



# K-ROD

## Improved Electrolytic Grounding System

Low impedance grounding is essential to protect transmitting facilities and personnel from external or internal electrical anomalies. Copper clad driven ground rods are often insufficient due to high ground resistivity or a limited installation area. The K-ROD provides a superior, stable, low resistance interface with true earth while minimizing installation area and time.

The copper K-ROD constantly conditions the surrounding soil with a self-contained electrolyte enhancer. When combined with moisture, the resulting solution reduces the resistance between the electrode and earth, providing years of maintenance free, stable, low impedance in a wide variety of soil conditions.

K-RODs are available in both vertical and horizontal configurations and in single piece lengths from 4 to 20 feet. K-RODs are also available with silver solder flange connections which allow continuous lengths to over 100 feet. Standard and flange K-RODs can be shipped for overnight delivery.

Horizontal K-RODs with a large, easy flow bending radius are used when soil conditions will not permit vertical installations. Horizontal K-RODs can also be connected by a bolted flange to form long, continuous lengths.

ELF or Electrolyte Fill will greatly increase the effectiveness of the grounding system.

Approximately 95% of the resistance of any grounding system is determined by the conductivity of the soil in the near proximity of the electrode. As the intervening soil distance increases, the soil conductivity decreases. To illustrate, an expected 35% increase in system resistance can be found just six inches away from a 10' electrode.

Replacing the excavated soil in the near vicinity of the K-ROD with ELF will greatly improve the electrode's efficiency. Use of this specially formulated back-fill will reduce the near vicinity resistivity to less than 1 ohm-meters. ELF is greedy for moisture and maintains a highly conductive environment. ELF is shipped in sealed 33 pound re-usable containers. One container is suggested for every two running feet of K-ROD.



Most models of the K-ROD are immediately available and can be shipped for overnight delivery. Ground wire attachment options include a two hole copper buss bar. Optional inspection wells are available.

The K-ROD fully meets and exceeds the 1996 Telecommunication's Industry Standard (TIA/EIA-RS-222-F) concerning the primary and secondary electrical connection between a structure and earth. The K-ROD is the first choice of the Broadcast, Cellular, and PCS industries.

ERI also manufactures the MAG-ROD, an anode grounding electrode which will prevent galvanic or electrolytic corrosion of underground steel members. In addition to providing an excellent interface with true earth, the MAG-ROD addresses the need for

cathodic protection for guy anchor shafts as described in Annex J of the TIA/EIA-222-F Standard.

### Purposes

Low impedance earthing system for:

- Lightning protection
- AC power systems
- Static discharge and transient currents

### Features

- Stable impedance values over the life of the product
- Up to ten times the conductivity of a driven rod
- Three times the service life of a driven rod
- Reduced installation area and time
- Overnight delivery