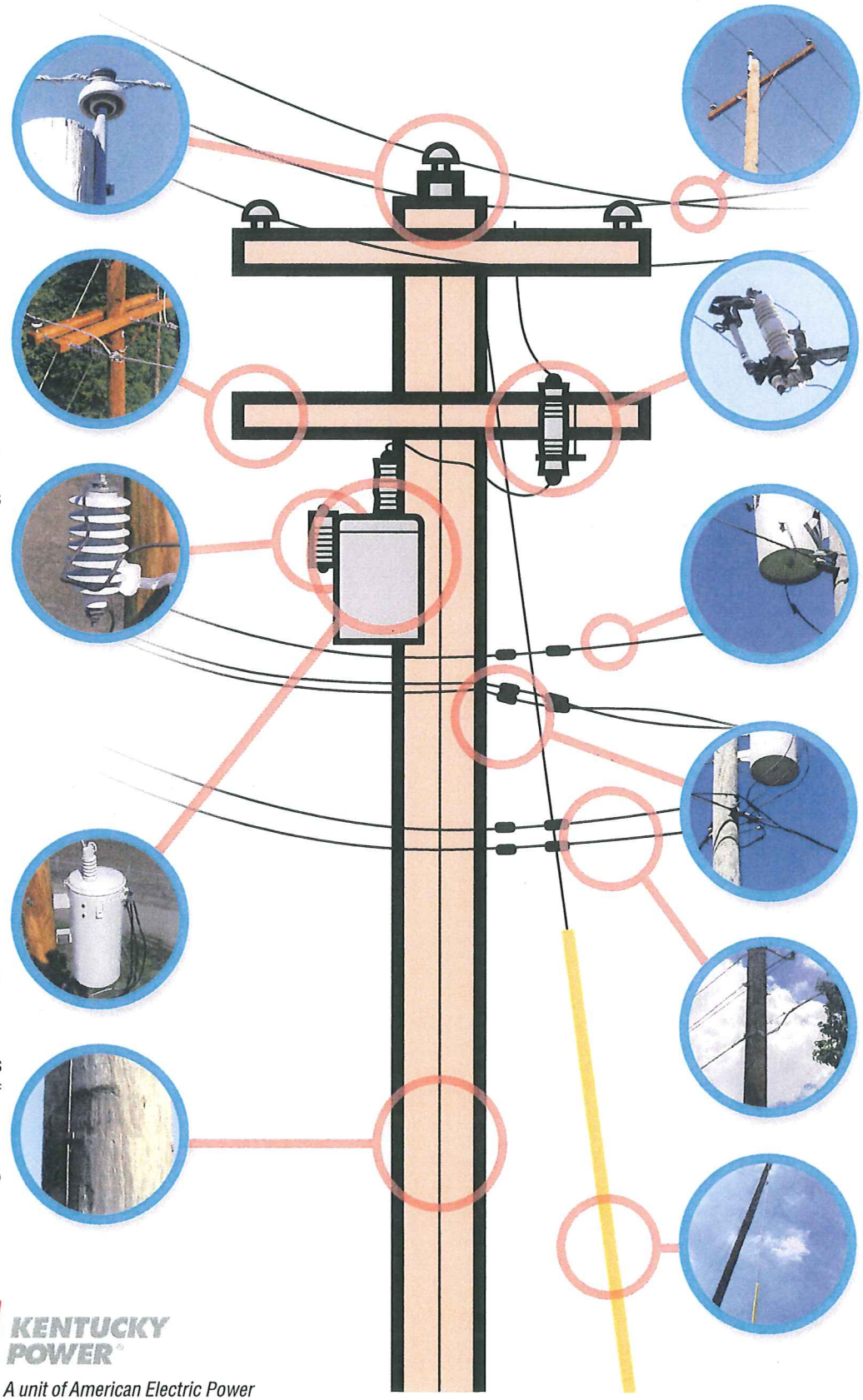
What's on an Electric Power Pole?

This is an illustration of basic equipment found on a typical distribution pole and can vary by location.



Insulators prevent energized wires from coming in contact with each other or the utility pole.

A crossarm holds the wires up on the pole.

Lightning arrestors protect the pole and equipment from lightning strikes.

Transformers convert higher voltage electricity carried by primary wires and lowers the voltage for use by customers.

A ground wire runs the entire length of the pole. It directs any electricity on the pole safely into the earth.

Primary wires are on top of the pole and usually carry 12,000 volts of electricity from a substation.

Cutouts act like a fuse and open when there is a problem with the line or a section of it.

The neutral wire is below the transformer and acts as a line back to the substation and balances out the amount of electricity or load on the system.

The secondary wire carries the lower voltage electricity after it passes through the transformer.

Telephone and cable wires are typically the lowest wires.

Guy wires help stabilize utility poles.

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