



## MACLEAN POWER SYSTEMS

A Maclean-Fogg Company

# ***Installation Instructions - Fiberglass Crossarms***

### **Attaching Hardware to Fiberglass Crossarms**

Fiberglass Crossarms have inherent properties that are very different than wood crossarms. Care should be taken during installation of hardware not to damage the outer surface of the crossarm.

***Recommended Torque Values*** (Deadend and Tangent) – When attaching hardware to the crossarm or mounting crossarm to a pole, torque values should not exceed **25 foot-pounds**. (Fiberglass does not expand and contract like wood, and therefore higher torque values do not ensure a tighter fit.)

***Suggested Hardware*** – MPS patented **Pentech washers** or **4" x 4" washers** (3/8" thick) are recommended on both sides of the crossarm for horizontal loading. This will allow for the full load applied to the crossarm to be spread over the entire surface of the crossarm. **4" x 4" washers** (1/4" thick) are also recommended for use with insulator pins when extreme transverse or longitudinal loads are encountered.

- MPS patented Pentech washers are normally included with all deadend crossarms. Consult factory if extra washers are required.

### **Assembly of Crossarm to the Pole**

For ease of installation and safety, it is recommended that the keyhole on the top of the center mount be used. The keyhole is designed to support the weight of the crossarm during installation.

### **Drilling Fiberglass Crossarms**

It is recommended that a **Carbide Drill Bit** be used. Proper ventilation and safety equipment should be used when drilling any fiberglass product. Special care must be taken in the drilling of the crossarms to ensure correct hardware location and orientation. A clear sealant or protective lacquer should be applied to any exposed fibers.

### **Loading of Fiberglass Crossarms**

MPS crossarms have a published "Ultimate Load" and "Deflection" characteristic:

***Ultimate Load*** is the maximum load that should be applied to the crossarm per phase. Loads above this level may cause damage to the crossarm.

***Deflection*** is the displacement of the crossarm under load.