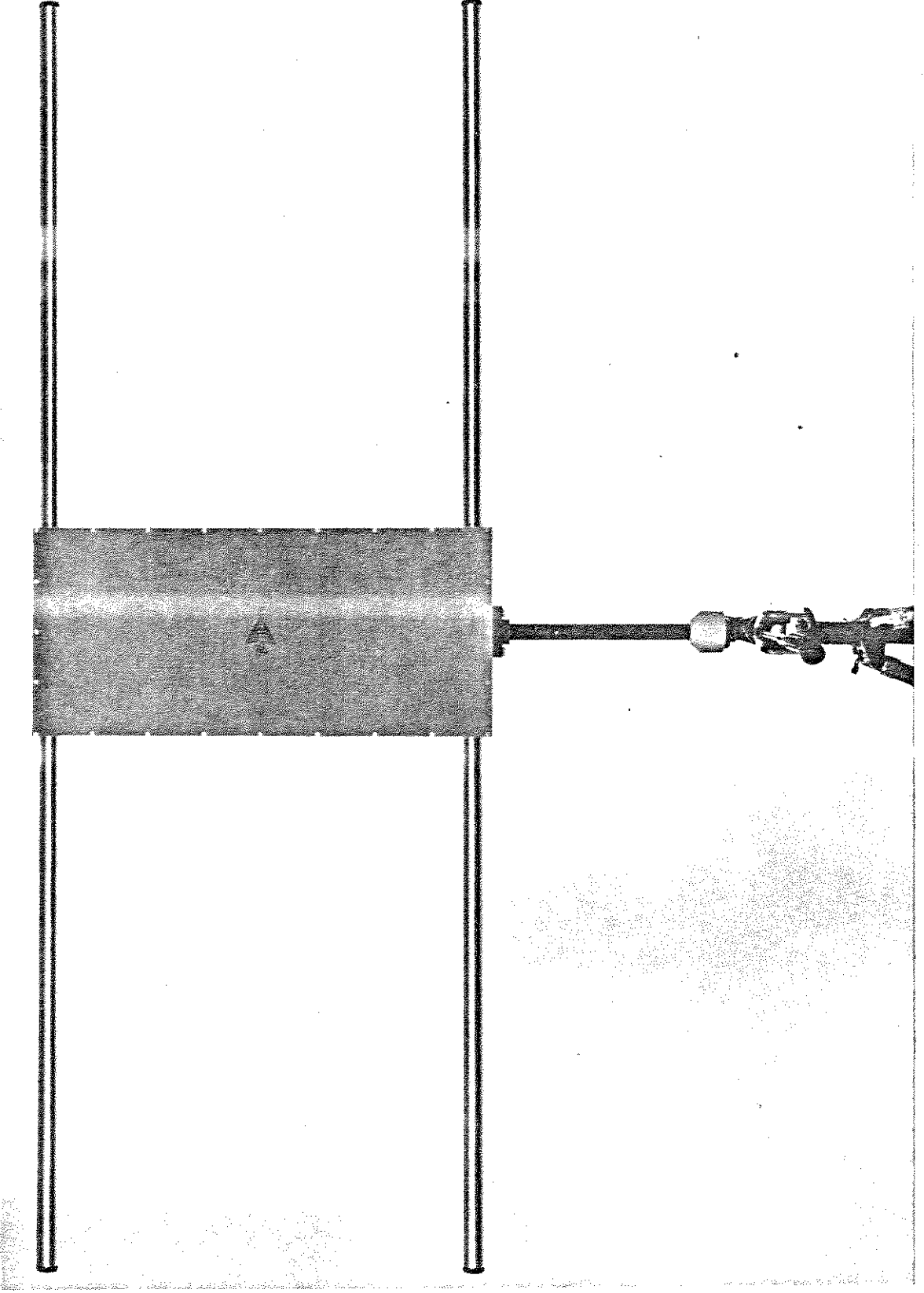


OPERATION AND INSTRUCTION MANUAL  
EATON MODEL 96003 PARALLEL ELEMENT ANTENNA

Serial No. 2133



EATON MODEL 96003 PARALLEL ELEMENT ANTENNA

## WARRANTY

This Model 96003 Parallel Element Antenna, Serial No. \_\_\_\_\_, is warranted for a period of one year from date of shipment against defective materials and workmanship. This warranty is limited to the repair or replacement of defective parts and is void if unauthorized repair or modification is attempted. Repairs for damage due to misuse or abnormal operating conditions will be performed at the factory and will be billed at our commercial hourly rates. Our estimate will be provided before the work is started.

DESCRIPTION AND USE OF THE  
EATON MODEL 96003 PARALLEL ELEMENT ANTENNA

The Eaton Model 96003 Antenna is a broadband, parallel element antenna designed to generate large electric fields over the frequency range 10 KHz to 30 MHz for susceptibility testing in accordance with Military and DoD specifications. It is ideally suited for qualification susceptibility testing to MIL-STD-462 (RS03 and RS04) requirements. Excellent wideband design allows operation over the entire 10 KHz to 30 MHz frequency in two bands. The electric field intensity between the elements is approximately 200 volts/meter when the inputs are 67 volts for the 10 KHz to 1 MHz range and 45 volts for the 1 MHz to 30 MHz range.

The Model 96003 is constructed of lightweight materials for ease of handling. Clear plastic insulation on the antenna elements protects personnel from accidental burn or shock during operation at high intensity levels. The Model 96003 is supplied with a tripod mount. The correction factor graph is given on pg. 4.

SPECIFICATIONS

Frequency Range: 10 KHz to 30 MHz

Input Impedance: 100 ohms or greater

Field Pattern: At 1 meter on centerline, the field is a linearly polarized, essentially homogeneous E field.

Field Strength Capability: Approximately 20 V/M at 1 meter on centerline with 67 volts input for the low band and 45 volts input for the high band.

Connector: Type N

Dimensions: Length: 72.5 inches

Thickness: 2 inches

Element Separation: 24 inches

Weight: 12 lbs.

## INSTALLATION AND OPERATION

To install the Model 96003, attach the support rod and base as shown in Fig. 1. Mount the antenna on a standard tripod. Attach the signal source to the type N connector on the back of the antenna.

Use a voltage monitor at the signal source to determine the input voltage applied. The field strength capability is approximately 20 V/M at 1 meter on centerline with 67 volts input for the low band and 45 volts input for the high band. The correction factor graph is shown in Fig. 2.

A field intensity monitor on the opposite side of the Model 96003 from the test sample and at the corresponding distance will give a good approximation of the field seen by the sample.

Important Note: If the signal generator or power amplifier used to drive the Model 96003 Antenna requires a (matched) 50 ohm load, a 50 ohm 75 watt dummy load or noninductive power resistor should be connected parallel to the antenna across the output terminals of the signal source. The Model 96003 by itself does not present a 50 ohm load to the signal source.

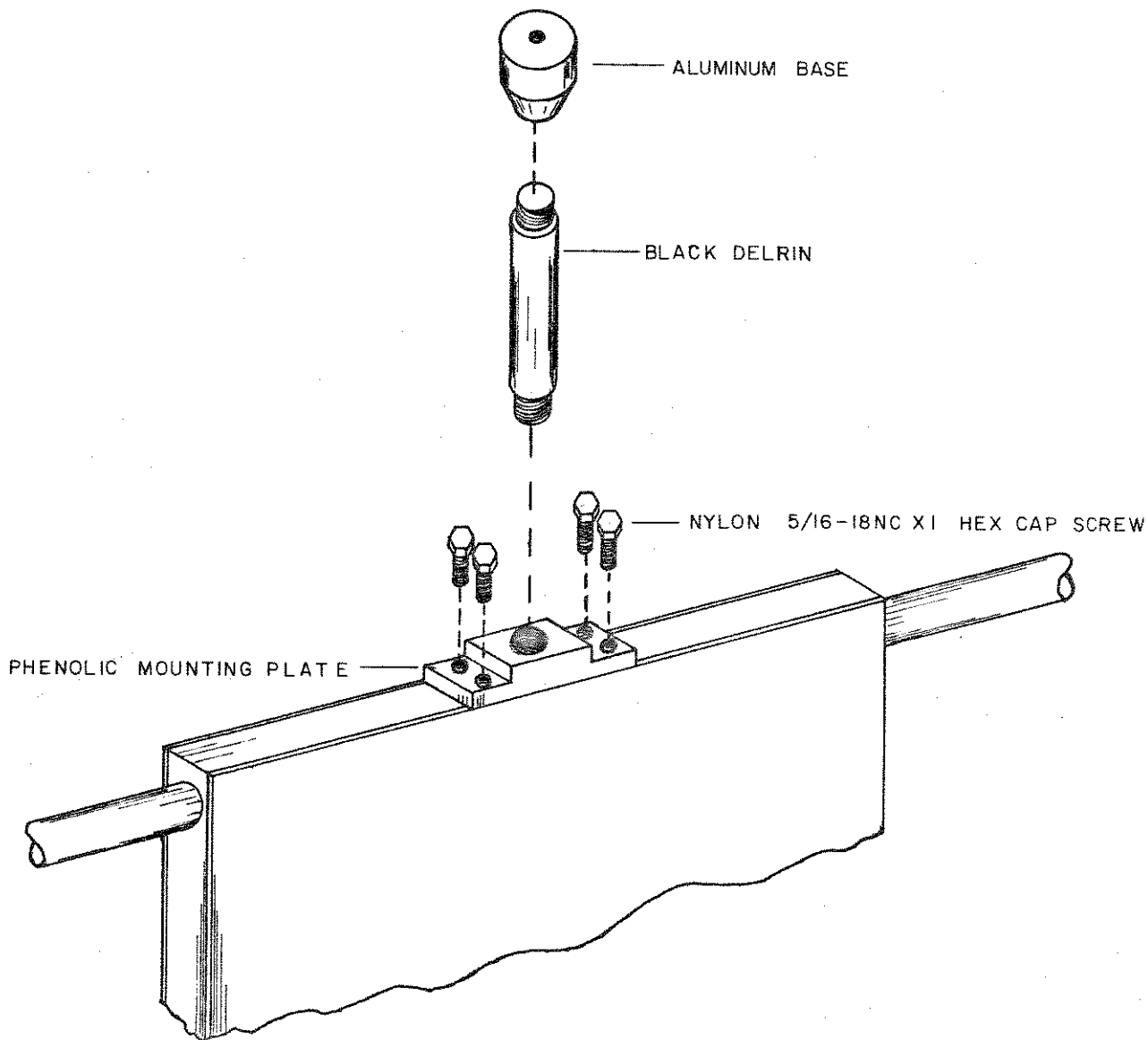


FIG. 1 Assembly of Tripod Base and Support Rod to the Model 96003 Antenna