



SERIES 4410 DIRECTIONAL RF
THRULINE® WATTMETER

MODEL 4410S

OPERATION MANUAL

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INSTRUCTION BOOK PART NUMBER 920-4410S REV. G

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Specifications

Insertion VSWR	1.05 maximum, 0-1GHz equipped with Female N connectors (32.3 dB return loss)
Over Ranging	120% of element power rating regardless of selector switch setting (Certain connector types limited to rating of connector)
Power Range †	2mW to 10W, 20mW to 100W, 200mW to 1000W or 2W to 10kW full scale in one Plug-in element. Any Bird 4410-series element may be used.
Frequency Range †	200kHz to 2.3GHz CW or FM. Select from 4410-series elements only.
Accuracy*	±5% of reading above 20% of full scale of the selected power range for FM or CW signals without AM. This accuracy is maintained for a full 37dB dynamic range with each 4410 element
Temperature Range Operating Storage††	0° to 50°C (32°F to 122°F) -25° to 65°C (-13°F to 149°F)
Relative Humidity	5% to 90% non-condensing
Battery Model 4410 & 4410A Model 4412A	Internal alkaline (24 hours minimum life) Internal NiMH (7 hours minimum from full charge)
Connectors	Over 30 types of field-interchangeable "Quick Change" connectors are available. Female N normally supplied.
Elements	4410 Series type, not interchangeable with other Bird elements
Finish	Grey Powder Coat
Normal Size (includes connectors)	6-7/8"H x 5-1/8"W x 3-5/8"D (175 x 130 x 92 mm)
Weight (Approx.) Model 4410 & 4410A Model 4412A	4 lb. (1.8 kg) with N-Connectors 3-1/3 lb. (1.5 kg)

* Exceptions - Element P/N 4410-1 (0.200 to 0.533MHz) has an accuracy of ±10% of reading. Elements P/N 4410-15 (1.0 to 1.8GHz) and 4410-16 (1.8 to 2.3GHz) which are accurate to ±8% of reading.

† Power and frequency range is determined by 4410 type Plug-In Elements used.

†† See "[Battery Care](#)" on page 14