



2011-2012 Battery Watering Guide

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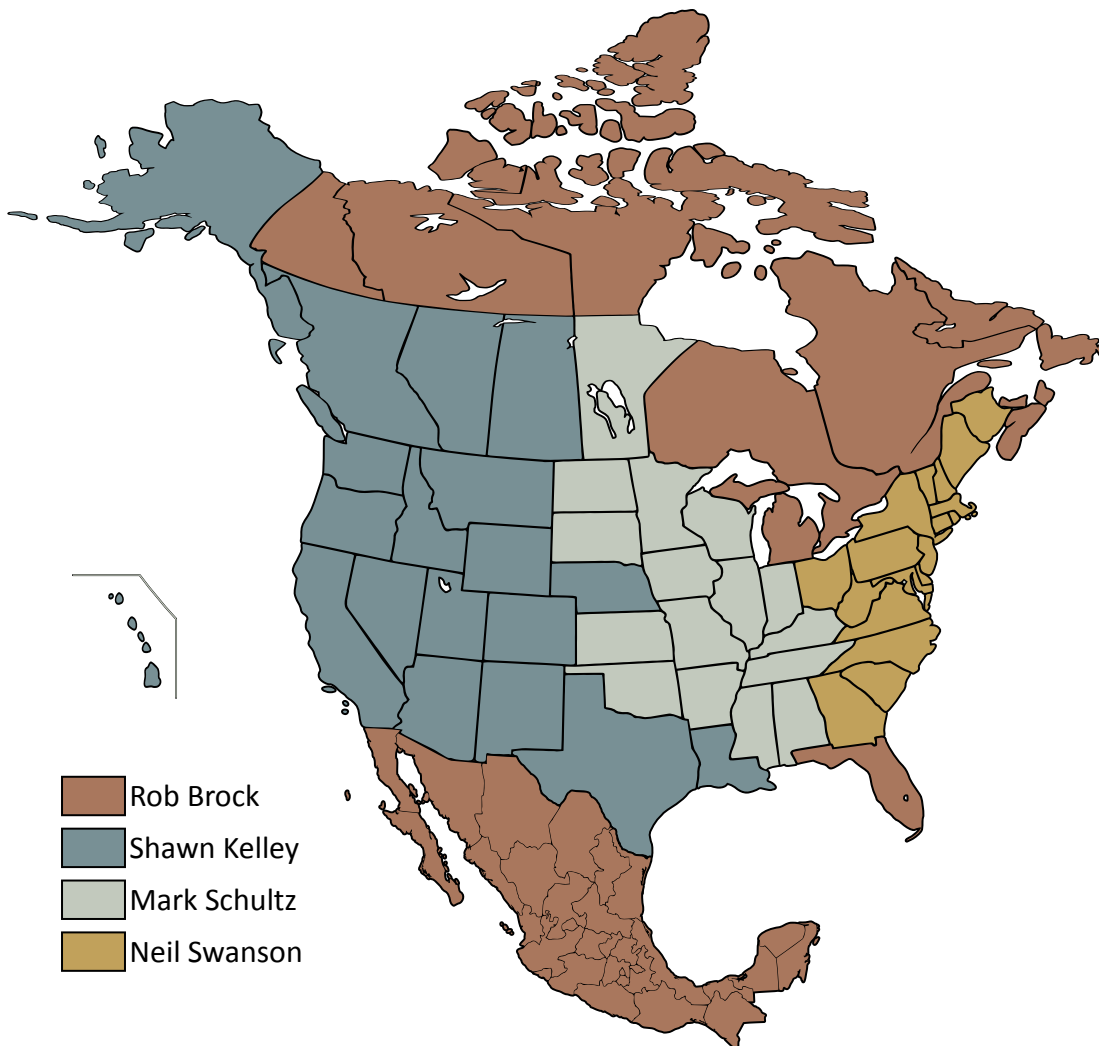
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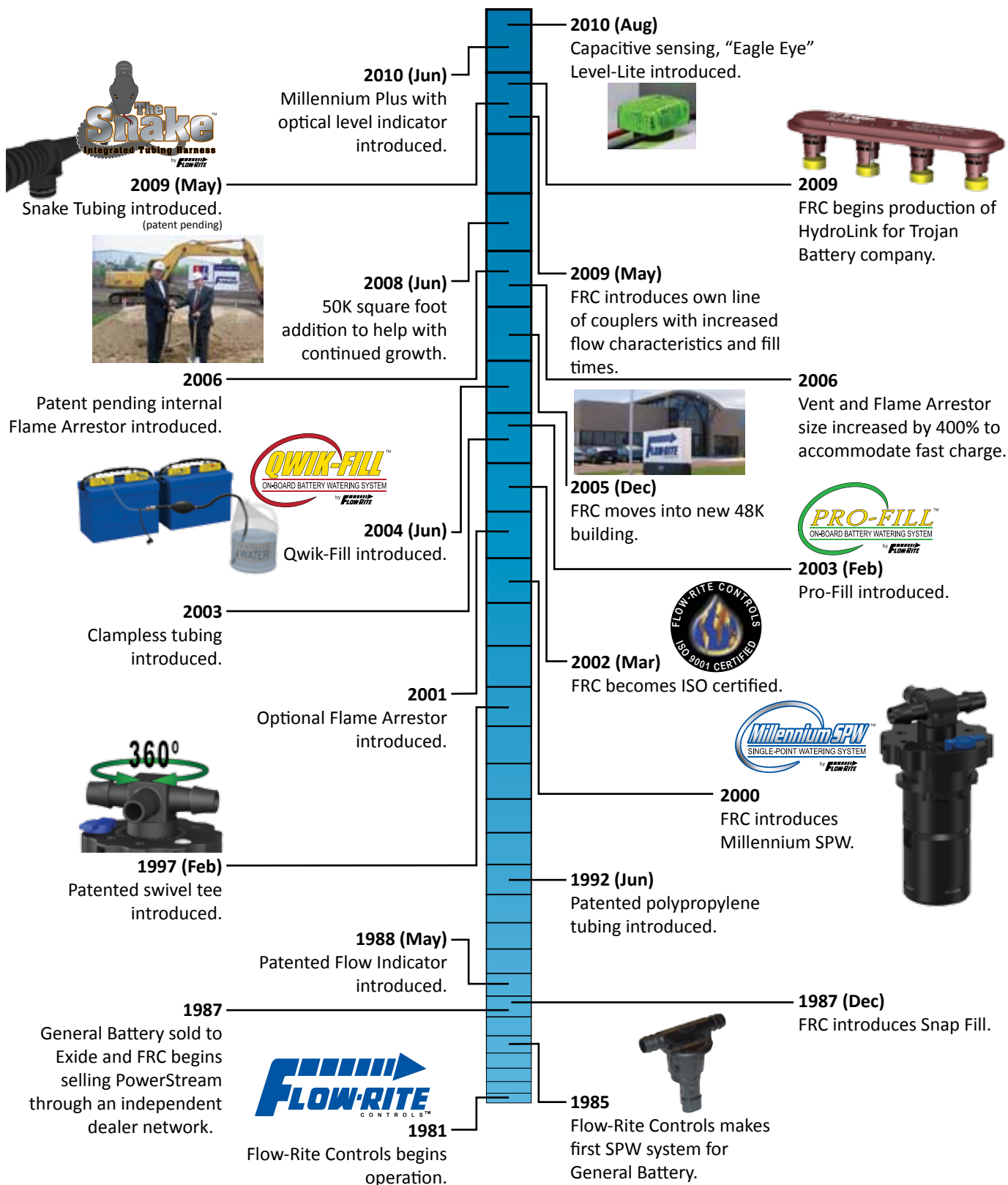
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Flow-Rite SPW Timeline





Quality Statement

Flow-Rite Controls, Ltd. is totally committed to offering the best performing, highest quality products in each market we serve. We promise our customers that we will continue to improve the quality of our existing products, as we continue our effort to expand our business into new markets. We at Flow-Rite Controls, Ltd., affirm this commitment and have established a comprehensive quality assurance system that allows our company to meet all of the requirements of the ISO 9001:2008 quality assurance standard.

Sales Policies

Orders

All orders must be submitted in writing. Purchase orders can be faxed to (616) 277-5137 or emailed to orders@flow-rite.com

Payment Terms

Cash in advance, C.O.D., Visa, Mastercard, Discover, American Express or Net 30 days for companies with approved credit. Any account with outstanding balances older than 15 days past the invoice date will be placed on credit hold.

Freight Terms

F.O.B. Flow-Rite Controls, Byron Center, MI., USA

Shipping Policy

All orders placed that contain SPW valves or nonstocked items are built to order and have typical lead times of 3-5 business days. Actual lead times vary based on order volume. For specific lead time, please contact the factory. Stock items will be shipped same day if the order is received before 11:30 AM (eastern standard time.)

Return Policy

Contact Flow-Rite Controls to obtain a Return Goods Authorization Number (RGA). Any package that is returned without an RGA number will be refused. Returns are subject to a 15% restocking fee.



FOR ALL OF YOUR INDUSTRIAL BATTERY WATERING NEEDS



AGVs



FORK LIFTS



LOCOMOTIVES



**POWERED
PALLET JACKS**



**SCRUBBER
& SWEEPERS**



**STANDBY
POWER**

Features and Benefits

Millennium Plus+™ is the most innovative, advanced, versatile, and user friendly system on the market today. At a glance, many of the superior features are evident; from the clampless polypropylene tubing, independent optical level indicator, color coded flip top cap, and low profile to the protective shroud. But what's even more impressive is the structure inside the valve. The Millennium Plus+™ valve is capable of working independently of water pressure*, allowing you to use a variety of water supply options.

Date Code

Valves include a 5 year warranty and are date coded to ensure quality.

3-Port Swivel Tee

Rotates 360° for easier installation

Color Coded Flip Tops

Flip top color matches shroud color for easy valve identification.

Optical Level Indicator**

Built-in indicator provides a quick and easy way to see when individual cells require water.

Raised Vents

Provides more room inside of the cell for fluid expansion.

Protective Shroud

Protects the displacer from any potential damage.

Gasket Retention Tabs

Two small tabs keep the gasket in place for simplified installation.
(highlighted orange for illustrative clarity)

* 3-35 static psi

** Not available on all valve configurations



Optical Level Indicator

Check your electrolyte levels without having to remove your watering system. The built in indicator is white when the cell is low on water and black when full. Since it operates independently from the valve, it is the only built in indicator on the market that can truly be used to accurately verify cell electrolyte levels.



Color Coded Flip-Top Cell Access

Check specific gravity levels with ease. Flip Top access port gives direct cell access without the need for drilling cell covers or removing the watering system. New color coding allows for easy verification of valve length after the valves have been installed.



Clampless Polypropylene Tubing

Patented clampless tubing installs in half the time of tubing that requires clamps and holds twice as good. Unlike clear PVC tubing, our patented tubing will not break down and cause system failure.



3-Port Swivel T

Patented Three Port Swivel rotates a full 360 degrees allowing for a more versatile installation. Eliminates kinked tubing and the need for additional plumbing pieces and allows you to place the feed tube wherever it's most convenient, not just at the end.



Low Profile

The patented low profile design keeps all components of the watering system out of harm's way by making sure that they all sit below the intercell connectors.



Wide Pressure Range

Millennium's patented technology eliminates the need to buy expensive water supplies to generate high pressure and flow. Our variable pressure system will work from 3 to 35 PSI, with minimum flow rate of 2 GPM (measured through the purger.) Flow-Rite offers the most complete range of water supplies including Regulated Hose supplies, AC/DC powered carts, portable units, gravity tanks, deionizers, and hand pumps.



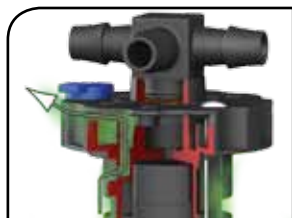
Protective Shroud

The shroud protects the internal displacer from potential damage from plate growth, during installation, shipping & handling. When installed, it protects the valve from foreign particles (in the battery) entering and “clogging” the water system.



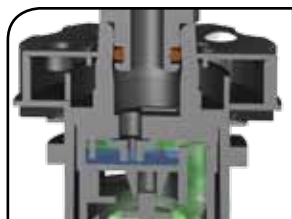
Acid Resistant Components

All Millennium components, including the tubing, are made of the same (polypropylene) plastic as the battery. This means all materials are acid, temperature, and impact resistant to withstand the harsh environment found on top of the battery.



De-Gas Chamber

The Millennium valve has a built in De-gassing chamber (similar to the factory vent caps) which allows the cell to expel the naturally occurring hydrogen and oxygen gases. The standard cap seen here disperses the gases in a manner which dilutes them with the outside air, reducing the risk of ignition.



Internal Water Lock

In the event of a fire, this eliminates the possibility of flame propagation between cells via the watering system.



Flame Arrestor (optional)

The optional flame arrestor makes Millennium the safest battery watering system on the planet. A necessary safety feature for all stationary batteries, utility vehicle batteries, and other batteries used in potentially dangerous enclosed environments. The flame arrested valve now includes a patent pending internal flame arrestor protecting against flame propagation in applications where the internal water trap is subject to drying out.



5 Year Warranty

We stand behind all of our SPW systems. We offer a full 5 year warranty on all Millennium Plus+™ components (excluding water supplies). Each valve is date stamped with the shift, day, month and year to ensure quality. All products are made in the U.S.A. by Flow-Rite Controls,™ an ISO 9001:2008 company.



Cost Justification Worksheet

Directions: Place the appropriate number in Section A and then place it in the corresponding color coded box in Section B and Section C.

Section A

- A. Weekly Watering (average time = 1minute per cell)
 B. Labor Cost (# minutes divided by 60 x hourly labor cost)
 C. 52 weeks per year (Line B x 52)
 D. Retail cost of MILLENNIUM (see dealer for pricing)
 E. First year cost (add lines C and D)

*Does not include installation

Manual

Millennium

_____ min.

1 min.

\$ _____

\$ _____

\$ _____

\$ _____

\$ 0.00

\$ _____

\$ _____

\$ _____

Section B

Five Year Savings

	Manual		Millennium		Savings
Year One	\$ _____	-	\$ _____	=	\$ _____
Year Two	\$ _____	-	\$ _____	=	\$ _____
Year Three	\$ _____	-	\$ _____	=	\$ _____
Year Four	\$ _____	-	\$ _____	=	\$ _____
Year Five	\$ _____	-	\$ _____	=	\$ _____

Total Five Year Savings (add savings column) \$ _____

Multiply by # of batteries \times _____

Total Savings with Flow-Rite over Five Years \$ _____

Section C

Payoff

\$ _____ / \$ _____ = _____ x 12 = _____ Month Payoff

Annual Labor Savings

(Systems are guaranteed for 5 years)

(These figures DO NOT include the added benefits of safety or battery life extension)

	1 Battery	10 Batteries	50 Batteries	100 Batteries
Labor Rate of \$15	\$221	\$2,210	\$11,050	\$22,100
Labor Rate of \$20	\$295	\$2,950	\$14,750	\$29,500
Labor Rate of \$25	\$368	\$3,680	\$18,400	\$36,800

Order Guide for Kits

BK - X X X - X X X - X X X

of Battery Cells

For batteries with less than 10 cells enter a "0" for the first character.

Quick Coupler Type

1 = PowerStream
5 = Millennium, Pro-Fill & Philadelphia Sci. Stealth
7 = BFS Gray
8 = Philadelphia Scientific Injector

Cap Options

00 = None (Select with flame arrested valves)
01 = Flip Top & Optical Level Indicator (Standard, N/A with External Flame Arrestors. Optical is not available on M30 or GNB Valves)

Valve Length

1 = Yellow (short)
2 = Black (Standard)
3 = Red (Long)
4 = White (XL)
G = GNB
N = Extender & GNB

Tubing Options

0 = Clampless Tubing - precut 6.75"
B = Snake Tubing 6.75" Spacing (17-27 plate)
C = Snake Tubing 7.5" Spacing (5-15 plate)
D = Snake Tubing 8.7" Spacing (cover case)

Millennium SPW Kit Type

C = Standard Clampless (No Flame Arrestors, Black Cover)
F = Flame Arrested (Internal & External, Blue Cover)
O = Flame Arrested (Internal Only, Orange Cover)





Cap Style

1 = Bayonet
2 = 35P (35 mm push-in DIN)
3 = GS (4 lug)
4 = M30 (30 mm threaded)




For a more detailed description of our part number scheme please see the following 2 pages. Here you will find pictures, specifications and more detailed descriptions of what each number means when purchasing a Millennium SPW kit.

Customize your SPW kit in 7 quick easy steps! Just enter the “code” letter or number into the corresponding spot in the part number scheme. You will see a continuing example in the top right hand corner of each step.





Selecting the Cap Style

example: BK-1 - - -		
Part	Code	Description
	1	Bayonet, fastens to the battery with a 2 lug 1/4 turn lock. Most commonly used cap style in America.
	2	35P “push in” or Din cap is a standard for Douglas brand batteries and most European manufactured batteries.
	3	GS, a 4 lug cap, is commonly found on GS brand batteries in the Asia Pacific region (Korea, Japan, Australia, etc.)
	4	M30, a 30mm threaded cap, is typically found in Japan.


Selecting the Kit Type

example: BK-1C - - -		
Part	Code	Description
	C	No Flame Arrestors
	F	Internal and External Flame Arrestors.
	O	Internal Flame Arrestors Only



Selecting the Tubing Options

example: BK-1C0- - - -		
Part	Code	Description
	0	Clampless Tubing - precut 6.75" long
	B	Snake Tubing with 6.75" spacing (17-27 plate batteries)
	C	Snake Tubing with 7.5" spacing (5-15 plate batteries)
	D	Snake Tubing with 8.7" spacing





Selecting the Valve Length

example: BK-1C0-2 - - -				
				<p><i>It is the distributors' responsibility to determine the correct valve length. The following information is provided as a guide only. If you are uncertain which to use, we strongly recommend measuring the cell depth.</i></p>
Part	Code	T1 Valve Length	T2 Shut-Off Length	Common Applications
Short (yellow)	1	1.875	1.25	Monobloc / Commercial (Crown, Interstate, Trojan, U.S. Battery, etc.)
Standard (black)	2	2.125	1.438	Battery Builders, Bulldog, C&D, Crown, Deka, Douglas, Hawker, Powerflow, Reaco, Some EnerSys & GBC (E55L, E75L, E85, E100, E110, 100G, 100P)
Long (red)	3	2.50	1.75	Some GBC, Hup, and EnerSys Models (E140, E155, 125G, 125P, 130A)
Extra Long (white)	4	2.75	2.00	Some GBC, Hup, and EnerSys Models (E75/G, E85D, E100D, E125, E125D, 85G, 85P)
GNB	G	2.125	1.25	GNB Batteries (Includes Flat Plate, Liberator, and Tubular)
GNB (Railroad)	N	3.625	2.75	GNB Locomotive Starting Batteries

Selecting Valve Cap Options

example: BK-1C0-201-__			
	Options	Code	Common Applications
	None	00	Available in conjunction with externally flame arrested valves or cell inspection plug.
	Flip Top & Optical Level Indicator	01	Standard most used cap.

Selecting Coupler Options







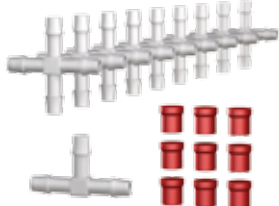

example: BK-1C0-201-5__			
	Manufacturer	Code	Water Supply Being Used
	Flow-Rite	1	For use with Powerstream water supplies.
	Flow-Rite	5	For use with Millennium Plus+, Pro-Fill or Philadelphia Scientific Stealth water supplies.
	BFS	7	For use with BFS water supplies using gray Walther coupler.
	Phil. Sci.	8	For use with Philadelphia Scientific injector water supplies.

Note: Water supply converters are also available on the Water Supply Accessories page.

Selecting the Battery Size

example: BK-1C0-201-5 18
Last simply enter the number of cells your battery has. For a battery with less than 10 cells enter 0 and then the number of cells. For example with 6 cell battery you would enter 06 and for an 18 cell battery you would enter 18.

Pre-cut Clampless Kits

Contents			
			
Millennium Plus+ Valve Qty = 1 per cell	Coupler with dust cover Qty = 1 per kit <i>note: may already be preinstalled on feed tube.</i>	Clampless Tubing Qty = 1 precut section per cell + 1 feed tube	Red End Caps Qty = 9 per six cells
			
Battery Refill Record Qty = 1 per kit	Spanner Tool Qty. 1 per kit <i>note: not included with 35P kits.</i>	Large Battery Manifold Kit Qty = 1 per kit <i>note: included with kits over 24 cells.</i>	Instructions BL-056 Qty = 1 per kit

Note: The kit p/n's listed below are for black length valves with standard couplers. To change the valve length: change the "201" to "101" for yellow, "301" for red, "401" for white, or "G01" for GNB. See Kit Ordering Guide for additional options.

Bayonet Kits		
Kit Size	Part Number	List Price
6 Cell	BK-1C0-201-506	\$118.00
9 Cell	BK-1C0-201-509	\$172.00
12 Cell	BK-1C0-201-512	\$226.00
18 Cell	BK-1C0-201-518	\$334.00
20 Cell	BK-1C0-201-520	\$370.00
24 Cell	BK-1C0-201-524	\$442.00
36 Cell	BK-1C0-201-536	\$658.00
40 Cell	BK-1C0-201-540	\$730.00

Note: M30 & GNB Valves do not include optical indicator.



MILLENNIUM PLUS+







35P (push in) Kits		
Kit Size	Part Number	List Price
6 Cell	BK-2C0-201-506	\$118.00
9 Cell	BK-2C0-201-509	\$172.00
12 Cell	BK-2C0-201-512	\$226.00
18 Cell	BK-2C0-201-518	\$334.00
20 Cell	BK-2C0-201-520	\$370.00
24 Cell	BK-2C0-201-524	\$442.00
36 Cell	BK-2C0-201-536	\$658.00
40 Cell	BK-2C0-201-540	\$730.00

GS Kits		
Kit Size	Part Number	List Price
6 Cell	BK-3C0-201-506	\$118.00
9 Cell	BK-3C0-201-509	\$172.00
12 Cell	BK-3C0-201-512	\$226.00
18 Cell	BK-3C0-201-518	\$334.00
20 Cell	BK-3C0-201-520	\$370.00
24 Cell	BK-3C0-201-524	\$442.00
36 Cell	BK-3C0-201-536	\$658.00
40 Cell	BK-3C0-201-540	\$730.00

M30 Kits		
Kit Size	Part Number	List Price
6 Cell	BK-4C0-201-506	\$118.00
9 Cell	BK-4C0-201-509	\$172.00
12 Cell	BK-4C0-201-512	\$226.00
18 Cell	BK-4C0-201-518	\$334.00
20 Cell	BK-4C0-201-520	\$370.00
24 Cell	BK-4C0-201-524	\$442.00
36 Cell	BK-4C0-201-536	\$658.00
40 Cell	BK-4C0-201-540	\$730.00

Bulk Kits

Contents



Each master pack contains:				
				<p><i>Note: No quick coupler, Battery Refill Record, or Spanner Tool is included</i></p>
Millennium Plus+ Valve Qty = 60	Red End Caps Qty = 70	Clampless Tubing Qty = 40' (uncut tubing)	Instructions BL-056	



Master Packs (60 Valves)


Bayonet	
Bayonet cap with yellow valves	BA-MMP-11-C
Bayonet cap with black valves (standard)	BA-MMP-12-C
Bayonet cap with red valves	BA-MMP-13-C
Bayonet cap with white valves	BA-MMP-14-C
Bayonet cap with GNB valves	BA-MMP-1G-C (Does not include Optical indicator)
35P	
Bayonet cap with yellow valves	BA-MMP-21-C
Bayonet cap with black valves (standard)	BA-MMP-22-C
Bayonet cap with red valves	BA-MMP-23-C
Bayonet cap with white valves	BA-MMP-24-C
GS	
Bayonet cap with yellow valves	BA-MMP-31-C
Bayonet cap with black valves (standard)	BA-MMP-32-C
Bayonet cap with red valves	BA-MMP-33-C
Bayonet cap with white valves	BA-MMP-34-C
M30	
Bayonet cap with yellow valves	BA-MMP-41-C (Does not include Optical indicator)
Bayonet cap with black valves (standard)	BA-MMP-12-C (Does not include Optical indicator)
Bayonet cap with red valves	BA-MMP-43-C (Does not include Optical indicator)
Bayonet cap with white valves	BA-MMP-44-C (Does not include Optical indicator)



Clampless Replacement Valves

Only available in 6 packs. Includes red end caps.

Bayonet	
Flip Top	Flame Arrested
	
BA-C10-11-6P (yellow) BA-C10-21-6P (black) BA-C10-31-6P (red) BA-C10-41-6P (white) BA-C10-G1-6P (GNB) BA-C10-N1-6P (GNB ext)	BA-F10-10-6P (yellow) BA-F10-20-6P (black) BA-F10-30-6P (red) BA-F10-40-6P (white) BA-F10-G0-6P (GNB) BA-F10-N0-6P (GNB ext)

35P	
Flip Top	Flame Arrested
	
BA-C20-11-6P (yellow) BA-C20-21-6P (black) BA-C20-31-6P (red) BA-C20-41-6P (white)	BA-F20-10-6P (yellow) BA-F20-20-6P (black) BA-F20-30-6P (red) BA-F20-40-6P (white)












GS	
Flip Top	Flame Arrested
	N/A
BA-C30-11-6P (yellow) BA-C30-21-6P (black) BA-C30-31-6P (red) BA-C30-41-6P (white)	N/A

M30	
Flip Top	Flame Arrested
	
BA-C40-11-6P (yellow) BA-C40-21-6P (black) BA-C40-31-6P (red) BA-C40-41-6P (white)	BA-F40-10-6P (yellow) BA-F40-20-6P (black) BA-F40-30-6P (red) BA-F40-40-6P (white)

Clampless Replacement Parts

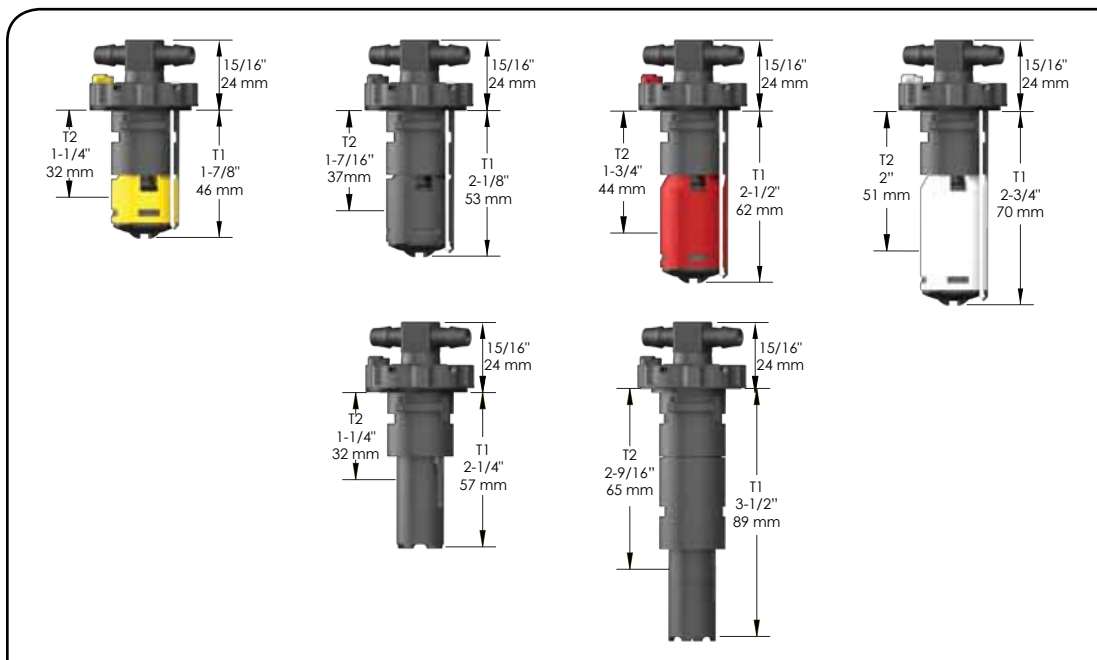
 <p>BA-142 Clampless Swivel T with O-Ring</p>	 <p>BD-00202 O-Ring for Swivel T</p>	 <p>BD-00280 Red End Cap for Clampless Swivel</p>
 <p>BD-T14 Clampless Tubing (sold by the foot)</p> <p>BD-T14-500 500 Foot Roll of Tubing</p>	 <p>BD-00246-BLU Clamp Ring for quick coupler</p>	 <p>BD-00525 Gasket for Bayonet & M30 caps 2006 and newer</p>
 <p>BD-BRR Battery Refill Record Calendar</p>	 <p>MD-00014 O-Ring for BA-QDV-500 & BA-QDV-505 Quick Coupler</p>	 <p>BD-00203 O-Ring for 35P cap</p>
 <p>BA-QDV-505 Coupler for Millennium Plus+, Pro-Fill or Stealth</p>	 <p>BA-QDV-105 Coupler for PowerStream</p>	 <p>BA-QDV-705 Coupler for BFS</p>
 <p>BA-QDV-805 Coupler for Philadelphia Scientific Injector</p>	 <p>BA-017 Large Battery Manifold</p>	 <p>BD-00110 Spanner Tool</p>

The Snake™ Replacement Parts

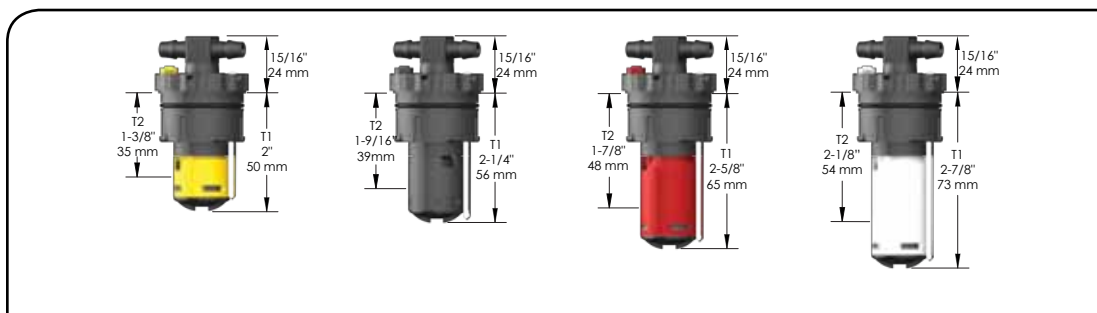
 <p>6-Cell Segments SNK-0687 (8.7" Spacing) SNK-0675 (7.5" Spacing) SNK-0668 (6.8" Spacing) SNK-0638 (3.8" Spacing)</p>	 <p>Coupler w/ 42" Feed Tube SNK-0042</p>	 <p>Coupler w/ Snake Adapter SNK-F124</p>
 <p>End Cap SNK-F156</p>	 <p>Tee SNK-F149</p>	 <p>Coupler Adapter (1/4" x 3/8") SNK-F123</p>
 <p>Segment Connector SNK-F190</p>	 <p>Bayonet Valves (w/o swivel) BA-C1A-11-6 Yellow, Qty 6 BA-C1A-21-6 Black, Qty 6 BA-C1A-31-6 Red, Qty 6 BA-C1A-41-6 White, Qty 6 BA-C1A-G1-6 GNB, Qty 6</p>	 <p>35P Valves (w/o swivel) BA-C2A-11-6 Yellow, Qty 6 BA-C2A-21-6 Black, Qty 6 BA-C2A-31-6 Red, Qty 6 BA-C2A-41-6 White, Qty 6</p>
 <p>Gasket for Bayonet Cap BD-00525</p>	 <p>O-Ring for Male 500 & 505 Quick Couplers MD-00014</p>	 <p>O-ring for 35p Cap BD-203</p>
 <p>Battery Refill Record BD-BRR</p>	 <p>The Snake™ Integrated Tubing Harness by FLOW-RITE</p>	

Technical Specifications

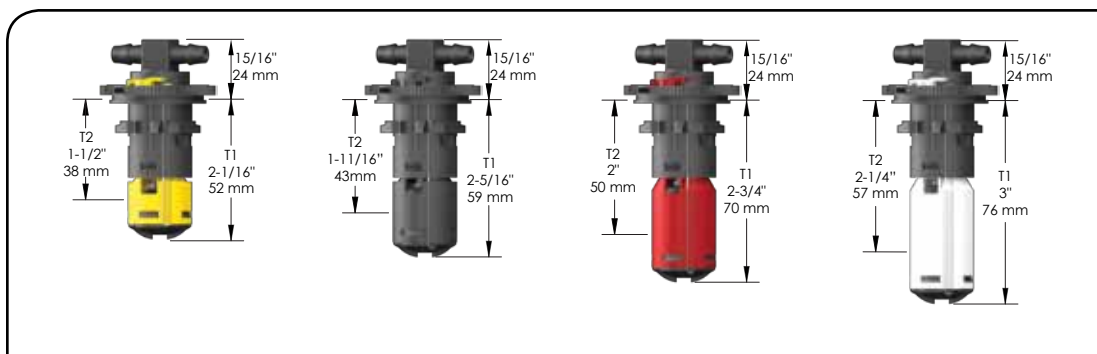
Bayonet Valve Lengths (also applies to M30 Valves)



35P Valve Lengths



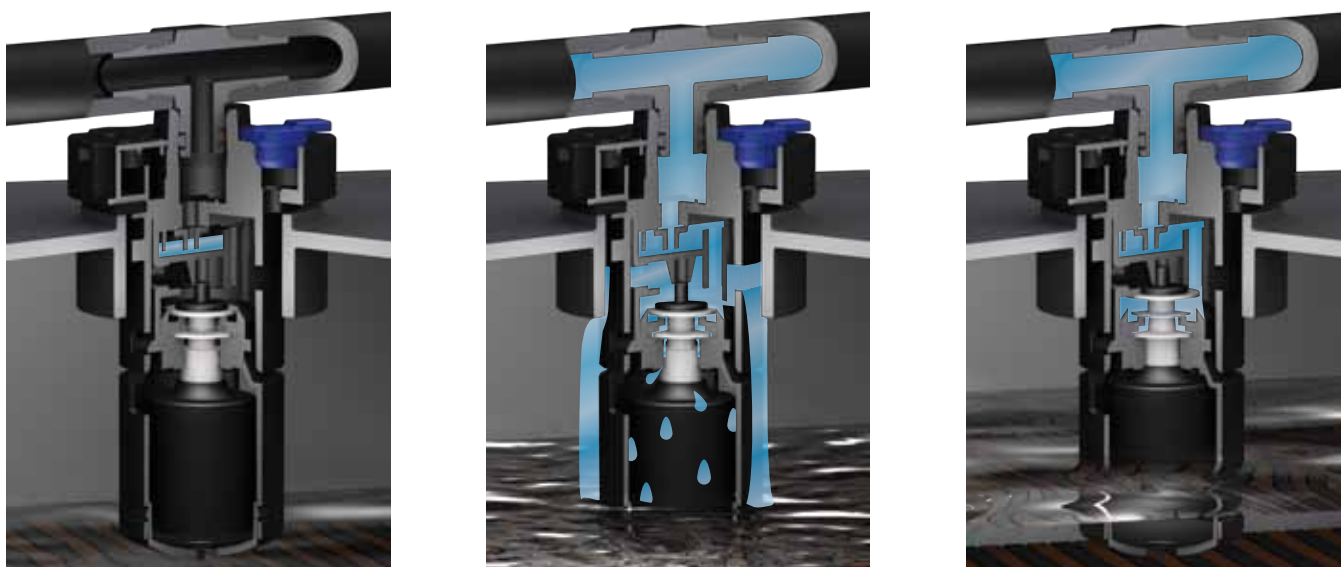
GS Valve Lengths



Internal View

The Millennium Plus+™ valve operation features a patented technology that sets the standard for reliability and versatility with single point watering. Without levers, hinges, or pivot action, Millennium Plus+™ valves can operate independently of refill water supply pressure* to accurately control cell electrolyte levels. Through Fluidic Displacer Valve Technology, the Millennium Valve uses a dual, balanced design that allows the displacement force to act directly through the center of the valve without any mechanical leverage. The Millennium Plus+ valve is very sensitive to the displacement force, allowing a very small displacer to be used. At the same time, it is very insensitive to variations in the water supply pressure used, making it a true multi-pressure valve.

**The Millennium Plus+ Valve requires 3-35 PSI static (no flow) pressure and a minimum of 2GPM flow rate (measured through the purger) for proper operation.*



Operating Requirement of SPW System

Flow-Rate:	2-5 gallons per minute*
Pressure Range:	3-35 PSI (no flow, static)
Temp. Range:	Freezing - 150° F (Freezing - 65.5° C)

Water Supply Operating Requirements

Inlet Pressure Range:	40 - 100 PSI (no flow, static)
Temp. Range:	33 - 150° F (1 - 65.5° C)

All product specifications should be met for proper operation of your Flow-Rite SPW system. Contact battery supplier or Flow-Rite Controls if you have any questions regarding product specifications or how to verify a water supply.

**Flow rate should be measured at the end of a purger (female / male coupler combination).*

Troubleshooting Guide

• All cells overfilling

Inadequate water supply	<i>Make sure the water supply is producing 3-35 ps static pressure, and at least 2 GPM measured through the purger.</i>
Dirty filter screen	<i>Clean or replace as necessary.</i>

• Random cells overfilling

Kinked tubing	<i>Unlink and reroute tubing.</i>
Water supply requires maintenance	<i>Clean all filter screens & make sure the water supply is producing between 3-35 psi static pressure, and at least 2 GPM measured through the purger.</i>
Damaged valve	<i>Replace as necessary..</i>
Incorrect watering frequency (too often)	<i>Only water when needed on a fully charged battery.</i>

• Electrolyte is found on top of the battery after charging

Battery was watered before being fully charged	<i>Only water a fully charged battery! For fast charge applications you should add water after equalize.</i>
Incorrect watering frequency (too often)	<i>Only water when needed.</i>
Water supply requires maintenance	<i>Clean all filter screens & make sure the water supply is producing between 3-35 psi static pressure, and at least 2 GPM measured through the purger.</i>
Water supply left connected for extended period of time	<i>Disconnect Water Supply immediately after filling has been completed.</i>

• Dry Cells

Kinked tubing	<i>Unkink & reroute tubing.</i>
Incorrect water frequency	<i>Water more frequently.</i>
Damaged or modified water supply	<i>If water supply produces more than 35 static PSI. Ensure that the regulator is in place. Over pressurizing can damage valves permanently.</i>
Air not purged from water supply	<i>Purge air from water supply before filling battery.</i>



• Leaks during filling cycle

	Loose connections	<i>Check all connection points including o-ring on swivel tee, tubing connections, and water supply to SPW kit.</i>
	Damaged tubing	<i>Replace as necessary.</i>
	Damaged end caps	<i>Replace as necessary.</i>

• Tubing comes off swivel tee during filling cycle

	Improper installation	<i>Make sure the tubing is pushed all the way over the hose barb.</i>
	Damaged tubing	<i>Replace as necessary.</i>

• Red end caps come off swivel tee during filling cycle

	Damaged end caps	<i>Replace as necessary.</i>
	Damaged or modified water supply	<i>Water supply produces more than 35 static PSI. Ensure that the regulator is in place.</i>

• Swivel tee pops out of valve during filling cycle

	Improper installation	<i>Ensure Swivel is snapped into the valve fully.</i>
	Damaged or modified water supply	<i>If water supply produces more than 35 static PSI. Ensure that the regulator is in place.</i>

• Swivel tee pops out of valves

	Improper tube routing	<i>Reroute all tubing below battery cables.</i>
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Warranty



5 Year Limited Warranty for Millennium Plus+

Flow-Rite Controls warrants to Purchaser that its product, the Millennium Plus+ kit, will be free of all defects in material and workmanship for five (5) years after the date of purchase. If within five years of the date of purchase, the Millennium Plus+ kit, fails to perform due to a manufacturing defect, Flow-Rite Controls will repair or replace the Millennium Plus+ kit, free of charge.

A Return Authorization Number must be obtained from Flow-Rite Controls (through your Millennium Plus+ supplier) prior to returning product for warranty consideration. Purchaser must send any product covered under this warranty, along with a copy of supplier's invoice and description of the problem to: Flow-Rite Controls, 960 74th St SW, Byron Center, MI 49315.



Flow-Rite Controls Replacement Plus +

(Effective on Millennium Plus+ valves manufactured October 2007 or newer)

Flow-Rite wants to ensure that your Millennium Plus+ watering system is always functioning properly. If a swivel T, Gasket or O-Ring is ever damaged or broken during regular battery use we will replace the parts at no charge. Please follow normal return authorization process.

In addition, if the Millennium Plus+ kit is installed by an authorized representative in accordance with our installation instructions and a defect in this Millennium Plus+ system is the cause of a cell or battery failure (unable to deliver 80% of rated capacity), Flow-Rite Controls will repair or replace the cell or battery at its option and at its expense.*

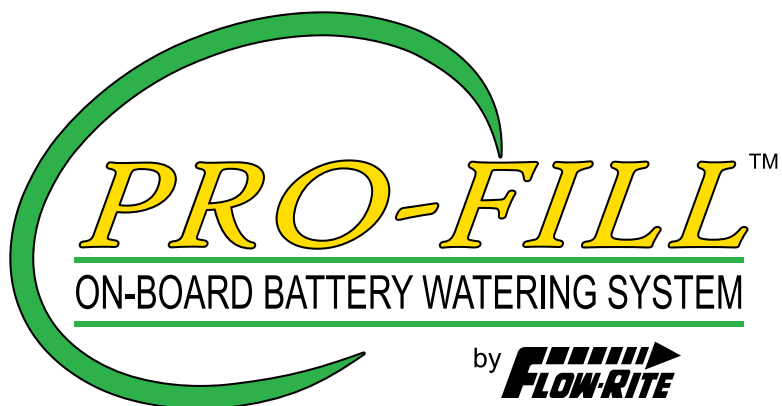
This warranty is subject to the following terms and limitations:

- The SPW system must be installed in agreement with Flow-Rite's current installation and operation instructions.
- The user must follow the recommended watering and maintenance procedures as directed by the Flow-Rite Controls and battery manufacturer's operation and maintenance manuals.
- The user must only fill the Millennium Plus+ system from Flow-Rite Controls authorized or approved water supplies.
- The warranty is void if the product is subject to misuse, abuse, inadequate maintenance or physical damage other than normal wear and tear.
- The warranty applies to the original user of the product and is not transferable. It applies only to product located in North America.

Flow-Rite Controls, at its option may require the following: documentation of who installed the SPW system, serial number of the battery, watering logs, photographs of installation or proof of purchase (copy of original invoice). Warranty claims must be submitted through your Millennium Plus+ supplier. Flow-Rite Controls, at its option, has the right to inspect the warranty claimant's facility for proper installation, operation and maintenance procedures of the battery watering system.

Disclaimer of Warranties: It is expressly understood and agreed that Flow-Rite Controls shall not be liable for damages or injuries to persons or property. Failure to promptly report a malfunction in your system may limit your coverage. This limited warranty expressly excludes any incidental or consequential damages. Because Flow-Rite's warranty excludes any incidental or consequential damages, Flow Rite recommends for the first three months checking electrolyte levels once a month. Thereafter, check electrolyte level once per quarter.

*Limited to cost of repair, does not include travel or transportation. Covered costs are subject to Flow-Rite Controls warranty cost schedule. For valves dated October 2007 and earlier contact Flow-Rite Controls at (616) 583-1700



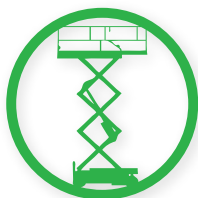
FOR ALL OF YOUR COMMERCIAL BATTERY WATERING NEEDS



GOLF CARS



**POWERED
PALLET JACKS**



**SCISSOR
LIFTS**



**SCRUBBER
& SWEEPERS**



**STANDBY
POWER**



RVs

Features and Benefits

Pro-Fill™ onboard battery watering system is the only system that has been specifically designed for the golf car/utility vehicle application. At a glance, many of the superior features are evident. Everything from the patented manifolds, standard flame arrestors, three port swivel, and clampless polypropylene tubing, to the new easy install winged caps, but what's even more impressive is the structure inside the valve. The Pro-Fill™ valve is capable of working independent of water pressure (3-35 static PSI, with 2 GPM flow rate), allowing you to use a variety of water supply options. In addition, the Pro-Fill™ valve includes a built in water barrier to block the propagation of a flame front from entering adjacent cells in the event of accidental cell gas ignition, while each valve includes an external flame arrested de-gas chamber as a standard.

Date Code

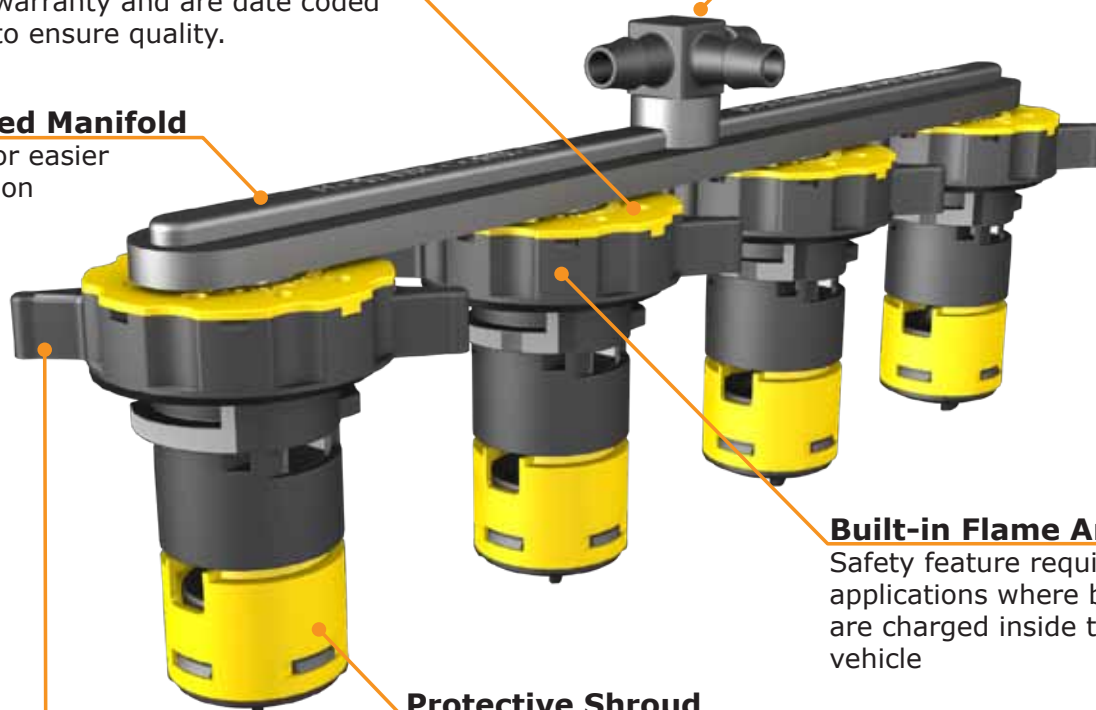
Valves include a 5 year warranty and are date coded to ensure quality.

3-Port Swivel Tee

Rotates 360° for easier installation

Patented Manifold

Allows for easier installation



Built-in Flame Arrestor

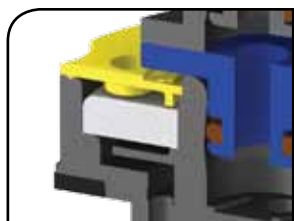
Safety feature required for applications where batteries are charged inside the vehicle

Protective Shroud

Protects the displacer from any potential damage

Winged Caps

Provides the fastest, most secure connection to the battery



Flame Arrestor

Our flame arrestor inside of each valve makes Profill™ the safest battery watering system on the planet. Approved by major battery manufacturers, Pro-fill™ has this built-in safety feature that is necessary for all applications such as golf car, utility vehicle, Sweeper, Scrubber, Pallet Jack, or anywhere batteries are used in an enclosed space or otherwise potentially dangerous environments.



Patented Manifold

Our patented manifold provides for the quickest and easiest installation period!



Winged Valves

Winged Valves make installation quicker and easier than before. Buy a precut kit and leave your tools at home. With the pre-cut Pro-Fill system, no tools are necessary for installation.



3-Port Swivel Tee

Our patented 3-Port Swivel rotates a full 360 degrees allowing for the most versatile installation. No more worries about kinked tubing or the need for extra plumbing fittings. The swivel also integrates an easy in, hard out design to protect the O-ring.



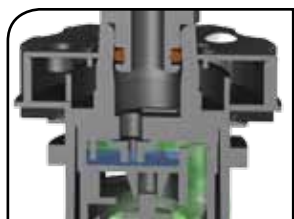
Clampless Polypropylene Tubing

Our patented clampless tubing installs in half the time of clamp style tubing and holds twice as well. Unlike clear PVC tubing, our patented tubing will not break down and cause system failure.



Wide Pressure Range

With Pro-Fill's™ patented technology, you don't have to buy expensive water supplies to generate high pressure and flow. Our variable pressure system will work from 3 to 35 PSI (static) with minimum flow rate of 2 GPM.



Internal Water Lock

Perhaps the most important and least known feature of the Pro-Fill™ valve, the internal water lock prevents gases from traveling between cells. In the event of a fire, this eliminates the possibility of flame propagation between cells via the watering system.



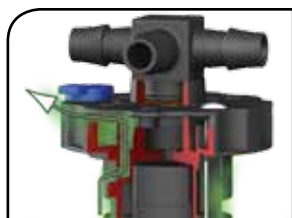
Protective Shroud

The shroud protects the internal displacer from damage. Whether it be from plate growth, during installation, shipping, or any other time. It further protects the valve from foreign particles in the battery entering and “clogging” the water system.



Acid Resistant Components

Just like our predecessor systems, all Pro-Fill™ components are made of polypropylene. This means all materials are acid, temperature, and impact resistant.



De-Gas Chamber

The Pro-Fill valve has a built in De-gassing chamber (similar to the factory vent caps) which allows the cell to expel the naturally occurring hydrogen and oxygen gases. The standard cap seen here disperses the gases in a manner which dilutes them with the outside air, reducing the risk of ignition.



5 Year Warranty

We stand behind all of our SPW systems. We offer a full 5 year warranty on all Pro-Fill™ components (excluding water supplies). Each valve is date stamped with the shift, day, month and year to ensure quality. All products are made in the U.S.A. by Flow-Rite Controls, an ISO 9001-2008 company.



PRO-FILL



Cost Justification

Directions: Place the appropriate number in Section A and then place it in the corresponding color coded box in Section B and Section C.

Section A

- A. Weekly Watering (average time = 1minute per cell)
 B. Labor Cost (# minutes divided by 60 x hourly labor cost)
 C. 52 weeks per year (Line B x 52)
 D. Retail cost of Pro-Fill (see dealer for pricing)
 E. First year cost (add lines C and D)

*Does not include installation

Manual

_____ min.

\$ _____

\$ _____

\$ 0.00

\$ _____

Millennium

1 min.

\$ _____

\$ _____

\$ _____

\$ _____

Section B

Five Year Savings

	Manual		Millennium		Savings
Year One	\$ _____	-	\$ _____	=	\$ _____
Year Two	\$ _____	-	\$ _____	=	\$ _____
Year Three	\$ _____	-	\$ _____	=	\$ _____
Year Four	\$ _____	-	\$ _____	=	\$ _____
Year Five	\$ _____	-	\$ _____	=	\$ _____

Total Five Year Savings (add savings column) \$ _____

Multiply by # of batteries _____ x _____

Total Savings with Flow-Rite over Five Years \$ _____

Section C






Payoff

\$ _____ / \$ _____ = _____ x 12 = _____ Month Payoff

Annual Labor Savings

Labor Rate	1 Car	10 Cars	50 Cars	100 Cars
\$8.00/hr	\$159.47	\$1,594	\$7,973	\$15,947
\$10.00/hr	\$199.33	\$1,993	\$9,966	\$19,933
\$12.00/hr	\$239.20	\$2,392	\$11,960	\$23,920

Pro-Fill Universal Kits

Contents					
					
Manifolds		Coupler w/ Dust Cover	Clampless Tubing	Red End Caps	Instructions
Kit Size	Qty of Manifolds	Qty = (1) per kit Note: may already be preinstalled on feed tube	Quantity varies with kit size	Qty = (9)	Qty = 1 per kit
12 volt	2 (6-volt manifolds)				
24 volt	4 (6-volt manifolds)				
36 volt	6 (6-volt manifolds)				
48 volt	8 (6-volt manifolds)				
48 volt	6 (8-volt manifolds)				

12 Volt Systems	Part Number	Description
	BG-U12V-0	12 volt kit for (2) 6v batteries with non standard spacing
	BG-U12V-1	12 volt kit for (2) 6v batteries with 2.7 inch cell spacing
	BG-U12V-2	12 volt kit for (2) 6v batteries with 3.3 inch cell spacing
	BG-U12V-7	12 volt kit for (2) 6v "Trojan Plus" series batteries
24 Volt Systems	Part Number	Description
	BG-U24V-0	24 volt kit for (4) 6v batteries with non standard spacing
	BG-U24V-1	24 volt kit for (4) 6v batteries with 2.7 inch cell spacing
	BG-U24V-2	24 volt kit for (4) 6v batteries with 3.3 inch cell spacing
	BG-U24V-7	24 volt kit for (4) 6v "Trojan Plus" series batteries
36 Volt Systems	Part Number	Description
	BG-U36V-0	36 volt kit for (6) 6v batteries with non standard spacing
	BG-U36V-1	36 volt kit for (6) 6v batteries with 2.7 inch cell spacing
	BG-U36V-2	36 volt kit for (6) 6v batteries with 3.3 inch cell spacing
	BG-U36V-7	36 volt kit for (6) 6v "Trojan Plus" series batteries
48 Volt Systems	Part Number	Description
	BG-U48V-0	48 volt kit for batteries with non standard spacing
	BG-U48V-1	48 volt kit for (6) 8v batteries with 2.3 inch cell spacing
	BG-U48V-2	48 volt kit for (6) 8v batteries with 2.5 inch cell spacing
	BG-U48V-3	48 volt kit for (8) 6v batteries with 2.7 inch cell spacing
	BG-U48V-4	48 volt kit for (8) 6v batteries with 3.3 inch cell spacing
	BG-U48V-7	48 volt kit for (8) 6v "Trojan Plus" series Batteries
	BG-U48V-8	48 volt kit for (4) 12v "Trojan 1275 Plus" series Batteries


Battery Cross Reference Chart

6-Volt Batteries				
Battery Brand	Model #	Cell Spacing	Manifold	Valve Style
Commander	C105	2.7	BA-121-BLU	BA-Y7A-10
Continental	Golf Cart	2.7	BA-121-BLU	BA-Y7A-10
Crown	All	2.7	BA-121-BLU	BA-Y7A-10
Deka (Pro Master)	GC10-GC45	2.7	BA-121-BLU	BA-Y7A-10
Deka (Pro Master)	L16	Other	Swivel T's	BA-Y7A-10
Energizer (Sam's Club)	GC2	3.3	BA-123-WHT	BA-Y7A-10
Pacer (Trojan)	All	2.7	BA-121-BLU	BA-Y7A-10
Power Volt	All	3.3	BA-123-WHT	BA-Y7A-10
Rolls	Series 4000, S460, S530	2.7	BA-121-BLU	BA-Y7A-10
Stow-Away (Exide)	All	3.3	BA-123-WHT	BA-Y7A-10
Trojan	T105, T125, T145, T605	2.7	BA-121-BLU	BA-Y7A-10
Trojan	J250P, J305H, J305P, L16H	Other	Swivel T's	BA-Y7A-10
Trojan	T105 Plus, T125 Plus, T145 Plus	Other	BA-127-Flex	BA-Y74-10
U.S. Battery	All	2.7	BA-121-BLU	BA-Y7A-10

8-Volt Batteries				
Battery Brand	Model #	Cell Spacing	Manifold	Valve Style
Centenial	Golf Car	2.5	BA-122-RED	BA-Y7A-10
Commander	C8VGC	2.5	BA-122-RED	BA-Y7A-10
Crown	All	2.5	BA-122-RED	BA-Y7A-10
Energizer (Sam's Club)	GC8V	2.5	BA-122-RED	BA-Y7A-10
Exide	GC8V	2.5	BA-122-RED	BA-Y7A-10
Trojan	T-875	2.3	BA-120-BLK	BA-Y7A-10
U.S. Battery	US 8VGC	2.5	BA-122-RED	BA-Y7A-10

12-Volt Batteries				
Battery Brand	Model #	Cell Spacing	Manifold	Valve Style
Club Car (Trojan)	1275	2.7	BA-121-BLU	BA-Y7A-60
Trojan	1275	2.7	BA-121-BLU	BA-Y7A-60
Trojan	1260 Plus, 1275 Plus, J150 Plus, J185P, J185H	Other	BA-128-Flex	BA-Y14-10
Trojan	J185G	2.7	BA-121-BLU	BA-Y7A-60
U.S. Battery	US185, US12V	2.7	BA-121-BLU	BA-Y7A-10

Replacement Parts

 <p>BA-121-BLU Pro-Fill Manifold for 6-volt battery with 2.7 inch center to center cell spacing (Black & Blue in color)</p>	 <p>BA-191-BLU Pro-Fill Manifold with valves for 6-volt battery with 2.7 inch center to center cell spacing (Black & Blue in color)</p>	 <p>BA-171-BLU Pro-Fill Manifold with valves and swivel for 6-volt battery with 2.7 inch center to center cell spacing (Black & Blue in color)</p>
 <p>BA-124-BLU Pro-Fill Manifold with offset swivel T for 6-volt battery with 2.7 inch center to center cell spacing (Black & Blue in color)</p>	 <p>BA-194-BLU Pro-Fill Manifold with valves with offset swivel T for 6-volt battery with 2.7 inch center to center cell spacing (Black & Blue in color)</p>	 <p>BA-174-BLU Pro-Fill Manifold with valves and swivel with offset swivel T for 6-volt battery with 2.7 inch center to center cell spacing (Black & Blue in color)</p>
 <p>BA-123-WHT Pro-Fill manifold for 6-volt battery with 3.3 inch center to center cell spacing (Black & White in color)</p>	 <p>BA-193-WHT Pro-Fill manifold with valves for 6-volt battery with 3.3 inch center to center cell spacing (Black & White in color)</p>	 <p>BA-173-WHT Pro-Fill manifold with valves and swivel for 6-volt battery with 3.3 inch center to center cell spacing (Black & White in color)</p>
 <p>BA-120-BLK Pro-Fill manifold for 8-volt battery with 2.3 inch center to center cell spacing (Solid Black in color)</p>	 <p>BA-190-BLK Pro-Fill manifold with valves for 8-volt battery with 2.3 inch center to center cell spacing (Solid Black in color)</p>	 <p>BA-170-BLK Pro-Fill manifold with valves and swivel for 8-volt battery with 2.3 inch center to center cell spacing (Solid Black in color)</p>
 <p>BA-122-RED Pro-Fill manifold for 8-volt battery with 2.5 inch center to center cell spacing (Black & Red in color)</p>	 <p>BA-192-RED Pro-Fill manifold with valves for 8-volt battery with 2.5 inch center to center cell spacing (Black & Red in color)</p>	 <p>BA-172-RED Pro-Fill manifold with valves and swivel for 8-volt battery with 2.5 inch center to center cell spacing (Black & Red in color)</p>

 <p>BA-Y7A-10 Pro-Fill Valve, standard, shroud, with wings</p>	 <p>BA-Y74-10 Pro-Fill valve, shroudless, clear displacer, wings (for use on Trojan 6 volt Plus batteries.)</p>	 <p>BA-Y14-10 Pro-Fill valve, shroudless, clear displacer, no wings (for use on Trojan 12-volt Plus batteries)</p>
 <p>BA-Y7A-60 Pro-Fill valve, shroudless, yellow displacer, wings, (for use on Trojan 12-volt legacy batteries)</p>	 <p>BA-127-FLEX Flexible Manifold 2.6" - 3.5" spacing</p>	 <p>BA-128-FLEX Flexible Manifold for use on Trojan 12-volt Plus batteries.</p>
 <p>BA-142 Swivel T with o-ring</p>	 <p>BD-T14 Clampless Tubing (sold by the foot)</p> <p>BD-T14-500 500 Foot Roll of Tubing</p>	 <p>BD-00280 Swivel Tee End Caps</p>
 <p>BA-QDV-505 Coupler</p>	 <p>BD-00525 Gasket for Bayonet cap</p>	 <p>BD-00421 Quick Coupler Bracket for Pro-Fill Systems</p>

Technical Specifications

Pro-Fill Operating Requirements

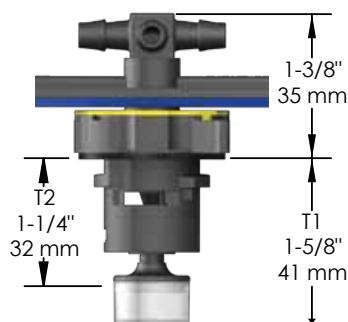
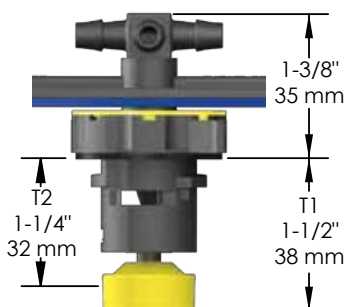
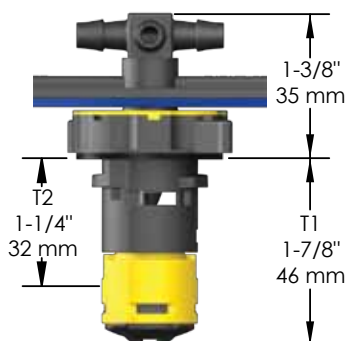
Flow Rate: 2-5 gallons per minute*
 Pressure Range: 3-35 PSI (no flow, static)
 Temp. Range: Freezing-150° F (Freezing - 65.5° C)

Water Supply Operating Requirements

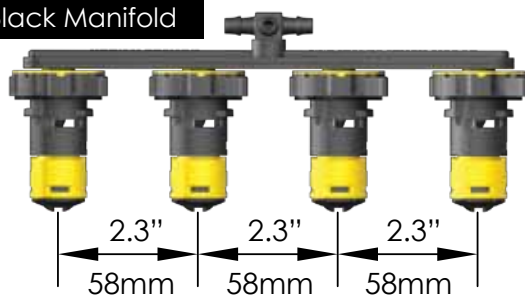
Inlet Pressure: 40 - 100 PSI (no flow, static)
 Temp. Range: 33 - 150° F (1 - 65.5° C)

All product specifications should be met for proper operation of your Flow-Rite SPW system. Contact battery supplier or Flow-Rite Controls if you have any questions regarding product specifications or how to verify a water supply.

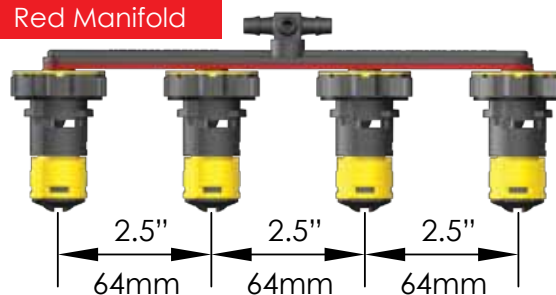
**flow rate should be measured at the end of a purger (female / male coupler combination).*



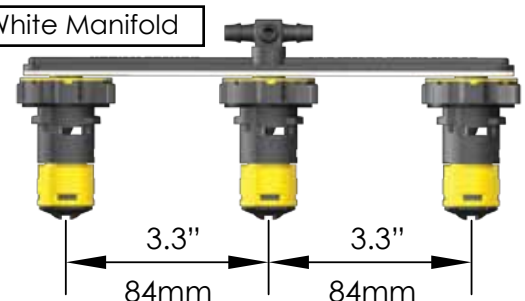
Black Manifold



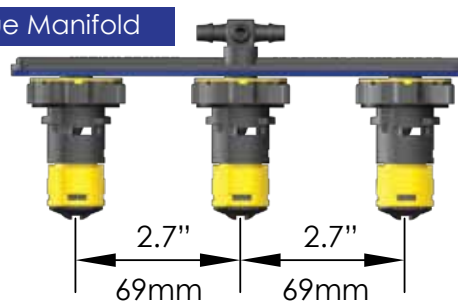
Red Manifold



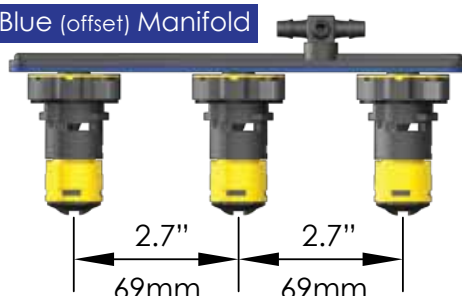
White Manifold



Blue Manifold



Blue (offset) Manifold





Warranty



5 Year Limited Warranty for Pro-Fill Kits

Flow-Rite Controls warrants to Purchaser that its product, Pro-Fill System Kit, will be free of all defects in material and workmanship for five (5) years after the date of purchase. If within five years of the date of purchase, the product, Pro-Fill System Kit, fails to perform, Flow-Rite will repair or replace the product, Pro-Fill System Kit, free of charge. Purchaser should send any product covered under this warranty, along with copy of Supplier's invoice and description of the problem to Flow-Rite Controls, 960 74th Street SW, Byron Center, MI 49315. Prior to sending back product, a Return Goods Authorization number must be obtained by contacting Flow-Rite Controls.

Disclaimer of Warranties: It is expressly understood and agreed that the buyer's sole and exclusive remedy shall be repair or replacement of defective parts, and that Flow-Rite Controls shall not be liable for damages or injuries to persons or property. In no event shall Flow-Rite Controls be liable for more than, and the buyer's exclusive remedy shall be limited to, the price of goods alleged to be defective. This limited warranty expressly excludes any incidental or consequential damages.

Note: Because Flow-Rite's warranty excludes any incidental or consequential damages, Flow Rite recommends for the first three months checking electrolyte levels once a month. Thereafter, check electrolyte level once per quarter.

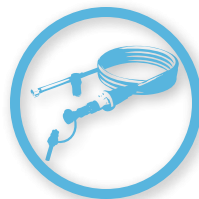
Return Policy

Contact Flow-Rite Controls to obtain a Return Goods Authorization Number (RGA). Any package that is returned without an RGA number will be refused. Returns are subject to a 15% restocking fee.

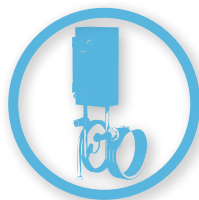
Water Supplies



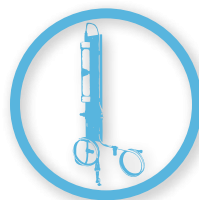
**PORTABLE
WATERING CARTS**



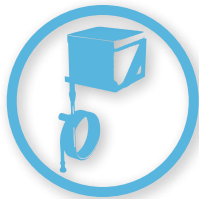
**REGULATED
HOSE SUPPLIES**



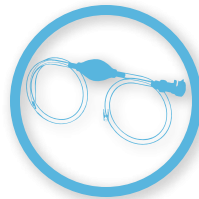
**PORTABLE
WATER SUPPLIES**



**NIAGARA
DEIONIZERS**



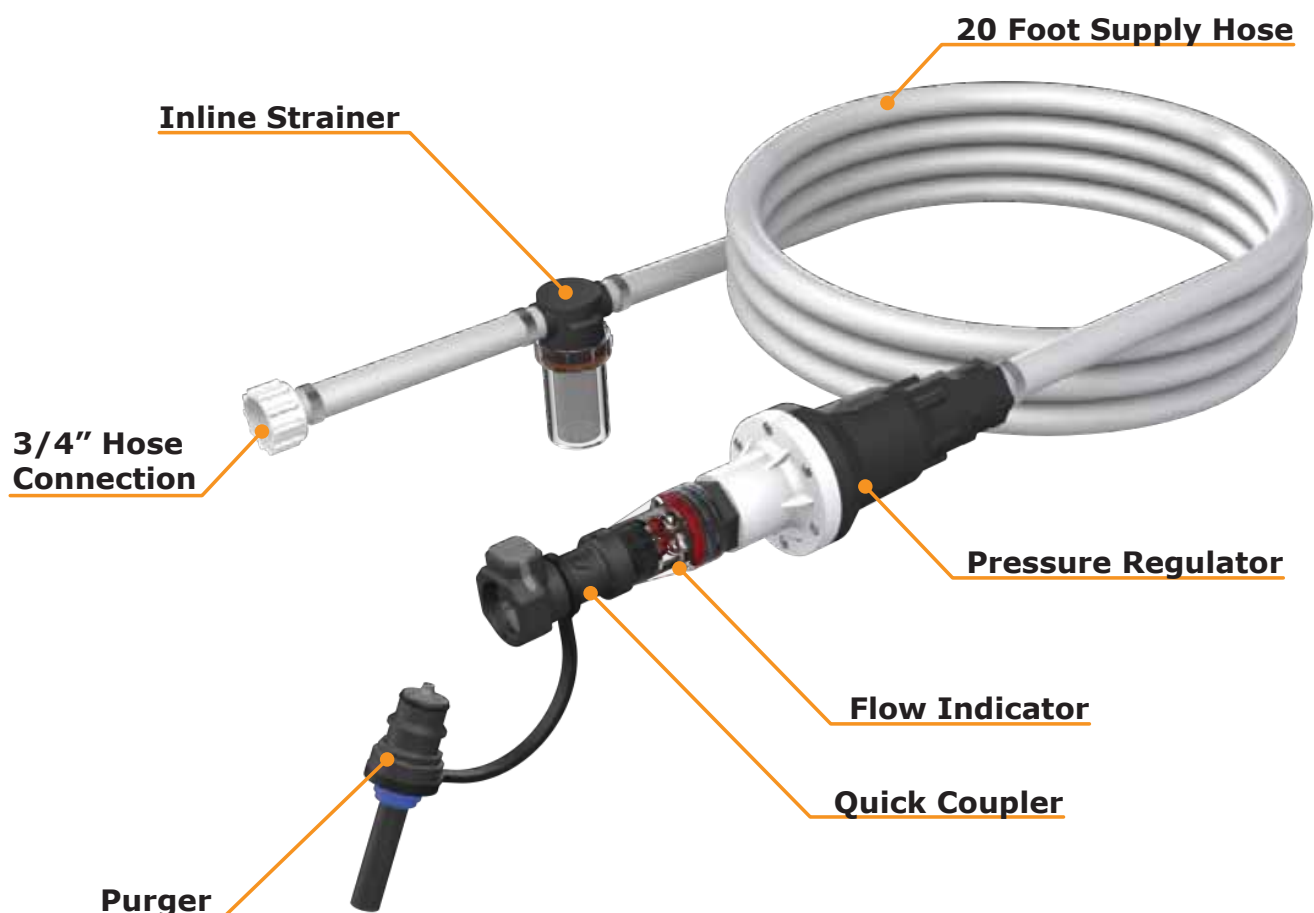
GRAVITY TANKS



HAND PUMP

Regulated Hose Supply

Regulated Hose Supply with 20' Hose	BA-MS-320-20
Regulated Hose Supply with 5' Hose	BA-MS-320-05



The Regulated Hose Supply, our number one seller, has no bulky components to mount and no valves to open or close. No tools Required -just screw the hose onto a standard garden hose bibb.

For use with batteries equipped with Millennium Plus+ or Pro-Fill systems (SPW system must have BA-QDV-505 Quick coupler)

1 FLOW-RITE CONTROLS
1 YEAR WARRANTY

Portable Watering Cart

DC Watering Cart with 110 VAC Charger, CE marked	BA-MS-105
AC Watering Cart , 110-115 VAC Powered	BA-MS-205



The AC & DC portable watering cars are ruggedly constructed of lightweight yet strong polyethelene plastic, and features a large 22 gallon holding capacity. The new cart also features a large refill hole with screw-on cover to keep out particles. A 12-volt sealed battery with its own on-board charger power the DC watering cart's variable speed pump. All components are DI water compatible.

For use with batteries equipped with Millennium Plus+ or Pro-Fill systems (SPW system must have BA-QDV-500 or BA-QDV-505 Quick coupler)

**1 FLOW-RITE CONTROLS
1 YEAR WARRANTY**

Niagara Deionizer

Niagara Deionizer, 110-115 VAC Light	BA-MS-341
Niagara Deionizer, 220-240 VAC Light	BA-MS-342
Niagara Replacement Cartridge	BA-221

Disposable Cartridge

Removes 76,000 total dissolved solids (PPM) before needing replacement

Input TDS	Gal. Yield
100	760
150	507
200	380
250	304
300	253

Water Quality Light

Green okay, red replace cartridge

Low Pressure Bypass

Maintains pressure in the event a cartridge is not changed and becomes clogged

10 Foot Hose

Connects to spigot

20 Foot Supply Hose

With inline strainer

Pressure Regulator

With flow indicator and quick coupler

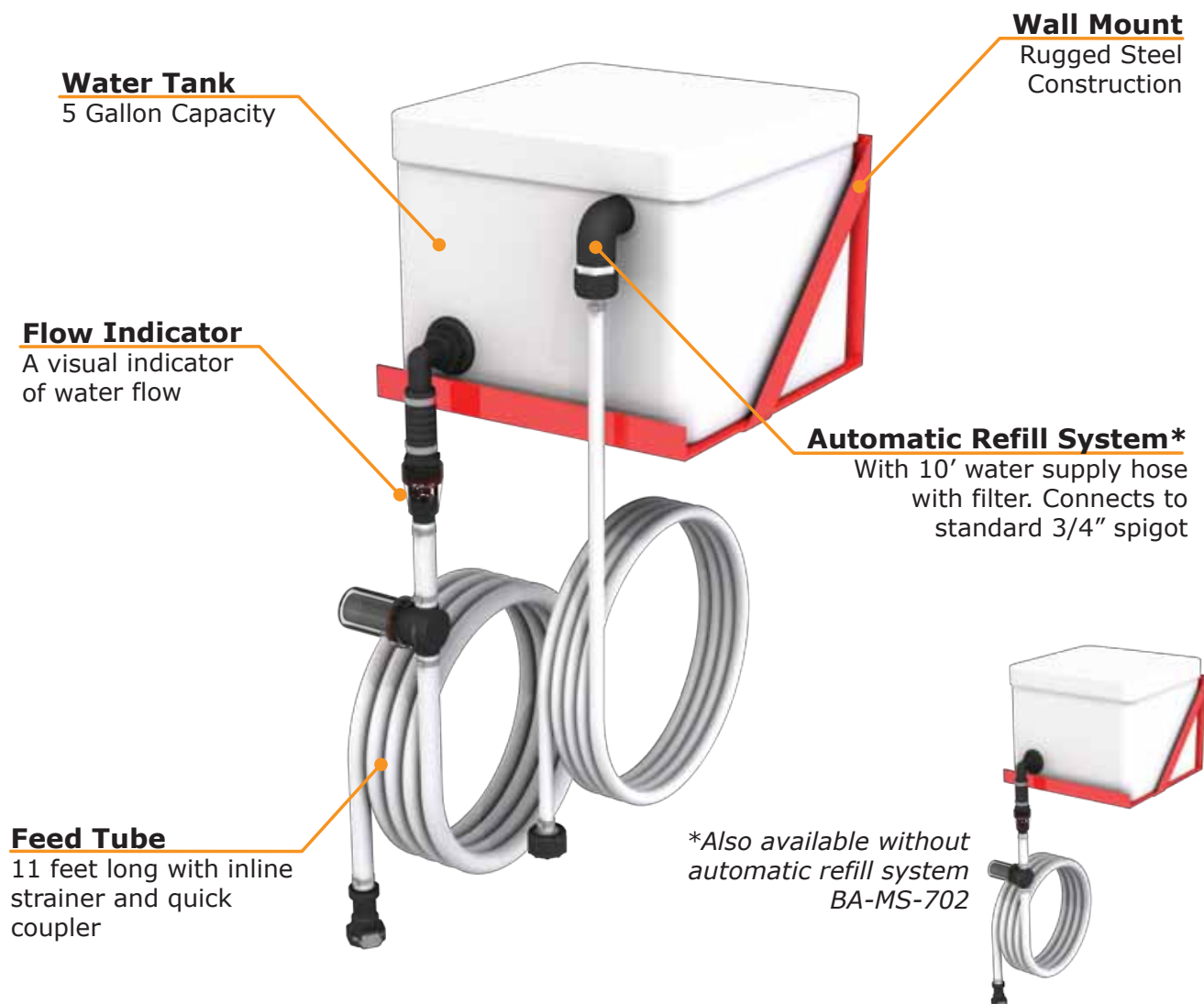
Maximizes battery life by removing ions and heavy metals that are present in tap water. The separate bed deionizer uses an ion exchange cartridge to filter the water before it enters the battery. Cartridge can be discarded when replacement is necessary. This is determined when output exceeds 50 TDS (water quality light will turn red). The low pressure bypass ensures that the deionizer will provide enough pressure and flow to operate your SPW system, even if you forget to change out an old cartridge.

For batteries equipped with Millennium Plus+ or Pro-Fill systems (SPW system must have BA-QDV-500 or BA-QDV-505 Quick coupler.)

**1 FLOW-RITE CONTROLS
1 YEAR WARRANTY**

Gravity Tanks

Gravity Tank	BA-MS-700
Gravity Tank without Auto Refill	BA-MS-702



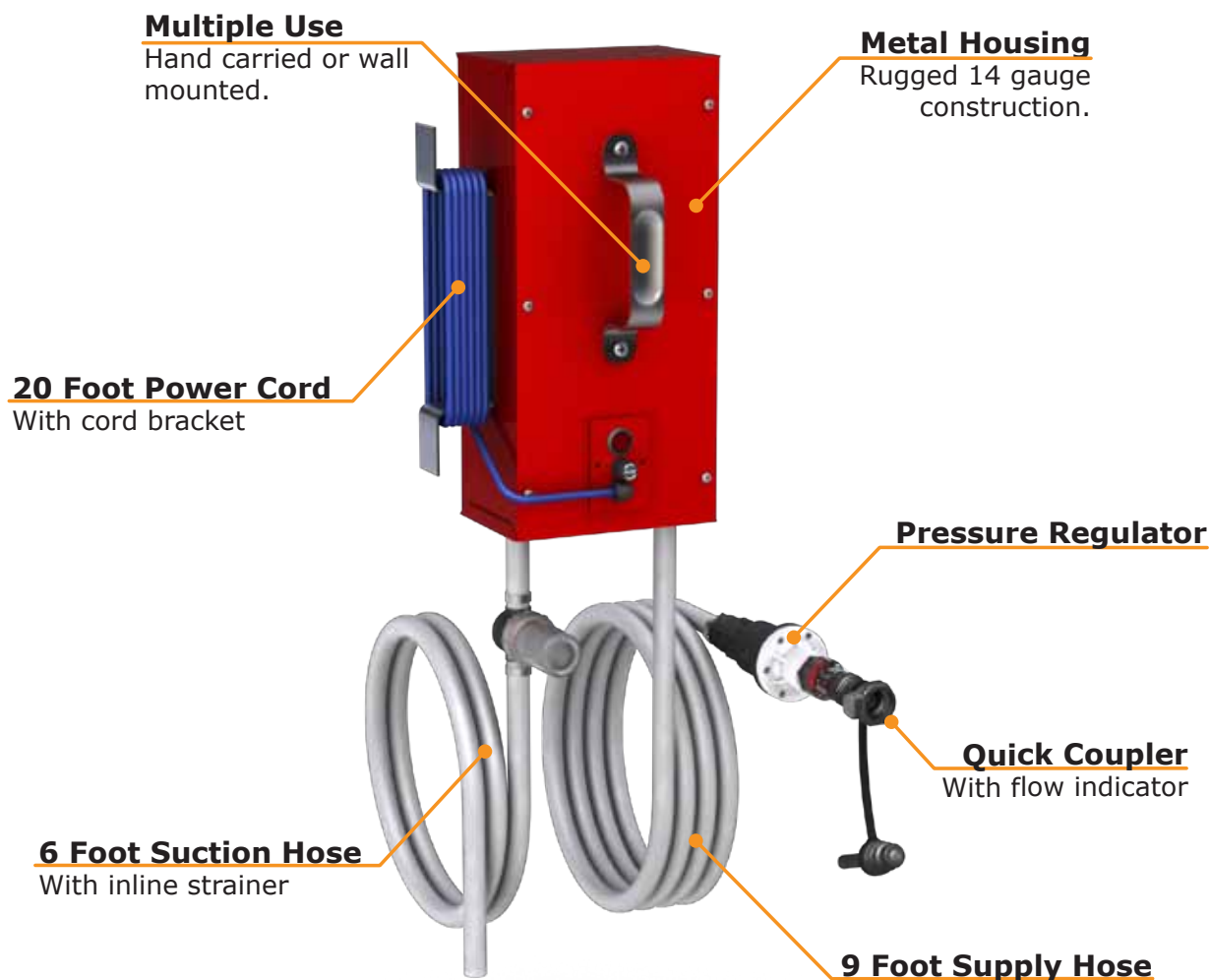
Just put on a shelf or use our rugged mounting bracket. Bottom of tank must be at a minimum of six feet above the top of the batteries being watered. Tank automatically refills itself. Compatible with Deionized Water.

For batteries equipped with Millennium Plus+ or Pro-Fill systems SPW system must have BA-QDV-500 or BA-QDV-505 Quick Coupler)

**1 FLOW-RITE CONTROLS
1 YEAR WARRANTY**

Portable Water Supply

Portable Water Supply, 110-115 VAC	BA-MS-606
Portable Water Supply, DC Powered	BA-MS-612 (Special Order)



Pump automatically shuts off when filling stops. For batteries equipped with Millennium SPW or Pro-Fill systems.

Commonly used with portable water tank filled with distilled water.

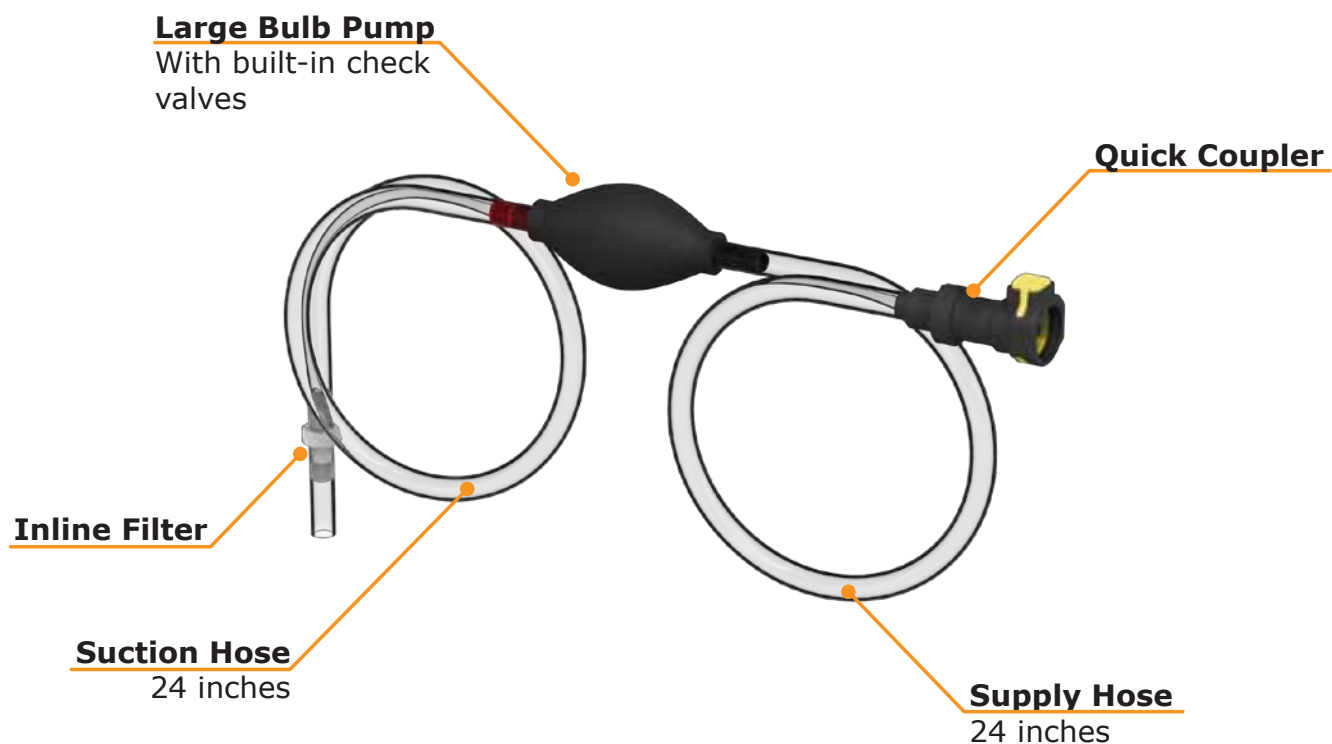
For batteries equipped with Millennium Plus+ or Pro-Fill systems SPW system must have BA-QDV-500 or BA-QDV-505 Quick Coupler)

**1 FLOW-RITE CONTROLS
1 YEAR WARRANTY**

Hand Pump

Hand Pump

BA-MS-630



Perfect for the person who has their own golf cart, utility vehicle, or other light use application. Commonly used with jug filled with distilled water.

For use with batteries equipped with Millennium Plus+, Pro-Fill or Qwik-Fill systems (SPW system must have BA-QDV-500 or BA-QDV-505 Quick coupler)

**1 FLOW-RITE CONTROLS
1 YEAR WARRANTY**

Water Supply Accessories

 <p>BA-QDV-710 Water Supply Converter Flow-Rite to BFS (gray)</p>	 <p>BA-QDV-715 Water Supply Converter Flow-Rite to BFS (blue)</p>	 <p>BA-QDV-720 Water Supply Converter BFS (gray) to Flow-Rite</p>
 <p>BA-013 Water Supply Converter Philadelphia Scientific to Flow-Rite</p>	 <p>BA-QDV-115 Water Supply Converter Female Flow-Rite to Female Hansen</p>	 <p>BA-QDV-110 Water Supply Converter Male Flow-Rite to Male Hansen</p>
 <p>BA-032 Back Flow Preventor</p>	 <p>BA-031 Hose Bibb Pressure Reducer</p>	

Water Supply Replacement Parts

 <p>BA-MS-320-00 Hose end Assembly</p>	 <p>BA-FLW-20 Flow Indicator Assembly with Millennium Plus+ Coupler <i>(mates with BA-QDV-500 or BA-QDV-505)</i></p>	 <p>BA-005 Millennium Plus+ Inline Pressure Regulator</p>
 <p>BA-051 Purger for Millennium Plus+ Water Supplies</p>	 <p>BA-T03 20' Millennium Plus+ Braided Hose <i>(1/2 inch ID)</i></p>	 <p>BA-T04 5' Millennium Plus+ Braided Hose <i>(1/2 inch ID)</i></p>
 <p>BD-017 Filter Washer with Stainless Steel Screen for Regulators</p>	 <p>BA-019 Inline Strainer for 1/2 inch ID Hoses</p>	 <p>BA-026 FGHT x 1/2 inch Barb <i>(includes 1 worm clamp)</i></p>
 <p>BA-221 Replacement Cartridge <i>for Niagara Deionized Water Supply Purchased 2007 or Later</i></p>	 <p>BD-00121 Replacement Cartridge <i>for Deionized Water Supply purchased 2006 or prior</i></p>	



BD-00327

Rocker Switch, Lighted (red), 120 V
Single Pole

*Used on all AC Carts with Serial
Number 192 or Higher*



BD-00326

Rocker Switch, Lighted (amber), 12
V Single Pole

*Used on all DC Carts with Serial
Number 78 or Higher*



BA-018

Line Strainer

*for all Gray Carts (includes two worm
clamps)*



BD-00323

Variable Speed Pump
*for BA-MS-105 & BA-MS-106 (12-24
VDC, CE Marked))*



BD-00298

Variable Speed Pump
for BA-MS-205 (100-115 VAC)



BD-00607

Replacement Battery
for BA-MS-105 Cart



BD-00321

Replacement Pump
for BA-MS-100 (12 VDC)



BD-0319

Replacement Pump
*for BA-MS-200 & BA-MS-606 (115
VAC)*



BA-006

Charger
for BA-MS-105 Cart



BD-QDV-233

Female Coupler x 3/8" Barb



BD-QDV-232

Female Coupler x 1/2" Barb



BA-465

3/8" Check Valves

Accessories



**LEVEL
INDICATORS**



TOOLS



SPILL KITS



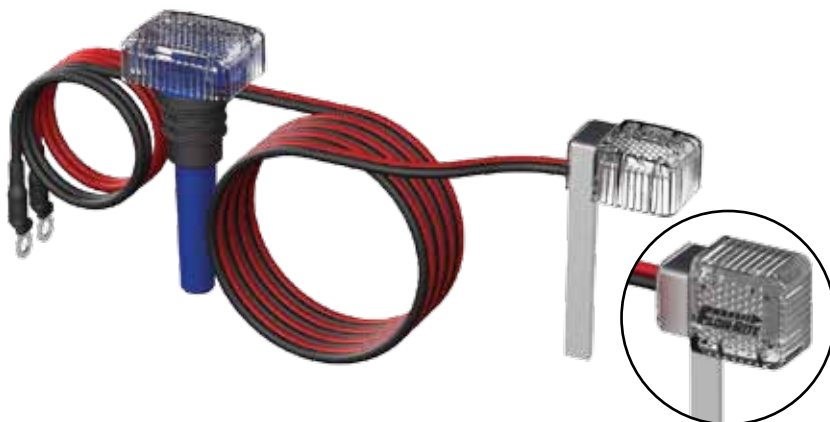
**CLEANING
SUPPLIES**

Level Indicators

Eagle Eye



Eagle Eye

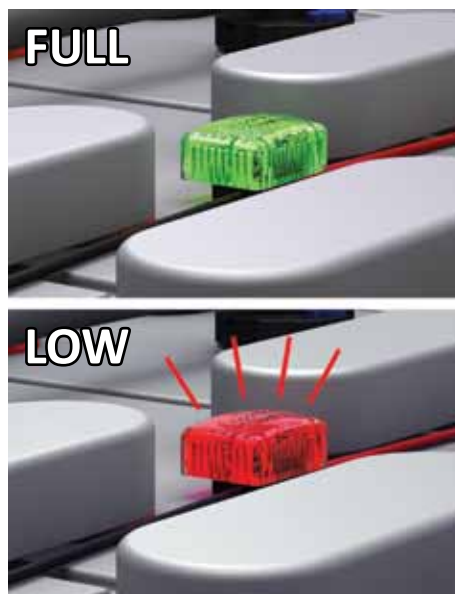


Eagle Eye II

Optional mounting position

Eagle Eye, Flow-Rite's latest line of Level Lites, accurately monitors and displays the status of cell electrolyte levels with a solid green or flashing red light. Patent pending Capacitive Sensing Technology, found in many electronics such as touch screen monitors and cell phones, allows Eagle Eye to measure electrolyte levels without using a conductive metal probe. The acid resistant plastic probe is exempt from corrosion and sulfating. Eliminating the need to run current through a conductive probe makes Eagle Eye the safest, most versatile, and reliable monitor on the market. Like all Flow-Rite products Eagle Eye is proudly made in the USA.


- Plastic probe - no metal to sulfate or corrode
- Brightest level lite on the market!
- Lowest profile light in the industry
- 20 second delay prevents false readings from splashing electrolyte
- Nickel ring terminals are epoxy sealed to wires to prevent corrosion
- Sealed polycarbonate lens protects the LED & electronics from impacts and acid migration.
- Power source can be independent of battery
- Double fused
- Reverse polarity protected
- 100% functionally tested
- Made in the USA
- U.S. and foreign patents pending




**1 FLOW-RITE CONTROLS
1 YEAR WARRANTY**

Level Indicators


Eagle Eye

	Eagle Eye, Standard length	BA-491
	Eagle Eye, Extended Length	BA-492
	The brightest, safest and most advanced red/green level light on the market.	


Eagle Eye II

	Eagle Eye II, Standard length	BA-496
	Eagle Eye II, Extended Length	BA-497
	The brightest, safest, most advanced and versatile red/green level light on the market.	


Standard Level-Lite

	Standard Length	BA-434
	Long Length	BA-435
	Short length (special order only)	BA-433
	Our original Level Lite and best seller; when the green light is on your battery is ready to go, and when the light goes out your battery requires water.	

Cell Inspection Plug

	Cell Inspection Plug	BD-107
	Cell Inspection Plug Bulk Back (600)	BD-107-600

Optical Level indicators

	Optical Level Indicator with Sleeve, Standard	BA-134
	Optical Level Indicator with Sleeve, Long	BA-135
	Optical Level Indicator with Sleeve, Extra Long	BA-136
	Optical Level Indicator with Sleeve, Short	BA-137
	For bulk packs in quantities of 100 for any of the above optical level indicators, simply add "-100" to the part number.	

Tools

 <p>BD-00034 Safety Glasses</p>	 <p>BD-00110 Spanner Tool</p>	 <p>BA-007 Tube Cutter</p>
 <p>BA-107 Drill Bit</p>	 <p>BA-015 Clamp Ring Tool</p>	 <p>BA-MTF Millennium Test Fixture</p>
 <p>BD-00923 SBX 175/350 Contact Pliers</p>	 <p>BD-00925 Acid Extractor</p>	 <p>BA-MTF-002 Level Indicator Display Unit</p>



Hydrometers

Our Gefo produced hydrometers feature a centered aerometer that has no lateral contact with the outer cylinder. You will receive a fast and accurate reading every time from the color coded / numerical scale.

For use with Millennium Plus+ flip top valves.

Part #	Model	Density Range	Graduations (Scale)	Vol	Therm
BA-047	Gefo Centra	1.10-1.30 (g/ml)	.01g	18 cc	No
BA-064	Gefo S	1.08-1.30 (g/ml)	.005	42 cc	No
BA-065	Gefo S / Th	1.08-1.30 (g/ml)	.005	42 cc	Yes 0-60 C

Aerometer	Replacement for BA-047 Hydrometer	BD-00166
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All Plastic Hydrometer

(Not for use with Millennium Plus+ flip top valves.)

BD-00924

Spill Kits



6 Gallon Spill Kit

6 Gallon Spill Kit

BD-00919

Kit includes: bucket & lid, goggles, light duty apron, socks, small brush & pan, regular gloves, plastic waste disposal bags, msds sheets, ph test kit, 40 bag of battery acid neutralizer, dust masks, and face shield.

15 Gallon Spill Kit

BD-00920

Kit includes: 15 gallon barrel with locking lid, sock, 40 bag of battery acid neutralizer, 1 kit bag, 2 pair regular gloves, light duty apron, goggles, plastic waste disposal bags, small brush & pan, msds sheets, ph test kit, instruction sheet, danger tape, and face shield.

30 Gallon Spill Kit

BD-00921

Kit includes: 30 gallon barrel with locking lid, socks, 2 pair regular gloves, 2 light duty aprons, plastic waste disposal bags, 2 pair goggles, msds sheets, danger tape, ph kit, instruction sheet, large brush & pan, eye wash, shoe protectors, 2 containers—2.5 gallon battery acid neutralizer, 1 pillow, bag for kit, and face shield.

Cleaning Supplies



Complete Clean-up Kit

BD-00917	Clean-up Kit
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Kit Includes bucket & lid, regular gloves, long-handled brush, brush w/ hand guard, battery wash, battery cleaning brushes, plastic scraper, battery dry-wipes, light duty apron, goggles, and face shield.



Battery Wash w/ Detergent

BD-00901	(4 qty.) 1 qt. Bottles
BD-00902	5 Gal. Bucket

Battery Wash w/o Detergent

BD-00903	(4 qty.) 1 qt. Bottles
BD-00904	5 Gal. Bucket

Battery Wash Neutralizer

BD-00905	(4 qty.) 1 qt. Bottles
BD-00906	5 Gal. Bucket

Sprayer

BD-00907	Sprayer for Bottles
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Battery Acid Neutralizer

BD-00908	2.5 Gallon Jug
BD-00909	6 Gallon Jug
BD-00910	15 Gallon Jug
BD-00911	16 lb Bag
BD-00912	40 lb Bag



PPE & Battery Items Wall Rack (wall rack only. Other items not included)

BD-00916	PVC Wall Rack
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Heavy Duty Battery Wipes

BD-00922	HD Battery Wipes
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Neutralizer Snake

BD-00918	6' Neutralizer Snake
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Safety Kit

BD-00915	Complete Safety Kit
Kit Includes storage bag, HD apron, gloves (both HD & regular, over-boots, goggles, and face shield.	

QWIK-FILL™

ON-BOARD BATTERY WATERING SYSTEM

by **FLOW-RITE**



RV EDITION PRO-FILL™

ON-BOARD BATTERY WATERING SYSTEM

by **FLOW-RITE**






Qwik-Fill - Retail



Qwik-Fill On-board Battery Watering Systems fit 12-volt marine deep cycle batteries group 24-27 and most group 29-31. Fill up to 3 batteries from a single remote location with simple hand pump operation.

Qwik-Fill may only be operated with a hand pump water supply

Kit A 	MP-2000 <p>Includes all parts necessary to add / set-up two batteries with quick disconnect for filling. Requires squeeze bulb filling kit. (sold separately in Kit C)</p>
Kit B 	MP-2010 <p>Includes all parts necessary to add / set-up one battery with quick disconnect for filling. Requires squeeze bulb filling kit. (sold separately in Kit C.)</p>
Kit C 	RV-2020 <p>Squeeze bulb filler assembly with intake filter and quick connect fitting.</p>


Qwik-Fill - OEM

Qwik-Fill OEM Packed Kits



Kit Size / Description	Part #
1 Battery Kit (no hand pump included)	QF-1010
2 Battery Kit (no hand pump included)	QF-1020
3 Battery Kit (no hand pump included)	QF-1030
3 Battery Kit (hand pump included)	QF-1100
Hand Pump	BA-MS-630

Qwik-Fill Parts

 <p>BM-1000RP Replacement Qwik-Fill Manifold (Universal - Barbs on both sides)</p>	 <p>BA-061 Replacement Pack of Barbs</p>	 <p>MP-2030 Tubing (20 feet 1/4 inch ID)</p>
 <p>BA-QDV-512 Male Quick Coupler w/ Dust Cover (Keyed 1/4" Barb)</p>	 <p>BA-QDV-201 Female Quick Coupler (Keyed 3/8 inch Barb)</p>	 <p>BA-465 3/8" Check Valves</p>

Pro-Fill RV Edition

Pro-Fill RV Kits



Kit Size / Description	Part #
2 Battery Kit (no hand pump included)	RV-2000
Hand Pump	RV-2020

Pro-Fill RV Parts

 <p>BA-121-BLU Pro-Fill Manifold for 6-volt battery with 2.7 inch spacing <i>(black & blue in color)</i></p>	 <p>BA-171-BLU Pro-Fill Manifold with Valves for 6-volt battery with 2.7 inch spacing <i>(black & blue in color)</i></p>	 <p>BA-Y7A-10-6P 6-pack of Replacement Valves for Pro-Fill Systems</p>
 <p>BA-127-FLEX Flexible Manifold</p>	 <p>BD-T14 Clampless Tubing <i>purchased by the foot</i></p>	 <p>BD-00280 Red End Caps <i>(sold in quantity of one)</i></p>
 <p>BA-QDV-201 Female Quick Coupler <i>(Keyed 3/8 inch Barb)</i></p>	 <p>BA-QDV-512 Male Quick Coupler w/ Dust Cover <i>(Keyed 1/4" Barb)</i></p>	 <p>BA-465 3/8" Check Valves for Hand Pump</p>



QWIK-FILL / PRO-FILL RV



Warranty



3 Year Limited Warranty For Pro-Fill Rv Edition & Qwik-Fill Spw System Kits

Flow-Rite Controls warrants to Purchaser that its product, Pro-Fill RV Edition or Qwik-Fill SPW System Kit, will be free of all defects in material and workmanship for three (3) years after the date of purchase. If within three years of the date of purchase, the product, Pro-Fill RV Edition or Qwik-Fill SPW System Kit, fails to perform, Flow-Rite will repair or replace the product, Pro-Fill RV Edition or Qwik-Fill SPW System Kit, free of charge. Purchaser should send any product covered under this warranty, along with copy of Supplier's invoice and description of the problem to Flow-Rite Controls, 960 74th Street SW, Byron Center, MI 49315.

Disclaimer of Warranties: It is expressly understood and agreed that the buyer's sole and exclusive remedy shall be repair or replacement of defective parts, and that Flow-Rite Controls shall not be liable for damages or injuries to persons or property. In no event shall Flow-Rite Controls be liable for more than, and the buyer's exclusive remedy shall be limited to, the price of goods alleged to be defective. This limited warranty expressly excludes any incidental or consequential damages.

Note: Because Flow-Rite's warranty excludes any incidental or consequential damages, Flow Rite recommends for the first three months checking electrolyte levels once a month. Thereafter, check electrolyte level once per quarter.

Return Policy

Contact Flow-Rite Controls to obtain a Return Goods Authorization Number (RGA). Any package that is returned without an RGA number will be refused. Returns are subject to a 15% restocking fee.