**Unit: Manual Motor Controls Job: 13**

**Title: Relay, 11-Pin Wired CLO# 2**

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Station \_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Objectives**

1. Identify the components of an eleven-pin relay.
2. Contrast the differences between a standard eight-pin relay and an eleven-pin relay.
3. Assess the behavior of an eleven-pin relay in a live circuit.

**Assessment**

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

**Instructions**

Wire the schematic shown below. Ensure to use the proper colored wire and label all wires with the appropriate wire number. Have the instructor review your circuit before energizing the panel. After obtaining approval, energize the circuit and follow the steps in the table below.

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1. What does an eleven pin relay offer that an eight pin relay doesn’t?

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1. List some uses that you think an eleven-pin relay can be used.

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1. The main problem with using an eight-pin relay to stop and start a single-phase motor is that due to the limited amount of contacts, pressing the stop button disconnects power from the red “Stopped” light (at least while it is being pressed). Design a Stop/Start circuit with an ESTOP using an eleven-pin relay that energizes the red pilot light whenever the motor is stopped. In other words, pressing the ESTOP or stop pushbutton will not kill power to the red light.

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1. Discuss your design with your instructor then wire the circuit. Ensure to use the proper colored wire and label all wires with the appropriate wire number. Have the instructor review your circuit before energizing the panel. After obtaining approval, energize the circuit and test its functionality. Render on classroom PC and post the schematic to your student network folder using filename   
   MMC Job 13 – *username.ext*