



# BIRD

**ELECTRONIC CORPORATION**  
30303 Aurora Rd. • Cleveland 39, (Solon) Ohio • CHurchill 8-1200

INSTRUCTION SHEET  
for  
Field Installation of Resistor and Housing Assembly  
on  
Models 502 and 890 RF Load Resistor

### PRELIMINARY

After receiving the unit, check very carefully that no foreign matter lodges in any portion of the Resistor and Housing Assembly. To prevent dirt and dust from accumulating on it, keep the replacement unit properly covered while waiting for installation. Foreign matter if allowed to come in contact with resistor assembly, could be the cause of resistor burnout. Check particularly the small end of the assembly.

### STEP 1 - COOLANT INSPECTION

A. Before inserting the assembly into the tank, make certain that coolant is clean and the level is up to the proper height, see Step 2. Remove a small amount of coolant in a clean glass container. Inspect for suspended carbon deposits in the coolant. If carbon deposits are present and coolant has turned to a blackish color it should be replaced. If the coolant needs replacement the entire unit must be drained, and the inside of both tanks cleaned out completely.

B. Note: Be sure to run the coolant pump several minutes before draining equipment. Use the drain cock on the pump side of the heat exchanger tank. If desired, some coolant remaining in the pump housing may be drawn out by using a hand suction pump with a five or six-foot flexible hose nozzle. To reach the coolant pump, insert the nozzle as far as possible down into the open resistor tank.

### STEP 2 - COOLANT REQUIREMENTS

Both equipments use Dow Chemical Company coolant, Dowtherm A. The proper coolant level for each is just above the centerline of the upper cross-pipe joining the two tanks. The respective capacities are as follows:

Model 502	18 gallons Dowtherm A
Model 890	26 gallons Dowtherm A

### STEP 3 - INSTALLING RESISTOR AND HOUSING ASSEMBLY

A. Check carefully that the O-Rings are in good condition and properly installed. Each model has an O-Ring at the top end of Resistor Housing Unit, and the Model 890 has one at the small end also.

B. When inserting the resistor assembly into small tank, lower it slowly and carefully into the coolant tank. If unit is inserted too fast, there will be some splashing. Allow for displacement of coolant and its entry into resistor assembly. Then proceed as follows:

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Field Installation of Resistor and Housing Assembly  
Models 502 and 890  
(Cont'd)

For Model 502 - Fasten V-band clamp ) Tighten evenly to  
For Model 890 - Fasten bolts ) secure good seal.

STEP 4 - SETUP FOR OPERATION

- A. Turn on the pump motor and allow coolant to circulate for a few minutes.
- B. Before connecting the RF power, measure DC resistance of unit and record it. This value can later be compared against future readings to indicate possible trouble in the equipment.
- C. Be sure that the water saver and interlock thermostiches are connected and that the water pressure is on.
- D. Remove escape vent plugs (painted red) to permit pressure release before applying any power.

Applicable Parts List

Part - Description	Number
<u>Model 502</u>	
Resistor and Housing Assembly	502064
O-Ring, Top Seal	502060
Coolant in 5 gallon cans (18 gal. req'd)	5140
Clamp Band	82462
#10-32 x 1-1/2 Fil Hd Mach Scr - Stainless Steel	Std
<u>Model 890</u>	
Resistor and Housing Assembly	890034
O-Ring, Top Seal	890061
O-Ring, Lower End of Res. Hsg.	890058
Coolant in 5 gallon cans (26 gal. req'd)	5140
(8) 3/8-16 x 1-3/4 Hex Hd Cap Scrs - Steel, Cad. Plate	Std
(8) 3/8-16 Hex Nuts Steel, Cad. Plate	Std
(8) 3/8 Plain Washer and Lockwasher Sets - Steel, Cad. Plate	Std