

# PLC120 LAB 2.3: SWITCHES

Student Name: \_\_\_\_\_

Student ID: \_\_\_\_\_

## LAB OUTCOMES:

Upon completion of this lab procedure, the student should be able to:

1. Explain various types of switches.
2. Wire various circuits with switches.
3. Explain conditions that would turn the indicator light in a circuit on or off.

## LAB PROCESS:

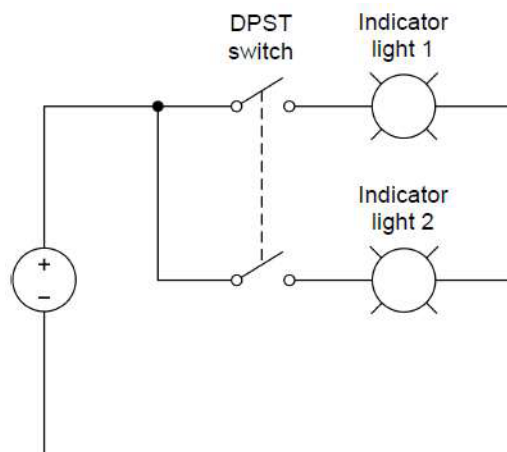
Open the AC/DC Training Unit. Setup the unit on its base, or lay flat on the work table.

Make sure all fault switches are in the 0 position.

Connect the power cord and turn off the power input switch to make sure the unit is not powered.

### Circuit 1

Wire the following circuit on the AC/DC training system:

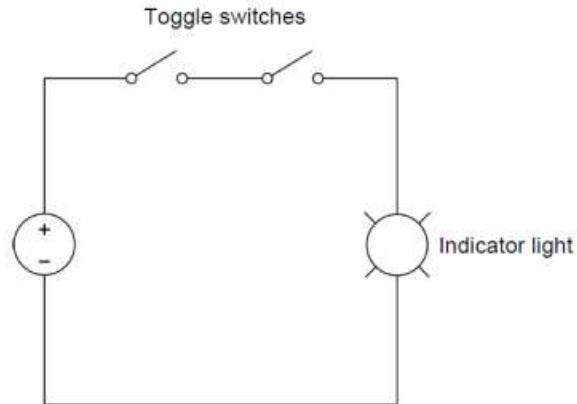


1. Measure the voltage across one of the open contacts.

What is the value? \_\_\_\_\_

### Circuit 2

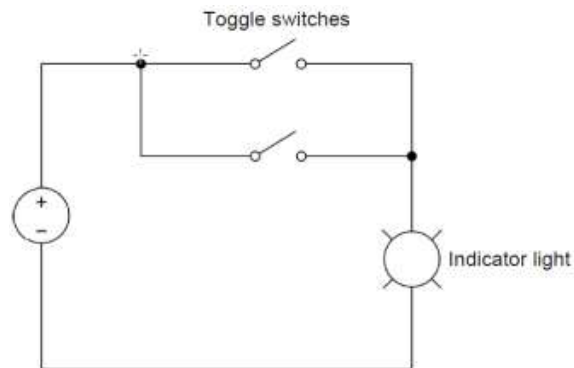
Wire the following circuit on the AC/DC training system:



1. What conditions will turn the indicator light on?
  
2. What two conditions will shut the indicator light off?

### Circuit 3

Wire a circuit with two switches in parallel driving a pilot light as shown below:



1. What conditions will turn the indicator light on?
  
2. What conditions will shut the indicator light off?

**Questions**

1. Identify and explain the various types of switches on the AC/DC training system (SPST, SPDT, DPDT, N.O. Pushbutton)
2. Measure the continuity of each switch.

*The outcomes of this exercise (listed on page 1) specifies the skills that the Student must demonstrate to the Instructor. Once the Instructor is satisfied with the demonstration of Knowledge & Skills by the individual student, they will sign this document (for the student), then enter a 100% into the Hands-On Lab grade in Sakai.*

I verify that this student has completed all of the requirements of this Hands-On Assessment:

Student Name: \_\_\_\_\_

Faculty Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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