尊敬的顾客

感谢您购买、使用武汉鄂电电力试验设备有限公司、武汉鑫华福电力设备有限公司生产 ED0503B 型 SF6 纯度分析仪。在您初次使用该仪器前，请您详细地阅读本使用说明书，将可帮助您熟练地使用本仪器。

我们的宗旨是不断地改进和完善公司的产品，因此您所使用的仪器可能与使用说明书有少许的差别。如果有改动的话，我们会用附页方式告知，敬请谅解！您有不清楚之处，请与公司售后服务部联络，我们定会满足您的要求。

由于输入输出端子、测试柱等均有可能带电压，您在插拔测试线、电源插座时，会产生电火花，小心电击，避免触电危险，注意人身安全！

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E--mail： whhfdq@163.com
网　　址： www.cepee.cn

◆ 慎重保证

本公司生产的产品，在发货之日起三个月内，如产品出现缺陷，实行包换。三年（包括三年）内如产品出现缺陷，实行免费维修。三年以上如产品出现缺陷，实行有偿终身维修。

◆ 安全要求

警告

在使用中，请随时注意遵守下述注意事项，这是为了避免因电击、短路、事故、火灾或其它 危险而可能给使用者造成的严重伤害或者说死亡。注意事项如下，但并不仅限于此。

不要随意打开仪器设备或试图分解其中的部件，也不要对内部作任何变动，此仪器设备没有用户可维修部件。如果使用中出现功能异常，请立即停止使用并交由指定的维修员检修。

避免该仪器设备遭受雨淋，不要在水边或潮湿环境下使用。不要在仪器设备放置盛有液体的容器，以免液体流入仪器设备内。

如果交流电源适配器的电线和插头磨损或损坏及在使用过程中突然没有声音或有异味及烟雾，则立即关闭电源，拔下适配器插头并交由指定的维修员检修。

清洁仪器设备前请先拔电源插头，不要用湿手插拔电源插头。

定期检查电源插头并清除积于其上的污垢。

使用适当的电源线。只可使用本产品专用、并且符合本产品规格的电源线。

正确地连接和断开。当测试导线与带电端子连接时，请勿随意连接或断开测试导线。

产品接地。本产品除通过电源线接地导线接地外，产品外壳的接地柱必须接地。为了防止电击，接地导体必须与地面相连。在与本产品输入或输出终端连接前，应确保本产品已正确接地。

注意所有终端的额定值。为了防止火灾或电击危险，请注意本产品的所有额定值和标记。在对本产品进行连接之前，请阅读本产品使用说明书，以便进一步了解有关额定值的信息。

请勿在无仪器盖板时操作。如盖板或面板已卸下，请勿操作本产品。

避免接触裸露电路和带电金属。产品有电时，请勿触摸裸露的接点和部位。

请勿在潮湿环境下操作。

请勿在易爆环境中操作。

保持产品表面清洁和干燥。400-034-8088

一安全术语

警告：*警告字句指出可能造成人身伤亡的状况或做法。*

小心：*小心字句指出可能造成本产品或其它财产损坏的状况或做法。*

Dew Point Instrument

ED0503B 型 SF6 纯度仪

Use Instructions

使 用 说 明

I. Function summary

一、功能概述

The instrument uses a color LCD touch screen display, user-friendly appearance, easy to operate. Sensors all imported high-precision sensor, long life design to ensure measurement accuracy and reproducibility of results.

Main applications: fault location, routine testing, gas purification, filtration monitoring, fault checking high pressure contacts, SF6 purity.

仪器采用触摸彩色液晶显示屏显示，界面友好美观、易于操作。传感器全部采用进口高精度传感器，长寿命设计，保证了测量结果的准确性和重现性。

主要应用：故障定位，例行检测，气体净化，过滤监测，故障高压接点检查，SF6 纯度。

II. Main features

二、主要特点

- 4.3″ TFT touch screen design
- 4.3 寸 TFT 触摸屏设计
- 32-bit ARM MCU
- 32 位 ARM 单片机
- Separately designed air way and circuit
- 气路和电路分开设计
- Large capacity storage function
- 大容量储存功能
- Digital display of battery electric quantity
- 电池电量数字显示
- Good repeatability, high response speed
- 重复性好、响应速度快
- Automatic calibration of gradient
- 斜率自动校准
- Color LCD display
- 彩色液晶显示
- Advanced probe protection function
- 先进的探头保护功能
- Anti-pollution, anti-disturbance
- 抗污染、抗干扰
- High sensitivity, good stability
- 灵敏度高、稳定性好
- Small, beautiful, easy to carry
- 体积小巧美观，易于携带

III. Technical indicators

三、技术指标

Measuring range: Purity: 0 to 100%.

Accuracy: purity: ± 0.5%.

Resolution: purity: 0.1%.

Repeatability: purity: ± 0.5%.

Pressure range: 0 ~ 1MPa.

Gas flow rate: 0.3 ~ 0.4L / min.

Measuring time: 5 minutes.

Operating voltage: 110 ~ 220VAC, AC and DC

Storage temperature rating: -25 ~ + 70 ℃

Operating environment: Temperature: -25 ~ + 60 ℃

Lithium battery, AC and DC dual-use, automatic switching, overcharge and over discharge protection lithium battery, AC and DC dual-use, automatic switching, overcharge and over-discharge protection

Volume weight: 372 × 266.5 × 134.5 (mm), 3.5kg

测量范围： 纯度：0～100% 。

测量精度：纯度：±0.2%。

分 辨 率：纯度：0.1%。

重 复 性：纯度：±0.5%。

压力范围：0～1MPa。

气体流量：0.3～0.4L/min。

测量时间：5 分钟。

工作原理：红外激光光谱吸收原理。

工作电压： 110～220VAC，交直流两用

储存温度等级：-25～+70℃

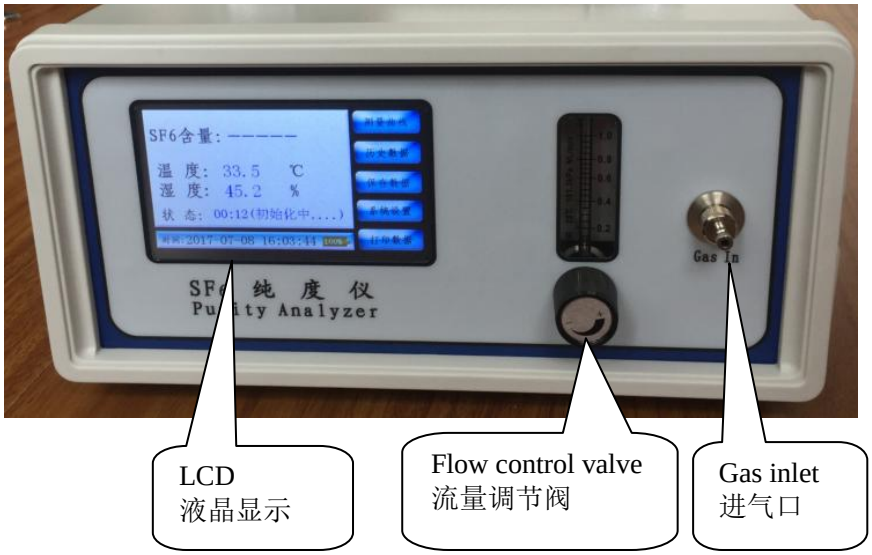
操作环境： 温 度： -25～+60℃

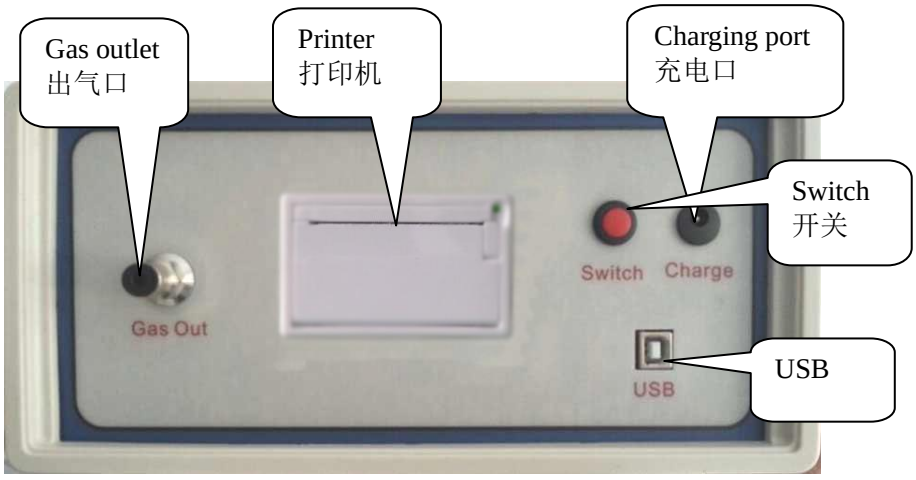
锂电池，交直流电两用，自动切换，过充过放保护功能锂电池，交直流电两用，自动切换，过充过放保护功能

体积重量： 372×266.5×134.5（mm），3.5kg

IV. Introduction to meter appearance

四、仪器外观介绍





The instrument front panel with a flow regulating valve and an air inlet, instrument panel after a charging interface, USB interface, switch, outlet. The circuit and air way are designed separately to ensure stability of the meter.

The meter uses 4.3″ TFT touch screen, which is easy and convenient to use with more beautiful appearance. The meter adopts 32-bit ARM MCU, which provides higher response speed and better measuring precision.

仪器前面板有右边为流量调节阀，进气口，仪器后面板有充电接口，开关，USB 接口，出气口。电路与气路分开设计！确保了仪器的稳定性。

仪器采用 4.3 寸 TFT 的触摸屏设计，外观更加美观大方，使用更加直接方便！仪器采用最细的 32 位 ARM 单片机设计，响应速度更快，测量精度更佳。

V. Introduction to the system guidance interface

五．系统引导界面介绍

The system guidance interface is as shown in the following picture:

系统引导界面如下图所示：

After the meter is powered on, a welcome interface will show on the meter. You can touch any place on the touch screen to enter the “dew point sensor calibration interface”, or wait for 60 seconds and the system will automatically enter the “dew point sensor calibration interface”.

在开机后，仪器会显示仪器使用的欢迎使用界面。你可以触摸液晶屏幕任意一块地方直接进入“露点传感器校准界面”或等待 60 秒钟后，系统自动进入“露点传感器校准界面”。

VI. Introduction to the sensor calibration interface

六、传感器校准界面介绍

The sensor calibration interface is as shown in the following picture:

传感器校准界面如下图所示：

After entering the “sensor calibration interface”, you’ll see such touch buttons as [curve], [history], [save], [system] and [print].

After several minutes, the system will automatically enter the “measurement interface”.

进入“传感器校准界面”后，触摸按键有：【测量曲线】、【历史数据】、【保存数据】、【系统设置】、【打印数据】。

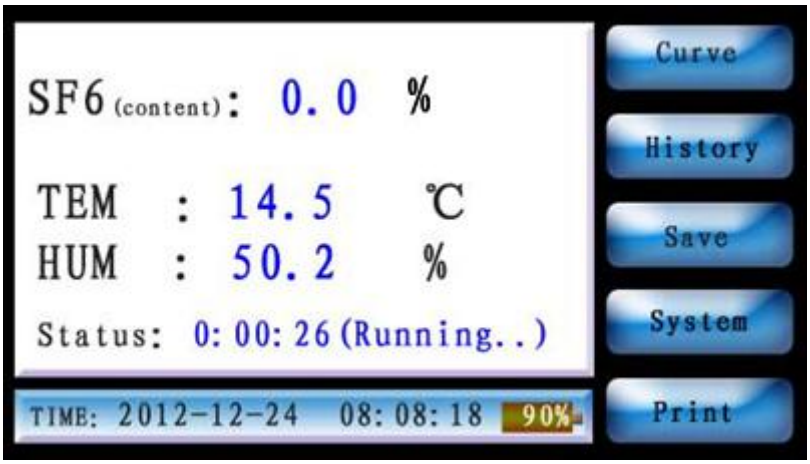
几分钟后，系统将自动进入“测量界面”。

VII. Introduction to the measurement interface

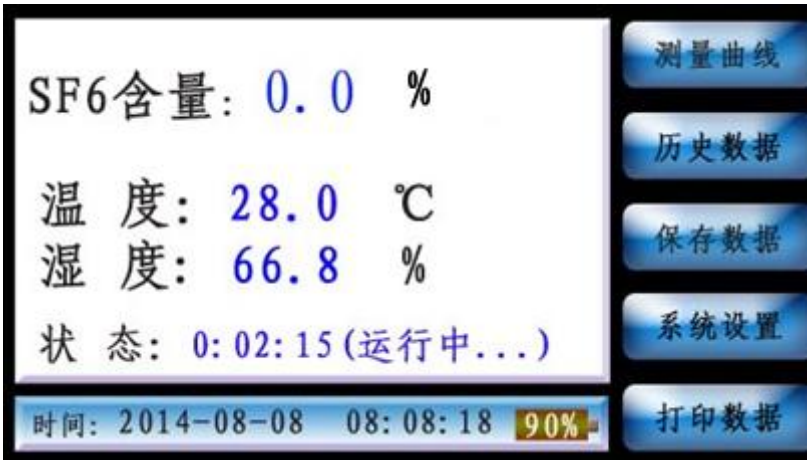
七．测量界面介绍

The measurement interface is as shown in the following picture:

测量界面如下图所示：



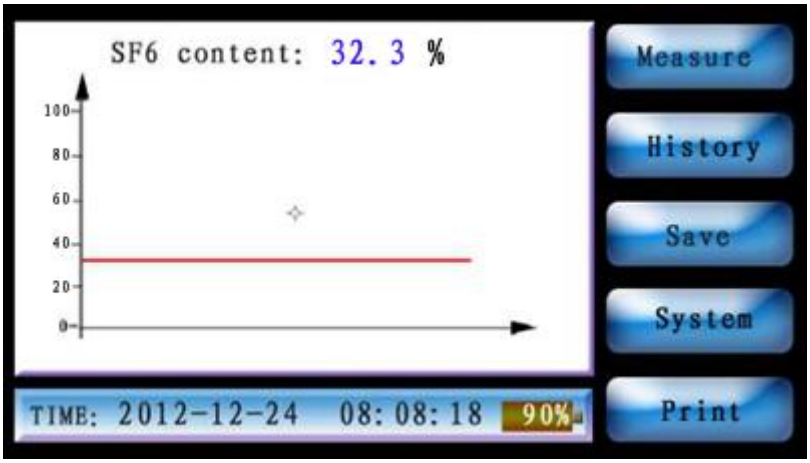
After entering the “measurement interface”, you’ll see such touch buttons as [curve], [history], [save], [system] and [print]. Press the corresponding buttons to enter “measurement curve”, “history data”, “save data”, “system setting” and “print data”. Meanwhile,



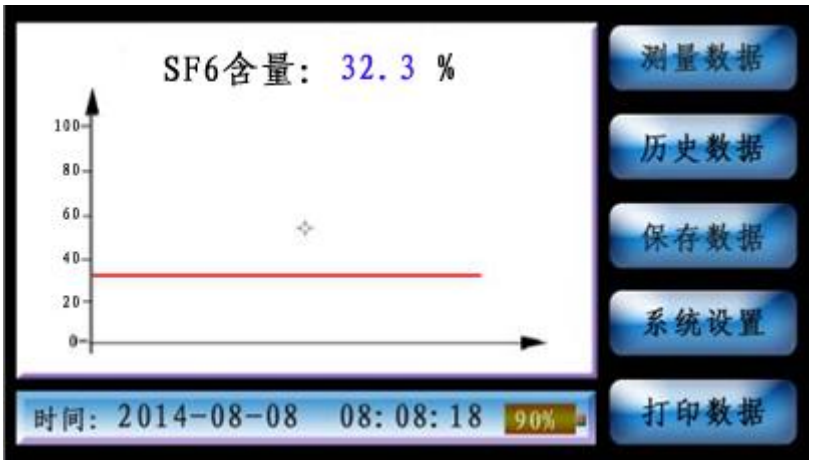
进入“测量界面”后，触摸键有：【测量曲线】、【历史数据】、【保存数据】、【系统设置】、【打印数据】。按动相应的按键可以进入“测量曲线”、“历史数据”、“保存数据”、“系统设置”、“打印数据”。

The curve interface is shown as follows:

曲线界面如下：



After entering the “measurement interface”, press [measure] to enter the curve interface. You’ll see the sample curves corresponding to SF6 content and current time. At the time, press [measure] to enter the measurement data interface.



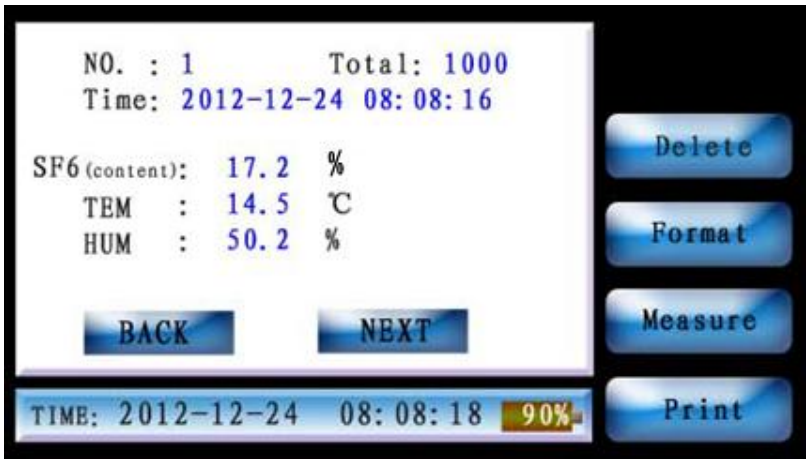
进入“测量界面”后，【测量曲线】进入曲线界面，你可以看到 SF6 含量及当前时间对应的采样曲线。此时按【测量数据】可以进入测量数据界面。

VIII. Introduction to the history data interface

八．历史数据界面介绍

1. The history data interface is as shown in the following picture:

1、 历史数据界面如下图所示：



After entering the “history data interface”, you’ll see such touch buttons as [BACK], [NEXT], [Delete], [Format], [Measure] and [print].

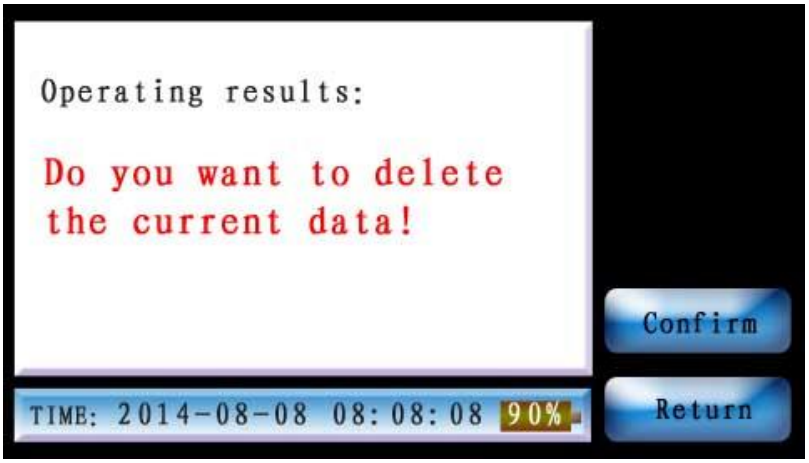
In this interface, you’ll see the information about the previous and next history data.

进入“历史数据”界面后，触摸按键有：【上一条】、【下一条】、【删除本条】、【格式化】、【返回测量】、【打印数据】。

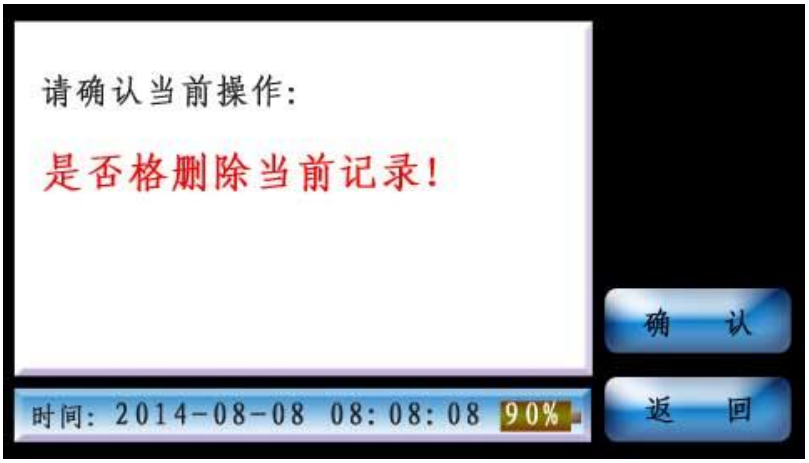
在此界面下，你可以看到上一条和下一条历史数据信息。

2. Click [Delete], and the deleting prompt interface will be as shown in the following picture:

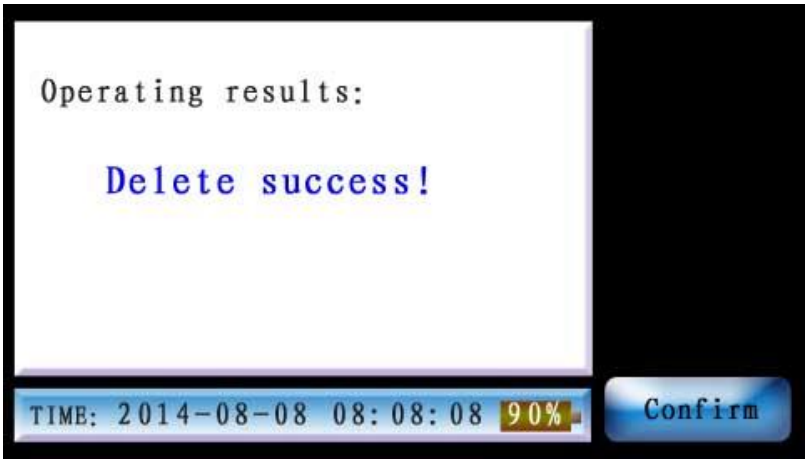
2、 点击【删除本条】，删除提示界面如下图所示：



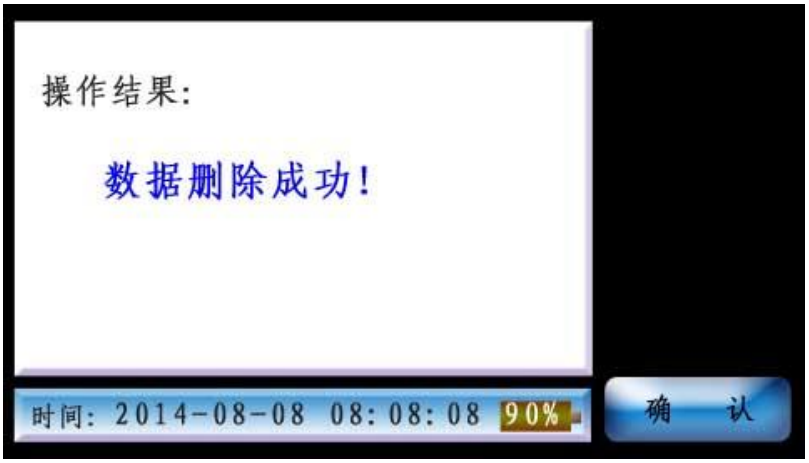
Click [confirm], and if the deletion is successful, you’ll enter the following interface:



点击【确认】如果删除成将进入下面界面：



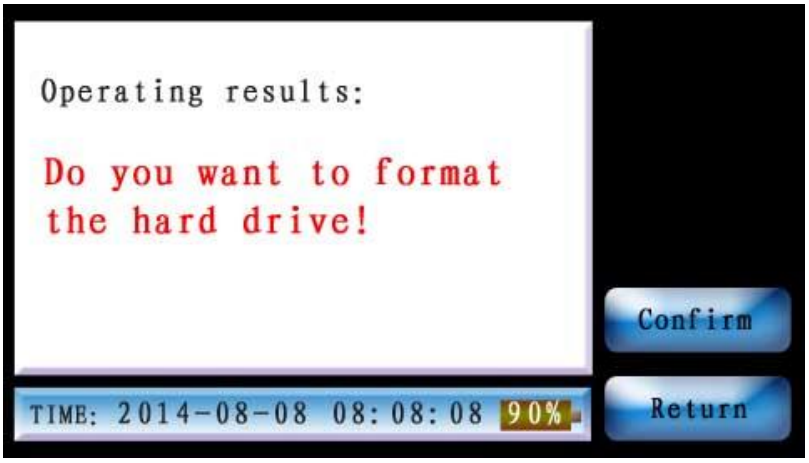
Click [confirm] to return to the history data interface.



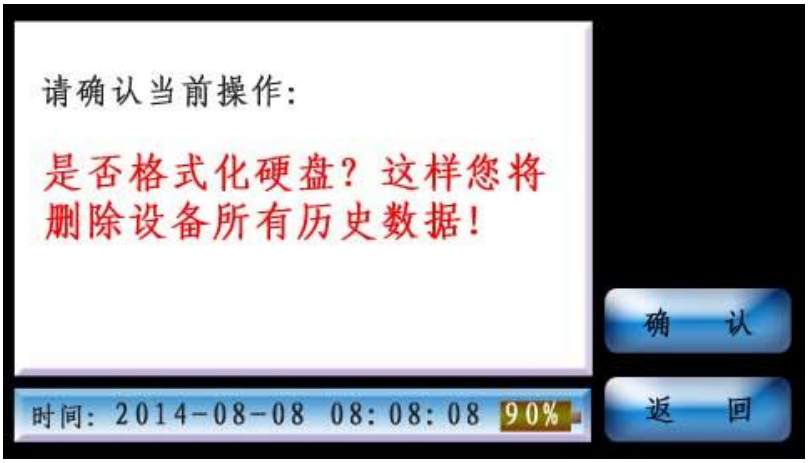
点击【确认】返回到历史数据界面。

3. Click [format], and the formatting prompt interface will be as shown in the following picture:

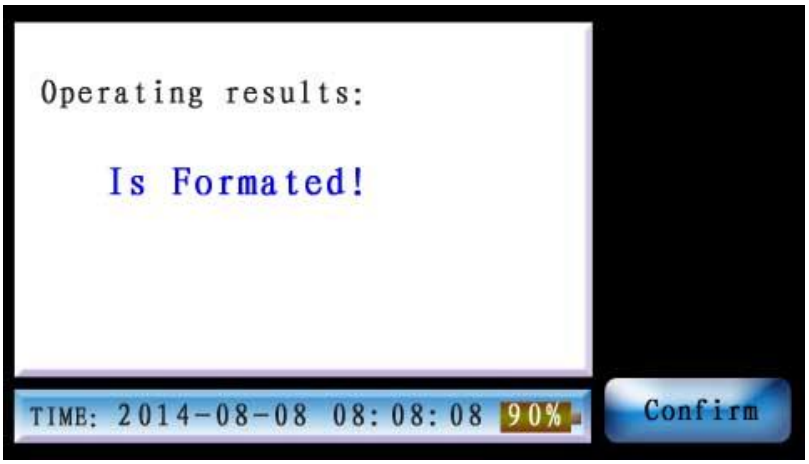
3、点击【格式化】，格式化提示界面如下图所示：

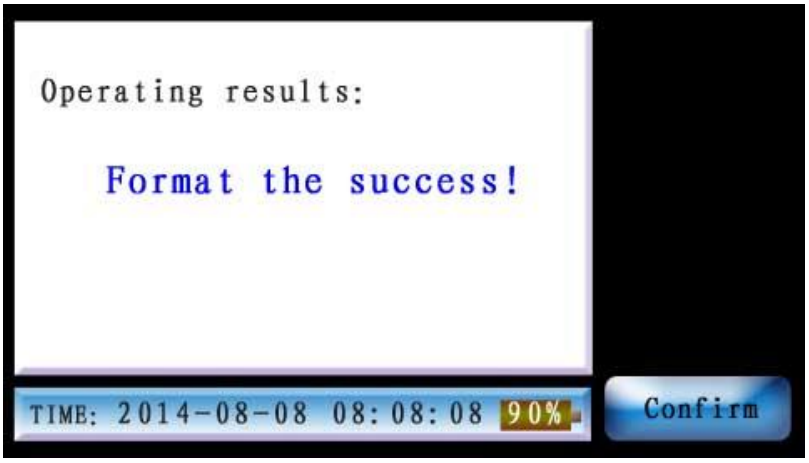


Click [confirm], and if the formatting is successful, you'll enter the following interface; or click [Return] to return to the history data interface.

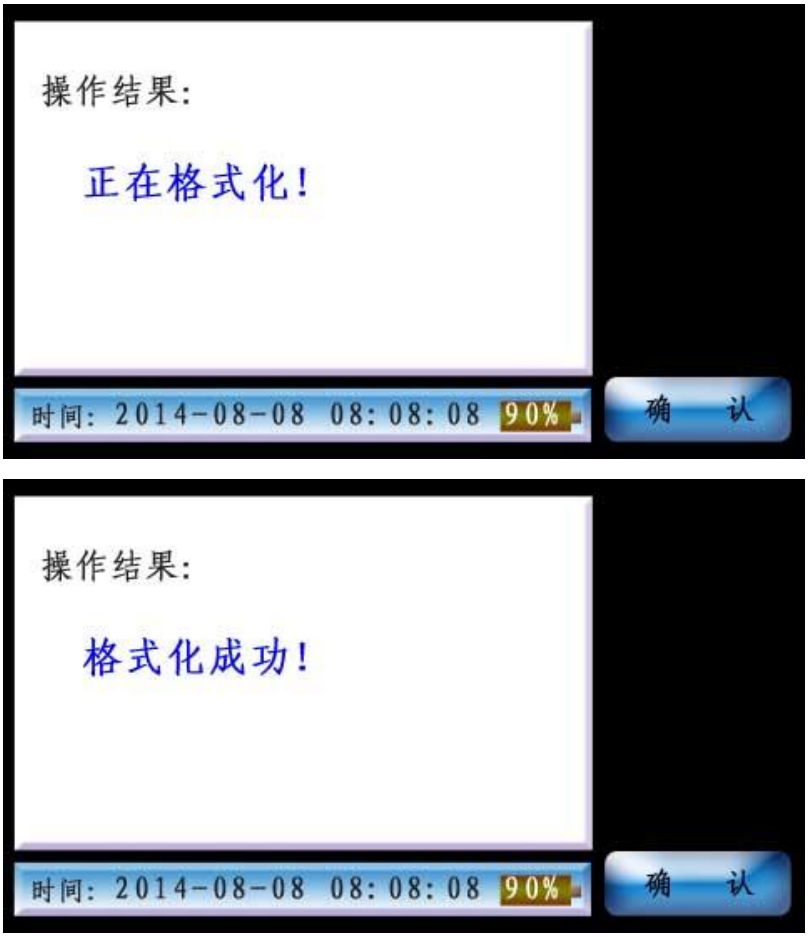


如果格式化，点击【确认】成将进入下面界面：或者点击【返回】，退出到历史数据界面





Click [confirm] to return to the history data interface.



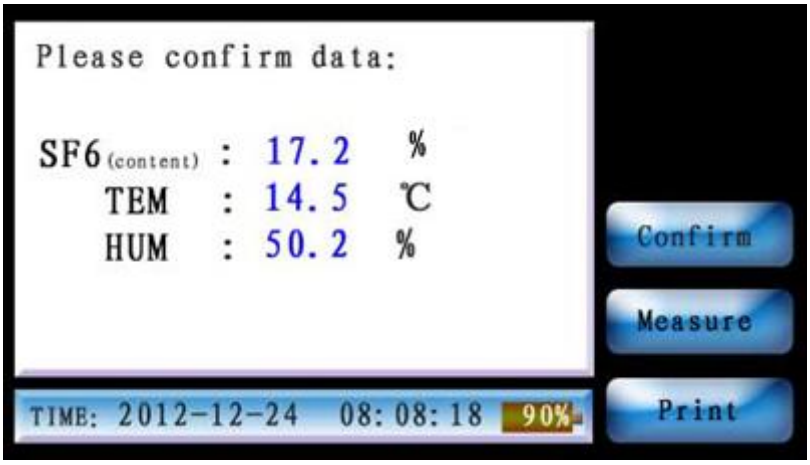
点击确认返回到“历史数据”界面。

IX. Introduction to the save interface

九．保存界面介绍

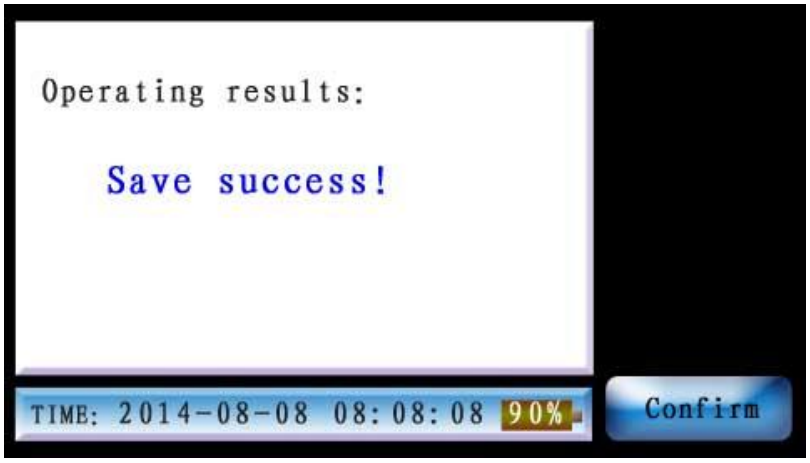
The save interface is as shown in the following picture:

保存界面如下图所示：



After entering the “save interface”, you’ll see such touch buttons as [confirm], [measure] and [print].

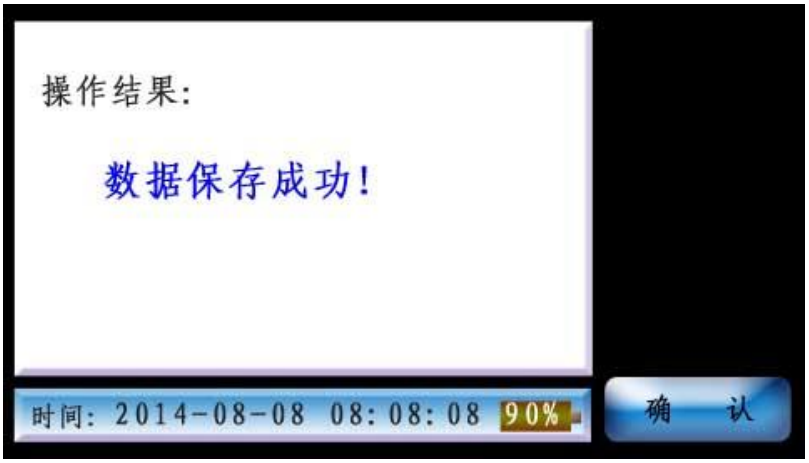
Press [confirm], and the system will automatically save data for you. If the data is successfully saved, you’ll enter the following interface.:



At the time, touch [confirm] button, and the system will return to the “measurement data interface”.

进入“保存界面”后，触摸按键有:【确认保存】、【继续测量】、【打印数据】。

按确认保存系统将自动为您保存数据。如果数据保存成功，将进入如下界面：



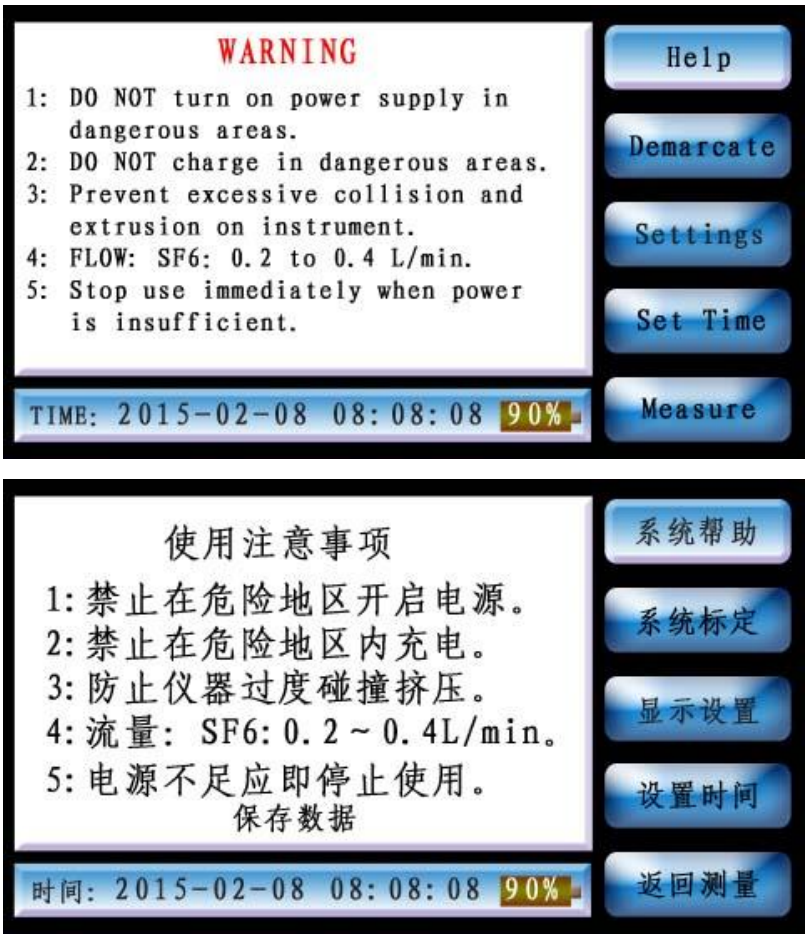
此时触摸【确认】按键，系统将返回“测量数据”界面。

X. Introduction to the system setting interface

十．系统设置界面介绍

1. The system setting interface is as shown in the following picture:

1、系统设置界面如下图所示：



After entering the “system setting interface“, you’ll see such touch buttons as [help], [demarcate], [settings], [set time] and [measure].

In the “system help interface”, there are some notes for the use of the meter. Feel free to call us at the phone number indicated on the warranty card and use instructions if you are still not quite clear about any parts during your use of our product.

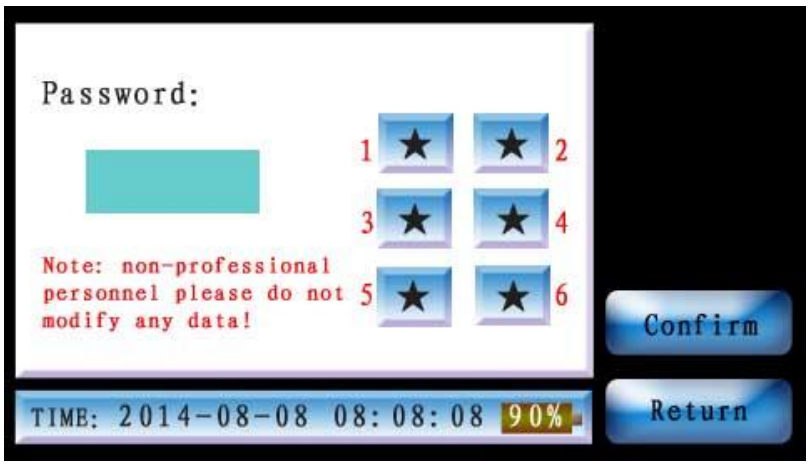
进入“系统设置”后，触摸按键有：【系统帮助】、【系统标定】、【显示设置】、【设置时间】、【返回测量】五个按键。

在“系统帮助”界面下，有一些仪器的使用注意事项，如果使用过程中还有其他不明

白的地方可以根据保修卡和说明书上的电话随时来电垂询！

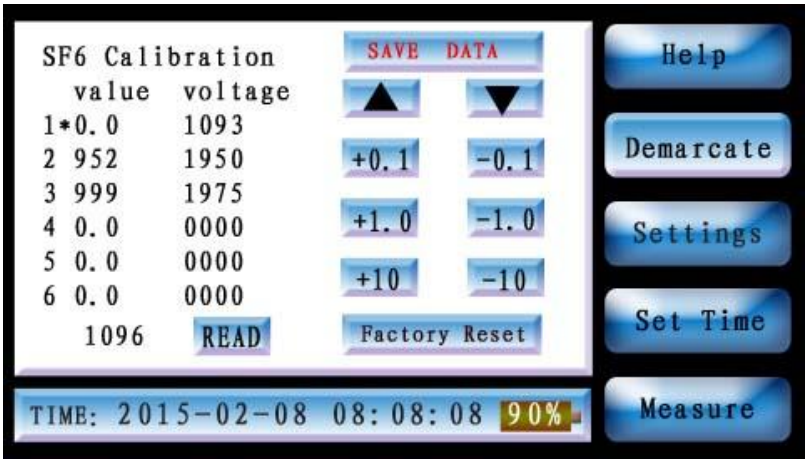
2. Click “demarcate”, and the meter will enter the “system calibration interface”.

2、点“系统标定”，仪器将进“系统标定”界面：

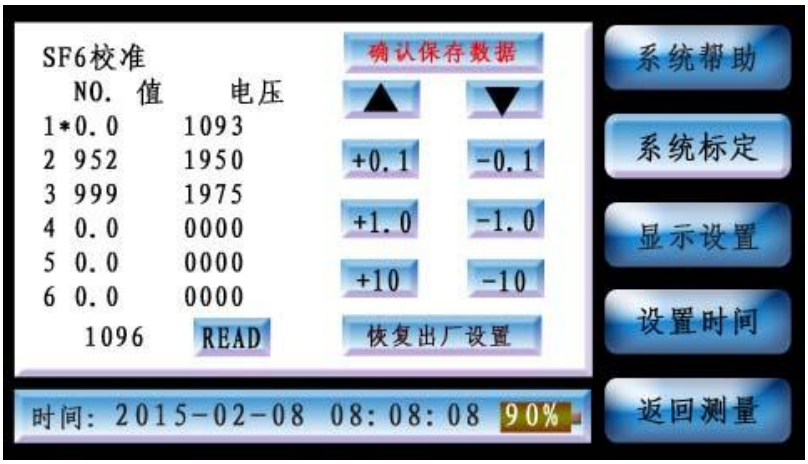


According to the number of input password.

根据编码顺序输入密码。



This interface is intended for meter calibration and users are not recommended to use it.



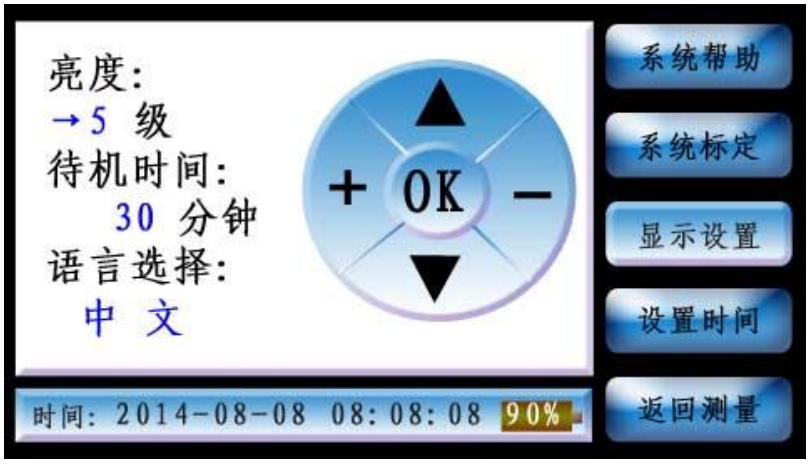
此界面用于仪器校准下使用，不推荐客户使用。

3. Click “Settings”, and the meter will enter the “setting interface”.

3、点“显示设置”，仪器将进“显示设置”界面：

Click the symbols of up, down, plus and minus on this interface to set the

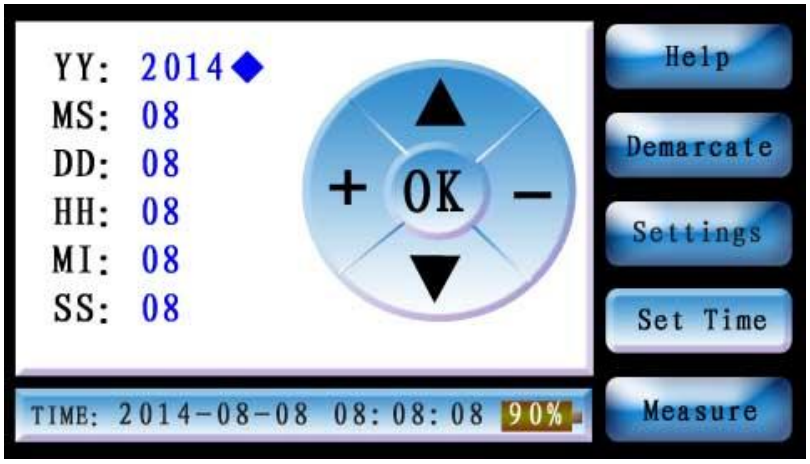
backlight intensity and standby time. After the setting is completed, click OK button to save.



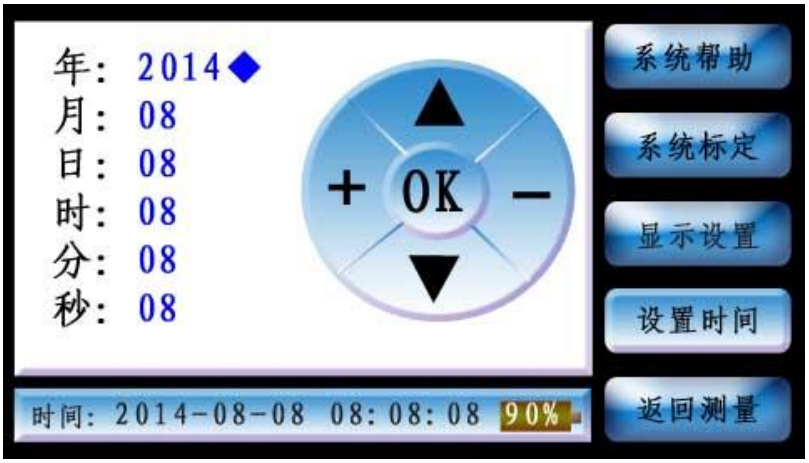
此界面下点击上下和加减符号，可以设置背光亮度和待机时间，设置完毕点 OK 键进行保存。

4. Click “set time”, and the meter will enter the “time setting interface”.

4、点“设置时间”，仪器将进“设置时间”界面：



Click the symbols of up, down, plus and minus on this interface to set the system time. After the setting is completed, click OK button to save.



此界面下点击上下和加减符号，可以设置系统时间，设置完毕点 OK 键进行保存。

XI. Notice:

十一、注意事项

This instrument is SF6 leak detector, The following points should be noted:

本仪器为 SF6 检漏仪，因此要特别注意以下几点：

(1) Opening or closing the power in dangerous area is prohibited!

(2) Charging the battery in dangerous area is prohibited!

(3) Preventing collision, extrusion and strenuous vibration during transportation or measurement process

(4) Please charge the battery in time when the electricity indicator shows deficiency in the using process of the instrument. It is only required to plug the socket into 220V power. There is no need to open the power switch. The battery will be charged automatically. The charging indicator light is illuminated and it will be quenched after completing the battery charging.

(5) Do not operate the instrument under electrification when connecting with the communication cable. the instrument and computer are assumed to be closed. Or the communication interface is easy damaged.

(6)The instrument should be charged with enough electricity. It is required to check whether the electricity is enough or not frequently.

（1）、禁止在危险地区开关仪器电源！

（2）、禁止在危险区域内充电！

（3）、仪器在运输过程或测试过程中防止碰撞挤压及剧烈震动；

（4）、仪器在使用过程中，当电量指示不足时，应及时充电，充电时只需将电源线接入 220V 电源，不需打开仪器电源开关，仪器自动充电，充电指示灯亮，充电完成后充电指示灯熄灭；

（5）、连接通信电缆时，切勿带电操作，需将仪器和电脑关闭，否则容易损坏通信接口；

（6）、仪器一定要充足电存放，长时间不用，要经常查看电量是否充足。

Common problems

常见问题

▸ How much time is needed for battery charging? When there is need to charge battery? When will the battery charging finish?

The charging time is different corresponding to the actual remaining electric quantity. Generally speaking, it is less than 12 hours. Please charge the battery once the electricity quantity shows deficiency. It is inappropriate to use up the electricity in order to ensure the service life of battery. There is over charge protection in the charging circuit. The charging indicator light will be quenched after finishing the battery charging.

►一般充电需多长时间？什么时候需要充电？何时充电结束？

每次充电时间根据实际剩余电量而不同，一般小于 12 小时。当电量指示不足时应及时充电，不宜将电全部用光，以保证电池使用寿命。充电电路设有过充保护装置，当电池充足后，充电指示灯会熄灭。

▸ When there is need for calibration and maintenance for the instrument?

Generally speaking, it is recommended to calibrate every two years, or twice a year under special circumstances (when the gas route pollution is severe)

►仪器使用多长时间需要校验维护？

一般建议用户 2 年校验一次，特殊情况半年一次（气路污染较严重时）。

▸ The instrument is stagnated and the data is decreased in the measurement process, what is the reason?

The sensor is implementing the function of gain regression. In other words, it will return to the previous measurement process for calibration. At this time, the interface data remains the same, while the CPU is processing the data. Therefore, the date will decrease after a little while.

►仪器在测量过程中出现停滞然后数据下降，为什么？

这是传感器在执行增益回归功能，就是返回到前面测试过程进行校验，此时界面数据不动，但 CPU 在处理数据，所以过一会数据又立即下降。

保　　修　　卡

Protection to Fix Card

条码粘贴区（Bar code sticker area）：

★保修期为一年.

The period of Machine is one year.

1、在保修期内，凡属于正常使用情况下由于产品本身质量问题引起的故障，本公司将负责给予免费维修。

During this period,any belongs to under normal usage circumstance cause because of the product quality's problem of breakdown, our company will be responsible for giving free maintain.

2、不接收由于擅自改装或加装其他功能后出现故障的机器。

Those machines that has refitted or added other functions by your own will not be accepted to repair.

3、保修卡及购机发票一经涂改，保修即时失效。

Once the Protect to fix card or purchasing invoice has been changed, the protection to fix immediately expired.

4、保存保修卡及购机发票作为本机的保修凭证，请用户妥善保存，遗失不补。

This card and the purchasing invoice are both considered as the Protection to fix warrantees, so please reserve them carefully. Lose don't repair.

★以下情况恕不免费维修

Free maintain won't be given under the following circumstance:

1、无保修凭证的。

Without Protection to fix warrantees

2、未按说明书的要求操作机器而引起的故障。

The breakdown caused by the manipulation that hasn't follow the requests of the Manual.

3、非本公司持约维修人员拆动造成损坏的。

The damage caused by the dismantle movement of a non-our-company authorized maintainer.

4、因移动或跌落而造成的故障、划伤或破损。

The breakdown, row harm or damaged because of the move or drop.

5、用户保管、维修、使用不当造成损坏的。

Thedamage caused by customer inappropriate preservation, maintain, or the usage.

6、易损件及随机配件。

Easy damaged pieces and present accessories are not concerned.

7、因不可抗力造成的故障或损坏。

The breakdown and the damage caused by the Force majeure.

保修记录（Maintenance record）:

编号 NO.	内容 Content	时　间 Time	备　注 Remarks