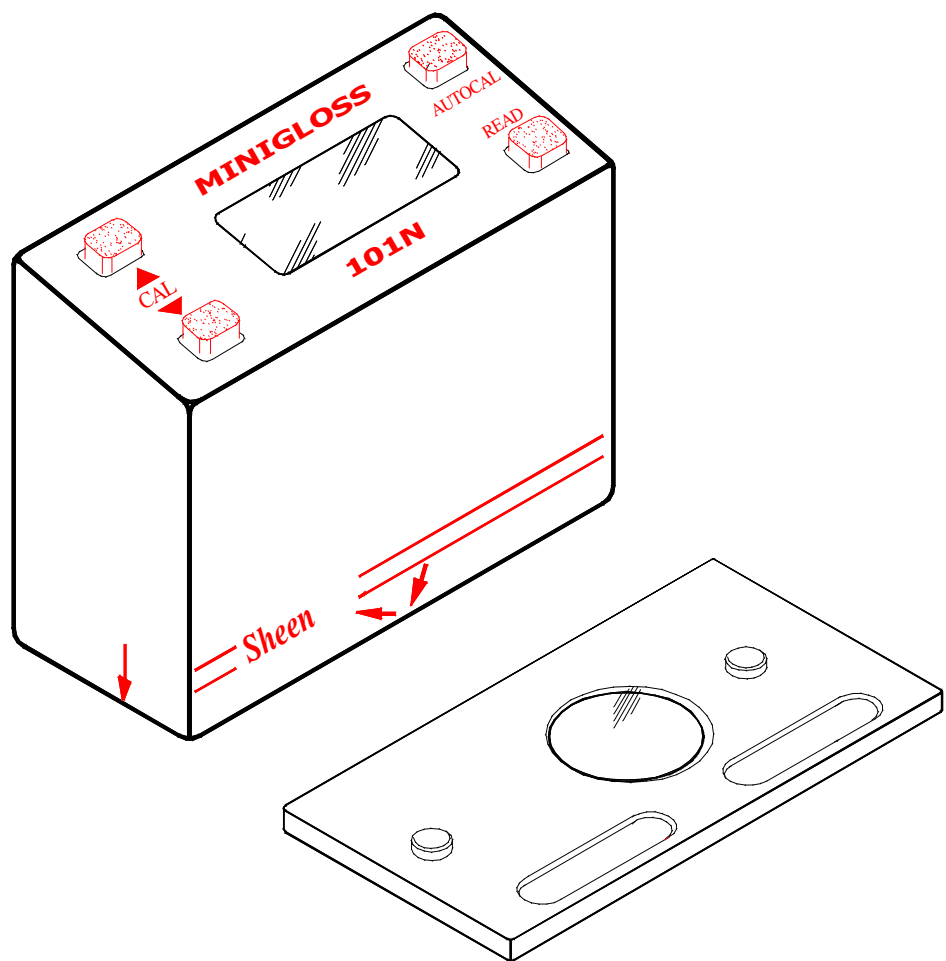


MINIGLOSS

101N

OPERATION MANUAL



101N-A-MAN

ISSUE A

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1. INTRODUCTION

Features of the 101N Minigloss.

1.1 Introduction

The Sheen 101N is a portable hand held 60° Glossmeter capable of performing measurement for specular gloss on a wide range of surfaces.

Multi-function LC Display indicating in gloss units with additional indication for low battery warning.

Extended battery life is maintained by automatic power down after approximately 5 seconds of releasing the read button.

Measurement time of approximately 1 second with an on to off cycle time of 5 seconds.

The Instrument is powered by a rechargeable battery pack fitted internally and is supplied with a mains powered recharger. This allows the instrument to be charged overnight ready for use the next day.

The 101N can be Automatically calibrated on the supplied calibration tile or Manually set to any tile. This allows ease of use while allowing the operator to calibrate the instrument against a calibration tile close to the value of the surface under investigation. The 101N is designed to be used only on flat surfaces.

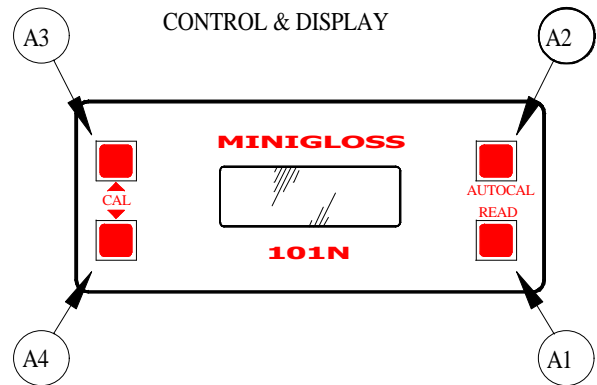
A reference tile and battery charger are also supplied within the lightweight carrying case for the 101N aiding the protection and portability of the instrument.

1.2 Control Functions

The Instruments functions are controlled by four push button switches located on the Control & Display Panel. Two switches either side of the LC Display. (Fig 1.)

1. A1 Read.
2. A2 Autocal
3. A3 Raise value.
4. A4 Lower value.

Fig 1.



2. SPECIFICATION

PHYSICAL DIMENSIONS	47mmD x 93mmH x 117mmW
WEIGHT	0.8 Kg
CHARGER VOLTAGE	20 Volts DC at 0.66 Amps.
BATTERY VOLTAGE	7.2 Volts DC.
BATTERY LIFE @ MODE	Continuous Batch Mode
BATTERY LIFE @ MODE	Intermittent *
CHARGED SHELF LIFE	3 Months (Storage)
OPERATION AUTO SHUT DOWN	7 Hours *
CONTINUOUS	3 Hours
DISPLAY TYPE	Back Lit LC Display
DISPLAY FUNCTIONS	Low Battery, Gloss Units, Calibration Value,
ACCURACY	1 Gloss Unit
WORKING ENVIRONMENT	+ 15 to + 35 Degrees C
AMBIENT HUMIDITY	80% RH Non Condensing
REPEATABILITY	± Gloss Unit
EMC COMPLIANCE	
OTHER STANDARDS	BS3900.D5, BS2782 Part 5, method 520A, ASTM D523, ISO 2813, DIN 67530, JIS Z 8741.

3. OPERATION

3.1 SWITCHING ON

Press the Read button (A1) (**Fig 1.**) and hold for 2 seconds to enable the instrument to take a measurement. The 101N automatically switches off approximately 5 seconds after the Read button has been released. The reading is retained on the display until the Auto shut down is complete. In this way the Instrument cannot remain powered unintentionally and therefore helps to conserve battery life between recharges.

3.2 AUTOCAL

It is recommended that before the instrument is used that it is placed onto the supplied calibration tile and the automatic calibration function be carried out. This will ensure that the instrument is set to the stated standard reading on the gloss tile prior to any testing of product. To carry out this function proceed as follows:

Locate the instrument onto the location studs on the gloss tile (**Fig 2.**) after ensuring that the tile is clean, press the Read button (A1) and then the autocal button (A2) the instrument will Autocal to the Gloss Units at 60° as stated on the calibration label affixed to the tile holder. Release the Autocal button (A2) first and then the Read button (A1).

3.3 TAKING A READING

Place the base of the instrument on the surface to be tested. Align the Red arrows on the case (**Fig 4**) over the area of interest. The base of the instrument must be in good contact with the surface to be tested, press the Read button (A1) and hold for 3 seconds so that the displayed reading may settle, the reading on the LCD is shown in Gloss Units.

Fig 1.

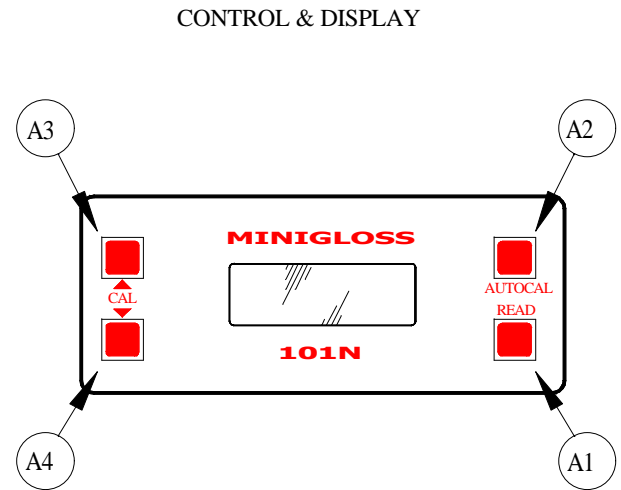
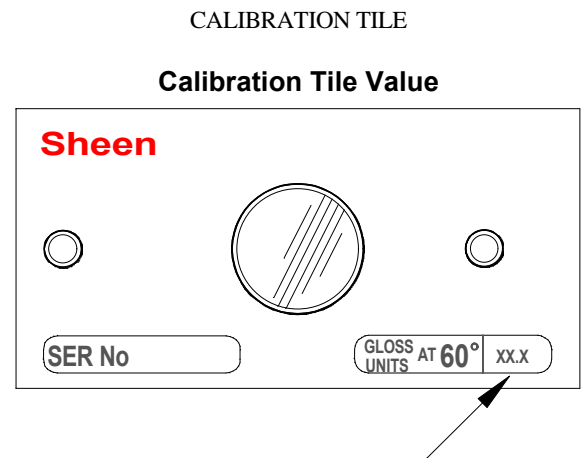


Fig 2.



4. CALIBRATION

4.1 Procedure (Automatic Calibration)

There is no need to adjust the zero of this instrument. To reset the calibration value place it over the supplied calibration tile (Fig 3) making sure the base is flat and located onto the studs on the tile holder, press the Read button (A1) and then the Autocal button (A2). The instrument will Automatically calibrate the 60 angle. This function takes approximately 2 seconds to complete. Release the Autocal button (A2) first and then the Read button (A1). Allow the instrument to Auto shut down and then press the Read button (A1) the value displayed will be that of the tile value Gloss Units (fig 2) if the value is different to the stated value repeat the procedure allowing the instrument to settle before releasing the buttons as stated above.

4.2 Procedure (Manual Calibration)

Place the instrument over the supplied calibration tile making sure that the base is flat and located onto the studs on the tile holder, press the Read button (A1) and using the Cal buttons (A3, A4) raise the reading (A3) or Lower the reading (A4) to the value of the tile. Release the Read button and the instrument is now ready for use.

5. MAINTENANCE

5.1 Batteries

The batteries are of the Ni-Cad rechargeable type and therefore will require to be charged as usage of the instrument dictates. When the batteries require to be charged the legend 'Low Bat' in the upper left hand corner of the LC Display is shown.

It should be noted that the batteries should only be charged from the supplied adapter unit. The 101N may be operated during the period of battery re-charging, full charge of the batteries will take approximately 16 hours.

NO OTHER MAINS POWERED ADAPTER/CHARGER UNIT should be used to charge the batteries or connected to the instrument to overcome flat batteries as this may result in serious damage to the instrument and will invalidate the guarantee.

Fig 3.

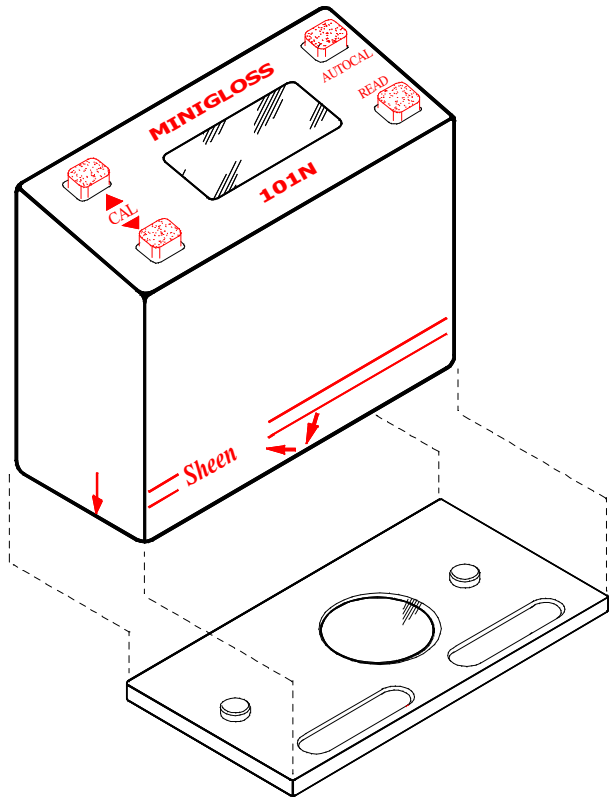
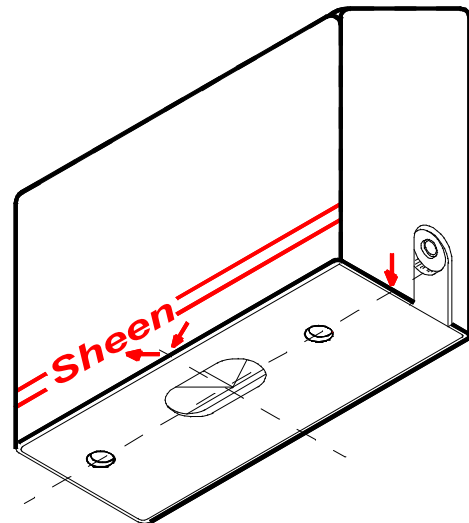


Fig 4.

OPTICAL ALIGNMENT



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5. MAINTENANCE

5.2 General Maintenance

No routine maintenance is required only to insure that the instrument is kept clean as a general good house keeping policy. No chemicals should be used to either clean the outer case or the LC Display of contamination.

Where in-house facilities exist or when it is not practical to return the instrument on a regular basis for service it may be necessary to inspect and clean the *optics assembly within the instrument housing See **fig 5**, this may be more evident where the instrument is used in dusty or contaminated conditions.

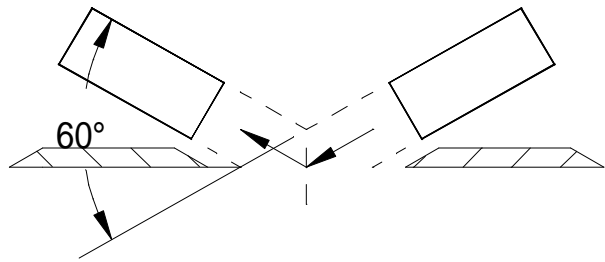
It is recommended that the optics be cleaned as detailed in the Service Manual sheet 1, 101N-OCL, which is available on request.

Where electronic or mechanical repairs are required, these should only be carried out by your dealer, and it is advised that regular Calibration is performed on this instrument to insure that satisfactory operation is maintained.

5.3 LAMP CHANGING

Due to the complexity of the optical system and the Autocal circuitry it is recommended that the instrument is returned to your local Authorised Sheen service centre .

Fig 5.



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