Safety:

- Safety glasses must be worn when operating this equipment.
- The impellers are sharp – exercise caution when changing the impellers.
- An operator must remain with this equipment while it is in operation.
- Before operating the pump verify that both the inlet and outlet valve are 100% open.
- If the piping and impeller housing is not immersed in water is will be necessary to prime the pump.
- You will need to prime the pump before each run if the water level has fallen below the impeller.

Power-Up Sequence

Starting the software: You must follow this power-up sequence exactly or you will get an error.
1. Apply power to the computer.
2. Apply power to the PumpLab system using the attached key and WAIT for the Baldor control module to boot up. Once the Baldor control unit has booted, proceed to the next step.
3. Double click on the PumpLab icon located on the desk top.
4. Click on the connect button
5. Click on the Pump Lab button
6. If an error is displayed while booting the system, shut off the power to the pump lab, reboot the computer and try again.

Prime the pump:
1. Verify that the pump inlet and outlet valves are 100% open.
2. Turn on the prime toggle switch.
3. Open the breather valve located at the top of the impeller housing, this will allow air to escape as the impeller chamber is filled with water.
4. Close the breather valve as the water level reached the top of the of the impeller housing.
5. Turn the primer pump switch off.
6. The system will not work correctly unless the impeller is completely immersed in water.

Controlling the pump speed:
Move the motor speed control slide controller to the desired set point and select Run Motor.
It is recommended to start the pump at a low flow such as 200 RPM, verify that the system is not leaking before proceeding.

The system does not automatically log data – you must follow the steps listed below to log your data.
Logging data
1. Start DAQ
2. Select Log Data
3. Open Map view
4. Select Map Point to log the valve of pressure out for that point
5. Repeat as needed
6. At the end of your run click on the write data to file

Under normal operating conditions the pump will be controlled using the Pump Lab software. The pump may also be controlled locally from the motor control keypad as described below.

Local pump control:
1. Select local control from the key pad
2. Press the red stop button on the motor controller key pad
3. Press the forward button and adjust the motor rpm with the up and down keys

Remote (software pump control)
1. Select remote on the control key pad
2. On the pump control software adjust the rpm slide controller or type in a set point for the desired rpm

Shutdown:
1. Stop the pump
2. Close the pump lab software using the exit application button.
3. Save your data to a flash drive
4. Shutdown the computer
5. Switch off the main power to the pump lab system (keyed switch)
6. Remove the key from the power switch