



# Battery Watering Technologies

*The leader in battery watering technology™*



***Faster.***

*Reduce filling time by 90%*

***Safer.***

*Keep battery area safe and clean*

***Better.***

*Improve battery life and performance*

**Edition 0619**



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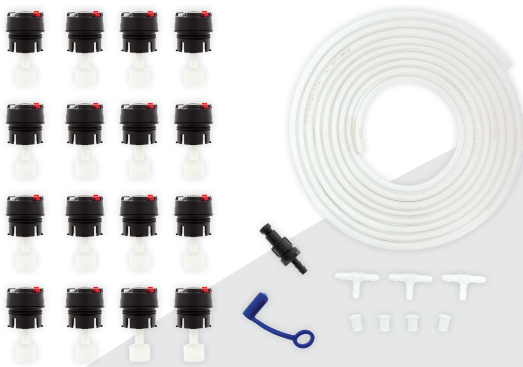
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# How to Order Industrial Kits



*There are two types of kits offered for industrial batteries.*

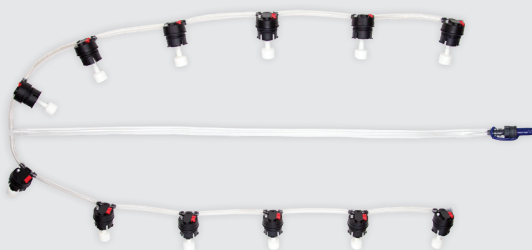
## The Basic Kit



**Everything is provided for the kit, however the tubing is not cut or attached to any of the valves.**

To place an order for a Basic Kit, you must know the battery make and model. Refer to page 4 to determine the float needed. All kits ship with the 09GRM6 connector unless specified differently.

## The Fully Assembled Kit



**Everything is provided for the kit. It is fully assembled and ready for installation.**

To place an order for a Fully Assembled Kit, you must know the battery make, model and drawing number. All kits ship with the 09GRM6 connector unless specified differently. Contact Battery Watering Technologies for a drawing number.





# Innovative Valve Design

*Safety and labor savings are of the utmost importance to Battery Watering Technologies. Our valves are manufactured with the highest quality materials that keep all working parts above the battery cell.*

## Indicator Eye

Visible from the top and side -  
Confirms proper operation of valves.

## Ultrasonic Welded Lid

The welding fuses the lid to  
the valve body improving the  
structural strength of the valve.

## Push-in Base

Installation is fast and easy -  
No twisting to lock in place.

## Low Profile Design

Drastically reduces the risk of  
damage from battery cables.

## Solid One Piece Float

Acid, temperature, and impact  
resistant - Solid construction  
cannot absorb water.

## Tubing Barbs

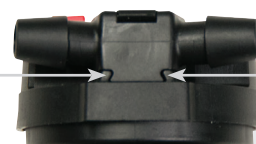
Eliminates the need for clamps  
and angled to make installation  
easy in tight configurations.

## Hydrometer Port

Hydrometer readings can be taken  
without removing the valve from the  
battery. The hydrometer opening  
has a slider with a stop so the  
covering won't break or get lost.

## z-Lock

The z-Lock feature integrates  
the tee piece with the valve  
for added durability.



## Widest Pressure Range

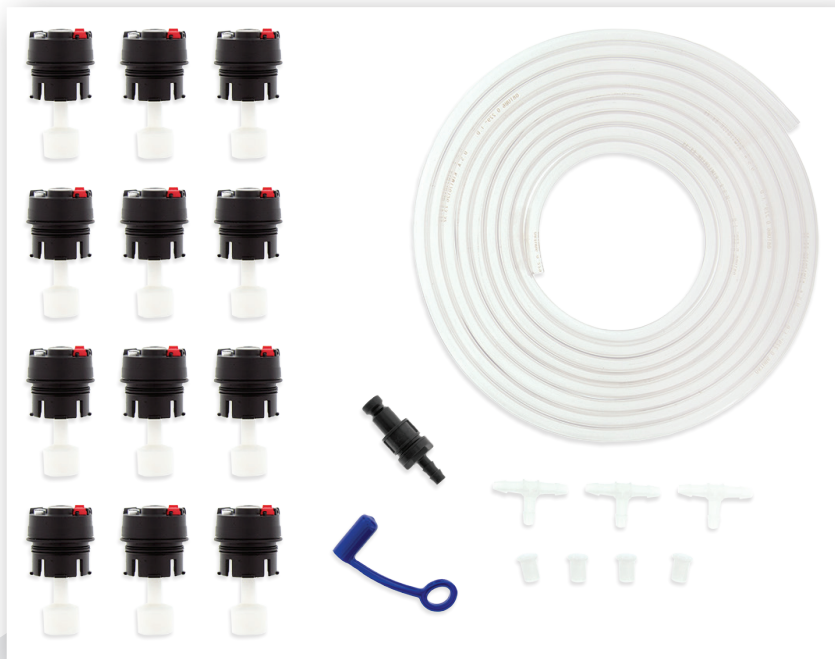
The valves operate with pressure  
from 3-35 PSI using our filling devices.  
House static pressure should never  
be more than 90 PSI. If needed,  
a variety of pressure regulators  
are available to lower pressure.

## Fully Assembled Kits

Installs in seconds.







Pictured: K1200VAE34G Basic Kit  
VA-TBE valves shown with 34 mm floats.  
Floats are not included. Please specify float size when ordering.

## Basic Kits

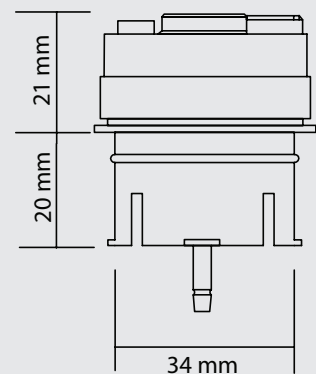
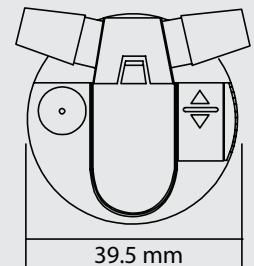
### with VA-TBE Valves & 34 mm Floats

|                    |  |
|--------------------|--|
| <b>K600VAE34G</b>  | .....6 cell system with 35 mm push-in valve  |
| <b>K900VAE34G</b>  | .....9 cell system with 35 mm push-in valve  |
| <b>K1200VAE34G</b> | .....12 cell system with 35 mm push-in valve |
| <b>K1800VAE34G</b> | .....18 cell system with 35 mm push-in valve |
| <b>K2400VAE34G</b> | .....24 cell system with 35 mm push-in valve |
| <b>K3600VAE34G</b> | .....36 cell system with 35 mm push-in valve |
| <b>K4000VAE34G</b> | .....40 cell system with 35 mm push-in valve |
| <b>K6400VAE34G</b> | .....64 cell system with 35 mm push-in valve |

\* Specify required float size in the kit part number. See page 4 for float measurements. These example part numbers use FLT34.

## VA-TBE

35 mm Push-In Valve



- Kits will ship with the grey connector (09GRM6) unless specified otherwise. See optional connectors on pages 12 and 13.
- Fully assembled kit orders placed without drawing numbers may delay your order.
- Delivery items are not automatically added to orders. Only items specified on the purchase order will ship.
- Please refer to Float Guide on page 4 to determine proper float needed.

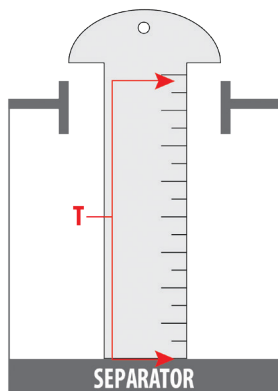
*Choosing the correct float is crucial in achieving the proper electrolyte level in the battery cell. The solid one piece float is acid, temperature and impact resistant. The solid construction will not absorb water.*

| BFS    |    |    |
|--------|----|----|
| Part # | T1 | T2 |
| 072214 | 42 | 29 |
| 072220 | 47 | 34 |
| 072224 | 51 | 39 |
| 072229 | 56 | 42 |
| 072234 | 61 | 46 |
| 072239 | 66 | 50 |
| 072244 | 71 | 53 |
| 072249 | 76 | 59 |
| 072259 | 86 | 68 |

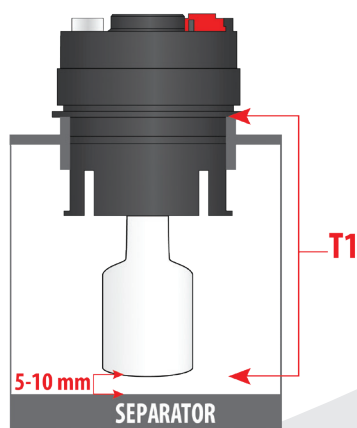
| BWT    |    |    |
|--------|----|----|
| Part # | T1 | T2 |
| FLT14  | 40 | 29 |
| FLT20  | 46 | 34 |
| FLT24  | 52 | 40 |
| FLT29  | 57 | 44 |
| FLT34  | 61 | 47 |
| FLT39  | 67 | 52 |
| FLT44  | 71 | 54 |
| FLT49  | 75 | 57 |
| FLT59* | 86 | 67 |

\* Requires Float Extension

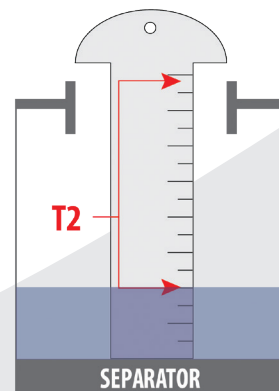
| BWT Block |    |    |
|-----------|----|----|
| Part #    | T1 | T2 |
| VB-TBU    | 47 | 35 |
| VB-TBY    | 37 | 29 |
| VC-TB4    | 40 | 25 |
| VC-TB5    | 52 | 34 |
| VB-TB5S   | 58 | 46 |



**T Measurement**  
Top of Cell to  
Top of Separator



**T1 Measurement**  
Top of Cell to  
Bottom of Float



**T2 Measurement**  
Top of Cell to  
Top of Electrolyte Level



**FLT14**

**FLT20**

**FLT24**

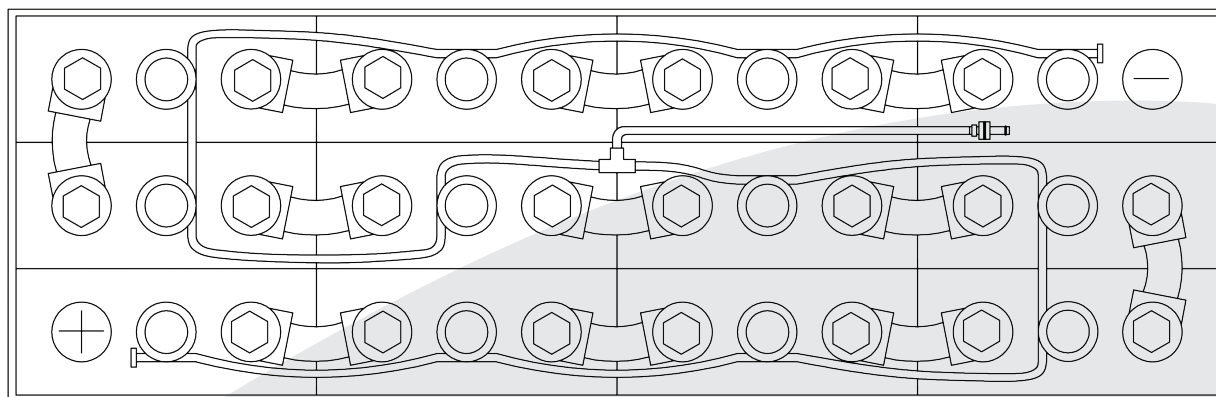
**FLT29**

**FLT34**

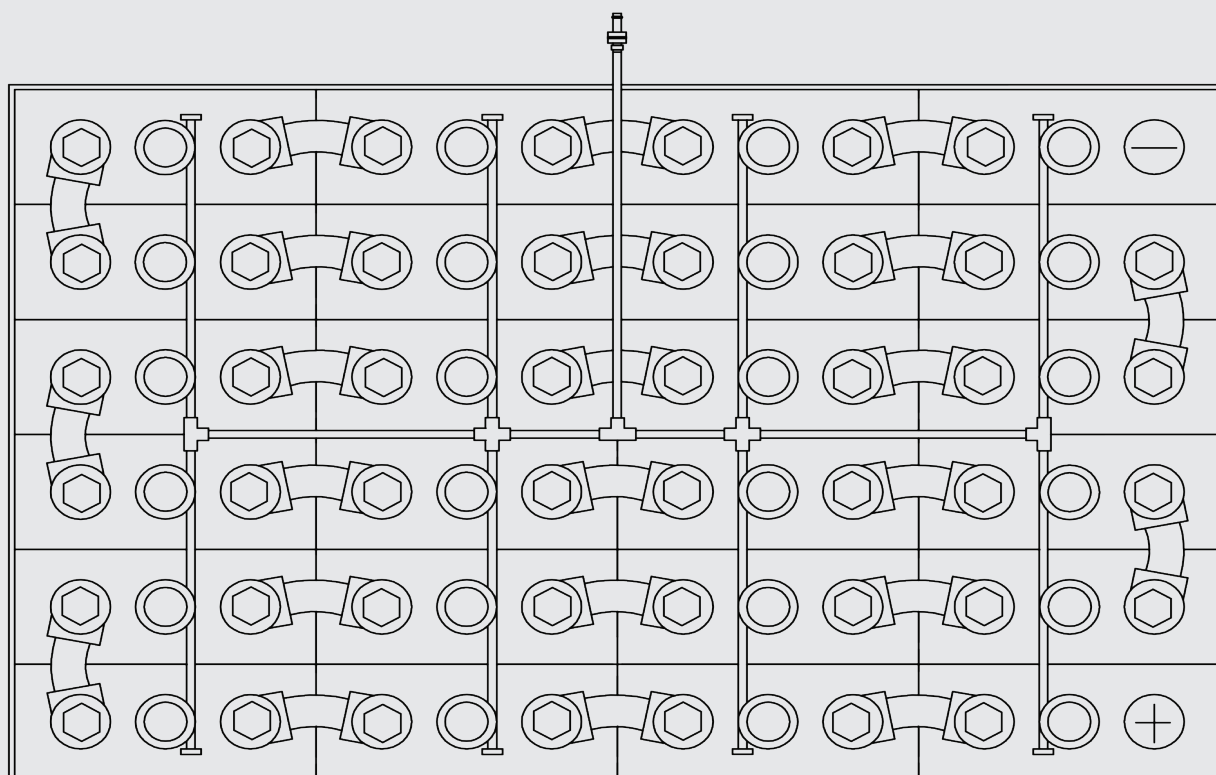
**FLT39**

**FLT44**

**FLT49**



**24 V, DIN 43535-A**



**48V, DIN 43531-A**





# How to Order Monoblock Kits

There are three types of kits offered for monoblock batteries.

## Basic Kit



Everything is provided for the kit, however the tubing is not cut or attached to any of the valves.

To place an order for a Basic Kit, determine the valve type needed by using the Monoblock Valve Guide on page 7. You must know the battery make and model to use the valve guide. After determining the valve type, determine the basic kit part number needed. All kits ship standard with the standard 09MBLU1 connector unless specified differently on your order.

## Partially Assembled Kit



Everything is provided for the kit, however the tubing is attached to strings of multiple valves. Extra tubing is provided to complete assembly of the kit.

To place an order for a Partially Assembled Kit, determine the valve type needed by using the Monoblock Valve Guide on page 7. You must know the battery make and model before using the valve guide. After determining the valve type, go to page 9 to determine the partially assembled kit part number needed.

## Fully Assembled Kit



Everything is provided for the kit. It is fully assembled and ready for installation. There is no extra charge for fully assembled kits.

To place an order for a Fully Assembled Kit, determine the valve type needed by using the Monoblock Valve Guide on page 7. You must know the battery make and model before using the valve guide. **The drawing number is the part number for fully assembled kits. For a complete list of drawings, visit our website at [www.batterywatering.com](http://www.batterywatering.com) and select the Commercial Kit Selector then enter the manufacturer, vehicle type, year, model, number of cells and battery voltage. See example of our site below.**

### Commercial Kit Selector

|                       |             | <div><div></div><div>Manufacturer</div></div> |                           | <div><div></div><div>Vehicle Type</div></div> |                           | <div><div></div><div>Year Model</div></div> | <div><div></div><div># Cells</div></div> | <div><div></div><div># Batteries</div></div> | <div><div></div><div>Battery Voltage</div></div> |  |  |
|-----------------------|-------------|---|---------------------------|---|---------------------------|---|--|--|--|--|--|
|                       |             | <div><div>Reset</div></div>                   | <div><div>Any</div></div> | <div><div></div></div>                        | <div><div>Any</div></div> | <div><div>Any</div></div>                   | <div><div></div></div>                   | <div><div>Any</div></div>                    | <div><div></div></div>                           |  |  |
| Manufacturer          | Vehicle     | Year Model                                    | Number of cells           | Number of batteries                           | Battery Voltage           | Battery Mfg                                 | Battery Type                             | Part Number                                  |  |  |  |
| Alumacar              | Alumacar    | 24  | 8                         | 6   | Trojan                    |   | T105                                     | GAL-KITBC                                    |  |  |  |
| Alumacar              | Alumacar    | 24  | 8                         | 6   | Trojan                    |   | T105Plus                                 | GAL-KITBCPLUS                                |  |  |  |
| American Sports Works | UTV         | 24  | 6                         | 8   | Trojan                    |   |  | GUTV-KITBC                                   |  |  |  |
| Amusement Prod.       | 36 Volt Kit | 18  | 6                         | 6   | US Battery                |   |  | GCA-KITBC                                    |  |  |  |
| Bad Boy               | Buggy       | 24  | 8                         | 6   | Crown                     |   |  | GBB-KITBCTR                                  |  |  |  |
| Bad Boy               | Classic     | 24  | 8                         | 6   | Trojan                    |   |  | GW48-KITBC                                   |  |  |  |
| Bad Boy               | Recoil      | 32  | 8                         | 8   | US Battery                |   |  | GBB-KITBCTR8                                 |  |  |  |
| Bad Boy               | Recoil      | 32  | 8                         | 8   | Trojan                    |   |  | GBB-KITBCTR8T8                               |  |  |  |
| Bad Boy               | Recoil      | 36  | 6                         | 12  | Trojan                    |   |  | GBB-KITBCTR12                                |  |  |  |
| Bad Boy               | Recoil      | 36  | 6                         | 12  | US Battery                |   |  | GBB-KITBCTR12                                |  |  |  |
| Bad Boy               | Recoil IS   | 28  | 7                         | 8   | Trojan                    |   |  | GBB-KITBCRIS8                                |  |  |  |
| Bad Boy               | Recoil IS   | 28  | 7                         | 8   | US Battery                |   |  | GBB-KITBCRIS                                 |  |  |  |

Visit [www.batterywatering.com](http://www.batterywatering.com) to view all battery drawings

# Monoblock Valve Guide



| MANUFACTURER       | BATTERY VOLTAGE | BATTERY           | VALVE    | CELL TO CELL BATTERY DIMENSIONS (inches/mm) |
|--------------------|-----------------|-------------------|----------|---|
| Centennial Battery | 6 volt          | GC-2              | VB-TBU   | 2.7/69                                      |
|                    | 8 volt          | GC-8              | VB-TBU   | 2.3/58                                      |
| Crown Battery      | 6 volt          | CR-205            | VB-TBU   | 2.7/69                                      |
|                    | 6 volt          | CR-220            | VB-TBU   | 2.7/69                                      |
|                    | 6 volt          | CR-235            | VB-TBU   | 2.7/69                                      |
|                    | 6 volt          | CR-240            | VB-TBU   | 2.7/69                                      |
|                    | 6 volt          | CR-260            | VB-TBU   | 2.7/69                                      |
|                    | 6 volt          | CR-370 (Scrubber) | VB-TBU   | 2.7/69                                      |
|                    | 6 volt          | L16               | VB-TB5S  | 2.7/69                                      |
|                    | 8 volt          | CR-150            | VB-TBU   | 2.5/64                                      |
|                    | 8 volt          | CR-165            | VB-TBU   | 2.5/64                                      |
|                    | 8 volt          | CR-190            | VB-TBU   | 2.5/64                                      |
|                    | 12 volt         | CR-GC150          | VB-TBY   | 2.7/69                                      |
|                    | 12 volt         | CR-GC155          | VB-TBY   | 2.7/69                                      |
| Duracell           | 6 volt          | GC2               | VB-TBU   | 2.7/69                                      |
| East Penn (Deka)   | 6 volt          | GC10              | VB-TBU   | 2.7/69                                      |
|                    | 6 volt          | GC15              | VB-TBU   | 2.7/69                                      |
|                    | 6 volt          | GC25              | VB-TBU   | 2.7/69                                      |
|                    | 6 volt          | GC25G             | VB-TBU   | 2.7/69                                      |
|                    | 6 volt          | L16               | VB-TBU   | 2.7/69                                      |
|                    | 8 volt          | GC8V              | VB-TBU   | 2.5/64                                      |
| Exide Battery      | 6 volt          | GC135             | VB-TBU   | 2.7/69                                      |
|                    | 6 volt          | GC145             | VB-TBU   | 2.7/69                                      |
|                    | 6 volt          | L16               | VB-TBU   | 2.7/69                                      |
|                    | 8 volt          | GC8V-110          | VB-TBU   | 2.5/64                                      |
| Interstate Battery | 6 volt          |                   | VB-TBU   | 2.7/69                                      |
|                    | 8 volt          |                   | VB-TBU   | 2.5/64                                      |
|                    | 12 volt         |                   | VB-TBU   | 2.7/69                                      |
| Johnson Controls   | 6 volt          |                   | VB-TBU   | 2.7/69                                      |
|                    | 8 volt          |                   | VB-TBU   | 2.5/64                                      |
| Napa               | 6 volt          |                   | VB-TBU   | 2.7/69                                      |
|                    | 8 volt          |                   | VB-TBU   | 2.5/64                                      |
| Powertron          | 6 volt          |                   | VB-TBU   | 2.7/69                                      |
| Surrette Battery   |                 | 5000 Series       | VB-TB5SX | N/A   |
|                    |                 | All Others        | VB-TB5S  | N/A   |
| Trojan             | 6 volt          | T-105             | VB-TBU   | 2.7/69                                      |
|                    | 6 volt          | T-105 Plus        | VB-TBU   | 2.7/69                                      |
|                    | 6 volt          | T-605             | VB-TBU   | 2.7/69                                      |
|                    | 6 volt          | T-125             | VB-TBU   | 2.7/69                                      |

|            |         |                  |         |         |
|------------|---------|------------------|---------|---------|
|            | 6 volt  | T-125 Plus       | VB-TBU  | 2.7/69  |
|            | 6 volt  | T-145            | VB-TBU  | 2.7/69  |
|            | 6 volt  | T-145 Plus       | VB-TBU  | 2.7/69  |
|            | 6 volt  | L16              | VB-TB5S | 2.7/69  |
|            | 6 volt  | T-105RE          | VB-TB5S | 2.7/69  |
|            | 8 volt  | T-875            | VB-TBU  | 2.3/58  |
|            | 8 volt  | T-890            | VB-TBU  | 2.3/58  |
|            | 8 volt  | Ranger™ 160      | VB-TBU  | 2.3/58  |
|            | 8 volt  | Traveler™ 8 V    | VB-TBU  | 2.3/58  |
|            | 12 volt | T-1260 Plus      | VB-TBU  | 1.8/46  |
|            | 12 volt | T-1275 Plus      | VB-TBU  | 1.8/46  |
|            | 12 volt | T-1275           | VB-TBY  | 2.7/69  |
| US Battery | 6 volt  | US 1800 XC / XC2 | VB-TBU  | 2.7/69  |
|            | 6 volt  | US 2000 XC / XC2 | VB-TBU  | 2.7/69  |
|            | 6 volt  | US 2200 XC / XC2 | VB-TBU  | 2.7/69  |
|            | 6 volt  | US 125 XC / XC2  | VB-TBU  | 2.7/69  |
|            | 6 volt  | US 145 XC / XC2  | VB-TBU  | 2.7/69  |
|            | 6 volt  | US 100 DIN XC2   | VB-TBU  | 2.7/69  |
|            | 6 volt  | US 250 XC2       | VB-TBU  | 2.7/69  |
|            | 6 volt  | US 305 XC2       | VB-TBU  | 2.7/69  |
|            | 6 volt  | L16              | VB-TBU  | 2.7/69  |
|            | 6 volt  | US RE GC2H XC2   | VB-TBU  | 2.7/69  |
|            | 8 volt  | US 8VGC XC / XC2 | VB-TBU  | 2.5/64  |
|            | 8 volt  | US 8VGC XC / XC2 | VB-TBU  | 2.5/64  |
|            | 8 volt  | US 8VGC XC / XC2 | VB-TBU  | 2.5/64  |
|            | 8 volt  | US 8VGC XC2      | VB-TBU  | 2.5/64  |
|            | 8 volt  | US 8V ATB        | VB-TBU  | 2.5/64  |
|            | 8 volt  | 11-4-1 XC2       | VB-TBU  | 4.5/114 |
|            | 8 volt  | 13-4-1 XC2       | VB-TBU  | 5/127   |
|            | 8 volt  | 15-4-1 XC2       | VB-TBU  | 5.8/146 |
|            | 8 volt  | 17-4-1 XC2       | VB-TBU  | 6.5/165 |
|            | 8 volt  | 19-4-1 XC2       | VB-TBU  | 6.4/162 |
|            | 12 volt | US 12V XC / XC2  | VB-TBU  | 2.7/69  |
|            | 12 volt | US 12VE XC2      | VB-TBU  | 2.7/69  |
|            | 12 volt | US 12VRX         | VB-TBU  | 2.0/51  |
|            | 12 volt | US 185 XC2       | VB-TBU  | 2.7/69  |
|            | 12 volt | US 24DC XC2      | VC-TB4  | 2.7/69  |
|            | 12 volt | US 27DC XC2      | VC-TB4  | 2.7/69  |
|            | 12 volt | US 31DC XC2      | VC-TB4  | 2.7/69  |
|            | 12 volt | 8D-HC XC2        | VC-TB5  | 2.7/69  |

Golf | Boats | RVs  
Walkie/Hand Trucks  
Zambonis  
Sweeper Scrubbers  
GSE Airline Tugs



# Monoblock Valves and Kits

*Floats are included and assembled on the valves for monoblock applications.  
09MBLU1 connectors ship with monoblock kits unless specified otherwise.*

## VB-TBU

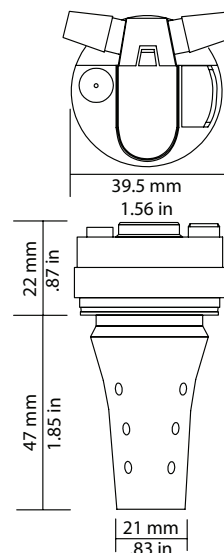
Encapsulated Valve



### Monoblock Basic Kits

with Clip-in VB-TBU Valves

|                             |                                  |
|-----------------------------|----------------------------------|
| <b>K600B-GLFBCTB</b> .....  | 6 cell system with VB-TBU valve  |
| <b>K900B-GLFBCTB</b> .....  | 9 cell system with VB-TBU valve  |
| <b>K1200B-GLFBCTB</b> ..... | 12 cell system with VB-TBU valve |
| <b>K1800B-GLFBCTB</b> ..... | 18 cell system with VB-TBU valve |
| <b>K2400B-GLFBCTB</b> ..... | 24 cell system with VB-TBU valve |
| <b>K3600B-GLFBCTB</b> ..... | 36 cell system with VB-TBU valve |
| <b>K4000B-GLFBCTB</b> ..... | 40 cell system with VB-TBU valve |
| <b>K6400B-GLFBCTB</b> ..... | 64 cell system with VB-TBU valve |



## VB-TBY

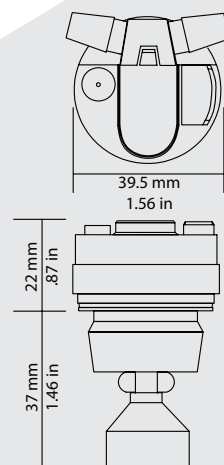
Valve for Crown 12V  
and Trojan T-1275



### Monoblock Basic Kits

with Clip-in VB-TBY Valves

|                              |                                  |
|------------------------------|----------------------------------|
| <b>K600B-GLFBCTBY</b> .....  | 6 cell system with VB-TBY valve  |
| <b>K900B-GLFBCTBY</b> .....  | 9 cell system with VB-TBY valve  |
| <b>K1200B-GLFBCTBY</b> ..... | 12 cell system with VB-TBY valve |
| <b>K1800B-GLFBCTBY</b> ..... | 18 cell system with VB-TBY valve |
| <b>K2400B-GLFBCTBY</b> ..... | 24 cell system with VB-TBY valve |
| <b>K3600B-GLFBCTBY</b> ..... | 36 cell system with VB-TBY valve |
| <b>K4000B-GLFBCTBY</b> ..... | 40 cell system with VB-TBY valve |
| <b>K6400B-GLFBCTBY</b> ..... | 64 cell system with VB-TBY valve |



- Delivery items are not automatically added to orders. Only items specified on the purchase order will ship.
- Please refer to Monoblock Valve Guide on page 7 to determine proper valve type.
- To order a competitor connector on the end of the kit, add suffix to the end of the part number (ex: F-Flow-Rite®).



# Monoblock Valves and Kits



*Floats are included and assembled on the valves for monoblock applications.  
09MBLU1 connectors ship with monoblock kits unless specified otherwise.*

## VC-TB4

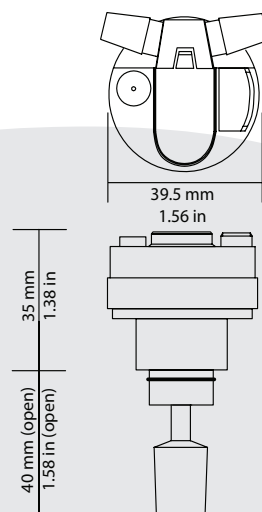
Valve for Group 24, 27, 31  
Push-in Style with  
 $\frac{3}{4}$ " vent opening



## Monoblock Partially Assembled Kits with Push-in VC-TB4 Valves

|                        |                                  |
|------------------------|----------------------------------|
| <b>CK600TB4</b> .....  | 6 cell system with VC-TB4 valve  |
| <b>CK1200TB4</b> ..... | 12 cell system with VC-TB4 valve |
| <b>CK1800TB4</b> ..... | 18 cell system with VC-TB4 valve |
| <b>CK2400TB4</b> ..... | 24 cell system with VC-TB4 valve |
| <b>CK3600TB4</b> ..... | 36 cell system with VC-TB4 valve |

***We DO NOT offer a valve for tapered cells***  
*(Interstate 12 volt batteries with tapered cells)*



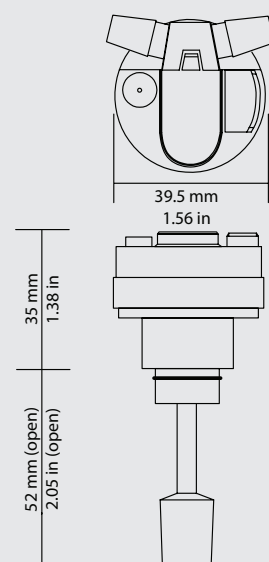
## VC-TB5

Valve for 8D and 4D Batteries  
Push-in Style with  
 $\frac{3}{4}$ " vent opening



## Monoblock Basic Kits with Push-in VC-TB5 Valves

|                        |                                  |
|------------------------|----------------------------------|
| <b>CK600TB5</b> .....  | 6 cell system with VC-TB5 valve  |
| <b>CK1200TB5</b> ..... | 12 cell system with VC-TB5 valve |
| <b>CK1800TB5</b> ..... | 18 cell system with VC-TB5 valve |
| <b>CK2400TB5</b> ..... | 24 cell system with VC-TB5 valve |
| <b>CK3600TB5</b> ..... | 36 cell system with VC-TB5 valve |



- Delivery items are not automatically added to orders. Only items specified on the purchase order will ship.
- Please refer to Monoblock Valve Guide on page 7 to determine proper valve type.
- To order a competitor connector on the end of the kit, add suffix to the end of the part number (ex: F-Flow-Rite®).



# Monoblock Valves and Kits

## VB-TB5S

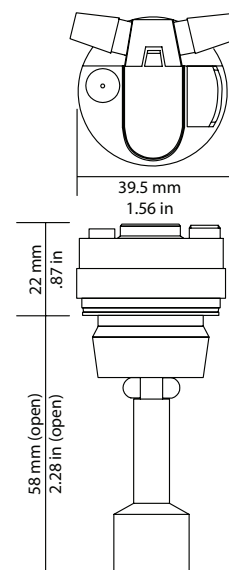
Valve for most Rolls Surrette Batteries and Trojan L16, Trojan T-105RE and Crown L16



## Monoblock Basic Kits

with Clip-in VB-TB5S Valves

|                               |                                   |
|-------------------------------|-----------------------------------|
| <b>K600B-GLFBCTB5S</b> .....  | 6 cell system with VB-TB5S valve  |
| <b>K900B-GLFBCTB5S</b> .....  | 9 cell system with VB-TB5S valve  |
| <b>K1200B-GLFBCTB5S</b> ..... | 12 cell system with VB-TB5S valve |
| <b>K1800B-GLFBCTB5S</b> ..... | 18 cell system with VB-TB5S valve |
| <b>K2400B-GLFBCTB5S</b> ..... | 24 cell system with VB-TB5S valve |
| <b>K3600B-GLFBCTB5S</b> ..... | 36 cell system with VB-TB5S valve |
| <b>K4000B-GLFBCTB5S</b> ..... | 40 cell system with VB-TB5S valve |
| <b>K6400B-GLFBCTB5S</b> ..... | 64 cell system with VB-TB5S valve |



## VB-TB5SX

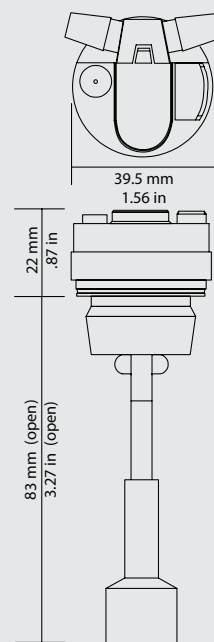
Valve for Rolls Surrette 5000 Series



## Monoblock Basic Kits

with Clip-in VB-TB5SX Valves











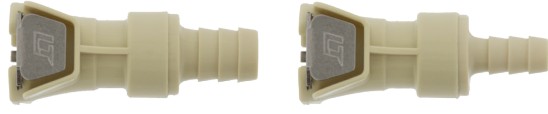
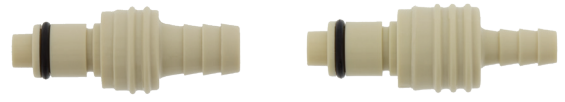
|                                |                                    |
|--------------------------------|------------------------------------|
| <b>K600B-GLFBCTB5SX</b> .....  | 6 cell system with VB-TB5SX valve  |
| <b>K900B-GLFBCTB5SX</b> .....  | 9 cell system with VB-TB5SX valve  |
| <b>K1200B-GLFBCTB5SX</b> ..... | 12 cell system with VB-TB5SX valve |
| <b>K1800B-GLFBCTB5SX</b> ..... | 18 cell system with VB-TB5SX valve |
| <b>K2400B-GLFBCTB5SX</b> ..... | 24 cell system with VB-TB5SX valve |
| <b>K3600B-GLFBCTB5SX</b> ..... | 36 cell system with VB-TB5SX valve |
| <b>K4000B-GLFBCTB5SX</b> ..... | 40 cell system with VB-TB5SX valve |
| <b>K6400B-GLFBCTB5SX</b> ..... | 64 cell system with VB-TB5SX valve |



- Delivery items are not automatically added to orders. Only items specified on the purchase order will ship.
- Please refer to Monoblock Valve Guide on page 7 to determine proper valve type.
- To order a competitor connector on the end of the kit, add suffix to the end of the part number (ex: F-Flow-Rite®).

# Connector Guide

*There are a variety of connectors on the market. Battery Watering Technologies makes the following recommendations on how to determine which connector will work with your watering system. Below is a simple way to determine if your connector is compatible. If you try to interchange a connector with one that is not a match, it will not work. Female connectors go on the water delivery item. Male connectors go on the battery kit.*

|                                   | Female   | Male  |
|-----------------------------------|--|---|
| Battery Watering Technologies     | <br><b>09FBLU1</b> <b>09FBLUT3</b> <b>09FBLU6</b> | <br><b>09MBLU1</b> <b>09MBLU2</b>         |
| Flow-Rite®                        | <br><b>09FUM1</b>                                 | <br><b>09FUV1</b> <b>09FUV6</b>           |
| Philadelphia Scientific® Injector | <br><b>L70654</b>                               | <br><b>09PHISCI-1</b> <b>09PHISCI-6</b> |
| Philadelphia Scientific® Stealth™ | <br><b>09FUM1</b>                               | <br><b>09FUV1</b> <b>09FUV6</b>         |
| BFS Compatible/<br>Grey           | <br><b>09GRF1</b> <b>09GRF6</b>                 | <br><b>09GRM1</b> <b>09GRM6</b>         |
| Watermaster®                      | <br><b>09CUM1</b> <b>09CUM6</b>                 | <br><b>09CUV1</b> <b>09CUV6</b>         |





# Connectors

*Battery Watering Technologies' products can be used with most competitor high and low pressure products. We offer a large array of connectors for kit and delivery items to meet our customer's needs. Female connectors go on the water delivery item. Male connectors go on the battery kit.*

## Battery Watering Technologies Connectors

### 09FBLU1

$\frac{3}{8}$ " (10 mm)  
Female Connector



### 09FBLU6

$\frac{1}{4}$ " (6 mm)  
Female Connector



### 09FBLUT3

$\frac{1}{4}$ " (6 mm) (NPT Threaded)  
Female Connector



Use only with Direct Fill Link  
(# DF72)

### 09MBLU1

$\frac{1}{4}$ " (6 mm)  
Male Connector



### 09MBLU2

$\frac{3}{8}$ " (10 mm)  
Male Connector



### 09MB-ORING

Replacement o-ring for  
09MBLU1 and 09MBLU2



Inner: .3" (7 mm)  
Outer: .45" (11 mm)  
Thickness: .07" (1 mm)

### 09GRF1

$\frac{3}{8}$ " (10 mm)  
Female Connector



### 09GRF6

$\frac{1}{4}$ " (6 mm)  
Female Connector



### 09GRM1

$\frac{3}{8}$ " (10 mm)  
Male Connector



### 09GRM6

$\frac{1}{4}$ " (6 mm)  
Male Connector



#### Trademark Acknowledgements:

Watermaster® is a registered trademark of Watermaster of America, Inc.  
Flow-Rite® is a registered trademark of Flow-Rite Controls.  
Philadelphia Scientific® is a registered trademark of Philadelphia Scientific, LLC

## Philadelphia Scientific® Connectors

### L70654

Female Connector



### 09PHISCI-1

$\frac{3}{8}$ " (10 mm)  
Male Connector



### 09PHISCI-6

$\frac{1}{4}$ " (6 mm)  
Male Connector



## WaterMaster® Connectors

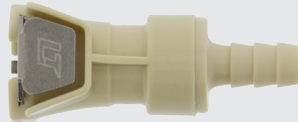
### 09CUM1

$\frac{3}{8}$ " (10 mm)  
Female Connector



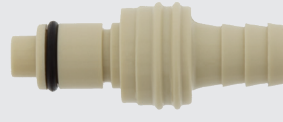
### 09CUM6

$\frac{1}{4}$ " (6 mm)  
Female Connector



### 09CUV1

$\frac{3}{8}$ " (10 mm)  
Male Connector



*Requires clamp*

### 09CUV6

$\frac{1}{4}$ " (6 mm)  
Male Connector



## Flow-Rite® Connectors

### 09FR-ORING

Replacement o-ring for  
09FUV1 and 09FUV6



Inner: .65" (16 mm)  
Outer: .8" (20 mm)  
Thickness: .07" (1 mm)

### 09FUM1

$\frac{3}{8}$ " (10 mm)  
Female Connector



*Use with Flow-Rite® Millennium  
Requires HCC500 clamp*

### 09FUV1

$\frac{3}{8}$ " (10 mm)  
Male Connector



*Use with Flow-Rite® Millennium and  
Philadelphia Scientific® Stealth™  
Requires HCC500 clamp*

### 09FUV6

$\frac{1}{4}$ " (6 mm)  
Male Connector



*Use with Flow-Rite® Millennium and  
Philadelphia Scientific® Stealth™*

*Jumpers can be made to/from any connector by special order.*

## 09FJUMP

Connector Jumper  
with 09GRM1 & 09FBLU1 Connectors



This jumper is needed if you have a water delivery item with the grey connector (part **09GRF1**) and need to connect to a kit with the blue connector (part **09MBLU1**).

## 09MJUMP

Connector Jumper  
with 09MBLU2 & 09GRF1 Connectors



This jumper is needed if you have a water delivery item with the blue connector (part **09FBLUT3** or **09FBLU1**) and need to connect to a kit with the grey connector (part **09GRM6**).

## 09FJUMPF

Connector Jumper  
with 09FUV1 & 09FBLU1 Connectors



This jumper is needed if you have a water delivery item with the black connector (part **09FUM1**) and need to connect to a kit with the blue connector (part **09MBLU1**).

## 09MJUMPF

Connector Jumper  
with 09MBLU2 & 09FUM1 Connectors



This jumper is needed if you have a water delivery item with the blue connector (part **09FBLU1** or **09FBLUT3**) and need to connect to a kit with the black connector (part **09FUV6**).

## 09FCJUMP

Connector Jumper  
with 09FUV1 & 09GRF1 Connectors



This jumper is needed if you have a water delivery item with the black connector (part **09FUM1**) and need to connect to a kit with the grey connector (part **09GRM6**).

## 09MCJUMP

Connector Jumper  
with 09GRM1 & 09FUM1 Connectors



This jumper is needed if you have a water delivery item with the grey connector (part **09GRF1**) and need to connect to a kit with the black connector (part **09FUV6**).



# Manual Watering Gun



*The manual watering gun cannot be used with automatic watering systems. It is used to manually fill each cell one at a time. In addition, it must have pressure to operate properly.*

## GMAN1

Manual Watering Gun



- Fills batteries quickly at approximately 1.7 GPM (6.4 l/m).
- Flow diffuser slows the rapid water flow to a gentle spray.
- Minimum incoming water pressure is 15 PSI.
- Nozzle diameter is 0.67" (1.7 cm). It fits into the flip-top vent caps, as well as all standard quarter-turn, bayonet and DIN openings.
- Reliable automatic shutoff fills to the correct level. Shutoff is powered by the water. No solenoids, no electronics, no wiring. Unique design eliminates post shut-off drip.
- Rugged ABS plastic industrial design with a comfortable, easy to squeeze handle.
- 45° nozzle is angled to make the gun comfortable to use - no awkward bending over the batteries to add water.
- Lock-in-place level control keeps fill depth from changing.
- Instant ROI. Compared to hand watering, the gun reduces labor costs.

*Replacement parts not available. Only water fully charged batteries.*

## Manual Pump

*The manual pump should be used when filling one or two batteries with water. The end is placed into a jug of distilled water to gently fill the batteries. It is a slower filling process, but an inexpensive option.*

### NTHANDPG

Manual Pump  
with 09GRF1 Connector



### NTHANDP

Manual Pump  
with 09FBLU1 Connector  
*Distilled water not included*



# Direct Fill Links

*The direct fill link has a built-in flow indicator and pressure regulator. Pressure is reduced down to 10 PSI. Maximum 90 PSI from source into DFL. Use the connector guide on page 11 to determine which male connector is the mate to the direct fill link below.*

*Direct Fill Links are not recommended for use with Philadelphia Scientific® injector systems or Watermaster® systems.*

## Standard Direct Fill Link

### DF72G

Standard Direct Fill Link  
with 09GRF1 Connector



## Optional Direct Fill Links

### DF72

Direct Fill Link  
with 09FBLUT3 Connector



### DF72F

Direct Fill Link  
with 09FUM1 Connector



*Only water fully charged batteries.*















## DFHOSC

with 09GRF1 Connector  
Direct Fill Link with  
12' (3.7 m) hose



Other Direct Fill Link and hose combos available.  
Please call for options.

### Replacement Parts:

| Picture   | Part Number      | Description  | DF72     | Optional Links |
|---|------------------|--|----------|----------------|
|  | <b>09FIL2</b>    | Filter Screen                                      | <b>X</b> | <b>X</b>       |
|  | <b>63163</b>     | 3/4" GHT to 3/8" Barb<br>(19 mm GHT to 10 mm Barb) |          | <b>X</b>       |
|  | <b>09FRTL72</b>  | Front End Replacement for DF72                     | <b>X</b> |                |
|  | <b>09FRTL72F</b> | Front End Replacement for DF72F                    |          | <b>X</b>       |
|  | <b>09FRTL72G</b> | Front End Replacement for DF72G                    |          | <b>X</b>       |
|  | <b>09FWM72A</b>  | Flow Indicator                                     | <b>X</b> |                |
|  | <b>09FWM72B</b>  | Flow Indicator                                     |          | <b>X</b>       |
|  | <b>GHAN2</b>     | Handle   | <b>X</b> | <b>X</b>       |
|  | <b>HCC500</b>    | Crimp Hose Clamp 3/8" (10 mm)                      |          | <b>X</b>       |
|  | <b>L70654</b>    | Female Quick Connect                               | <b>X</b> | <b>X</b>       |
|  | <b>L70655</b>    | Quick Connect Male Adapter                         | <b>X</b> | <b>X</b>       |
|  | <b>PRG915</b>    | 10 PSI Pressure Regulator                          | <b>X</b> | <b>X</b>       |
|  | <b>W-406</b>     | Gasket   | <b>X</b> | <b>X</b>       |



# Gravity Feed Tanks

## 2.5 Gallon Gravity Feed Tank

### NT2212GFGREY

2.5 Gallon (9.5 L)  
Gravity Feed Tank  
with 09GRF1  
Connector



**Tank Dimensions:**  
10"L x 10"W x 10"H  
(.25 m x .25 m x .25 m)  
Hose Length: 5' (1.5 m)

Hose Length: 5' (1.5 m)

*The tank should be positioned at least 3' (.91 m) above the batteries to ensure proper water delivery. Tank shelves are sold separately unless ordering a tank/shelf combo.*

*Note: Always disconnect tank after watering. Never leave tank attached to the watering system. Only water fully charged batteries.*

### 2.5 Gallon Tanks with Optional Connectors

| Part Number  | Ships with Connector |  |
|--------------|----------------------|--|
| NT2212GFGREY | 09GRF1               |  |
| NT2212GF     | 09FBLU1              |  |
| NT2212GFR    | 09FUM1               |  |

Gravity Feed Tanks are not compatible with Philadelphia Scientific® injector systems.

## 5 Gallon Gravity Feed Tank

### NT2000G

5 Gallon (18.9 L)  
Gravity Feed Tank  
with 09GRF1  
Connector



**Tank Dimensions:**  
10"L x 10"W x 16"H  
(.25 m x .25 m x .41 m)  
Hose Length: 10' (3 m)

Hose Length: 10' (3 m)

*The tank should be positioned at least 3' (.91 m) above the batteries to ensure proper water delivery. Tank shelves are sold separately.*

*Note: Always disconnect tank after watering. Never leave tank attached to the watering system. Only water fully charged batteries.*

### 5 Gallon Tanks with Optional Connectors

| Part Number | Ships with Connector |  |
|-------------|----------------------|--|
| NT2000G     | 09GRF1               |  |
| NT2000GN    | 09FBLU1              |  |
| NT2000GFR   | 09FUM1               |  |
| NT2000GWM   | 09CUM1               |  |

Gravity Feed Tanks are not compatible with Philadelphia Scientific® injector systems.

## Tank and Shelf Combos

### TSC2000

5 Gallon (18.9 L)  
Combo Tank and Shelf  
with 09GRF1 Connector



### TSC2000N

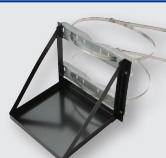
5 Gallon (18.9 L)  
Combo Tank and Shelf  
with 09FBLU1 Connector

(Not Shown)

## Tank Shelves

### S2000TP

Pole Mount  
Tank Shelf



### S2000T

Wall Mount  
Tank Shelf



# Auto-Fill Tanks and Replacement Parts



**NT2000AFG**  
5 Gallon (18.9 L)  
Auto-Fill Tank  
with 09GRF1 Connector

**NT2000AFB**  
5 Gallon (18.9 L)  
Auto-Fill Tank  
with 09FBLU1 Connector

(Not Shown)



## 5 Gallon Auto-Fill Tank

*The auto-fill tank is used in applications where the water supply would be plumbed directly into the tank. There is no need to fill the tank manually. This would be ideal when using the FC1000 Automatic Water Control (see page 21). The tank should be positioned at least 3' (.91 m) above the batteries to ensure proper water delivery. Tank shelves are sold separately unless ordering tank/shelf combo.*

*Note: Always disconnect tank after watering. Never leave tank attached to the watering system. Only water fully charged batteries.*

## Replacement Parts

For Gravity Feed and Auto-Fill Tanks

**09FILTK2**  
Front End Replacement\*  
for 2.5 Gallon (9.5 L)  
with 09GRF1 Connector



\*For tanks ordered before 12/1/17

**09FILTKN3**  
Front End Replacement\*  
for 2.5 Gallon (9.5 L)  
with 09FBLU1 Connector



\*For tanks ordered before 12/1/17

**09FILTK2S**  
Front End Replacement\*  
for 2.5 Gallon (9.5 L)  
with 09GRF1 Connector



\*For tanks ordered after 12/1/17

**09FILTK3S**  
Front End Replacement \*  
for 2.5 Gallon (9.5 L)  
with 09FBLU1 Connector



\*For tanks ordered after 12/1/17

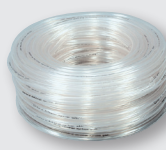
**09FILTK**  
Front End Replacement  
for 5 Gallon (18.9 L)  
with 09GRF1 Connector



**09FILTKN**  
Front End Replacement  
for 5 Gallon (18.9 L)  
with 09FBLU1 Connector



**08TUB1**  
3/8" (10 mm)  
Clear Tubing  
(sold by the foot)



100 feet (30.48 m) on a roll (shown)

**09FWM1**  
Flow Indicator  
3/8" (10 mm)



**62067**  
3/8" (10 mm) Barb  
x Male GHT



**TA10126**  
3/4" NPT x 3/8" Barb



**62066**  
3/8" (10 mm) Barb  
x 3/4" (19 mm) NPT



**HC5000**  
Metal Hose Clamp



**75023A**  
5 Gallon (18.9 L)  
Replacement Tank  
(Tank Only - Not Shown)

**75029A**  
2.5 Gallon (9.5 L)  
Replacement Tank  
(Tank Only - Not Shown)

**NTSCAP**  
Small Replacement Cap



**NTSCAP2**  
Large Replacement Cap



Auto-Fill Tanks and Replacement Parts





# Aqua Sub™ Carts

*The Aqua Sub Carts can be used with most competitor's systems.  
They cannot be used with injector systems or gravity only systems.*

## Aqua Sub™ Cart - 25 Gallon

### NC5250P

Aqua Sub™ Cart  
25 Gallon (95 L)  
with 09GRF1 Connector



- Automatic shut off demand style pump
- Charger included (installed in battery box)
- Charger is intended for 120 V/60 Hz AC
- Contact us if voltage requirements are different
- Direct fill link and pressure regulator are included
- 25 gallon (95 L) tank
- Rugged steel construction ensures a trouble-free system
- Tough powder coat finish
- Heavy duty industrial wheels
- Manual watering gun option available
- Box and pallet size for shipping: 48" x 40" x 40" (1219 mm x 1016 mm x 1016 mm)
- Approximate shipping weight: 115 lbs. (52 kg) palletized for shipping (LTL)
- Battery not included - Requires group 24 DCM Battery

### NC5250PN

Aqua Sub™ Cart  
25 Gallon (95 L)  
with 09FBLUT3 Connector

(Not Shown)

### NC5250PN-MAN

Aqua Sub™ Cart  
25 Gallon (95 L)  
with Manual Watering Gun

(Not Shown)

## Aqua Sub Jr.™ Cart - 9 Gallon

### NC5090P

Aqua Sub Jr.™ Cart  
9 Gallon (34 L)  
with 09GRF1 Connector



- Lightweight, durable, and great for small and medium jobs
- Two-wheeled configuration handles like a piece of luggage
- 12 volt battery included
- Charger included (intended for 100-240 VAC 50/60 Hz)
- Contact us if voltage requirements are different
- Direct fill link and pressure regulator are included
- 9 gallon (34 L) tank
- Manual watering gun option available
- Box size for shipping: 27" x 20" x 23" (686 mm x 508 mm x 584 mm)
- Approximate shipping weight empty: 39 lbs. (18 kg)

### NC5090PN

Aqua Sub Jr.™ Cart  
9 Gallon (34 L)  
with 09FBLUT3 Connector

(Not Shown)

### NC5090PN-MAN

Aqua Sub Jr.™ Cart  
9 Gallon (34 L)  
with Manual Watering Gun

(Not Shown)

# Automatic Water Control



*The automatic watering control will monitor the battery voltage to determine when the battery charge is complete. After the charge has been completed, the control will allow water to flow to the battery for a fixed period of time depending on the battery voltage.*

## Automatic Watering Control

**FC1000-24**  
(24 Volt)

**FC1000-36**  
(36 Volt)

**FC1000-48**  
(48 Volt)

**FC1000-80**  
(80 Volt)



*Please allow additional time for custom assembly of FC1000's*

The control can be mounted to the side or top of the charger, or on the front panel or door of the charger.

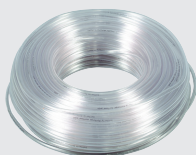
The control is designed to operate with a gravity feed or pressure regulated supply system up to 15 PSI. The plumbing supply lines should be copper, PVC or plastic tubing.

The water supply line to the battery should only be connected once a week—not every time the battery is charged.

### 08TUB6

Clear Tubing  
1/4" (6 mm)

(Sold separately by the foot)



### 09FBLU6

Female Connector  
1/4" (6 mm)

(Sold separately)



### 09GRF6

Female Connector  
1/4" (6 mm)

(Sold separately)



### 09FWM6

Flow Indicator  
1/4" (6 mm)

(Sold separately)

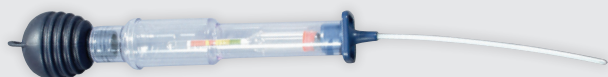


## Hydrometer

The hydrometer is used to check specific gravity. It can be used on batteries with and without automated systems by removing the vent caps.

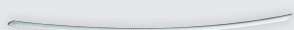
### 09HYCT

Hydrometer  
1.10 - 1.30 Range



### 09HYDE

Hydrometer  
Replacement Tube



## Refractometer

The refractometer is used to measure fluid concentrations of liquids. It can be used to measure specific gravity as well as determine the identity of unknown substances based on their refractive index.

### 09REFR

Refractometer





# Water Deionizer Kit

*The deionizer can easily and inexpensively remove harmful impurities from the water.*

**Easy Installation** – Simply attach the bracket to a wall with four bolts. Connect the input and output hose. Insert the probe into the fitting on top of the housing and mount the display on the back of the unit.

**Purity Light** - Monitors the water output and tells you when the cartridge needs to be replaced. Push the button to see if it is time to replace the cartridge.

**Cartridge Replacement** – No tools are needed. To replace the cartridge, unscrew the canister and put in the new one.

If water has particulates or sediment, a pre-filter is recommended. At three grains per gallon of total dissolved solids you can expect 1000 gallons (3785.4 Liters) of capacity.

Our deionizer comes with an input and output hose. *It connects to your choice of direct fill link, manual watering gun or an approved competitor filling device.*

| Input<br>TDS (PPM) | Cartridge Capacity |        |
|--------------------|--------------------|--------|
|                    | Gallons            | Liters |
| 100                | 604                | 2,286  |
| 150                | 402                | 1,522  |
| 200                | 302                | 1,143  |
| 250                | 241                | 912    |
| 300                | 201                | 761    |

Hose to Delivery System:  
12' (3.7 m)

Part # HOSE-121

Hose to Water Supply:  
6' (1.8 m)

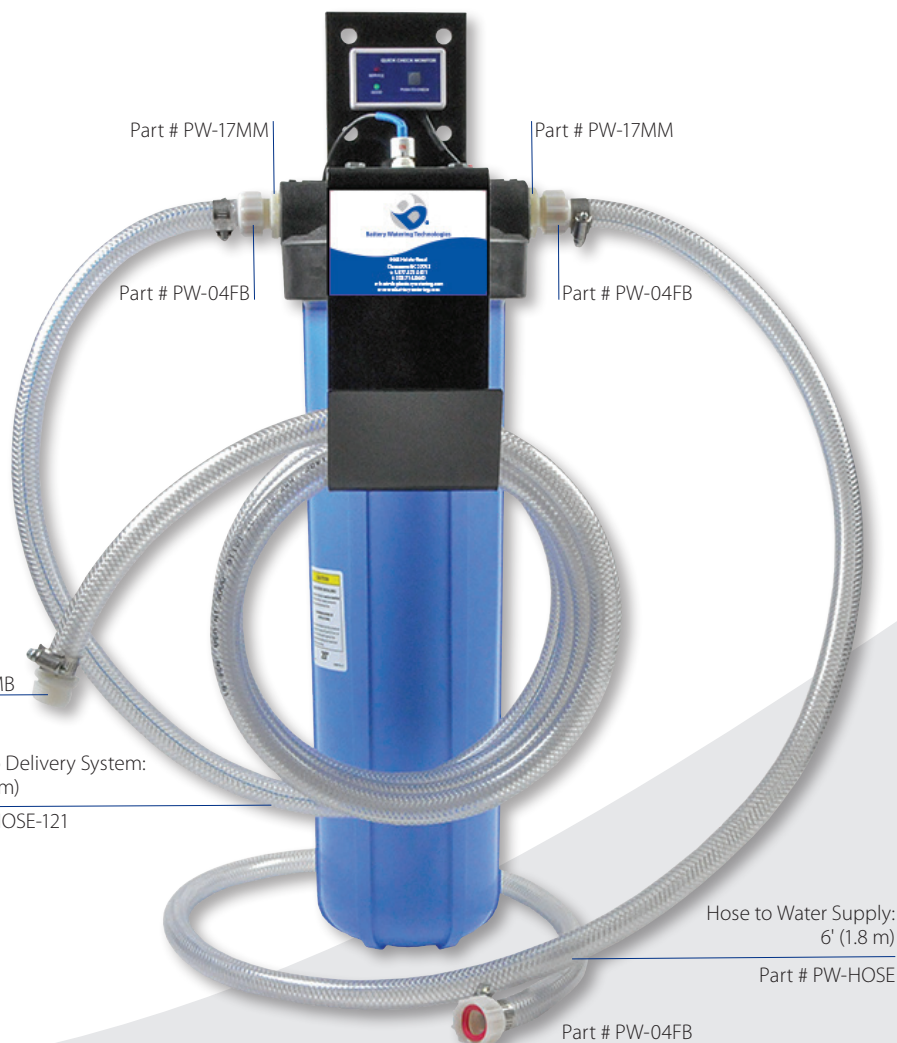
Part # PW-HOSE

Part # PW-04FB

Part # PW-65MB

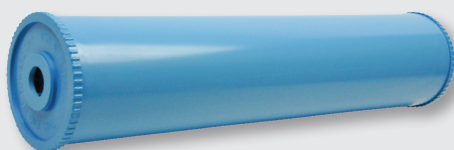
## PW-1800

Water Deionizer Kit  
(Hoses and Fittings Included)



## PWRC-1800



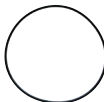







Deionizer Replacement  
Cartridge



Max inlet pressure: 100 PSI  
Shipping Weight: 28 lbs (12.7 kg)  
Hose to Delivery System: 12' (3.7 m)  
Hose to Water Supply: 6' (1.8 m)

# Water Deionizer Replacement Parts



| Picture   | Part Number      | Description  | Notes  |
|---|------------------|--|--|
|    | <b>HOSE-121</b>  | Delivery Hose<br>12' (3.66 m)                                      | <i>Fittings included for outlet of deionizer (Hose to delivery system)</i> |
|    | <b>PWRC-1800</b> | PW-1800<br>Deionizer Replacement Cartridge                         | <i>Deionizer replacement cartridge is not compatible with other brands</i> |
|    | <b>PW-04FB</b>   | 5/8" Hose Barb x Female GHT  |  |
| Picture Not Available   | <b>PW-17MM</b>   | 1" Male NPT x Male GHT   |  |
| Picture Not Available   | <b>PW-65MB</b>   | 5/8" Hose Barb x Male GHT  |  |
|    | <b>PW-151122</b> | O-ring gasket<br>for PW-1800 Housing                               |  |
|   | <b>PW-BR</b>     | Bracket  |  |
|  | <b>PW-CASE</b>   | Deionizer<br>Case Housing  | <i>Please indicate plug-in or battery operated Purity Light</i>            |
|  | <b>PW-CLAMP</b>  | Hose Clamp<br>3/8" to 7/8"<br>(10 mm to 22.22 mm)                  |  |
|  | <b>PW-HOSE</b>   | Braided Hose<br>5/8" (15.88 mm)<br>Sold by the Foot                | <i>Fittings sold separately</i>  |
|  | <b>PW-LIT</b>    | Purity Light Replacement for<br>Plug-in (AC) Unit                  |  |
|  | <b>PW-LIT2</b>   | Purity Light Replacement for<br>Battery Operated (DC) Unit         |  |
|  | <b>PW-SW4</b>    | Housing Tool<br>used to tighten lid<br>on housing                  |  |
|  | <b>WQT</b>       | Water Quality<br>Tester  |  |
|  | <b>DW-CAR</b>    | Replacement Cartridge<br>for Philadelphia<br>Scientific Deionizers | <i>DW-CAR is not compatible with PW-1800 Deionizer</i>                     |



*Battery Watering Technologies offers two sensors that have different levels of technologies, however they all include the following features:*

## Superior Design and Manufacturing

- Bright LED indications
- Low current draw will not drain the battery
- Low profile eliminates damage from battery cables as they move across the top of the battery
- No calibration necessary
- Sealed polycarbonate lens protects the LED from damage and acid corrosion
- Overmolded wiring harness for enhanced durability

## Safest Sensors Available

- Electronic housing is separate from the sensor probe
- Protected against transient voltages and incorrect polarity
- Multiple fuses eliminate the possibility of unrestricted current flow in any direction
- Eliminates the need for battery room attendants to look into vent wells to check electrolyte levels
- Probe made from lead
- UL classified for use on industrial batteries.



## Customized to Fit Your Battery

- Multiple precut probe lengths available
- Easy to trim probe

## Guaranteed Performance

- Guaranteed for one year
- Protects your battery investment
- Designed to last the life of your battery

### BSVADR

Drill Bit  
½" (13 mm)



Don't forget the drill bit for easy installation. The depth stop ensures that the battery isn't damaged by drilling too deep.

## i-Lite™ Sensor Electrolyte Monitoring System

*The smartest, safest and most accurate way to know when your batteries need water. The simplistic design of the i-Lite™ sensor improves battery maintenance by indicating to operators the battery electrolyte level with an easy-to-understand blinking LED. When paired with a single-point watering system from Battery Watering Technologies, it helps extend the life of the battery by alerting users when the battery needs water.*

### EMS1000AU i-Lite™ Sensor



## Features

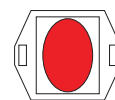
- Monitors electrolyte level
- Simple, easy-to-understand light codes
- One year guarantee

## Technical Specifications

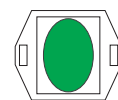
- Ring terminals sized to fit bolt on inter-connector
- Operating Voltage: 8 - 12 V Nominal
- Current Consumption: 7 mA
- Acceptable Exposure Range: -20°F to 160°F (-29°C to 71°C)



## i-Lite™ Sensor Light Guide



**Blinking Red**  
Water level is low  
Only water after charging



**Blinking Green**  
Water level is OK



## Visual Monitoring System™

*The Visual Monitoring System™ (VMS) is an all-in-one battery sensor that offers a cost effective, intuitive solution to manage your battery fleet and confirm that the batteries have been charged, cooled and watered. The bright LED can be positioned in a convenient location for easy monitoring, even from far away. The durable, reliable design protects your battery investment by taking the guesswork away. The VMS alerts the user that the battery needs water only after it has been fully charged, preventing watering at the wrong time, while tracking the number of charge cycles. When used with a watering system from Battery Watering Technologies, the VMS offers the most effective battery maintenance program available.*

### VMS1000AU Visual Monitoring System



#### Features:

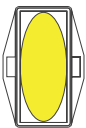
- Monitors electrolyte level but only alerts the user water is needed after the battery is charged, preventing watering at the wrong time
- Tracks the number of charge cycles
- Notifies the user when the battery is charged
- Notifies the user when the battery has cooled for 4 hours\*
- One year guarantee

#### Technical Specifications

- Ring terminals sized to fit bolt on inter-connector
- Operating Voltage: 8 - 12 V Nominal
- Current Consumption: 57 mA
- Acceptable Exposure Range: -20°F to 160°F  
(-29°C to 71°C)



#### VMS Light Guide



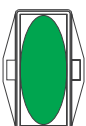
##### Yellow

In use or being charged



##### Red

Battery is charged  
Needs water - water now  
Blinking indicates the battery has not cooled



##### Green

Battery is charged  
Water level is OK  
Blinking indicates the battery has not cooled

The VMS light is yellow while the battery is in use or being charged. After the battery receives a full charge, the light will transition to blinking red or blinking green depending on the electrolyte level. A blinking light indicates the battery has not cooled.

If the light is red, the battery needs to be watered. If the light is green, the electrolyte level is OK.

After the battery has cooled for 4 hours\* it will turn solid red or solid green depending on the electrolyte level.

Solid green indicates the battery is ready to use.

The light will transition back to yellow when the battery is in use.

\*Always follow the battery OEM's operational guidelines.



# Technical Service Kit

*The technical service kit is a great tool to have on every service truck in the field. It saves time and money by enabling service technicians to make repairs on the spot. Dual compartments make it great for storing both small parts as well as the larger tubing and valves.*



## TK1000EU

Technical Service Kit  
(See chart below for included parts)



| Part Number    | Description                   | Quantity        |
|----------------|-------------------------------|-----------------|
| <b>08CAP6</b>  | End Cap                       | 18              |
| <b>08KR66N</b> | 1/4" (6 mm) Cross             | 10              |
| <b>08T666N</b> | 1/4" (6 mm) Tee               | 10              |
| <b>08TUB6</b>  | 1/4" (6 mm) Tubing            | 20 ft or 6.09 m |
| <b>09BDCAP</b> | Dust Cap                      | 6               |
| <b>09GRF1</b>  | 3/8" (10 mm) Female Connector | 2               |
| <b>09GRM6</b>  | 1/4" (6 mm) Male Connector    | 6               |
| <b>HCC500</b>  | Crimp Hose Clamp              | 2               |
| <b>VA-TBE</b>  | 35 mm Clip-in Valve           | 12              |
| <b>FLT14</b>   | Float 14                      | 6               |
| <b>FLT20</b>   | Float 20                      | 6               |
| <b>FLT24</b>   | Float 24                      | 6               |
| <b>FLT29</b>   | Float 29                      | 6               |
| <b>FLT34</b>   | Float 34                      | 6               |
| <b>FLT39</b>   | Float 39                      | 6               |
| <b>FLT44</b>   | Float 44                      | 6               |
| <b>FLT49</b>   | Float 49                      | 6               |

## 55328

Empty Technical Service Kit  
*Assemble the parts you need*



## 08TUB1

Clear Tubing  
3/8" (10 mm)  
(Sold by the foot)



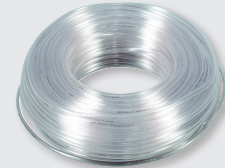
## 08TUB6

Industrial Clear Tubing  
1/4" (6 mm)  
(Sold by the foot)



## 08TUB6K

Commercial Clear Tubing  
1/4" (6 mm)  
(Sold by the foot)



## 08TUB6BLK

Black Tubing  
1/4" (6 mm)  
(Sold by the foot)



## 08TUB6BLKRL

300' (91.4 m) of Black Tubing  
1/4" (6 mm)  
(Sold on a spool)



## TUBECUT

Tubing Cutter





# Replacement Parts

## Adapters and Vent Caps

### 09PUAD

Bayonet Conversion  
Adapter



### MC001

Manual Bayonet  
Vent Cap



### MAA00

Manual Push-in  
Vent Cap



## Angles and Tees

### 08T616N

Tee  
6 - 10 - 6



### 08T666N

Tee  
6 - 6 - 6



### 08T111N

Tee  
10 - 10 - 10



6 = 6 mm (1/4") tubing connection  
10 = 10 mm (3/8") tubing connection

### 08Y666N

Y Fitting  
6 - 6 - 6



### 08KR66N

Cross  
6 - 6 - 6 - 6



### 08KR11N

Cross  
10 - 10 - 10 - 10



### 08RED6N

Reducer  
10 - 6



## Caps

### 09BDCAP

Standard Dust Cap



### 09BDCAPF

Dust Cap for use with  
09FUV6 Connector



### 08CAP6

End Cap







## Clamps

### HCC400

Crimp Hose Clamp  
1/4" (6 mm)



### HCC500

Crimp Hose Clamp  
3/8" (10 mm)



### HC5000

Metal Hose Clamp  
1/4" (6 mm)



### PW-CLAMP

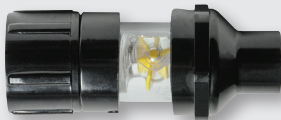
Hose Clamp for Water Deionizer  
3/8" to 7/8" (10 to 22.22 mm)



## Flow Indicators

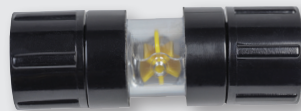
### 09FWM72A

Flow Indicator  
for Standard  
Direct Fill Link



### 09FWM72B

Flow Indicator  
for Optional  
Direct Fill Links



### 09FWM1

Standard  
Flow Indicator  
3/8" (10 mm)



### 09FWM6

Flow Indicator for  
Automatic Watering Control  
1/4" (6 mm)



## Gaskets and Filters

### 09D15

Gasket  
1.5 mm



### 09FTR1

Filter  
3/8" (10 mm)



### 09FTR6

Filter  
1/4" (6 mm)







# Battery Watering Technologies

## Battery Watering Technologies

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