



## Electrolysis Check Technical Bulletin 2007-05

### GENERAL

#### ELECTROLYSIS

- ✓ Create an electrode into the geo side water stream. This can be done with a 3" piece of #14 solid copper wire into a Pete's Plug and checking voltage between the water stream and the unit cabinet or ground. This is done when the heat pump is up and running.
- ✓ Make sure that the #14 wire is not touching the metal portion of the Pete's Plug.
- ✓ More than .30 of a volt indicates a problem. More than .50 of a volt guarantees electrolysis. The rate of electrolysis may be days or years depending upon the current flow. (Not easily measured.)
- ✓ The inspection for this voltage must be done in both AC and DC voltage meter modes.

#### EARTH BOND

- ✓ If a voltage of about 300MV exists, the most like cause is a building earth (ground). This is a higher resistance to the earth than the water column.
- ✓ Measure the resistance between the water column (use the 3" #14 wire) and the building-grounding rod. The resistance should be less than  $\frac{1}{4}$  of an ohm.

***Often, the steel well casing can be effectively used as the building's earth bond.***

### NOTES

