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Molectron
DETECTOR, INCORPORATED

PM5200
LASER POWER METER

Operator Manual
Revised April 1, 1993

MOLECTRON DETECTOR MODEL PM5200
LASER POWER METER

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1 GENERAL INFORMATION

1.1 Description

The **PowerMax**™ 5200 Laser Power Meter is a microprocessor-based power meter which provides the convenience and readability of an analog instrument with the precision and performance of a digital instrument. It is small, portable, and may be AC or battery operated. When connected to one of the **PowerMax**™ series of intelligent power probes, it automatically configures itself for that particular probe, giving you complete assurance of convenient and accurate operation.

The PM5200 front panel includes a large analog meter, a high-resolution graphic LCD and five pushbutton controls. Interfaces include a 0-2 VDC analog output and an RS-232 serial interface for computer communication. There is also an audible alarm which is used to alert the operator of various conditions.

1.2 Specifications

<u>General:</u>	
Dimensions:	4" high x 9.5" wide x 8.5" deep
Weight:	3 lbs. 6 oz.
Full-scale ranges:	30mW to 10kW (12 ranges)
Analog meter:	3-1/2", mirrored, backlit when AC-powered
Digital display:	Graphic LCD, 59.94mm x 38.36mm, 120 x 64 pixels, backlit when AC-powered
<u>Performance:</u>	
Accuracy:	0.5% for digital display 0.5% for analog output 2.0% for analog meter
Battery life:	8 hours, minimum between charges
Charger:	120V input, 12V/500mA output (U.S.) 240V input, 12V/500mA output (Int'l)
<u>Interfaces:</u>	
Analog output:	0 to 2 volts full-scale for selected range, output impedance of 100 ohms
Serial interface:	RS-232, 1200 to 19,200 baud

Audio:	Piezoelectric beeper
<u>System:</u>	
System resolution:	0.1 mW (with PM10 probe)
System accuracy:	± 3% (including probe)

2 INSTALLATION

2.1 Unpacking and inspection

The equipment described in this manual was delivered to the carrier in brand new condition and properly packed. When the shipment of equipment is received, open and carefully unpack all boxes. Contents of the boxes are listed on the packing slip. Inspect the shipment immediately for lost or damaged components. Check the case for cracks or loose hardware. Test switches to see that none are broken. If loss or damage is to be claimed:

1. Save all shipping boxes and cartons for carrier's inspection until claim is settled.

2. Notify the carrier or their agent for inspection of the loss or damage claimed. File claims with the carrier.

3. If you require replacement for the parts damaged in shipment, please send us your purchase order. The amount shown in the replacement part invoice may then be collected from the carrier.

2.2 Power supply

The PM5200 may be operated on its own rechargeable NiCad battery, with a minimum operating time between charges of 8 hours. The PM5200 may instead be AC-powered via an external battery charger. Make sure that you use the charger provided, with the proper input voltage (120 or 240) and an output of 12V at 500mA. The charger will charge a completely dead battery in about 10 hours.

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