



MODEL 8160/61 TERMALINE[®] COAXIAL LOAD RESISTOR

INSTRUCTION SHEET

DESCRIPTION

The new Bird Model 8160 TERMALINE dry high-power Coaxial Loads are designed for 50-ohm RF line and system termination in any position (i.e., attitude-insensitive termination). The 100 watt Model 8160 is completely independent of extraneous heat sinks or cooling liquids. Mating it with an axial air flow device in the Model 8161, the unique "sun-burst" radiator permits a safe RF power dissipation of 225 watts.

The highly efficient transfer of heat from the cylindrical resistor in the heart of the load is the result of a novel truncated RF design on space-age substrate material. The new compact internal structure offers several additional advantages: An unequalled ruggedness, overall size reduction to nearly one-half of comparable loads, and broad-band performance.

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; and 7/8" and 1-5/8" EIA Flanged types.

OPERATION

The Model 8160 TERMALINE 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 below). Place the Load Resistor in a position to permit good air circulation around the radiator. Do not exceed the continuous power rating of the Load Resistor.

MAINTENANCE

The Model 8160 Coaxial Load Resistor is 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:

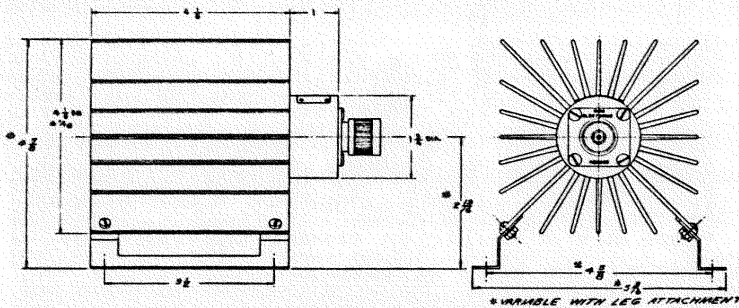
- (1) Remove the four #8-32 x 5/16 round head machine screws from the corners of the RF connector.
- (2) Pull connector straight out.
- (3) Reverse above procedure to install new connector, making certain that the projecting center contact pin of the "QC" connector is carefully engaged and properly aligned with the mating socket of the load resistor.

SPECIFICATIONS:

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Power Rating	100 watts continuous	225 watts continuous
Frequency Range	dc to 2500 MHz	
VSWR	1.1 max dc - 1000 MHz, 1.2 max to 2500 MHz	
Impedance	50 ohms	
QC Type Connectors	Male N normally supplied (see overleaf)	
Ambient Temperature Range	-40° to +45° C	
Operating Position	<u>ANY</u>	
Finish	Lusterless Black Enamel (Fed. Spec. TT-E-527)	
Weight	42 oz.	52 oz.

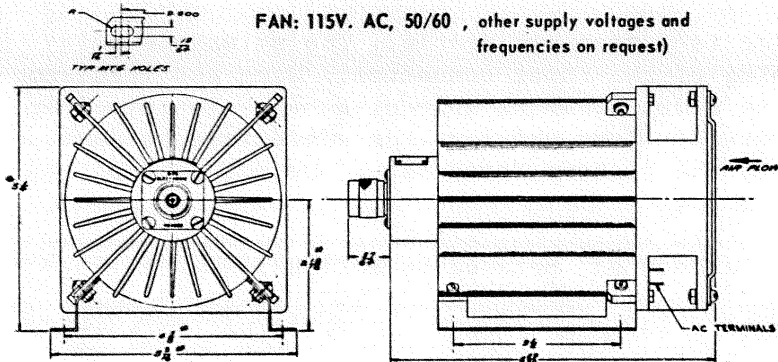


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Replacement Parts

<u>Bird Part No.</u>	<u>Parts</u>
5-556	Venturi Fan
5-557	Plug & Cord Ass'y
5-558	Finger Guard



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