

VIKING SUPERBOWL

The SuperBowl is a programmable battery-operated solid / powder chemical dispenser that provides lockout and mid-cycle shut off features that are unavailable with a mechanical timer or ball valve style bowl. The lockout prevents chemical waste that occurs when the end user repeatedly attempts to dispense product with the “more soap = cleaner” philosophy in mind. The unit uses a latching solenoid valve to maximize battery life.

NOTE: Units ordered as a Laundry SuperBowl Complete or Laundry SuperBowl Shroud Kit complete are shipped with a ChemSaver Laundry Trigger Board (CLTB). For instructions related to connecting a SuperBowl to a laundry machine for automatic injection via the CLTB, please see the separate instruction sheet for the CLTB board.

SPECIFICATIONS / RECOMMENDED OPERATING CONDITIONS RELATED TO THE BOWL:

Water Pressure: Maximum: 40 PSI Dynamic
 Minimum: 15 PSI Dynamic

If necessary, pressure can be adjusted by installing an in-line regulator to control the water pressure to the Viking Bowl. Water pressure above 50 PSI will **SIGNIFICANTLY** affect (reduce) battery life.

Water Temperature: Some solid products are run with cold water. **We do not recommend using water that is more than 140 degrees Fahrenheit.**

- The Viking Bowl accepts a standard 6” diameter jug with a 100mm or smaller neck finish.
- Blue and Red Bowls are available – call for details.
- Private label logo is available on the Viking Bowl. Call for details.
- Viking manufactures screen caps for encapsulated detergent. Call for details.

Nozzles:

- The Viking Bowl comes with a standard spray nozzle installed – it is used for solid and powdered chemical.
- The Cone Nozzle provides the same pattern and flow rate as the Standard Nozzle but it is cone shaped to shed water and product after feeding is complete.
- The Powder Nozzle provides a low flat spray and should be used with powdered products only.
- The NDB Nozzle is for locations where water pressure is too low. It has a smaller orifice and will provide a better spray pattern at lower pressures. As a result it also has a lower flow rate.

UNIT DISASSEMBLY FOR MOUNTING AND PROGRAMMING:

To mount the unit and install the batteries, you must remove the bottom half of the shroud assembly. Begin by removing the black plastic nut from the threaded barb on the bottom of the bowl. Next, while holding the top half of the bowl shroud in place, remove the bottom half by pulling the front of the shroud down and over the threaded barb on the bottom of the bowl. Set the bottom half of the shroud assembly with the solenoid and circuit board aside.

MOUNTING THE BOWL:

To mount the bowl, choose a location on the wall that will allow gravity feed of the chemical to the dispensing point. Unless you plan on installing a remote switch or triggering the unit from a laundry machine with the CLTB, the unit should be installed within reach of the end user so that they can push the start button on the front of the dispenser. The 5/8" I.D. clear PVC tubing from the Bowl should run down to the dispensing point.

- Mount the Viking Bowl using the screws and anchors provided. Make sure to allow enough room above the bowl to insert and remove containers of product.
- After securing the bowl to the wall, do not connect water lines or the PVC tubing to the unit until after you have installed the batteries, set up the unit, and reattached the shroud bottom to the bowl.

POWER SUPPLY / BATTERIES:

This unit operates with 6 Volts DC from either 4 each AA batteries or a 120 VAC to 6 VDC plug in adaptor – both are connected to a screw down terminal base in the bottom left hand corner of the circuit board (when looking at the board inside of the shroud bottom) and polarity does matter – the positive from either the battery carrier (red wire) or plug in adaptor must be connected to the position marked with a +. The valve is a latching valve that operates with a 60 millisecond pulse of energy, a magnet at the top of the enclosing tube holds the armature up and keeps the valve open during the feed time to maximize battery life. When the run time is done, the board reverses the polarity and sends another 60 millisecond pulse to close the valve. Water pressure will directly affect the battery life. We recommend alkaline batteries. The unit will lose its ability to reliably and consistently open and close the valve when the battery voltage reaches approximately 5.2 volts DC.

LOW BATTERY LED:

The LED on the front of the unit indicates a low battery situation when the batteries reach approximately 5.5 volts DC. When this threshold is consistently met, the LED will flash 2 times when the button is depressed, every 10 seconds during the run time, when the valve closes and after the lockout time. The idea is that this LED is never lit, when your customer sees a flash, it actually means something – replace the batteries. With a plug in adaptor this low battery indicator is irrelevant.

BATTERY / ADAPTOR INSTALLATION:

Remove the battery carrier cover and insert four **alkaline** AA batteries into the battery carrier. Install the battery cover again. Before doing anything else with the unit, turn the potentiometer all of the way down and press the button on the front of the shroud and release it. You will hear the snap of the solenoid opening, and approximately 3 seconds later, a less distinct thud of the armature seating on the diaphragm at the end of a 3 second run time (i.e. batteries are properly installed and making good contact).

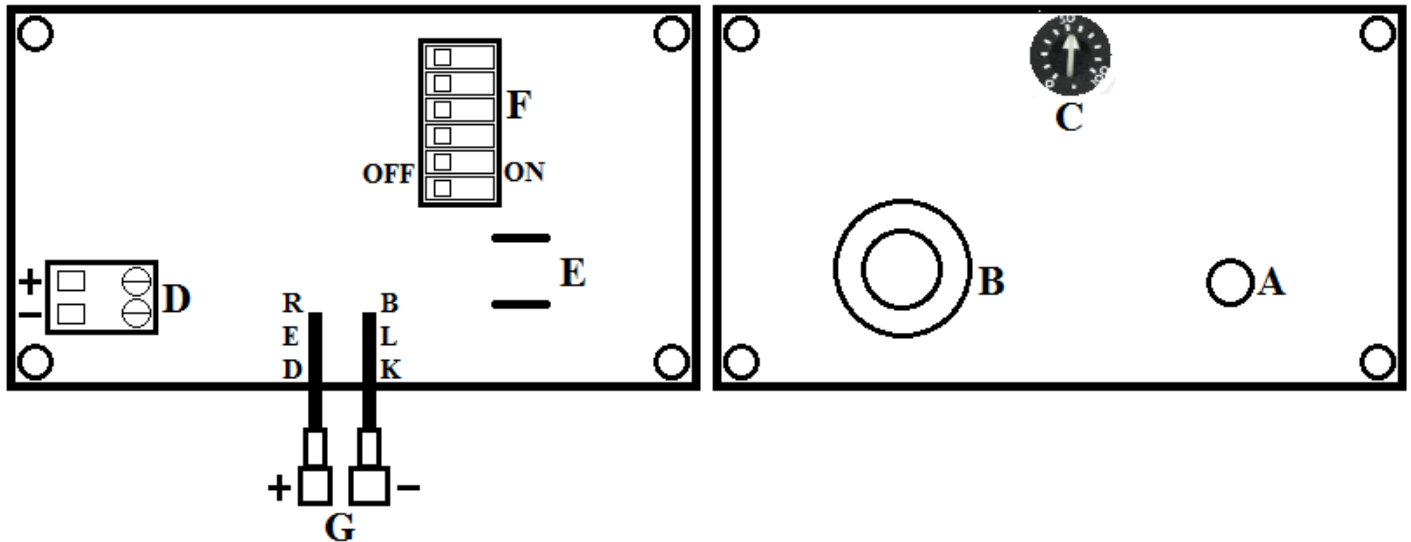
If you purchased a unit built with a plug in adaptor – plug the adaptor into a 120 VAC wall outlet. Press the button on the front of the lid and release - you will hear the snap of the solenoid opening, and approximately 3 seconds later, a less distinct thud of the armature seating on the diaphragm at the end of a 3 second run time (i.e. batteries are properly installed and making good contact).

SUPERBOWL / CHEM\$AVER CIRCUIT BOARD

BOA BATPPBD 003

BACK SIDE OF THE BOARD (INSIDE SHROUD)

USER SIDE OF THE BOARD



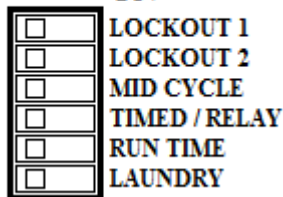
- A. Low Battery LED.
- B. Momentary Push Button Start Switch.
- C. Run Time Potentiometer. 3 seconds to 2 minutes / 3 seconds to 5 minutes – see next page for details.
- D. 6 Volts DC from Power Supply (AA battery pack OR 120 VAC to 6 VDC plug in adaptor)
- E. Remote Switch or Chem\$aver Laundry Trigger connection (2 each .250 Quick Disconnect Bases)
- F. 6 Switch Dip. These switches tell the unit how you want it to run. See below for details – switch to the left = OFF / switch to the right = ON.
- G. Latching Solenoid Valve Connection.
 - POSITIVE = Red Wire .187 QD
 - NEGATIVE = Black Wire .250 QD

SETTING UP THE UNIT TO RUN:

DIP SWITCHES

OFF

ON



LOCKOUT – Allows you to prevent the end user from retriggering the unit for a period of time.

Lockout 1 OFF	+	Lockout 2 OFF	=	NO LOCKOUT
Lockout 1 ON	+	Lockout 2 OFF	=	2 Minute Lockout
Lockout 1 OFF	+	Lockout 2 ON	=	5 Minute Lockout
Lockout 1 ON	+	Lockout 2 ON	=	10 Minute Lockout

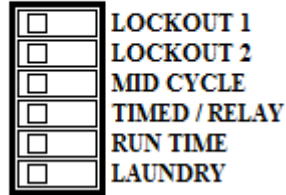
If you have the LAUNDRY dip switch turned on for Laundry Mode, the lockout dip switch settings are ignored even if the switches are on – lockouts do not work in Laundry Mode because a machine is controlling the trigger / dispensing.

SETTING UP THE UNIT TO RUN (continued):

DIP SWITCHES

OFF

ON



MID CYCLE SHUTOFF:

When turned on, Mid Cycle Shutoff allows the end user to STOP a pump run at any time during the programmed run time. If you program a 30 second run time but want the customer to be able to run 15 seconds for a different requirement turn this feature on and instruct your customer how and when to use it. If you have the LAUNDRY dip switch turned on for Laundry Mode, MID CYCLE SHUT OFF will not work even if the switch is ON.

TIMED / RELAY MODE (RELEVANT ONLY IF THE LAST DIP SWITCH – LAUNDRY - IS ON):

These modes would most likely ONLY be used if you are connecting this unit to a washing machine with a CLTB (ChemSaver Laundry Trigger Board) bringing the signal into the Liquid ChemSaver. If you are installing this unit in a warewash application or as a manual laundry, this switch is irrelevant.

Switch OFF = TIMED MODE. When the unit sees a valid trigger of 2 seconds or more in length, it will run the pump for the amount of time set on the run time potentiometer. After a pump run the unit cannot be retriggered until the signal has gone away for at least 30 seconds.

Switch ON = RELAY MODE. When the unit sees a valid trigger of 2 seconds or more in length, it will begin to run the pump for as long as the trigger is present. Once the trigger goes away the pump will run for 2 more seconds to make up for the 2 second trigger validation. After a complete pump run the unit cannot be retriggered until the signal has gone away for at least 30 seconds.

RUNTIME SWITCH AND RUN TIME POTENTIOMETER:

RUNTIME SWITCH OFF = Potentiometer controls a 3 second to 2 minute run time (12 seconds / increment)
RUNTIME SWITCH ON = Potentiometer controls a 3 second to 5 minute run time (30 seconds / increment)

LAUNDRY:

The LAUNDRY dip switch is used ONLY if you plan on triggering the unit from a washing machine through a CLTB (ChemSaver Laundry Trigger Board). If you turn this switch on, you will want to make sure that you have a CLTB to convert a 24-240 volt AC/DC signal from a washing machine into an open / closed signal to the Liquid ChemSaver. Remember that if this switch is turned on and you are operating the Liquid ChemSaver in Laundry Mode, the two lockout dip switches and the mid cycle shut off switches are ignored even if they are turned on.

REASSEMBLY OF SHROUD AND COMPLETION OF INSTALLATION (SEE DIAGRAM Pg. 6):

After you set the dip switches according to how you want the unit to run, you will need to reattach the shroud bottom to the mounted Viking Bowl. This procedure is the opposite of removal. See the diagram included in these instructions as a reference. Assuming that the gasket and shroud top are already in place, look at the middle picture. Take the bottom of the shroud and locate the bosses on back of the shroud into the mounting holes for the bowl and begin to move it up in to place. Take special care to insure that the mating pieces at the back of the shroud assembly join together correctly. These mating parts must match up properly to insure a water resistant fit. Once the two halves are matched together on the bowl, thread the plastic nut onto the threaded barb and hand tighten.

With the SuperBowl completely reassembled on the bowl complete the dispenser installation:

- Run and secure a 1/4" OD water line from the water source to the input side of the brass solenoid valve (fitting pointing to the floor). **NOTE:** Do **NOT** tap a hot water line **AFTER** a booster heater for a feed line to the solenoid. The temperature of the water that will flow to the bowl must not exceed 140 degrees Fahrenheit.
- Secure the flexible stainless steel tube in the output side (fitting pointing up) of the solenoid and tighten the compression nut and ferrule.
- Install the 7.5" stainless steel tube into the MPT fitting at the top of the spray arm on the Viking Bowl with the Jaco compression nut. Connect the DISCHARGE fitting of the vacuum breaker to the top of the 7.5" stainless steel tube using the compression fitting. Finally, bend / arrange the flexible stainless steel tube from the top of the valve on up to the INLET fitting of the vacuum breaker and secure with the compression nut.
- Attach the clear feed tubing to the bottom of the Viking Bowl. Locate the other end of the tubing at the dispensing point and cut off any extra. Cycle the dispenser and check for leaks at all connections. Tighten any loose compression nuts. A small trickle of water from the spray nozzle is normal when the solenoid valve is active and no product container is in place.

REMINDERS AND GENERAL INFORMATION:

This unit operates with 6 Volts DC input power and polarity does matter. Reversing the polarity on the power input from the batteries or adaptor may not damage the board but will also not allow the board to function properly.

NEVER put any jumpers the 3 pin base marked P1. This is a test port and jumping any combination of these pins could damage the board and / or prevent it from working properly.

The two .250 quick disconnect bases where the wires to the push button switch are connected can be used to connect any kind of momentary switch. If you want to run two conductor wire out of the bottom of the unit and connect it to any kind of momentary switch you can do this.

If you intend to connect this unit to a laundry machine and have the laundry machine trigger the SuperBowl unit you **MUST** buy and install a Chem\$aver Laundry Trigger Board (CLTB). Refer to CLTB instructions for proper installation – the CLTB board converts a 24-240 volt AC or DC signal from the washing machine into an OPEN OR CLOSED input just like the momentary start switch provides.

With water pressure of 100 PSI your batteries will last approximately 97.5% less that with pressure of 50 PSI.

When the unit is in the middle of a cycle, the settings that were in place (run time, lockouts, mid cycle, etc.) cannot be changed in the middle of the cycle. Adjustments to the pot / changes on the dip switches will not affect how the unit runs until the next cycle is started. For example if you had the potentiometer set for a 1 minute run time and started a cycle, turning the potentiometer down to 0 would not shorten the run time for the current cycle but would affect the next cycle.

WARRANTY

Viking LLC, A DEMA Company products are warranted against defective material and workmanship under normal use and service for one year from the date of manufacture. This limited warranty does not apply to any products which have a normal life shorter than one year or failure and damage caused by chemicals, corrosion, improper voltage supply, physical abuse or misapplication. Rubber and synthetic rubber parts such as "O" rings, diaphragms, squeeze tubing and gaskets are considered expendable and are not covered under warranty. This warranty is extended only to the original buyer of Viking LLC products. If the products are altered or repaired without prior approval of Viking LLC, this warranty will be void.

Defective units or parts should be returned to the factory with transportation prepaid. If inspection shows them to be defective, they will be repaired or replaced without charge, F.O.B. factory. Viking LLC assumes no liability for damages. Return Merchandise Authorization (RMA) number to return units for repair or replacement must be granted in advance of return.

REASSEMBLY OF SHROUD AND COMPLETION OF INSTALLATION – DIAGRAM

