Element 5

5 (a) (b) A block diagram of a amateur radio station is different from the block diagram of a circuit. A block diagram of the station would show the antenna, transmitter, recever, antenna tuner, amplifyer and antenna. (Page 31)

A Block diagram of a circuit will show the makor components such as a oscillator, modulator, amplifyer and antenna. The schematic, using electronic symbols show the construction of a circuit, so that any person can install these electronic parts and receive the result promised. A copy of a schematic drawing demonstrating an oscillator circuit is on (Page 32)

An open circuit is one that does not allow the current to flow from the power supply to an electronic part (such as a light bulb) and then completing the circuit by returning to the power supply. Simply put an open circuit is one that does not return the current back to the power supply. If you turn off a light switch, the power does not return to the power source, hence the light stays off.

5 (c) A short circuit is ne where the current is interrupted and does not get back to the power source but rather is interrupted. If you stuck a wire into both sides of your electric outlet (DON"T TRY IT) that would create a short circuit, since the outlet was designed to plug an electrical part (such as a lamp or radio) into the socket, to operate that item. Fuses are placed between the source and the electronic part to protect the part and the wires. The fuse or breaker is designed to prevent further current from flowing in the event of a short circuit. (Page39)

5 (d) There are thousands of schematic symbols. Each symbol identifies a particular electronic part and each part has a specific job. To anser this question lets look at a simple elettronic part we are all familiar, the simple on/off Light switch. It is formally known as a single pole single throw switch.

Light Switch

Schematic symbo of Light Switch

Both the switch is off and the schematic symbol shows the switch is off.

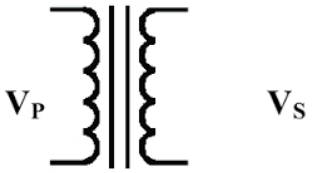
Next is the a volume control, like the one on your radio

Volume Control

Schmetic Symbol for Variable Resistor
(Used in a circuit for volume control)

Lastly, the Transformer. . . .

Transformer



Schematic Symbol of Transformer

You will note, I picked a schematic symbol of a transformer with Vp and Vs that stands for Voltage Primary and Voltage Secondary. We will go over that during the Session

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