

Thank you for purchasing a quality TPS instrument. We trust that your new **MC-88** Light Meter will give you many years of reliable service.

The **MC-88** is a breeze to operate. This manual has been designed to help you get started, and also contains some handy tips. If at any stage you require assistance, please contact either your local TPS representative or the TPS factory in Brisbane.

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The manual is divided into the following sections:

1. **Table of Contents**

Each major section of the handbook is clearly listed. Sub-sections have also been included to enable you to find the information you need at a glance.

2. **Introduction**

The introduction has a diagram and explanation of the display and controls of the **MC-88**. It also contains a full listing of all of the items that you should have received with your **MC-88**. Please take the time to read this section, as it explains some of items that are mentioned in subsequent sections.

3. **Main Section**

The main section of the handbook provides complete details of the **MC-88**, including operating modes, troubleshooting, specifications, and warranty terms.

**Model MC-88**  
**Light Meter**

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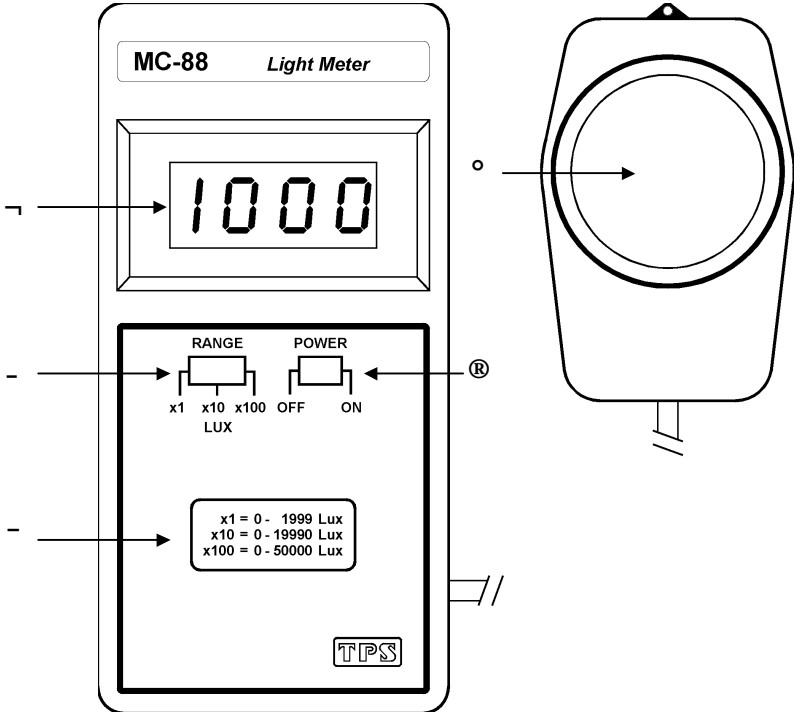
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# 1. Introduction

## 1.1 MC-88 Display and Controls



▣ **Display**

3½ digit Liquid Crystal Display with 13 mm digits.

- **RANGE**

Select one of three ranges, depending on the level of light being measured.  
Choice of x1, x10 or x100 of displayed value.

® **POWER**

Used to switch the **MC-88** on and off.

- **Range selection guide**

Lists the Lux range of each of the three **RANGE** selector positions, for easy reference.

○ **Sensor**

The separate light sensor allows the operator to take measurements in an optimum position, for best results.

## 1.2 Unpacking Information

Before using your new **MC-88**, please check that the following accessories have been included:

	Part No
1. <b>MC-88</b> Light Meter	125101
2. 9V Battery	130026
3. <b>MC-88</b> Handbook	130050

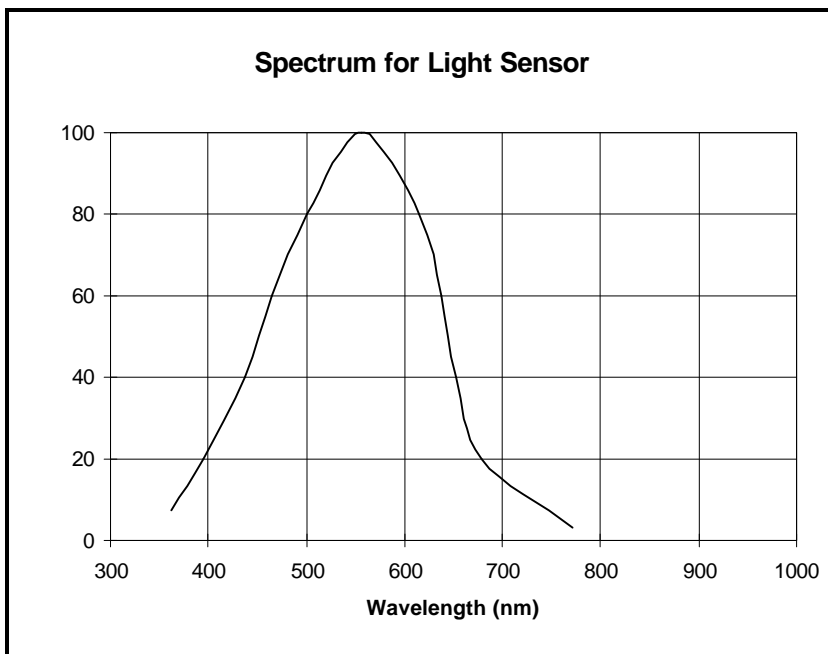
Options that may have been ordered with your **MC-88**:

1. NiCad Rechargeable battery and charger	130007
2. Hard Plastic Carry Case	130057

## 1.3 Specifications

Range	Resolution	Accuracy (at 23 ±5 °C)
0 to 1999 Lux	1 Lux	±(5% + 2 digits)
0 to 19990 Lux	10 Lux	±(5% + 2 digits)
0 to 50000 Lux	100 Lux	±(5% + 2 digits)
NOTE : Accuracy tested by a standard parallel light tungsten lamp at 2856 °K temperature.		

Display	: 13mm Liquid Crystal Display 3½ digits, max display 1999
Power	: 9V Alkaline Battery for 200 hours operation. Optional NiCad battery/charger pack available.
Dimensions	: 157 x 78 x 35 mm
Mass	: Instrument only : Approx 200g Full Kit : Approx 1.0kg
Environment	Temperature : 0 to 50 °C Humidity : 0 to 80 % R.H.



### Correction Factor

The **MC-88** is calibrated under a standard parallel light tungsten lamp at precisely 2856 °K. If you intend to use the light meter to make precision measurements, please apply the following correction factors for the relevant type of light being measured.

Type of Light Source	Correction Factor
Mercury Lamp	x 1.05
Fluorescent Lamp	x 0.98
Daylight	x 0.95

## **2. Light Measurement**

1. Switch the **POWER** selector to the **ON** position.
2. Switch the **RANGE** selector to the required position for the light level being measured.

For optimum precision, use the lowest range on which the **MC-88** does not over-range. The over-range condition is shown as a “**1**” on the left side of the display.

3. The display will now display the Lux value.

## **3. Battery Replacement**

1. When the battery volts drops below 6.5-7.5V the display shows “**LOBAT**” in the lower left hand corner. When this occurs the battery must be replaced as soon as possible, otherwise readings become inaccurate.
2. Loosen the battery cover screw on the rear of the **MC-88** so that the battery cover can slide away.
3. Remove the battery and replace it with a new 9V battery. Alkaline batteries are preferred.
4. Replace the battery cover and re-tighten the screw.



## 4. Troubleshooting

<b>Symptom</b>	<b>Possible Causes</b>	<b>Remedy</b>
Unstable readings	<ol style="list-style-type: none"><li>1. Battery is low</li><li>2. Sensor is faulty.</li></ol>	Replace battery. Replace sensor.
Display shows just “1 .” or “-1 .”	<ol style="list-style-type: none"><li>1. Meter has over-ranged.</li></ol>	Select high range using <b>RANGE</b> switch.
Meter will not turn on.	Battery is exhausted.	Replace the battery.

## **5. Warranty**

TPS Pty. Ltd. guarantees all instruments and electrodes to be free from defects in material and workmanship when subjected to normal use and service. This guarantee is expressly limited to the servicing and/or adjustment of an instrument returned to the Factory, or Authorised Service Station, freight prepaid, within twelve (12) months from the date of delivery, and to the repairing, replacing, or adjusting of parts which upon inspection are found to be defective. Warranty period on electrodes is three (3) months.

There are no express or implied warranties which extend beyond the face hereof, and TPS Pty. Ltd. is not liable for any incidental or consequential damages arising from the use or misuse of this equipment, or from interpretation of information derived from the equipment.

Shipping damage is not covered by this warranty.

### **PLEASE NOTE:**

A guarantee card is packed with the instrument or electrode. This card must be completed at the time of purchase and the registration section returned to TPS Pty. Ltd. within 7 days. No claims will be recognised without the original guarantee card or other proof of purchase. This warranty becomes invalid if modifications or repairs are attempted by unauthorised persons, or the serial number is missing.

### **PROCEDURE FOR SERVICE**

If you feel that this equipment is in need of repair, please re-read the manual. Sometimes, instruments are received for "repair" in perfect working order. This can occur where batteries simply require replacement or re-charging, or where the electrode simply requires cleaning or replacement.

TPS Pty. Ltd. has a fine reputation for prompt and efficient service. In just a few days, our factory service engineers and technicians will examine and repair your equipment to your full satisfaction.

To obtain this service, please follow this procedure:

Return the instrument to TPS freight pre-paid and insured in its original packing or suitable equivalent. INSIST on a proof of delivery receipt from the carrier for your protection in the case of shipping claims for transit loss or damage. It is your responsibility as the sender to ensure that TPS receives the unit.

Please check that the following is enclosed with your equipment:

- **Your Name and daytime phone number.**
- **Your company name, ORDER number, and return street address.**
- **A description of the fault. (Please be SPECIFIC.)**  
(Note: "Please Repair" does NOT describe a fault.)
- **either \$13.50 for return freight for units under warranty,  
or \$24 to cover inspection costs and return freight.**

(These amounts are not applicable to full-account customers.)

Your equipment will be repaired and returned to you by air express where possible.

For out-of-warranty units, a repair cost will be calculated from parts and labor costs. If payment is not received for the additional charges within 30 days, or if you decline to have the equipment repaired, the complete unit will be returned to you freight paid, not repaired. For full-account customers, the repair charges will be debited to your account.

- **Always describe the fault in writing.**
- **Always return the sensors with the meter.**