

INSTRUCTION SHEET  
FOR  
TERMALINE COAXIAL LOAD RESISTOR  
MODELS 8421 and 8422

DESCRIPTION

The Bird TERMALINE dry 100 watt Coaxial Loads are designed for economical 50-ohm RF line and system termination in any position (i.e. attitude insensitive termination).

Both units utilize non-resistive power absorbing materials, which exhibit high magnetic loss characteristics in a portion of the RF spectrum. Model 8421 has a low VSWR of under 1.1 from 1 - 2GHz (under 1.15 to 2.6GHz), while Model 8422 remains below 1.15 from 300 to 1000MHz.

The highly efficient transfer of heat from the magnetic power dissipating material to the unique "sunburst" radiator protects these terminations from destructive failures, such as resistor burn-out due to excessive temperatures or arcing. Significant overloads to 50% average do not result in irreversible damage and peak power capability is limited primarily by the input connector (e.g. 50kW with LC and 10kW with N connectors), not by the termination. Similar pulse specifications in braod-band loads would about double the cost.

The use of Bird QC Quick-Change connectors offers unparalleled flexibility in a small termination: a choice of any common RF connector either at the time of order, or in the field, eliminates adapters and degradation of performance.

QC type connectors other than that normally supplied are available in the following series: Male or Female N, HN, UHF, C, SC, LC, BNC, or TNC, GR type 874 ; and 7/8: EIA Flanged types.

OPERATION

The Model 8421 and 8422 TERMALINES may be connected directly to the transmitter, or attached by means of a short piece of 50-ohm coaxial cable. Make sure the cable connectors mate with the transmitter and Load Resistor connectors (see Maintenance Section below). Place the Load Resistor in a position to permit good air circulation around the radiator. Do not exceed the continous power rating of the Load Resistor.

MAINTENANCE

The Model 8422 Coaxial Loads are rugged and simple. The principle maintenance required will be the cleaning of the input connector. Wipe the insulator and metallic contact surfaces, using a dry cleaning solvent such as Inhibisol or trichlorethylene on a cotton swab stick. Keep the radiator wiped free of dust. A defective unit must be returned to the factory for repair. Do not attempt to repair in the field.

If replacement of the RF connector is desired, proceed as follows:

- (1) Remove the four screws from the corners of the RF connector.
- (2) Pull connector straight out.
- (3) Reverse above procedure to install new connector, making certain that the projecting center contact pin of the QC connector is carefully engaged and properly aligned with the mating socket of the load.