

**KSJ**®

**GLOSSMETER**

**USER`s MANUAL**

**Model: WGG60 - Y4**  
**WGG60 - E4**

Please read it carefully before using!

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WGG60-Y(E) gloss meter is a new-type gloss measuring instrument, which is strictly designed and manufactured according to the standards of ISO 2813 and GB/T 9754. Meanwhile, its technological parameters conform to the standards of ASTM D2457, ASTM D523, GB/T 13891, GB 7706 and GB 8807. All the performance index of the first-grade and the second-grade meters meet the requirements of JJG696-2002.

The gloss values can be traced to the those of the National Primary Standards in SIMT in the P.R.China.

### **Main Applications**

- All kinds of coating and finishing surfaces, such as paints, varnishes, printing ink, etc.
- Decorative materials, such as marble, granite, polishing brick, ceramic tile and so on.
- The other kinds of materials and objects, such as plastic, woodenware, paper, etc.

## SPECIFICATIONS <A>

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Specifications	Unit	WGG60-Y4 3½ Digits	WGG60-E4 3 Digits
ReadingRange	GU	0.0 ~ 199.9	0 ~ 199
MeasuringRange	GU	0.0 ~ 150.0	0 ~ 150
Resolution	GU	0.1	1
Deviation	GU	± 1.2	± 2
Zero-pointDeviation	GU	0.2	0.5
Stability	GU	0.4	1
Measuring Area	mm <sup>2</sup>	36 × 18	
Incidence Angle	Deg.	60°	

to be continued

## SPECIFICATIONS <B>

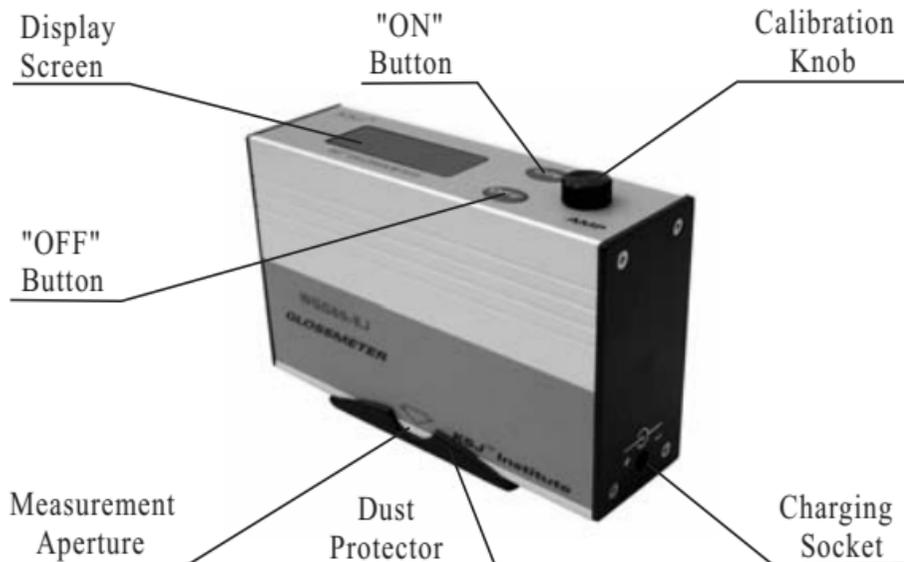
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Specifications	Unit	WGG60-Y4 3½ Digits	WGG60-E4 3 Digits
RechargeablePower		Ni-MH built-in battery	
		4 × 1.2V, 600mAh	5 × 1.2V, 600mAh
Consumption		The full-scale charged battery may support operation to last more than 24 hours.	
ChargingTime		14~16	
ChargerInput	h	AC:187v~242v, 50Hz	
MainVolume	mm <sup>3</sup>	130 × 40 × 80(L × W × H)	
MainWeight	g	430	

# STRUCTURE(A)

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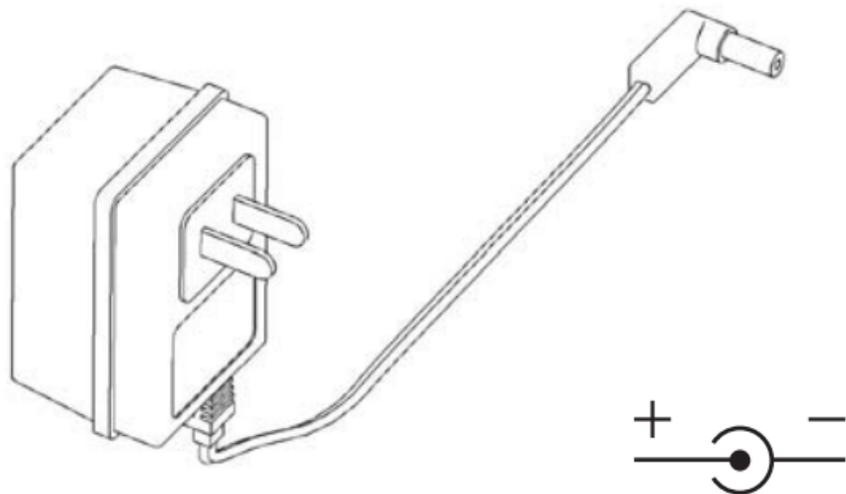
Main:



## STRUCTURE(B)

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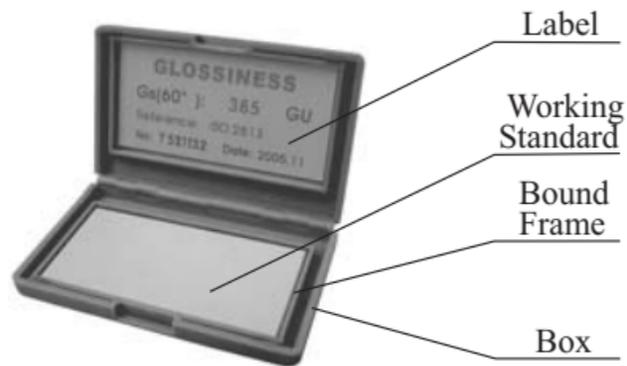
Constant Current Charger:



## STRUCTURE(C)

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Calibration Tile (Working Standard):



## **OPERATION PROCEDURE**

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### **Power ON / OFF**

Push ON button (for about 2 seconds) and turn on the meter. Push OFF button to turn off the meter.

### **Calibration**

Remove the Dust Protector and set the Measurement Aperture of the meter on the higher-gloss (black tile) working standard. Turn on the meter and wait for about 3 minutes, and then turn AMP knob(Calibration Knob) to adjust the meter to the correct value that is labeled in the box.

## OPERATION PROCEDURE

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**Note:** The readout will be valid only when the Measurement Aperture is just located in the Bound Frame.

### Measurement

Lay the Measurement Aperture just against the position that you want to measure. The reading on the Display Screen is the gloss value of that position.

**Note:** During a long time working, the meter should be re-calibrated in order to ensure the accuracy of the measuring value.

**Advise:** The meter should be calibrated each time starting up. Do not turn off the meter until your measuring work is over.

## OPERATION PROCEDURE

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### Checking

After calibrating, set the Measurement Aperture on the lower-gloss (white tile) working standard. The deviation between the shown value and the labeled value should be less than or equal to 1 GU. If the deviation goes beyond the scope, it's shown that the verified gloss values of the working standards may be changed. Thus the gloss value should be verified again.

**Note:** The readout will be valid only when the Measurement Aperture is just located in the Bound Frame.

**Note:** Check only when the meter is used for a long period, or the measured value is doubtful. It is not necessary to check every time for measuring.

**Advice:** If used properly, the period of verification recommended for the whole set of the meter is one year.

## OPERATION PROCEDURE

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### Precautions

- During measuring, the lens in the Measurement Aperture, the surface of the working standards and the measured position, etc should be kept clean. If those surfaces has dust, steam of filth, they should be cleaned lightly with lens paper or a soft cloth dipped absolute ethanol.

- Calibrating, measuring and checking should be carried out at the same ambient temperature. Too big difference in temperature would bring about the numerical excursion.

- While measuring keep environment light from directly irradiating into the Measurement Aperture

- When battery depletion symbol, "BAT" appears, the battery should be charged in time. In this state, if keeping on using, the meter will show "1" or "-1" only.

## **ABOUT CHARGING**

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### **About Supplying of the Built-in Battery**

Push on the switch button and that's OK. (See **Power ON / OFF** in **OPERATING PROCEDURE**)

### **Emergency Supplying Method**

When the energy of the built-in battery is entirely used up, and you are urgent to take a measurement, you are allowed to turn on the meter for the measuring work while charging. After the measurement, the battery should be continued charging.

## ABOUT CHARGING

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### **Battery Depletion Symbol**

When the energy of the battery is nearing using up, the meter will show the warning symbol "BAT" automatically.

The symbol will appear on the left of the display screen. (Shown as the fig.)



### **About Charging of the Built-in Battery**

- Turn off the meter, and then connect the charger to it. then insert the charger into a socket for AC(187~242v). The indicating lamp on the charger should be bright and the charging begins.

- The charger is constant current type. For a battery whose energy is entirely used up, it should be charged for 14~16 hours.

## ABOUT CHARGING

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### Note

- If there is no battery depletion symbol in sight, we recommend you not to charge the battery. Otherwise the charging time should be controlled properly to prevent overcharging.

- To guard against overcharging, pay attention to calculating the time during charging, so as to raise the battery life. When charging is finished, take off the charger from the AC socket!

- To avoid damage or causing any danger, please do use the same set of charger to charge.

### Hookup of Charger Socket:



## **MAINTENANCE & PRECAUTIONS**

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### **Maintenance**

- The whole set of the meter should be kept in dry, ventilative and non-corrosive environment.
- If the meter is not in use, please put on the Dust Protector. If dust adheres to the surface of lens, please clean it with lens paper.
- Keep the surfaces of the working standards clean and don't make the surfaces damaged, or the precision of the meter wouldn't be guaranteed.
- If the meter hasn't been in use for a long period, the battery energy should be supplemented moderately every month.

## **MAINTENANCE & PRECAUTIONS**

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- After measurement, the meter should be turned off at once in order to save the energy of battery.
- The meter should not be taken down at will in order to avoid precision destroying and causing maintaining difficulty.
- If the breakdown is caused by taking-down or inappropriate use, we reserve the rights not to guarantee the meter free in repair.

### **Compensation for the range of amplitude calibration**

While calibrating If the Calibration Knob(AMP knob) is turned from the bottom to the top and the shown value could not cover the certified value of the higher-gloss (black tile) working standard, operate as follows for compensation:

## MAINTENANCE & PRECAUTIONS

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- Take down the four tightening screws, and the left-hand cover (shown as the followed fig.). Set the Measurement Aperture on the black glass tile, and turn on the meter. Turn the AMP knob to the minimum anticlockwise.
- Set a watch screwdriver into the **Adjust Point**, turn slowly in an anticlockwise direction (The value is increasing.) (Shown as the followed fig.)
- While turning slowly, pay attention to the changing data in the display screen. When the numerical value reaches 70, the compensation is over.
- Fix the left-hand cover on the meter.
- The following rules should be complied with while operating:

# MAINTENANCE & PRECAUTIONS

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## MAINTENANCE & PRECAUTIONS

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▲ While adjusting, the Measurement Aperture should not be break away from the black glass tile, but located in the bound frame.

▲ The left placket of the meter should avoid illumination. Being shaded by light-tight matter would be appreciated.

▲ Recognize the position and the shape of the adjust point. The shape for model E is a  $12\text{mm} \times 5\text{ mm}$  rectangular, its position is shown in the above fig.. The shape for model Y is a  $5\text{mm} \times 5\text{mm}$  square, its position is more closer to the frontispiece than shown in the fig. , and more deeper as well. Only the **Adjust Point** is allowed to turn slowly by a screwdriver. You can do nothing for other objects.

## LIST OF PRODUCTION

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Main                      1 unit

Model :      WGG60-Y4

                  WGG60-E4

Higher Gloss (Black Tile) Working Standard                      1 piece

Lower Gloss (White Tile) Working Standard                      1 piece

Constant Current Charger    1 piece

User's Manual    1 piece

Certification Card    1 piece

Guarantee Card    1 piece

Made in China

## **KSJ Institute of Photoelectrical Instruments**

Add.: The Past APIQ Building, Jinshan Xincun,  
Quanzhou, Fujian 362000,  
China

Tel.: 0086-595 – 22391040

Fax: 0086-595 – 22391048

Website: [www.ksj.cn](http://www.ksj.cn)

[www.glossmeter.cn](http://www.glossmeter.cn)

E-mail: [sales@ksj.cn](mailto:sales@ksj.cn)

[keshijia@public.qz.fj.cn](mailto:keshijia@public.qz.fj.cn)