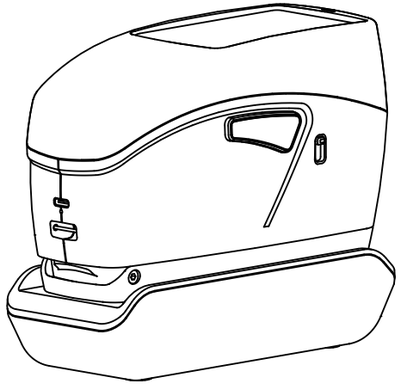
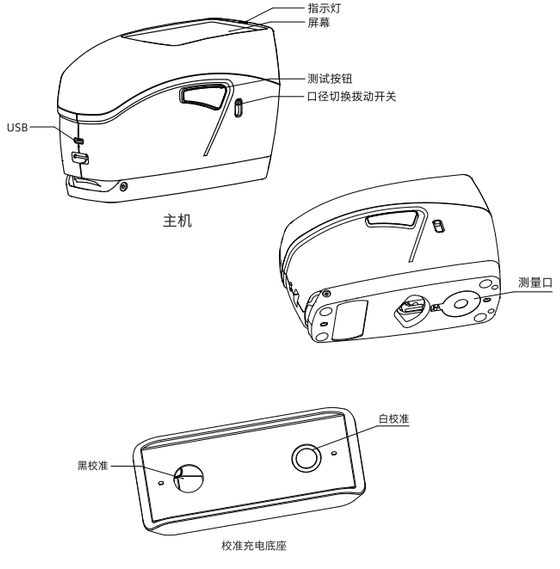


分光密度仪
使用说明书

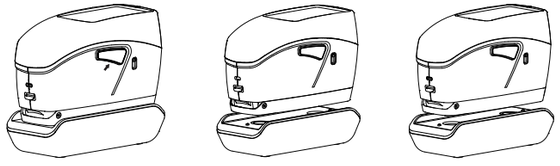
产品介绍

使用产品前请仔细阅读本说明书，并妥善保管



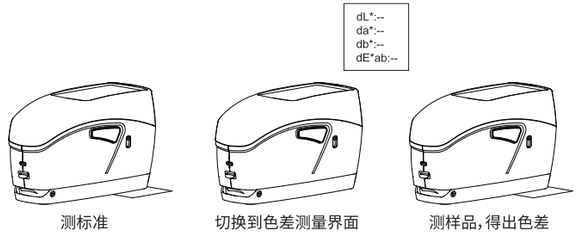
快速使用教程

1.开机及校准



开机　将仪器放到校准底座进行白校准　将仪器放到黑校准盒上进行黑校准

2.如何测色差



测标准　切换到色差测量界面　测样品，得出色差

3.口径切换



扣开卡扣并取下测量口径　将替换的测量口径扣上卡扣　根据口径选择对应的MAV或SAV模式

4.关机



长按3秒

基础参数

测量结构	45/0
NetProf网络校正	支持
一体式物理定位孔	支持
测量重复性※	dE*ab≤0.02
显示精度	0.01
照明光源	全波段均衡LED光源
UV光源	支持
口径	Φ11mm,Φ10mm,Φ6mm,Φ5mm,Φ3mm
测量指标	光谱反射率,CIE-Lab,CIE-LCh,HunterLab,CIE-Luv,XYZ,Yxy,RGB色差(ΔE*ab,ΔE*cmc,ΔE*94,ΔE*00)，白度(ASTM E313-00,ASTM E313-73,CIE,ISO2470/R457,AATCC,Hunter,TaubeBerger Stensby)黄度(ASTM D1925,ASTM E313-00,ASTM E313-73)黑度(My,dM),沾色牢度,变色牢度,Tint(ASTM E313-00)色密度CMYK(A,T,E,M),同色异谱指数Milm,孟塞尔,遮盖力,力份(染料强度,着色力)
密度测量	CMYK密度、网点面积、网点增大、叠印、印刷反差、色相误差和灰度
光源条件	A,B,C,D50,D55,D65,D75F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12CWF,U30,U35,DLF,NBF,TL83,TL84,ID50,ID65,LED-B1,LED-B2,LED-B3,LED-B4LED-B5,LED-BH1,LED-RGB1,LED-V1,LED-V2
软件支持	Andriod,iOS,Windows,微信小程序,鸿蒙
准确性保证	保证计量合格
视场角	2°，10°
积分球直径	40mm
符合标准	CIE No.15,GB/T 3978,GB 2893,GB/T 18833,ISO7724-1,ASTM E1164,DIN5033 Teil7
分光方式	高精度纳米分光器件
感应器	硅光电二极管阵列双16 组
波长间隔	10nm
波长范围	400-700nm
反射率测定范围	0-200%
反射率分辨率	0.01%
测量时间	约1秒
接口	USB，蓝牙
屏幕	全彩屏幕，3.5英寸
电池容量	单次充电可连续测量8000次， 7.2V/3000mAh
光源寿命	500万次
语言	简体中文，英语
存储	仪器：10000条；APP：海量存储
尺寸	178*73*108mm
体重	约680g

※ 白板校准后以5秒间隔测量白板30次以MAV口径测量结果标准偏差

保修说明

本产品售后服务严格依据《中华人民共和国消费者权益保护法》、《中华人民共和国产品质量法》实行售后三包服务，服务内容如下：

1、自您签收日起7日内，本产品出现《产品性能故障表》所列性能故障的情况经由本司售后服务中心检测确定，可免费享受退货或换货服务；
2、自您签收日起8-15日内，本产品出现《产品性能故障表》所列性能故障的情况，经由本司售后服务中心检测确定，可免费享受换货或维修服务；
3、由您签收日起至保修期结束,本产品出现《产品性能故障表》所列性能故障的情况，经由本司售后服务中心检测确定，可免费享受维修服务。

提示信息

因运输过程中需用包装箱保证产品运输安全，建议自签收日起至少保留包装箱30天。

非保修条例

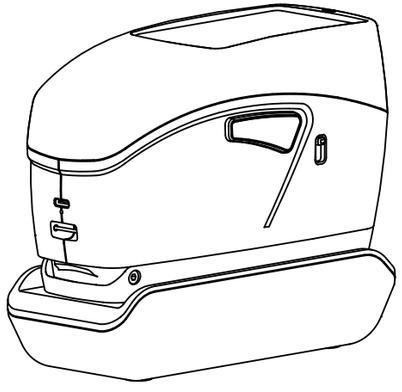
1、未经授权的维修、误用、碰撞、疏忽、滥用、进液、事故、改动、使用非本产品配件，或撕毁涂改标签、防伪标记；
2、已超过三包有效期；
3、因不可抗力造成的破坏；
4、不符合《产品性能故障表》所列性能故障的情况；
5、因人为原因导致非本产品及其配件产生《产品性能故障表》所列性能故障。

警告

·请勿尝试拆卸或更换仪器内部零件，如需服务请联系代理商或官方客服。
·请勿将仪器放置于热源或直接暴露在炉火旁。
·若任何液体不小心进入仪器，请立即关闭仪器电源。
·本产品及内部零件，如被儿童误食可能导致窒息等危险。

性能故障表

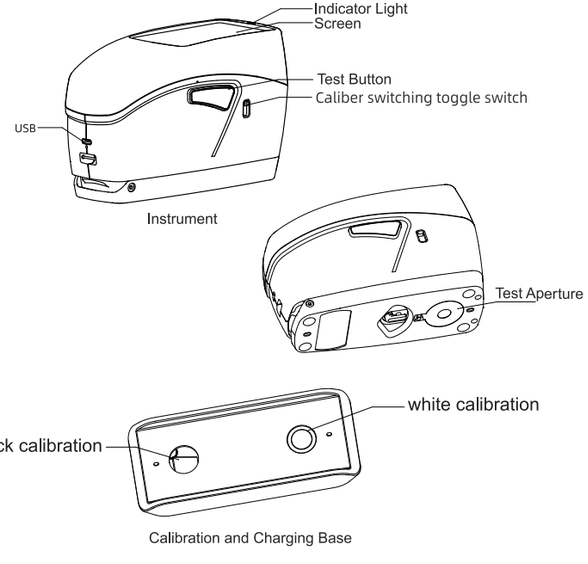
名称	性能故障
分光密度仪	1、电源指示灯不亮（电池没电除外）； 2、仪器开关卡滞，不能正常开关； 3、仪器显示器无法正常显示； 4、测量光源不亮； 5、蓝牙无法连接。



Spectrodensitometer Operation instruction

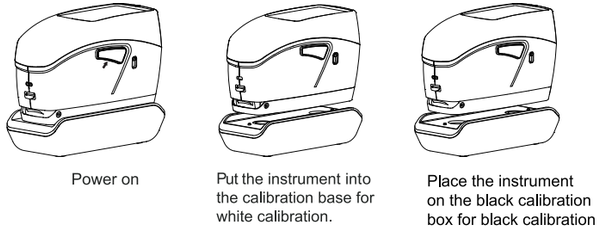
Product introduction

Please read this manual carefully before using the product.



Quick Start

1. Power on and Calibration

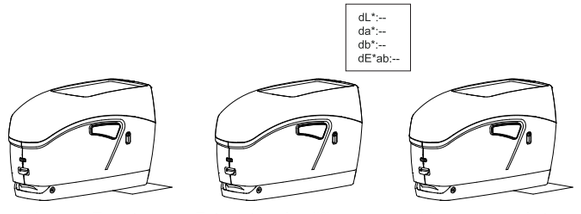


Power on

Put the instrument into the calibration base for white calibration.

Place the instrument on the black calibration box for black calibration

2. How to measure color difference

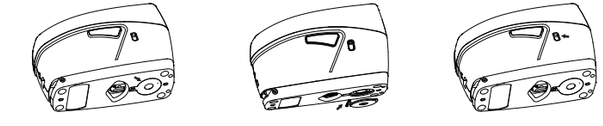


Measure Target

Enter into color difference measurement interface

Measure sample to get the color difference

3. Switch Aperture



Open the buckle and remove the measuring aperture

Fasten the buckle on the replacement measuring aperture

Choose MAV or SAV according to the aperture size.

4. Power off



Long press 3s

Parameters

measuring structure	45/0
NetProf network calibration	support
Integrated physical positioning holes	support
Measurement repeatability※	dE*ab≤0.02
Display accuracy	0.01
lighting source	Full-band balanced LED light source
UV light source	support
caliber	Φ11mm, Φ10mm, Φ6mm, Φ5mm, Φ3mm
measurement standard	Spectral reflectance, CIE-Lab, CIE-LCh, HunterLab, CIE-Luv, XYZ, Yxy, RGB color difference (ΔE*ab, ΔE*cmc, ΔE*94, ΔE*00), whiteness (ASTM E313-00, ASTM E313-73, CIE, ISO2470/R457, AATCC, Hunter, TaubeBerger Stensby) Yellowness (ASTM D1925, ASTM E313-00, ASTM E313-73) Blackness (My, dM), stain fastness, color fastness , Tint (ASTM E313-00) color density CMYK (A, T, E, M), metamerism index Milm, Munsell, hiding power, strength (dye strength, tinting power)
Density measurement	CMYK density, dot area, dot gain, overprint, printing contrast, hue error and grayscale
Light source conditions	A,B,C,D50,D55,D65,D75F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12CWF,U30,U35,DLF,NBF,TL83,TL84,ID50,ID65,LED-B1,LED-B2,LED-B3,LED-B4LED-B5,LED-BH1,LED-RGB1,LED-V1,LED-V2
software support	Andriod, iOS, Windows, WeChat applet, Hongmeng
Accuracy guaranteed	Ensure measurement is qualified
field of view	2°, 10°
Integrating sphere diameter	40mm
Standards compliant	CIE No.15, GB/T 3978, GB 2893, GB/T 18833, ISO7724-1, ASTM E1164, DIN5033 Teil7
Spectral method	High-precision nano spectroscopic device
sensor	Silicon photodiode array dual 16 groups
wavelength interval	10nm
Wavelength range	400-700nm
Reflectivity measurement range	0-200%
Reflectance resolution	0.01%
measure time	about 1 second
interface	USB, Bluetooth
Screen	Full color screen, 3.5 inches
battery capacity	Can continuously measure 8,000 times on a single charge, 7.2V/3000mAh
Light source life	5 million times
language	Simplified Chinese, English
storage	Instrument: 10,000 items; APP: Mass storage
size	178*73*108mm
weight	About 680g

※ After whiteboard calibration, measure the whiteboard 30 times at 5-second intervals and measure the standard deviation of the results with MAV caliber.

Warranty

Reminder

It is recommend that keep the packing box for at least 30 days as the packing box is required to ensure the safety of transportation.

Non warranty regulations

1. Unauthorized repair,misuse,accident,modification,use of nonofficial accessories.
2. Instrument is out of warranty.
3. Damage caused by force.
4. Not the performance failure listed in the product performance failure table.
5. Performance failure caused by human factors.

Warning

- Do not attempt to disassemble or replace any part of the equipment. Please contact the agent or official customer service for after sales service.
- Do not place the equipment near heat source or directly expose to the fire.
- If any liquid enters the equipment,please power off the equipment immediately.
- This product contains small parts.It may cause suffocation and other hazards,if swallowed by children.

Product Performance Failure Table

Name	Performance failure
Spectrodensitometer	1. The equipment can't power on. 2. The equipment's button can't work normally. 3. Equipment screen fails to work normally. 4. Equipment lamp fails to work normally. 5. Bluetooth can't connect.

SKU:24AECP000530