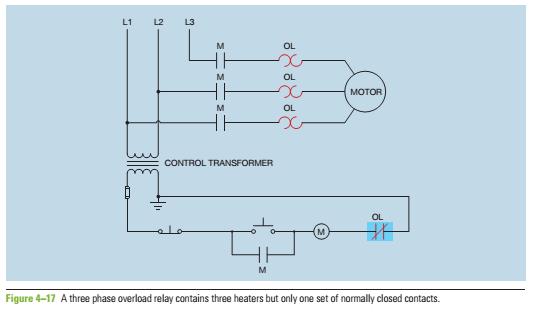
**Lab 1**

Using the Amatrol Trainers, construct the circuit below.

This diagram is taken from chapter 4 of your text book.



After circuit is constructed, check for correct operation.

After connecting the circuit, check for proper operation before proceeding with the lab.

Answer the following questions. (Create faults by using tape or a piece of paper folded over and placed between a set of contacts to create an open contact.)

What happens if F1 (Transformer secondary fuse) is blown?

What happens if the Stop Switch is open?

What happens if the Stop Switch is shorted?

What happens if the auxiliary contact of Contactor M is open all the time?

What happens if the overload heater on phase 2 going to the motor goes bad?

What happens if contact M on L3 gets burnt and pitted so that it does not close when the contactor is energized?

What happens to the current in the other two phases?