

人机界面产品 安装说明书

Product Installation Manual

一、注意 Note

- 1. 本公司系列人机机的所有通讯接口均支持RS232、RS485通讯，为复合通讯口，在下载工程的时候，请使用 仅带有收、发、和地的三芯RS232通讯线与下载口通讯。下载口默认为COM2；
 - 2. 为了让人机界面能够正常工作，安装使用时敬请按照本说明书的要求连接机壳地；
 - 3. 为了让人机界面能够正常工作，安装使用时敬请按照本说明书的要求连接通讯接口的信号地。
- 前言：
- 本说明书涵盖了本公司以下的产品：
 - HW1043-1XX 4.3寸人机界面产品
 - HW1070-1XX 7寸人机界面产品
 - HW1070-2XX 7寸人机界面产品
 - HW1035-1XX 3.5寸人机界面产品

二、安全注意事项 Safety Precautions

- 安装、配线、操作、维护及检查时，应随时注意以下安全事项。
- 安装要求：**
 - 请依照手册指定的方式安装人机界面，以避免可能导致的设备损坏。
 - 请勿将本产品暴露在有水气、腐蚀性气体、可燃性气体等物质的场所下使用，以避免可能会造成的触电或火灾。
- 配线要求：**
 - 请将接地端子连接到CLASS-3(100Ω以下)接地，以避免接地不良可能会造成的触电或火灾。
 - 本公司系列HMI使用24伏电源。其他范围电源的接入，将可能导致部分参数或性能的不稳定，严重的可能导致机器损坏。
- 操作要求：**
 - 本公司系列人机界面需配合人机的界面编辑软件设计工程画面，未经二次开发设计的人机界面，可能会导致不正常运转。
 - 请勿在开启电源情况下改变配线，否则可能造成触电或人员受伤。
 - 请勿以尖锐物品碰触面板，否则可能导致面板凹陷，从而使人机界面无法正常运转。

- 保养及检查：**
 - 禁止接触人机接口内部，否则可能会造成设备损坏和触电。
 - 电源启动时，禁止拆下人机接口面板，否则可能会造成设备损坏和触电。
 - 电源关闭10分钟内，不得接触接线端子，残余电压可能造成触电。
 - 人机界面在操作时，排气孔不可封住，否则容易造成故障。

- 通讯线材要求：**
 - 请依标准规格采用通讯配线线材。
 - 通讯线材长度需在符合规定内。
 - 采用正确的接地回路，以避免通讯不良。

三、工作环境 Work environment

- 本产品在安装之前必须置于其包装箱内，若暂时不使用，为了使该产品能够符合本公司的保修范围及日后的维护，储存时务必注意下列事项：
- 必须置于无尘垢、干燥之位置。
- 储存位置的环境温度必须在-20℃ to +70℃(-4° F to 140° F)范围内。
- 储存位置的相对湿度必须在10%到85%范围内，且无结露。
- 避免储存于含有腐蚀性气、液体之环境中。
- 最好适当包装存放于架子或台面上。

四、基本检测 Basic Detection

- 在使用本公司系列HMI之前请做如下的基本检测：
- 一般检测：**
- 定期检查人机接口与设备连接处的螺丝是否有松动。

Product Installation Manual

Part 1 General Notes

- All communication ports of Levi series HMI support RS232 and RS485. In order to communicate well with downloading port, please use RS232 communication with only receiving, transmitting and ground when downloading project. The downloading port is default as COM2.
 - The power ground must be connected to make the HMI run correctly.
 - The communication ground must be connected to make the HMI communicate correctly.
- Foreword**
- The manual covers the following products of our company:
- HW1043-1XX series 4.3-inch HMI
 - HW1070-1XX series 7-inch HMI
 - HW1070-2XX series 7-inch HMI
 - HW1035-1XX series 3.5-inch HMI

Part 2 Safety Precautions

- Notice following safety precautions at any moment when installing, wiring, operating, vindicate and examine.
- Installation notice**
- please setup the HMI according to this manual otherwise it mav cause device damage.
 - It's Forbid to uncover the product in the environment that has water vapor,Corrosive gas or combustible gas,otherwise it may cause short circuit or fire.

Wiring notice

- Please connect the grounding terminal with class-3 ground, otherwise it may cause short circuit or fire.
- ALL series HMI use 24-volt power supply. Any connection of non-standard power supply will lead to machine damage.

Operation notice

- ALL series HMI need Human machine editor software to design project picture. HMI not designed may lead to run abnormally.
- Do not change wiring while the power is ON,otherwise it maycause short circuit or device damage
- Please do not touch panel with sharp objects, otherwise it may lead to panel depressed, thereby make HMI run abnormally.

Maintenance and inspection

- It's forbidden to touch inside HMI, or else it may lead to short circuit or device damage.
- When power, It's forbidden to dismantle HMI panel , otherwise it may lead to short circuit or device damage.
- Do not touch connection terminal in 10 minutes of turning off power, otherwise residual voltage may lead to short circuit or device damage.
- When operating, exhaust vent should not be sealed, otherwise it may lead to failure easily.

- 排气孔应避免油、水或金属粉等异物侵入，且应防止电钻的切削粉落入人机界面内。
 - 人机界面若设置于有害气体或多粉尘的场所，应防止有害气体与粉尘的侵入。
- 操作前检测(未供应控制电源)：**
- 配线端子的接线部请实施绝缘处理。
 - 通讯配线应正确，否则可能发生异常动作。
 - 检查是否有异物进入人机界面内部，特别是螺丝或金属片等导电性物体、可燃性物体。
 - 人机界面附近使用的电子仪器受到电磁干扰时，请使用仪器调校以降低电磁干扰。
 - 请确定人机接口的供应电源电压是否正确。
- 运转前检测(已供应控制电源)：**
- 电源指示灯是否显示。
 - 与各设备之间通讯动作是否正常。
 - 人机接口若有异常现象，请与厂商联络。
- ### 五、装箱清单 Packing List
- | 序号 | 部件 | 数量 |
|----|------------------|----|
| 1 | 本公司系列触摸屏 | 1台 |
| 2 | HMI固定卡扣 | 4个 |
| 3 | 电源插头 | 1个 |
| 4 | 本公司系列人机说明书(本说明书) | 1个 |

六、产品规格 Specifications

内容	型号	HW1035-1XX/ HW1043-1XX	HW1070-1XX/ HW1070-2XX
电源电压		Dc24V	
电源电压范围		DC12V~DC28V	
容许停顿时间		5ms以下	
功耗		< 5w	< 8w
使用环境温度		-20℃ ~ +60℃	
保存环境温度		-20℃ ~ +60℃	-20℃ ~ +70℃
使用环境湿度		10% ~ 85%RH(无凝露)	
保存环境湿度		10% ~ 85%RH(无凝露)	
抗干扰		干扰电压: AC1000VP-P脉冲周期: 11 μs 持续时间: 1 ns	
耐压		AC500V 20mA小于1分钟(电源端子与FG端子间)	
绝缘阻抗		DC500V 20MΩ以上(电源端子与FG端子间)	
耐振动		符合IEC61131-2标准 振动场合: 10Hz ~ 57 Hz 0.075mm, 57 Hz ~ 150 Hz 9.8mm/s2 振动场合: 10Hz ~ 57 Hz 0.035mm, 57 Hz ~ 150 Hz 4.9mm/s2 X、Y、Z三方向各10次(80分钟)	
耐静电		符合IEC61000-4-2标准: 接触放电: 4KV, 空气放电: 8KV	
耐腐蚀		避免腐蚀性气体	
防护等级		相当于IP65(表面)	
冷却方式		自然风冷	
触摸屏保险丝额定值		1.6A/250V	

七、本公司系列人机界面的部件与功能 Parts and function

Wiring of communication wire

- Please connect to the communication wire according to this manual
- The length of communication wire should meet the requirement.
- Use the correct ground loops in order to avoid abnormal communication.

Part 3 Work Environment

The product must be placed in the pack box before installation, if not used for a while , in order to make the product accord with the warranty of our company and future maintenance , be sure to notice the following items when stored .

- Must be placed place of no dust and dryness
- The environment temperature of deposited place should in the range of -20℃ to +60℃
- Relative humidity of deposited place should in the range of 10% to 90% and be non-condensing .
- Avoid storing at the environment of caustic gas and liquid .
- It had better be packed propriety in the carcase or table-board .

Part 4 Basic Inspection

Please do following basic check before using all series HMI

General inspection

- Examine whether the screw connecting HMI and device become flexible.
- Avoid oil, water or metal powder invading vent and keep electric drill powder away HMI .
- If HMI is placed the ground of having harmful gas or dust , you should avoid them invading

Checking before operation power not supplied

- Please deal with Connection division of wiring terminal insulated
- Communication wiring should be correct , Otherwise it may act abnormitly .
- Examine whether there are conductive and flammable objects such as screws or metal pieces inside HMI .
- Please regulate instrument to reduce electromagnetism interference .
- Be sure that whether the voltage of HMI power is correct

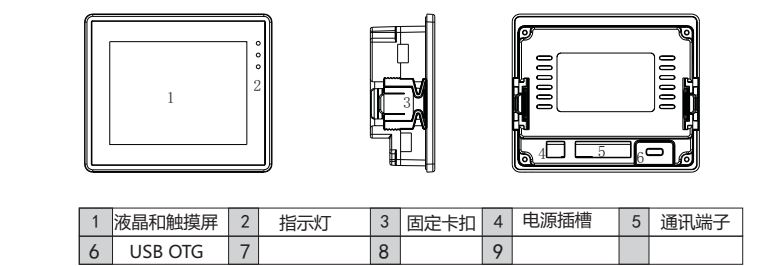
Checking before running power supplied

- Examine whether power indicator light displays
- Whether action communicating with device is in gear .
- Please contract with manufacture if there are exceptional phenomenon in HMI .

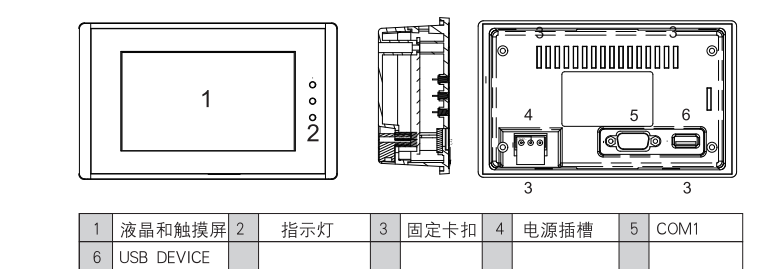
Part 5 Packing List

sequence number	Component	Quantity
1	All series HMI	1
2	HMI fixed buckle	4
3	Power plug	1
4	All series HMI manual (this file)	1

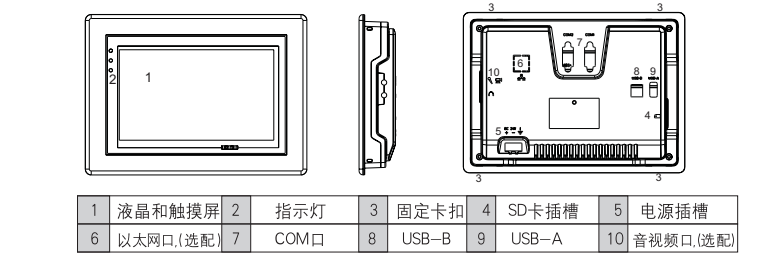
HW1035-1XX 外观部件说明



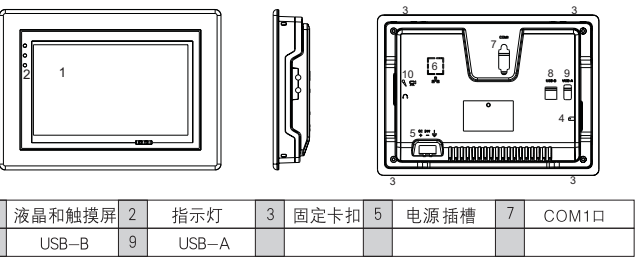
HW1043-1XX 外观部件说明



HW1070-2XX 外观部件说明



HW1070-1XX 外观部件说明

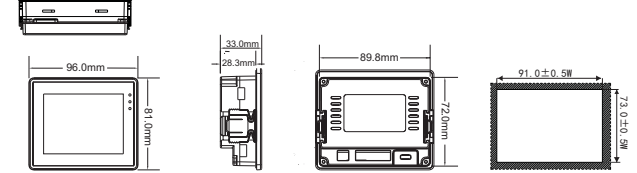


电源接口定义如下（按照上述视图，从左到右）：

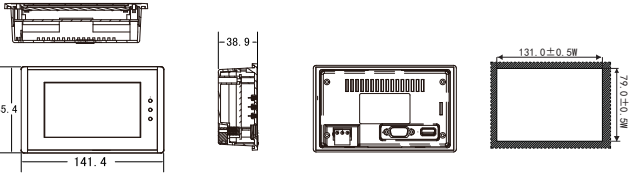
DC24V正极	DC24V负极	机壳地
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八、本公司系列人机界面的尺寸 The size of interface

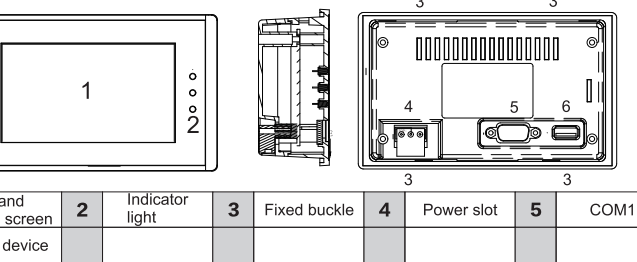
HW1035-1XX安装尺寸图



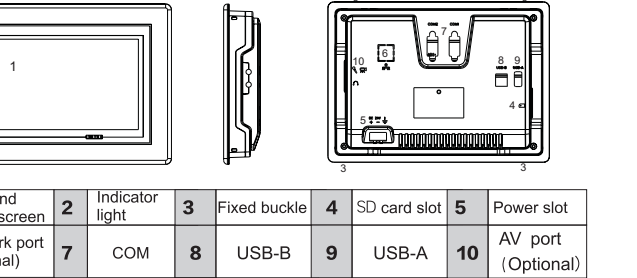
HW1043-1XX安装尺寸图



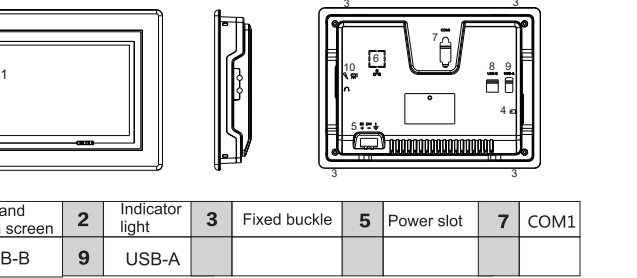
HW1043-1XX Components description



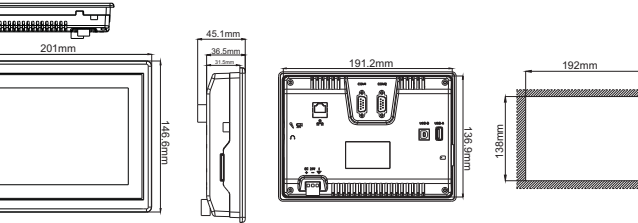
HW1070-2XX Components description



HW1070-1XX Components description



HW1070-1XX/HW1070-2XX安装尺寸图

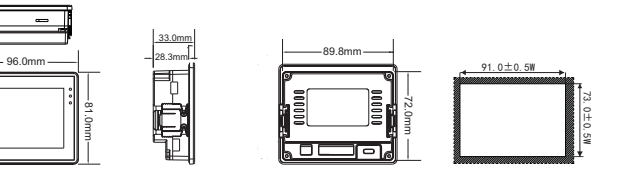


Power supply interface is defined as the following according to view above from left to right:

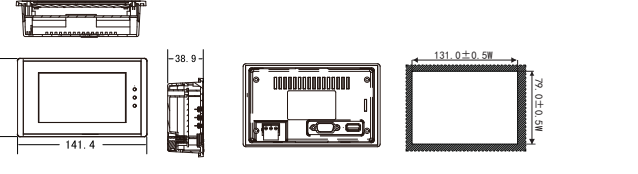
DC 24V anode	DC24V cathode	ground
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Part 8 Size of All Series HMI

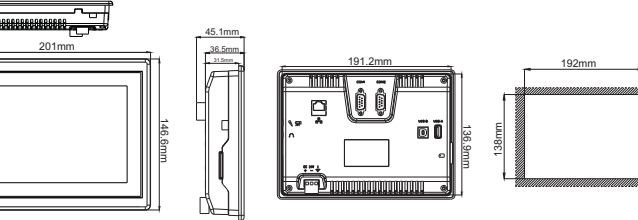
HW1035-1XX installation size



HW1043-1XX installation size

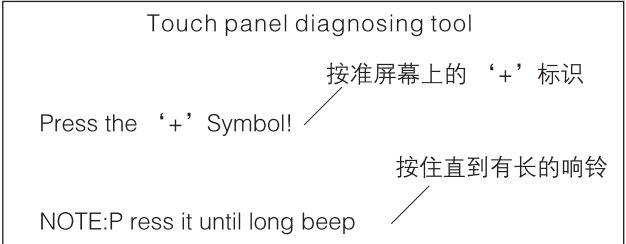


HW1070-1XX/HW1070-2XXinstallation size



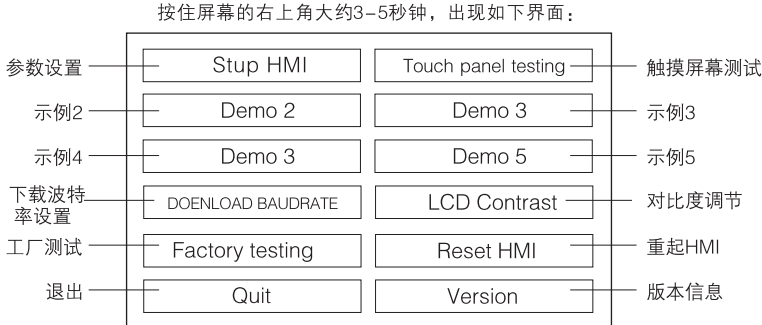
九、触摸屏校正 Touchscreen calibration

人机界面上电启动后，按住屏幕的左上角大约3~5秒钟，出现如下界面：



依次点中左上角，左下角，右下角，右上角，中心点的'+', 重新启动即可。

十、参数设置 Parameters setting



选择“Setup HMI”，进入触摸屏的参数设置画面，可以设置通信口参数、时间参数等设置，修改后，点击“Save”保存，然后重新启动HMI后生效。

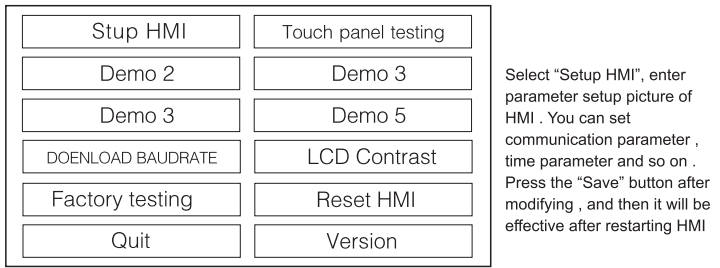
Part 9 Touch Screen Calibration

After starting HMI, keep on pressing top left corner of screen about 3 to 5 seconds , an interface will appear as follows :



Part 10 Parameter Setup

Keep on pressing top right corner of screen about 3 to 5 seconds , an interface will appear as follows :



Part 11 Installation of All Series HMI

- Notes:**
- The installation direction must be in accordance , Otherwise it may lead to fault
 - In order to make circle effect greatly, adjacent objects and baffle should be kept on enough space when installation , otherwise it will cause bad cooling .
 - Used in crust plane of Type 4X indoor grade .

- Installation steps:**
- Make sure the waterproof gasket is cased , and then install HMI to the adaptive crust.
 - Make sure the fixed piece screw is cased , and then hitch front cover screw to withstand inside control box .
 - Please tight screws aptly and remember not too strength , otherwise it will lead to crustaceous damage . Gnarl strength : 6.17lb-inch(0.7N-M).

十一、本公司系列人机界面的安装 Interface Installation

- 注意事项：**
- 安装方向必须依本说明书规定，否则会造成故障。
 - 为了使冷却循环效果良好，安装人机接口时，其上下左右与相邻的物品和挡板(墙)，必须保持足够的空间，以避免散热不良造成的设备损坏。
 - 使用于type 4x室内用等级之外壳平面。
- 安装步骤：**
- 确实将防水垫圈装入，然后再安装人机界面到适合的外壳中；
 - 确实将固定片螺丝组装入内，然后下方钩住前盖螺丝头顶住控制箱内侧；
 - 请以合适大小的扭力锁紧螺丝，切记不可以超过此力矩，否则将造成塑料外壳的损坏。扭力：6.17lb-inch(0.7NM).

十二、本公司系列人机界面的接口定义

HW1035-1XX接口引脚定义

引脚	定义	引脚	定义
1	RS232 RXD	2	RS232 TXD
3	GND	4	RS422 TX+/RS485 A+
5	RS422 TX-/RS485 B-	6	RS422 RX+
7	RS422 RX-		

HW1043-1XX接口引脚定义

引脚	定义	引脚	定义
1	RS422 TX+/RS485 A+	2	RS232 RXD
3	RS232 TXD	5	GND
6	RS422 TX-/RS485 B-	8	RS422 RX-
9	RS422 RX+		

Part 12 Interface Definition of All Series HMI

HW1035-1XX series interfaces

Pin	Definition	Pin	Definition
1	RS232 RXD	2	RS232 TXD
3	GND	4	RS422 TX+/RS485 A+
5	RS422 TX-/RS485 B-	6	RS422 RX+
7	RS422 RX-		

HW1043-1XX series interfaces

Pin	Definition	引脚	定义
1	RS422 TX+/RS485A+	2	RS232 RXD
3	RS232 TXD	5	GND
6	RS422 TX-/RS485 B-	8	RS422 TX-
9	RS422 RX+		

HW1070-1XX series interfaces

Pin	Definition	Pin	Definition
1	RS422 TX+/RS485A+	2	RS232 RXD
3	RS232 TXD	5	GND
6	RS422 TX-/RS485 B-	8	RS422 TX-
9	RS422 RX+		

HW1070-1XX接口引脚定义

引脚	定义	引脚	定义
1	RS422 TX+/RS485 A+	2	RS232 RXD
3	RS232 TXD	5	GND
6	RS422 TX-/RS485 B-	8	RS422 RX-
9	RS422 RX+		

HW1070-2XX接口引脚定义

引脚	定义	引脚	定义
1	RS422 TX+/RS485 A+	2	RS232 RXD
3	RS232 TXD	4	CANL(可选)
5	GND	6	RS422 TX-/RS485 B-
7	CANH (可选)	8	RS422 RX-
9	RS422 RX+		

引脚	定义	引脚	定义
1	RS485 A+	2	RS232 RXD
3	RS232 TXD	5	GND
6	RS485 B-	7	COM3 RS485+ (可选)
8	COM3 RS485- (可选)		

HW1070-2XX series interfaces

Pin	Definition	Pin	Definition
1	RS422 TX+/RS485 A+	2	RS232 RXD
3	RS232 TXD	4	CANL(Optional)
5	GND	6	RS422 TX-/RS485 B-
7	CANH (Optional)	8	RS422 RX-
9	RS422 RX+		

Pin	Definition	Pin	Definiton
1	RS485 A+	2	RS232 RXD
3	RS232 TXD	5	GND
6	RS485 B-	7	COM3 RS485+(Optional)
8	COM3 RS485-(Optional)		

Warranty Description

Please send product and this warranty Card to our service department ,When maintenance product.

Notes:

1.Acorrding to prescription ,the period for protecting to fix product is 18 months(From the day when you purchase).During this period,any belongs to under normal usage circumstance cause because of the product quality's problem of breakdown, our company will be reponsible for giving free maintain.

注意

本说明书内容若有变更，恕不另行通知。请谅解！

保修说明

产品维修时，请把此保修卡和所购产品一起妥善送(寄)回我公司维修部进行维修。

注意事项：

- 1、自您购买产品之日起，凡按照产品使用说明书安装使用，十八个月内本公司免费维修，十八个月之后维修只收取维修工本费。
- 2、非本公司产品质量原因引起的维修，如使用不当、保管不妥、擅自拆机等原因造成的损坏，公司维修只收取维修工本费。

**产品维修前，请与我公司市场部联系，以便公司尽快安排维修事宜。

**本保修卡内容的最终解释权、修改权归我公司所有。

保修卡

尊敬的用户，感谢您购买本公司的产品。为了能够更好地为您服务，在购买产品后，请您认真阅读，填写并妥善保管此保修卡

Dear Customer,thank you for purchasing products of our company. In order for better service,please read and fill out this warranty card carefully and please reserve it carefully.

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

- ①The braekdown caused by the manipulation that hasn't follow the requests of the Manual.
- ②The damage caused by the unauthorized disassemble.
- ③The damage caused by customer inappropriate preservation, maintain,or the usage.
- ④The breakdown and the damage caused by the Force majeure .

Notice

Please forgive that the contents of the manual may be changed without notice.

保修卡			
用户单位 Customer units		联系人 Contacts	
用户地址 Customer address		联系电话 Phone	
产品名称 Product Name		出厂编号 Serial number	
购买日期 Date of purchase		购买联系人 (经销商) Sellers	
购买地 The place of purchase		备注 Remarks	
维修记录 Maintenance record	日期 (Date)	故障原因以及处理情况 (Cause and solotion)	