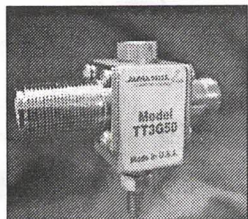
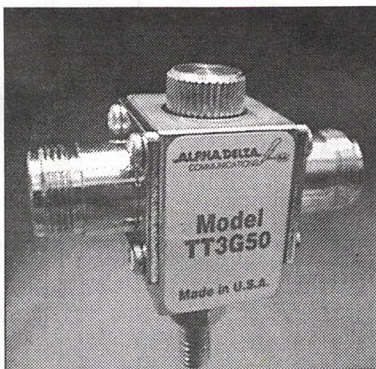


# TRANSI-TRAP<sup>TM</sup> SURGE PROTECTOR

MODEL TT3G50 (Stud Mount)  
MODEL TT3G50B (Bulkhead Mount)  
**WEATHER PROOFED**



TT3G50B  
(Bulkhead Mount)



MODEL TT3G50 (Stud Mount)

## SPECIFICATIONS

**FREQUENCY:** 0 to 3000 MHz

### INSERTION LOSS:

<0.1 dB from 0 to 1000 MHz

<0.2 dB from 1000 to 2000 MHz

<0.5 dB from 2000 to 3000 MHz

**VSWR:** <1.10 : 1 from 0 to 1000 MHz

<1.30 : 1 from 1000 to 2000MHz

**CHARACTERISTIC IMPEDANCE:** 50 ohms

**DC BLOCKING:** None. Will pass DC for  
Power and Control purposes.  
Max.DC or peak AC is 150 V.

**CONNECTORS:** Female N-Type. Both ends

**FIRING POINT:** 350 V.  $\pm 15\%$  @ < 100v/s  
< 1000 @ 5kv/ $\mu$ s rise

**BREAKDOWN VOLTAGE:** 20 to 30V.

**SURGE CURRENT:** 5000 A (8/20  $\mu$ s pluse)

**ARC-PLUG LIFE:** >600 Times @ 500A pluse  
(Field replaceable)

**SIZE:** 1w X 1 1/4 h X .875 (2.4 oa) inches

25 w X 32 h X 22 (61 oa) mm

### MOUNTING AND

**GROUNDING:** Single hole. 1/4-20 X 7/8 stud

Trans-Trap Surge Protectors are gas surge arresters designed to protect sensitive electronic equipment from damage due to excess voltage or currents generated by transient phenomena (lighting or static build-up).

The elements in the Arc-Plug<sup>TM</sup> Cartridge consist of two metal electrodes hermetically sealed in a rugged gas filled, ceramic cylinder. They preform as voltage-dependent switches which can reliably and repeatedly carry large currents for brief periods of time. In operation, a sufficient voltage across the element cause an arc to form between the electrodes, changing its impedance from greater than 10,000 megohms to a few milliohms in less than 100 nanoseconds time. While conducting in the arc mode, the voltage across the surge arrester is less than 30 volts.

The life of the Arc-Plug<sup>TM</sup> Cartridge is a function of the surge current amplitude and duration to which the device is subjected. Transients are by their very nature unpredictable in magnitude and energy level. Life may be hundreds of operations, depending on surge current wave shape.

After a sufficient number of lighting pulses have been discharged through the Arc-Plug<sup>TM</sup> Cartridge, there is a gradual lowering of breakdown voltage and insulation resistance. Therefore, Arc-Plug<sup>TM</sup> Cartridge replacement is indicated by an increase in VSWR during transmitter tune-up, or by a "dead" receiver caused by an extremely strong near-miss lighting discharge shorting the Arc-Plug<sup>TM</sup> Cartridge. In this case, the short continues to protect the equipment until cleared.

## INSTALLATION INSTRUCTIONS

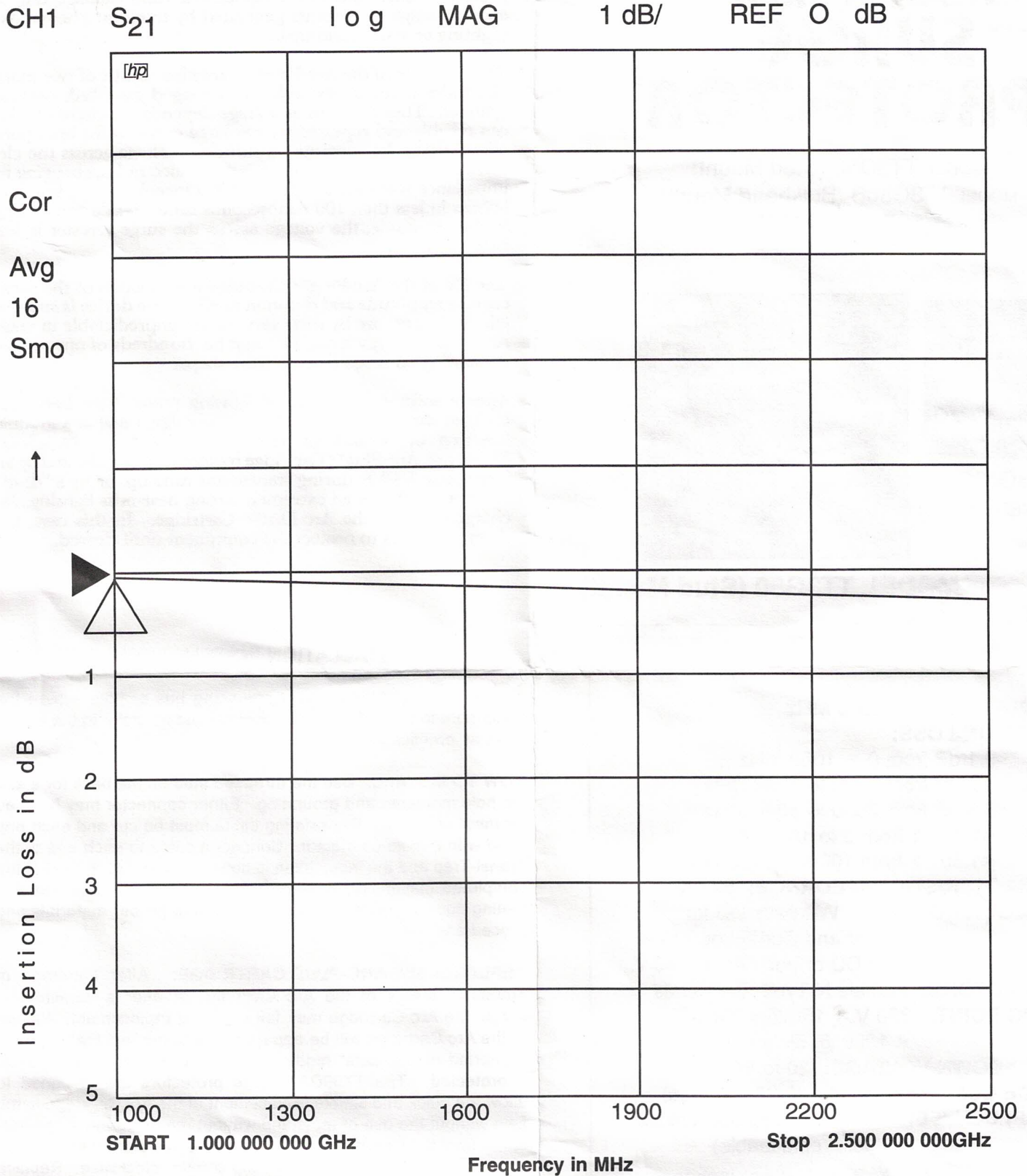
**WHERE TO INSTALL:** On a grounding bus or point where the equipment to be protected is grounded and as close to the equipment as practicable.

**HOW TO INSTALL:** Use the threaded stud on the back for a single hole mounting and grounding. Either connector may be used for input or output. Pre-existing cable must be cut and each end fitted with a male connector. Connect a cable to each end of the Transi-Trap and the installation is done. NOTE: To insure that the completed installation is weatherproof, it is imperative that the mating coaxial connectors be sealed using proper materials and procedures.

**REPLACEABLE ARC-PLUG CARTRIDGE:** After hundreds of protective firings of the Arc Cartridge or after a catastrophic surge, the Arc Cartridge may fail requiring replacement. Failure of the Arc Cartridge will be apparent due to the fact that it fails in a shorted or "fail-safe" mode so as not to leave the equipment unprotected. The TT3G50 surge protectors are designed to allow the quick and simple replacement of the Arc Cartridge in the field without the use of tools and without removing the surge protector from the circuit. Simply unscrew the failed cartridge by gripping the knurled section and turning counter-clockwise. Replace with a new cartridge tightening only by hand until the cartridge "bottoms out" against the thru-line. Make sure that the cartridge O-ring is fully seated into the body of the protector. The TT3G50 is now restored to full operation.



# Typical TT3G50 Insertion Loss



## WARRANTY

Seller warrants that each unit sold is manufactured in accordance with seller's specifications, drawings, samples or data in effect on the date of receipt of the order, as they apply to those parts called for on the order, and that each unit is free from defects in material and workmanship.

Sellers liability under this warranty is limited to the repair or replacement of any unit which proves to be defective in material or workmanship under normal use and service provided the unit is returned to the Alpha Delta shipping point (or authorized distributor if purchased through this source) within six months from date of shipment, and will in no case be responsible for special or consequential damages, including but not by way of limitation, cost of removal of units from or reinstallation in equipment.

This warranty is in lieu of all other warranties expressed or implied.