

## Polarizing and Phasing

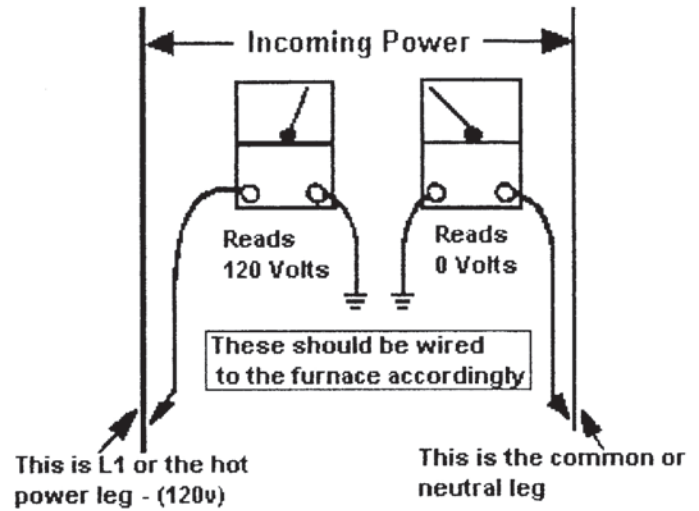
As more and more electronics are introduced to the heating trade, polarization of incoming power and phasing of primary to secondary voltage on transformers becomes more important.

Polarization has been apparent in the appliance industry since the introduction of the 3 prong plug, however, the heating industry does not use a plug for incoming power, but is hard wired.

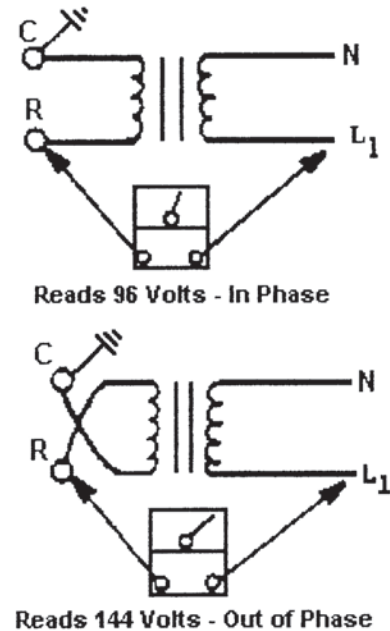
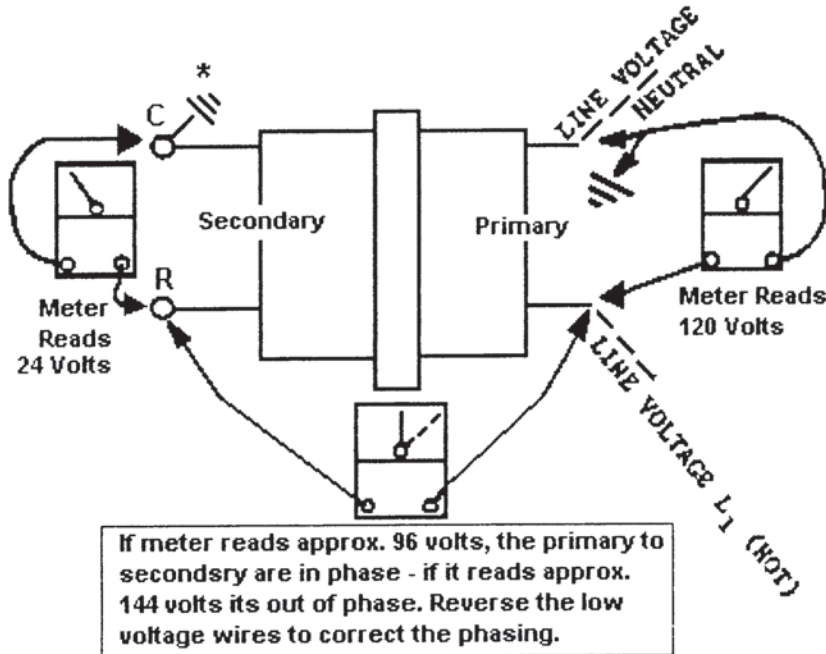
Some of the electronic boards being used today, with flame rectification, will not function properly and/or at all without polarization of incoming power. Some also require phasing between the primary and secondary sides of step-down transformers.

To instill new working habits for our trade, we recommend that these two items be checked during normal installation and/or service calls. See as follows:

### Checking For Polarization



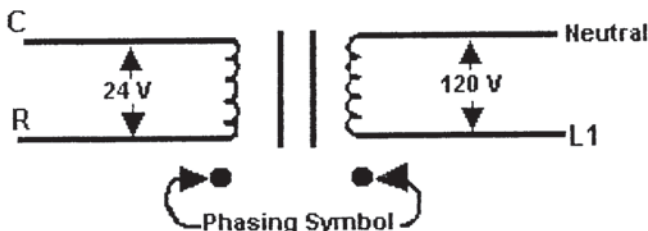
### Checking for Phasing - Primary to Secondary of Unmarked Transformers\*



**\* Note:** For flame rectification the common side of the secondary voltage (24 V) is cabinet grounded. If you were to bench test a transformer the primary neutral and secondary common must be connected together for testing purposes.

## Polarizing and Phasing

Manufacturers will begin to show phasing symbols on all schematic drawings where phasing is mandatory.



Manufacturers are using transformers with identified markings on all transformers supplied that require phasing.

However, if replacement transformers are secured from some other source, they more than likely will not be identified.

Checking for polarization and phasing should become a habit in servicing. Lets start now.