

1. 安全注意事项 (Safety precautions)

本说明书涉及产品为工业产品，并且均为开放型外壳设计。要求用户使用产品时，务必将产品安装于具有防尘、防潮以及免于电击 / 冲击等意外的控制柜内，并且需要设置保护措施以防止非维护人员不当操作或意外导致设备故障或损坏，造成不可避免的人员危险和财产损失。

The products in this manual are industrial products and are all open-type housing designs. It is essential to install these products within a control cabinet that is safeguarded against dust, moisture, and accidents such as electric shocks or physical impacts. Additionally, protective measures must be taken to prevent malfunctions or damage caused by improper operation or accidents involving non-maintenance personnel. Failure to do so may lead to serious risks to personnel safety and potential loss of property.

更详细的信息请参考 M 系列硬件手册。
Please refer to the M series hardware manual for more detailed information.

⚠ Battery	万年历电池扩展卡内置 CR2032 电池，电池型号为 CR2032 (3V)，可自行选购符合 UL 认证且规格参数合适的电池进行更换。
	The RTC battery expansion card comes with a built-in CR2032 battery (3V). Users may replace it with a UL-certified CR2032 battery of matching specifications.
	La carte d'extension de batterie du minuteur temps réel (RTC) est équipée d'une batterie CR2032 intégrée (3V). Les utilisateurs peuvent la remplacer par une batterie CR2032 certifiée UL et de spécifications correspondantes.

2. 命名规则 (Model identification)

HC MXB - RTC - BD

1 2 3 4

1	产品名称 (Product name)	3	产品系列 (Product series)	4	后缀 (Suffix)
HC	禾川 (Hechuan Technology)	RTC	万年历电池卡 (RTC battery expansion card)	BD	BD选配卡 (Optional BD card)
2	选配卡系列 (Expansion card series)				
MXB	M系列选配扩展 (M-Series optional expansion)				

3. 适用型号 (Applicable model)

名称 (Name)	型号 (Model)	适配的主机型号 (Applicable controller model)	简要说明 (Brief description)
扩展卡 Expansion card	HCMXB-RTC-BD	M312、M500S、M500系列主机 M312、M500S、M500 series controller	万年历电池卡，控制器断电后，可维持万年历计时 The RTC battery backup card continues timekeeping when the controller power is disconnected

* 注：万年历电池扩展卡可安装在主机扩展卡槽 1/2 的位置，但仅限一个。
*Note: The RTC battery expansion card can be installed in either expansion slot 1 or 2 of the host controller, but only one card is allowed.

4. 环境规格 (Environmental specifications)

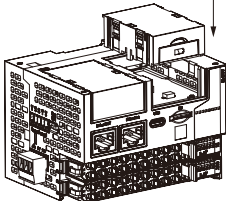
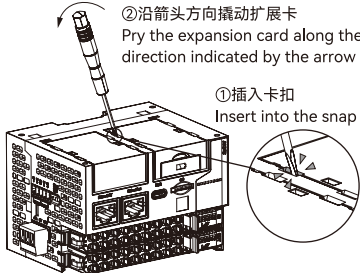
4.1 环境规格 (Environmental requirements)

项目	Item	规格	Specifications
海拔高度	Altitude	≤2000m	≤2000m
使用环境	Operating environment	控制柜内安装，开放式及室内使用	Installation within a control cabinet, open-type and indoor use
工作温度	Operating temperature	0~55℃	0~55℃
储存温度	Storage temperature	-25~70℃	-25~70℃
环境湿度	Ambient humidity	10~90%RH (无结露)	10~90%RH (non-condensing)
振动耐受	Vibration resistance	5~150Hz (X/Y/Z方向，1g/3.5mm位移)	5~150Hz (X/Y/Z direction, 1g/3.5mm displacement)
污染等级	Pollution degree	污染度2	Level 2
冷却方式	Cooling method	自然冷却	Natural cooling
防护等级	IP rating	IP20	IP20
外壳材质	Enclosure material	阻燃材料	Self-extinguishable

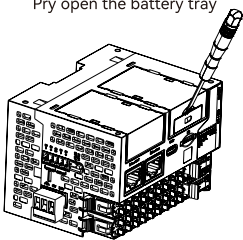
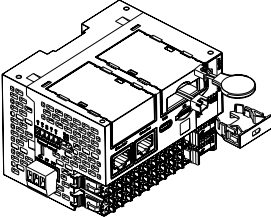
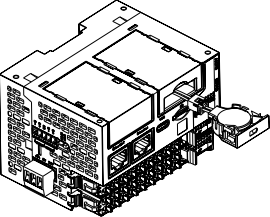
* 注：若设备未依制造商指定方式使用，设备所提供的保护可能会被减弱。
*Note: If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

5. 安装说明 (Installation instructions)

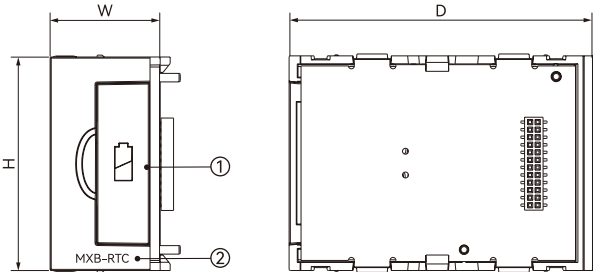
5.1 扩展卡拆装 (Expansion card mounting and dismounting)

CN	将扩展卡沿卡槽放入水平放置控制器卡槽中，并向下按压扩展卡，听到“咔哒”声后确认表面平齐即完成安装；将一字螺丝刀插入卡扣处，按箭头方向撬动扩展卡使其控制器脱离，将扩展卡垂直取出即可完成拆卸。	<div><div>①对准卡槽 Align the groove</div><div>②向下按压 Press downwards</div></div>	<div><div>②沿箭头方向撬动扩展卡 Pry the expansion card along the direction indicated by the arrow</div><div>①插入卡扣 Insert into the snap</div></div>
EN	During mounting, place the controller horizontally, then align the groove of the expansion card with that of the controller and press the expansion card downwards. After hearing the "click" sound, check whether the junction surface is flush, if it is then the installation is completed. During dismounting, insert a screwdriver into the card snap, pry the expansion card along the direction indicated by the arrow to disengage it from the controller, and then remove the expansion card vertically to complete the dismounting process.		

5.2 电池拆装 (battery mounting and dismounting)

CN	用一字螺丝刀沿拆卸口撬开电池卡托, 在电池卡托上安装新电池, 连接电源线端子即可完成安装; 反之断开电源线端子, 从电池卡托上取出旧电池可完成拆卸。	撬开电池卡托 Pry open the battery tray	安装新电池 Mount a new battery	连接电源端子 Connect the power terminal
EN	During mounting, use a flathead screwdriver to pry open the battery tray at the designated notch, mount a new battery in the tray, and then connect the power terminal to complete the installation. During dismounting, disconnect the power terminal and then remove the old battery from the tray.			

6. 接口和尺寸说明 (Interface and dimension description)



序号 (No.)	名称	Name	功能	Function
1	电池安装区	Battery compartment	禾川标配电池安装区, 电池可更换	Compartment for the pre-installed HCFA battery, user-replaceable design for maintenance
2	产品型号	Product model	显示扩展卡型号	Displays expansion card model

型号 (Model)	外形尺寸 (Dimension) : mm			重量 (Weight) : g
	W	H	D	
HCMXB-RTC-BD	18.6	36.1	51.1	15 approx.