

ALPHA DELTA Model DELTA-C Antenna Hardware Kit

This kit contains 1 DELTA-C Center Insulator, antenna connecting hardware, 1 Model SEP Arc-Plug™ static Electricity Protector (installed on the back of the Delta-C) and 2 Model DELTA-CIN End Insulators.

DELTA-C components are molded of high impact UV and RF resistant material called DELTALLOY™. It is tough and practically indestructible. Only stainless steel is used for exposed hardware.

For proper installation, feed the antenna wire through the strain relief holes on each side of the DELTA-C Center Insulator, wrap it back on itself approximately 3-5 turns, then route the end of the antenna wire to the solder lug on each set of connection hardware.

A small loop may be formed from the wrap to lug to relieve tension. See Fig. 1 for suggested connection method (be sure to reinstall the hardware in the same sequence as provided – washers, nuts, etc. and do not over tighten the wing nuts).

Approximate antenna lengths can be determined for 1/2 wavelength antennas (necessary when feeding in the center with coax cable) by using the formula:

$$\text{Length (feet)} = \frac{468}{\text{Frequency (in MHz)}}$$

Some typical antenna lengths (overall total for both sides of dipole) are listed in table 1. (See fig. 2).

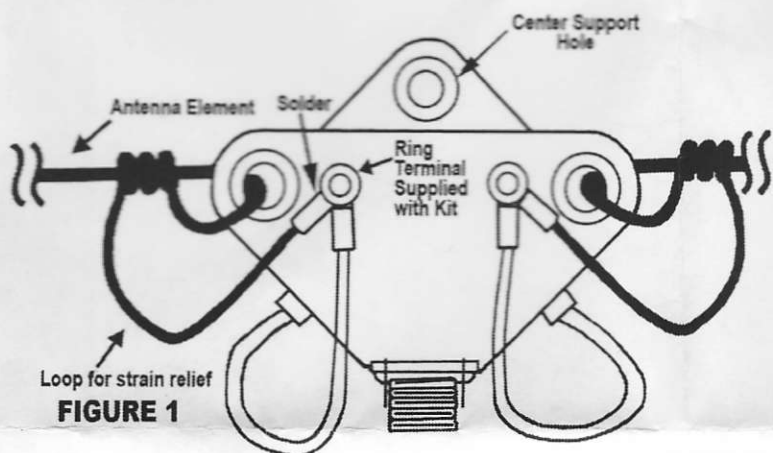


TABLE 1

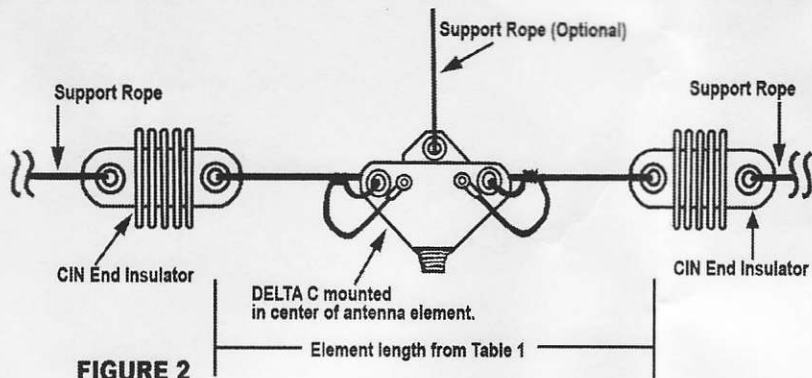
1/2 Wave overall lengths (approximations)

Amateur Bands	Shortwave Broadcast Bands
160 Meters - 260 ft.	120 Meters - 195 ft.
80 Meters - 126 ft.	90 Meters - 142 ft.
40 Meters - 66 ft.	75 Meters - 120 ft.
30 Meters - 46 ft.	60 Meters - 98 ft.
20 Meters - 33 ft.	49 Meters - 79 ft.
17 Meters - 26 ft.	41 Meters - 63 ft.
15 Meters - 22 ft.	31 Meters - 51 ft.
12 Meters - 19 ft.	25 Meters - 40 ft.
10 Meters - 16.5 ft.	22 Meters - 34 ft.
	19 Meters - 30 ft.
	16 Meters - 27 ft.
	15 Meters - 25 ft.
	13 Meters - 22 ft.

Model SEP Arc-Plug® Static Electricity Protector is a special gas tube component designed to "bleed off" slow rising static electricity build-up of the kind generated by thunderstorms, high wind driven snow or sand or by a harmless looking cloudy day. These static charges have been measured to several thousand volts and can damage or destroy sensitive components in receiver or transceiver front end circuitry.

For proper operation of the Protector, it will be necessary to ground the coax shield at the entrance to the building. Your station may already meet these requirements if your coax shield circuitry is grounded to a ground bus, bulkhead, strap, braid or ground rod through the connector on your coax. If the Model SEP protector takes a strong surge "hit" beyond its rating, it is designed to fail "shorted" to indicate the need for replacement. This will be indicated by a large increase in VSWR, or a "dead" receiver since the antenna will be shorted to ground at the Center Insulator. Your equipment will still be protected until removal or replacement.

To remove the Model SEP Protector, simply remove the antenna connection hardware and remove the SEP which is installed in the cavity on the back of the Model DELTA-C Center Insulator. Reinstall the hardware in the same sequence as provided.



When using the DELTA-C for high power transmitting it may be necessary to remove the SEP Cartridge when VSWR exceeds 2:1.

Also, to assure the maximum protection of your sensitive equipment from lightning/EMP induced surges, we recommend the use of our Alpha Delta Transi-Trap Surge Protector at the point where the feedline enters the building.

ALPHA DELTA COMMUNICATIONS 

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