

## **VIKING LLC (Pro 1000-Pro 6000) Pro Single Formula Laundry System**

The Pro Laundry System is a single formula laundry system. It can pump one to six products in response to a trigger signal. The trigger inputs are isolated from each other, but can be jumped together if a single common is available. Input trigger signal conditioning is provided. Maximum run time is approximately 3 ½ minutes per pump. Each pump produces 18 ounces per minute.

### **MOUNTING & POWER SUPPLY**

For a unit with 1 - 3 pumps, mount the case using two screws. For a unit with 3 - 6 pumps, mount the case using all four screws provided. Make sure that the unit is within reach of a 110-volt outlet. Plug the unit in but do not turn it on at this point.

### **TRIGGERS**

Make sure that power to the washing machine is turned off at the breaker before making any trigger connections. Always verify voltages with a voltmeter. Always run all trigger signals through conduit or seal tight from the washing machine to the dispenser.

There are three .250 quick disconnect tabs on each board for triggers. Each tab is marked. The LEFT hand tab is always for the trigger. The two on the RIGHT are for the common, one for common and the other to jump to the next board if using a single common.

Use the quick disconnects and refer to the SILK SCREENING in order to hook up your triggers. Each circuit board will accept trigger signals of 24 - 240 volts AC or DC. They may be jumped together in order to dispense two products simultaneously. Do not run three pumps simultaneously. The triggers should only be present when the product is to be dispensed during the wash cycle - it should not activate the pump(s) at any other time.

The triggers must be present for at least 5 SECONDS to activate the pump. The small led in the center of the board will light when a valid trigger is present.

### **CAUTION**

**Never attempt to install this piece of equipment without a voltmeter (and the knowledge of how to use it). Only a qualified electrician should connect signal wire(s) for triggers of 110 to 240 volts. Connect trigger signal wires to the trigger(s) inside the machine. Turn electrical power off to the washing machine before making any electrical connections. Check local electrical code regarding the use of conduit/seal tight. Use lockout/tag out procedures. High voltage can cause serious injury or death.**

### **VOLTAGE REJECT**

There is a red jumper on two pins of a three pin base labeled Voltage Reject (SW3) on the left hand side of the board. The red two pin jumper comes from the factory installed on the left hand and center pins. With the jumper in the factory position, the board will accept triggers of any voltage equal to or greater than 24 Volts AC / DC (but not exceeding 240 Volts AC / DC). If you would like the board to disregard triggers from the machine with a voltage of less than 75 Volts AC / DC, pull the red jumper off and place it on the center and right hand pins.

## **TUBING**

Measure and cut a piece of supply tubing to go between the dip tube and the intake (left) side of the pump(s). Use the compression nuts provided to secure the tubing. Measure and cut a piece of supply tubing to go between the output (right) side of the pump(s) and the laundry machine. Use the compression nut on the output side of the pump(s) to secure the line.

## **DELAY TIMES**

Each circuit board for this system has a delay potentiometer on the upper right hand side of the board, which provides an adjustable delay of up to 180 seconds.

## **TRIGGER VALIDATION SELECT - 5 TO 25 SECONDS**

All of the boards have a red jumper on two pins of a three-pin base (Labeled SW4) above the three position switch. The red two pin jumper comes from the factory installed on the right hand and center pins. With the red jumper in the factory position, the board will accept triggers that are present for a minimum of 5 seconds. Remember that if a valid trigger is recognized by the board, the green LED in the center of the board will light for as long as a valid trigger is present. If you would like a 25 second validation period, remove the red jumper and place it on the left hand and center pins. Now, a trigger will have to be active for 25 seconds to start a pump run (after any delay that might be set).

## **RUN TIMES**

Remember that these pumps produce approximately 18 ounces per minute of water. The output will be reduced by the viscosity of each product, temperature, and other factors. Always calibrate your pumps to determine how many ounces per minute of each product you can expect, and then set your run times according to what you need. There are two potentiometers for run time control. They are in the center of the board, near the top, and marked underneath each. The bottom potentiometer controls a run time of 0 - 180 seconds. The top potentiometer controls a run time of 0 - 25 seconds. For longer run times, use the bottom potentiometer and fine-tune the run time with the 0 - 25-second control.

## **SETUP - PRIMING - CHECKING RUN TIME WITHOUT A TRIGGER**

The three-position switch on the bottom right hand corner of each board controls the main functions you need during the installation.

**Left Hand Position** - Pump priming. The pump will prime as long as the switch is in this position.

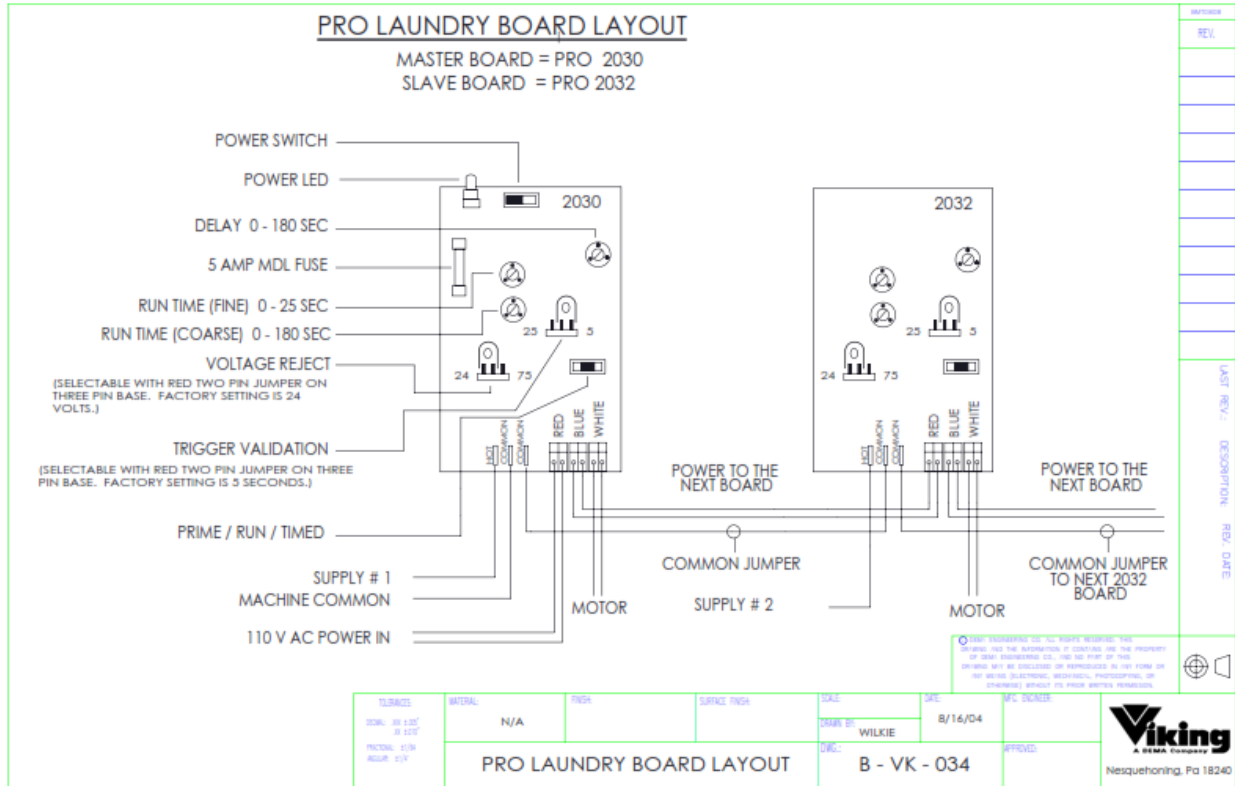
**Center Position - Run.** Once the installation is complete, run times have been checked, and you are ready to leave, THE SWITCH MUST BE IN THE CENTER POSITION TO OPERATE. It will recognize a trigger and run the pump in this position.

**Right Position** - Verify run time and delay. This position will allow you to verify, by quantity or time, what run time you have each pump set for. Move the switch to the right hand position and either time the pump run or hold a measuring cup under the correct pump. Any delay will be active and time out. Once the run is complete, MOVE THE SWITCH BACK TO THE CENTER POSITION. If the run time needs to be adjusted, do it now. Once the adjustment has been made, move the switch to the timed position to verify the new run time.

**BEFORE LEAVING THE INSTALLATION:**

1. Make sure that all of the three position switches are in the center position and that the green trigger indicator lights in the center of each board are off.
2. Verify that the power switch is in the on position by checking the power indicator light on the front of the lid.
3. Run a load in the washing machine to verify that everything has been hooked up properly, i.e. trigger(s) are indicated by green light, pump(s) run, and that they run in the correct order.

**DIAGRAM:**



**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.