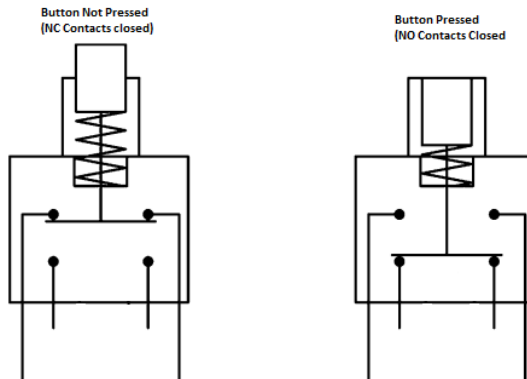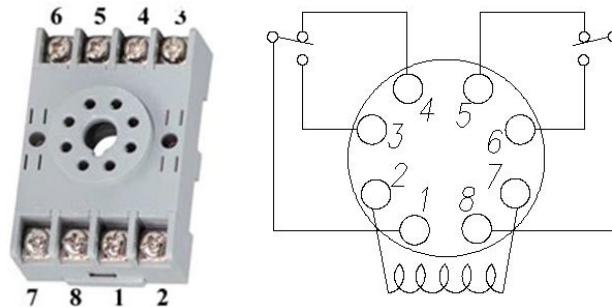# Lab #1
TECH 3821
Relay Start Stop Pushbutton Station
Ver 3.2

Objective: Gain an understanding of relays and simple start stop pushbutton stations.

Materials: One relay (12-24 V DC coil, DPDT at minimum). 2 Industrial Push Buttons, One Light.

Required Diagrams:

Button Not Pressed
(NC Contacts closed)

Button Pressed
(NO Contacts Closed)

Procedure:

1. Record the following:

    Relay Model Number:_____

    Coil Voltage: _____

    Contact Ratings: _____

    _____

    _____

    _____

2. Connect the Relay coil (pins 2 and 7 on Relay Base) to a variable power supply. Starting at zero volts, slowly increase the voltage until the relay energizes (ie you hear the click indicating the relay close the contact). Record this voltage: _____ and current _____. These values are known as the "PULL IN" voltage and current.

3. With the relay still energized, start decreasing the voltage until the relay opens (indicated by the click of the relay). Record the voltage _____ and current _____. These values are known as the "DROP OUT" current and voltage.

4. Number the relay terminal numbers in the boxes provided. This will help you wire the circuit correctly.
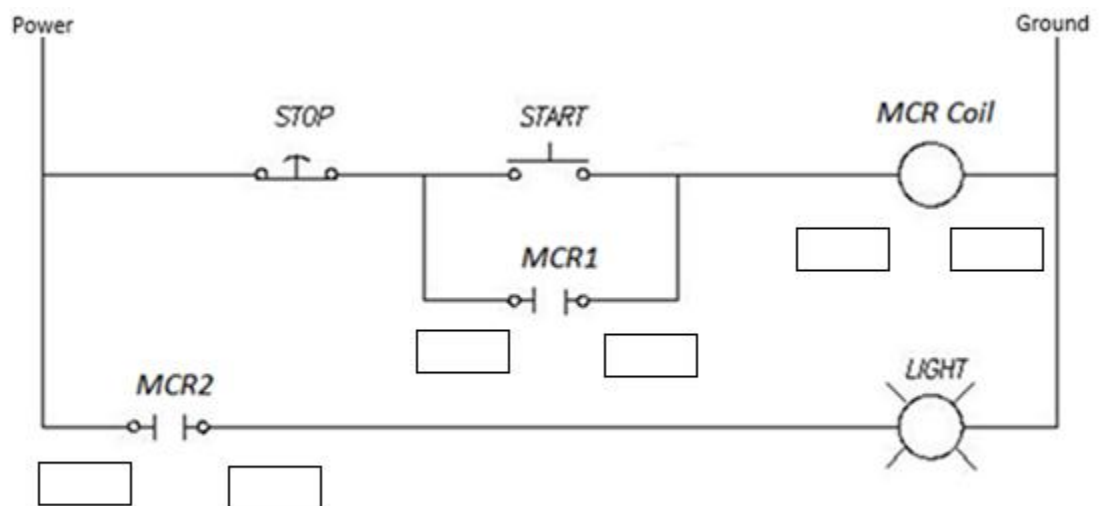
5. Wire the circuit.

6. Demonstrate to the instructor (obtain signature)

7. In your own words, explain the operation of the circuit in the following order: When the Start is depressed, Running (how does it remain running when the start button is released), when the stop is depressed.

[use back of sheet]

8. Clean up your work area, but away all equipment and parts and turn in the lab.