

**GLOSSARY**

<b>Alternating Current</b>	Voltage forces electrons to flow in one direction and then quickly alternate to the opposite direction.
<b>Ammeter</b>	A device to measure amperes (current).
<b>Ampere</b>	Unit of current.
<b>Conductor</b>	A material that permits a very free exchange/movement of electrons from one atom to another.
<b>Conventional Flow</b>	This theory states that electrons flow from positive (+) to negative (-).
<b>Current</b>	The flow of electrons in the same direction from atom to atom.
<b>Direct Current</b>	Voltage forces the electrons to flow continuously in one direction.
<b>Electromagnets</b>	Do not retain their magnetism after a magnetizing force is removed.
<b>Electromagnetic Induction</b>	The creation of voltage in a conductor from movement of the conductor or the magnetic field.
<b>Electron Flow</b>	This theory states that electrons flow from negative (-) to positive (+).
<b>Frequency</b>	The number of cycles in one second of alternating current. Expressed in hertz (Hz). For example, 60 Hz is 60 cycles in one second.
<b>Insulators</b>	Materials that don't readily give up electrons, thereby restricting the flow of current.
<b>Ohm</b>	Unit of resistance.
<b>Ohm's Law</b>	Current is directly proportional to voltage and inversely proportional to resistance.
<b>Parallel Circuits</b>	Loads are connected across the power line to form branches.
<b>Permanent Magnets</b>	Retain their magnetism after a magnetizing force is removed.
<b>Resistance</b>	The restriction to the flow of electrons.
<b>Right-Hand Rule</b>	A current carrying conductor held in right hand will indicate the direction of lines of flux.

## FUNDAMENTALS OF ELECTRICITY

<b>RMS Value</b>	Root Mean Square Current is also referred to as effective current and is the square root of the average of all the instantaneous currents (current at any point on a sine wave) squared.
<b>Series Circuit</b>	All loads in the circuit are connected one after the other.
<b>Single-Phase</b>	A continuous single alternating current cycle.
<b>Three-Phase</b>	A continuous series of three overlapping AC cycles offset by 120 degrees.
<b>Transformer</b>	A device used to raise (step up) or lower (step down) a voltage level.
<b>Volt</b>	Unit of force applied to a conductor to free electrons, to cause electrical current flow.
<b>Voltage</b>	The force applied to a conductor to free electrons, causing electrical current to flow.
<b>Voltage Drop</b>	Voltage value as measured across each resistor or load.
<b>Voltmeter</b>	A device to measure voltage.
<b>Watt</b>	The basic unit of power, indicating the amount of work accomplished when one volt causes one ampere to pass through a circuit.