

MODEL B2

INSTRUCTIONS

BASICS - The *Model B2*TM controller is engineered to provide control of the number of cycles produced by a solenoid-controlled AODD pump in a “Batch”. It also determine at what pump speed those cycles will be accomplished, how many “Batches” are to be incorporated in a single operation and the interval of time between the batches. A cycle is defined as the pumping of both pump “water” chambers. The system requires 110 volts AC (220 also available) to power it and delivers 12 volts DC to the pump solenoid. You must use the appropriate pump 12 volt DC solenoid when using a *Model B2*. The system is programmed using the 8-button keypad on the cover. The system is operated using the keypad on the cover of the unit and can be remotely paused or stopped using dry contacts. via a Switch terminal strip on the circuit board. The enclosure is a NEMA 4X but common sense dictates avoiding hosing the unit etc.. The unit always powers up in the “**Continuous**” mode and switches to batching when the **Batch** switch is pressed. The unit stores programs for three different batches as well as the continuous speed.



PROGRAMMING– It’s very simple; first, enter the Batch you wish to program (i.e. Batch 1, Batch 2 or Batch 3) hit the **Set** button to enter Setup mode and display the number of **Cycles** per batch. (for clarity, a pump **Stroke** is one chamber and a pump **Cycle** is both chambers). Hit **Set** again and set the pump speed in Sec/Stroke. Hit the **Set** button again display the number of batches in this program (zero makes the batch run an infinite number of times). Hit **Set** again to display the hours, minutes and seconds between batches using the **Set** button between each segment. Lastly hit the **Set** one more time to get out of the programming mode. The system is now ready to **Run**. To program the other batches just press the batch button until the desired batch is displayed and repeat the process. To set the **Constant** speed just press the **Set** button when the unit is displaying that it is in the “**Constant**” mode. Use the **Up** and **Down** buttons to set the speed and then press the **Set** button to escape the programming mode. Not much job security here, it’s that straightfor-

EXAMPLE: A pump with a 0.1 liter “Water Chamber” capacity per side. You want to pump 2.2 liters in 66 seconds.

$$\begin{aligned} 2.2 \text{ Liters}/0.1 \text{ Liters per Stroke} &= 22 \text{ Strokes} \\ 22 \text{ Strokes}/2 \text{ Strokes per Cycle} &= 11 \text{ Cycles} \\ 66 \text{ Seconds}/22 \text{ Strokes} &= 3 \text{ Seconds per Stroke} \end{aligned}$$

BATCH– To run the system, just momentarily press the **Run** button.. To stop the pump, momentarily push the **Stop** button. To stop the unit but be able to pick up where you left off, press the **Pause** button. You can then press either the **Pause** or **Run** buttons to start back up.

CONSTANT - First press the **Const** button to get into the proper mode and then press the **Run**, **Pause** and **Stop** buttons in the same way as the **Batch** mode.

If you have any questions or comments, please pass them onto to your Polytrace Systems distributor and we will be happy to address them.

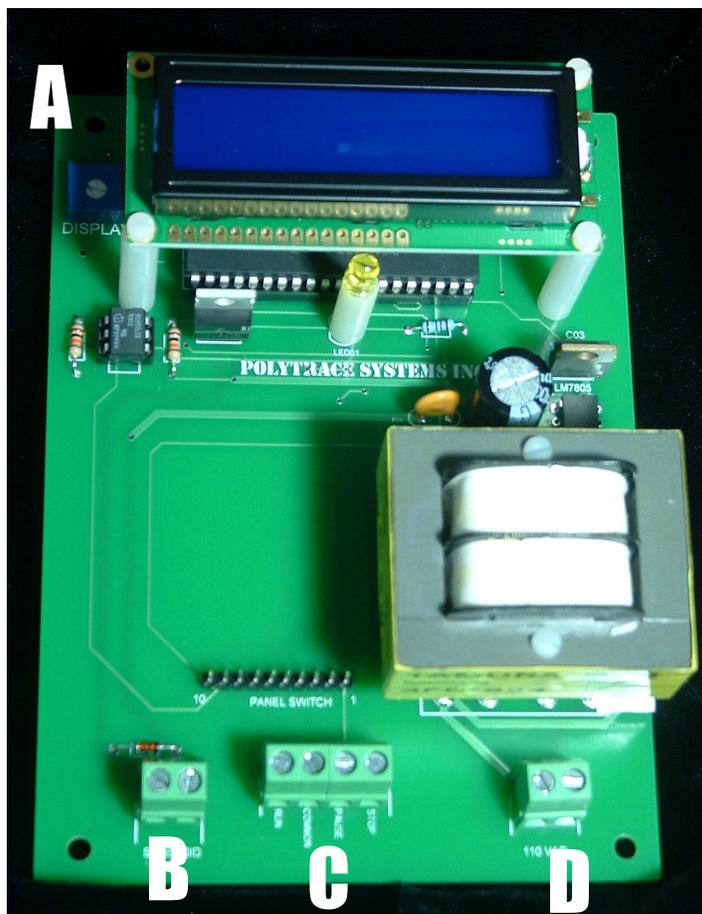
QUICK TOUR

A-The **Display** control changes the contrast on the LCD display. You will probably never touch it unless the temperature around the unit is unusually high or low. If there is no information on the display, someone probably fiddled with the control. Just bring it full counter-clockwise and then back off until you have the desired contrast.

B- The **Solenoid** output provides 12 volts DC for the pumps integral solenoid. You **must** use the correct pump solenoid in order for the pump to operate properly.

C- The **Switch** terminal connects the control switches to the system. You can remotely **Run**, **Pause** and **Stop** the system by connecting remote momentary dry contacts to the appropriate terminals.

D- The **110 VAC** (also available in a 220 volt version) input is the only way to power the unit. Just make sure the connections are neat and that for safety reasons no conductor is exposed. This is the only location on the circuit board where more than 12 volts is present.



A-Display Contrast
B-Solenoid Output (12 volts DC)
C-Switch Terminal
D-Power Terminal