



Title: **ESTOP and Selector Switches**

Job: 2

Course: Intro to Automation

Unit: Manual Motor Control

CLO: 2

Name _____

Grade _____

Date _____

Objectives

1. Student shall identify the function of a "latching" switch.
2. Student shall recognize a mushroom head pushbutton and its use.
3. Student shall contrast the difference between a two-position selector switch and a three-position selector switch.
4. Student shall interpret NEMA symbols for a mushroom-head pushbutton and both selector switches.

Assessment

Students shall demonstrate a comprehension of the objectives listed above by scoring a minimum of 75% on this Job. Grading shall be based on the Manual Motor Control rubric.

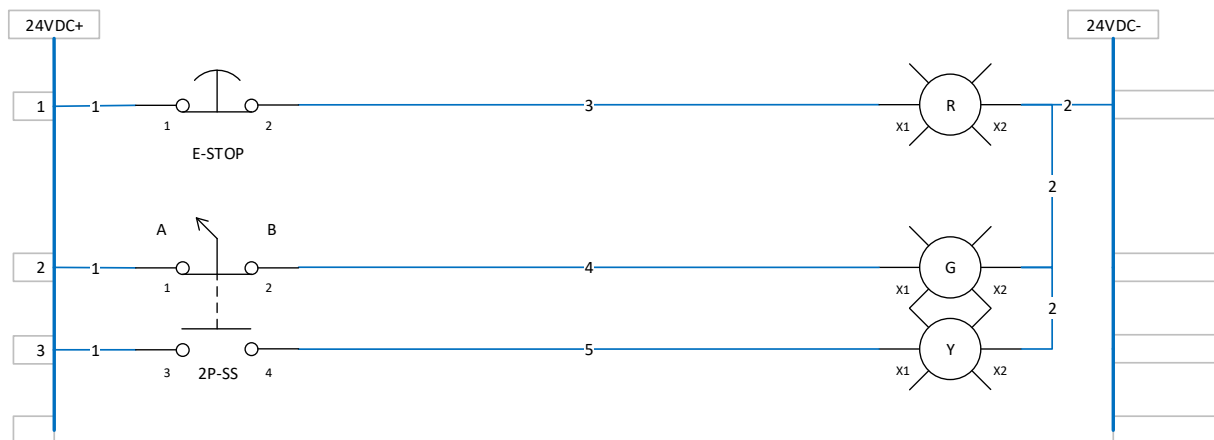
Devices

Inputs		
<i>Device</i>	<i>Description</i>	<i>Symbol</i>
Mushroom-head Pushbutton	Test Button	ESTOP
Three-position Selector Switch	Test Switch	3PSS
Two-position Selector Switch	Test Switch	2PSS
Outputs		
<i>Device</i>	<i>Description</i>	<i>Symbol</i>
Green Pilot Light	Test Light	GREEN
Red Pilot Light	Test Light	RED
Yellow Pilot Light	Test Light	YELLOW

Instructions

Wire the circuit shown below. Before powering up your circuit, get approval from your instructor. After approval, you may energize your circuit and answer the questions below the schematic.

Circuit



- Without pressing any pushbuttons record the light sequence.

Red Green Yellow

- Press ESTOP. Notice that the pushbutton stays "latched". Record light sequence.

Red Green Yellow

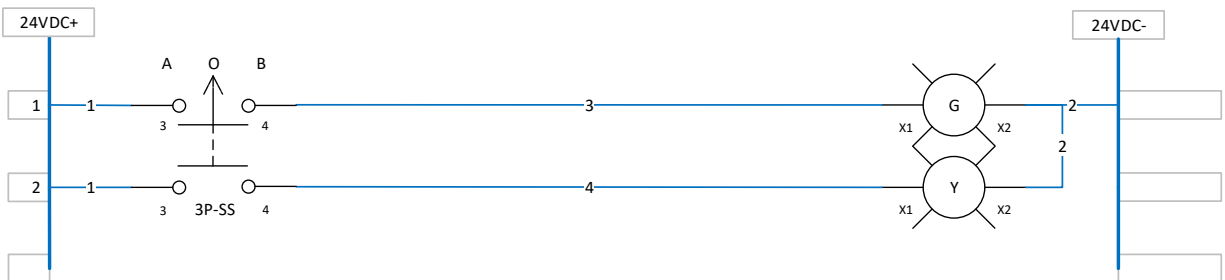
- Rotate head of ESTOP to "un-latch" the pushbutton. Record light sequence.

Red Green Yellow

- Rotate the position of the selector switch to the "B" position. Record light sequence.

Red Green Yellow

Wire the circuit shown below. Before powering up your circuit, get approval from your instructor. After approval you may energize your circuit and answer the questions below the schematic.



- With the selector switch in the "Off" (or center) position, record the light sequence.

Green Yellow

- With the selector switch in the "A" position, record the light sequence.

Green Yellow

- With the selector switch in the "B" position, record the light sequence.

Green Yellow

- List three applications that is type of selector switch may be useful.
