668 Kit for 1" Dayco Hardwall Hose (recomm'd for 1-7/16" O.D. hoses. Clamp is p/n 020718.)
- 032670 Kit for 1-1/4" Softwall Hose (for IRPCO 1-1/4" Style SW softwall hose. Clamp is p/n 020717.)
- 032671 Kit for Goodyear Premier Vapor Recovery Coaxial Hose (Clamp is p/n 026732.)

**Mechanical Totalizer Field Kits**

(Accumulative totalizer, viewable from the front of the hydraulic cabinet)

- 025937 Gallons (Contains 7 whole gallon digits, and one tenth gallon digit)
- 025938 Liters (Contains 8 whole liter digits)

**Mounting Kits**

- 042082 Pedestal Kit (Contains a stand-alone post and hardware, on which Remote Register may be mounted)
- 015127 Tank Mount Kit - Front (Contains brackets for the rear of the Remote Register, which allow it to be mounted to the front of the aboveground storage tank)
- 015128 Tank Mount Kit - Side (Contains brackets for the side of the Remote Register, which allow it to be mounted to the side of the aboveground storage tank)
- C35753 TopKAT Mounting Kit (Kit for mounting a TopKAT to the top of the Remote Register. Requires that the Remote Register is pedestal mounted.)

**Resistor Assembly**

(Required for AC authorization input when connected to external control devices using solid state relays.  
Required for Gasboy Series 1000.)

- C05818 115V operation
- C06683 230V operation

**Spare Parts Kits**

- C06780 115VAC Electronic Spare Parts Kit (Spare parts kit for servicing up to 25 Remote Registers)
- C06781 230VAC Electronic Spare Parts Kit (Spare parts kit for servicing up to 25 Remote Registers)

**Vapor Recovery Kits (Balanced System)**

- 048519 Vapor Recovery Complete Kit (For use on a 9820A which is equipped for vapor recovery, such as a unit with either the "V" or "Y" base option. Includes nozzle, swivel, breakaway, and high hose retriever. Does not include hose.)
- 048533 Adapter Kit (Converts a Vapor Recovery pump to one which can use a standard 3/4" hose. Includes a coaxial-to-standard hose outlet adapter and o-rings.)
- 032629 Vapor Recovery Kit (Converts standard discharge assembly to a vapor recovery discharge assembly. Kit does not include high hose retriever, hose, nozzle, swivel, and breakaway.)

# WARRANTY

## General Statements:

Gasboy International LLC. warrants all new equipment manufactured by Gasboy against defective material and/or workmanship, for the warranty period specified below, when the equipment is installed in accordance with specifications prepared by Gasboy.

This warranty does not cover damage caused by accident, abuse, Acts of God, lack of surveillance of automatic recording systems, negligence, mis-application, faulty installation, improper or unauthorized maintenance, installation or use in violation of product manuals, instructions, or warnings. Under no circumstance shall Gasboy be liable for any indirect, special, or consequential damages, losses, or expenses to include, but not limited to, loss of product, loss of profits, litigation fees, or the use, or inability to use, our product for any for any purpose whatsoever.

Parts Only - During the warranty period, Gasboy will, at its option, repair or replace defective parts returned transportation prepaid to its factory.

On-Site Labor Included - Gasboy will also provide, within the Continental United States and during the warranty period, the services of an Authorized Service Representative (ASR) for on-site repair or replacement of defective parts.

Replacement Parts - Any system components that are not part of the original system order, including Island Card Readers, Pump Control Units, etc., are considered replacement parts.

Equipment	Term	Coverage
Commercial Pumps and Dispensers Full-Cabinet Consumer Pumps	One year from date of installation or 18 mos. from date of Gasboy International's invoice to the purchaser, whichever comes first.	Parts and Labor.
Small Transfer Pumps, Meters, Pressure Regulators	One year from date of installation or 18 mos. from date of Gasboy International's invoice to the purchaser, whichever comes first.- Excepting the Model 2020 Hand Pump, which has a 90-day warranty from date of GASBOY International's invoice.	Parts Only.
Keytrol	One year from date of installation or 18 mos. from date of Gasboy International's invoice to the purchaser, whichever comes first.	Parts and Labor.
Fuel Management Systems: - CFN/ Profit Point - Series 1000/Fleetkey - TopKAT - Fuel Point Readers (sold with new systems)	One year from date of start-up or 15 mos. from date of Gasboy International's invoice to the purchaser, whichever comes first.- The basic warranty only applies to systems which have been started up by a Gasboy Authorized Service Representative (ASR).	Parts and Labor.
Additional Fuel Point Items: - Fuel Point Readers sold for retrofitting existing systems. - Fuel Point vehicle and dispenser components.	One year from date of start-up or 15 mos. from date of Gasboy International's invoice to the purchaser, whichever comes first.	Parts Only.
Encoders, Embossers, Modems, CRTs, and Logger Printers	Purchased with Fuel Management System (Encoders, Embossers only): 90 days from the date of start-up by a Gasboy ASR, or 180 days from date of Gasboy International's invoice, whichever occurs first.  Purchased with Fuel Management System (Modems, CRTs, and Logger Printers only): Matches system warranty.  Purchased Separately: 90 days from date of Gasboy International's invoice to the purchaser.	Purchased with System (Encoders, Embossers only): Parts only.  Purchased with System (Modems, CRTs, Logger Printers only): Matches system warranty.  Purchased Separately: Parts Only.
Air Diaphragm Pumps	Three years from date of purchase (for full warranty description, see Price List).	Parts Only.
Items not manufactured by Gasboy (ex. automatic nozzles, hoses, swivels, etc.)	Not warranted by Gasboy International (consult original manufacturer's warranty).	Not Applicable.
Replacement Parts	One year from date of Gasboy International's invoice to the purchaser.	Parts Only.

To the extent permitted by law, this warranty is made in lieu of all other warranties, expressed or implied, including warranties of freedom from patent infringement, or merchantability, or fitness for a particular purpose, or arising from a course of dealing or usage of trade. No one is authorized to vary the terms of the warranty nor may anyone make any warranty of representation, or assume any liability other than that herein stated, in connection with the sale described herein. The acceptance of any order by Gasboy International is expressly made subject to the purchaser's agreement to these conditions.



**GASBOY INTERNATIONAL LLC**

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