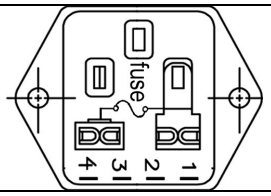
AE-237 Week-4: Power Entry Module and Transformer Lab

NAME_____ DATE_____

	Behold! The *rear view* of the IEC Power Entry Module! This module accepts the IEC cable, provides a Line Fuse and two Line Voltage options via series-parallel Switch integrated with the fuse holder assembly.

The attached sheet details the Qualtek 755-00/28 power entry module and itsinterface options with the power transformer.

Please perform the follow 'Continuity' tests with the multi-meter set to the 200-ohms scale. The absolute value of resistance is not critical, we are looking for GO / NO-GO confirmation. Follow the steps below and then input your data to the table provided.

1. Locate the fuse connection terminals. Installed?_____Good_____Bad_____
2. Measure between pins 1 & 2, 2 & 3 and 3 & 4 to determine whether the module is configured for 240-volt or 120-volt operation.
3. Connect an IEC power cable to the module, connect one probe to each of the three 'prongs' and then measure the resistance to the rear connection of the module. Make a 3-Drawing of the plug and then label the three 'prongs.'

Step-2	**1 & 2**	**2 & 3**	**3& 4**
Step-2			
Step-3	**Ground**	**Neutral**	**Hot**
Step-3			
Step-5	**Blue to Gray**	**Violet to Brown**	**Current**
Step-5			
Step-6	**Black to Red**	**Orange to Yellow**	**Current**
Step-6			

4. Cut the transformer wires in half, practice stripping and tinning the wires that are removed. One you are ready, prep the transformer wires and then mount the transformer to the power supply circuit board.
5. Measure the DC resistance of the two primary windings and put the data into the table. If the transformer is wired for 120-volt operation, what would the current consumption be Measure the secondary winding DC resistance.
6. If the secondary is wired in series, the loaded voltage should be 24-0-24 or 48 volts AC center-tapped. What would the current be based on this resistance and is there other factor to be considered?