

SUMMARY SPECIFICATIONS

Model 8890-510 Series TERMALINE[®] RF Loads

Input Connections - Individual Models

8890-510	Bird "QC" Conn - Type LC (Female) (usually supplied)
8891-510	3-1/8" EIA Flanged
8892-510	1-5/8" EIA Flanged
8895-510	1-5/8" Unflanged
8897-510	3-1/8" " (Flush Cen.Cond.)
8898-510	3-1/8" " (Recessed Cen.Cond.)

Specifications - All Models

Power Rating	2.5 kW (without water cooling) 7.5 kW - with a minimum of 3.0 GPM water flow (11.4 LPM)
Impedance.	50 ohms nominal
Frequency.	DC to 1 GHz
VSWR	1.10 max. DC to 1 GHz 1.25 max. 1 to 2 GHz
Water Flow Required.	3.0 GPM min. (uses Water Valve)
Water Connections.	3/4-14 MPT Fittings (vertically down)
Operating Position	Horizontal
Finish	Light Navy Gray Baked Enamel
Weight	40 lbs. (18.1 kg)

WARNING

Use in Horizontal Position only, with vent plug up.

Before applying power, remove red hex plug and install pressure relief vent.

Bird Electronic Corp.
Cleveland (Solon) Ohio 44139

Auxiliary Instruction Sheet

Series 8890-510S THERMALINE[®] Load Resistor(s)
(Use with 8890, or appropriate Model, Inst. Book)

General

These are Load Units of a type similar to the 8890 Series. The 8890-510S Models, however, are also equipped with auxiliary water cooling and special control devices. With 3 gallons (11.4 liters) per min. water flow, the continuous load rating is increased from 2.5 to 7.5 kW. The control devices safely maintain the power rating with minimal water usage.

The individual models of this series are provided with input connector types as described on Summary Specifications, Sheet 1. All models are equipped with two thermostats (overtemp and control) on front radiator face, above input connector.

Installation

The upper thermostat is the Overtemp Switch, Item 8, which shuts off the transmitter when Load temperature exceeds a safe level. It is connected directly to the transmitter interlock (in series). Be sure this connection is made.

The lower thermostat, Item 7, is the Water Control Switch. It opens the Water Control Valve, Item 6, only as Load Resistor operation requires. It must be connected in series with the water valve leads and with 115v 60 Hz current supply. Use adequate wiring properly protected. The water valve is normally closed, the Thermostat is normally open. When load temperature rises to predetermined level, the thermostat closes, actuating the Water valve for as long as needed.

Water connection is made to the two vertical elbow fittings on the back of the equipment; the input is at the left side (rear face). Fittings have 3/4-14 MPT; the Water Valve is the same in FPT. Insert the water valve on the inlet side (directly to fitting if desired) noting flow direction marked on its housing - watch direction carefully.

All other features described in 8890 Series Instruction Book(s) are applicable to this Model.

Replacement Parts List for Model 8890-510S follows on page 3.

Model 8890-510 Series

REPLACEMENT PARTS LIST

<u>Item</u>	<u>Qty.</u>	<u>Description</u>	<u>Bird P/N</u>
1	1	Radiator, Water Cooled	2450-522-1
2 (See Below)	1	RF Load Resistor(s)	See Below
3	1	Band, Clamping - RF Load	2430-055
4	1	O-Ring, Load Resistor	5-230
5	(1)	Coolant - 1.7 Gal.(6.4 L)	5-1070-3
6	1	Valve, Water	5020-146-2
7	1	Thermoswitch, Water Saver	8898-512
8	1	Thermoswitch, High Temp.	8890-008
9	1	Plug, Shipping	2450-049
10	1	O-Ring, Shipping Plug	5-502
11	1	Vent, Breather	5-835
12	1	O-Ring, Vent	5-504
13	2	Washer, Pipe Seal	2450-513
14	2	Nut, Union-Tube Clamp	2450-518
15	2	Tube, Elbow - 3/4 MPT	2450-519

Item 2 - RF Load Resistor - Model Assignments

8890-510	1	or	"QC" - LC	8890-050	or
8891-510	(1)		3-1/8" EIA Flanged	8891-050	
8892-510	(1)		1-5/8" EIA Flanged	8892-015	
8895-510	(1)		1-5/8" Unflanged - Flush	8890-052	
8897-510	(1)		3-1/8" Unflanged - Flush	8897-003	
8898-510	(1)		3-1/8" Unflanged - Recessed	8898-002	

NOTE: Items 3-5, 9-12 are u/on Basic Load Equipment