



适用于维宏系统
Application system: Ncstudio

雕刻机无线电子手轮

The Wireless MPG WHB03B manual

说明书



型号
MODEL

WHB03B: 无线电子手轮

WHB03B: Wireless electronic handwheel



WHB03B

- 无线使用距离40米
Wireless effective distance of 40 meters

● 结构说明 Structure Description



产品名称 Name	工作电压 Voltage	工作电流 Current	备注 Note
无线USB接收器 Wireless USB Receiver	4.5V ~ 5.0V	小于50mA Less than 50mA	
无线电子手轮 Wireless MPG	1.5V ~ 3.0V	平均电流小于2mA Average Current Less than 2mA	2000MAH的2节电池能使用2个月 Use of time More than 2 months USE Two 2000MAH Battery

注明:

本产品与上一代产品相比,增加了电量显示,LCD显示屏上有电量信息显示。当电量过低时,请及时更换电池,以免影响使用。

LCD display on the electricity information display. When the power is too low, please replace the battery in time, so as not to affect the use.

序号 No.	性能参数描述 Performance or Parameters Description
1	采用ISM频段433MHZ通讯,发射功率10dBm,接收灵敏度-98dBm Using ISM band 433MHZ communication, transmit power 10DBm, receive sensitivity -98DBm
2	有32个跳频频道,每个频道间隔1MHZ 32 frequency hopping channels, each channel interval 1MHZ
3	空旷直线传输距离大于40米 Open straight transmission distance of more than 40 meters
4	智能无线技术,实现自动跳频,自动节约功能,自动ID码学习 The protocol designed with high performance, low power consumption, automatic learning ID number
5	采用跳频技术,抗干扰能力强 Using frequency hopping technology, strong anti-interference ability
6	采用跳频技术,同一个房间可以同时使用32套设备,没有干扰 Using frequency hopping technology, the same room can use 32 sets of equipment at the same time, there is no interference

● 使用示意图 Use of schematic



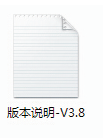
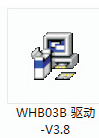
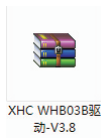
备注： 为了信号的稳定，请将接收器安装在机箱外面（不能安装在机箱内部）

Note: In order to signal stability of the receiver to be installed outside the chassis

■ 第1步: (Step 1)

安装驱动：将光盘放入光驱，安装无线电子手轮的驱动，按照电脑提示，直到安装成功，并结束安装。

Install the driver: CD into the drive CD-ROM, installing a wireless electronic handwheel driver, according to computer tips, Until the installation is successful, and the end installation



鼠标双击图标，开始安装驱动

Double click the icon to begin installing the driver



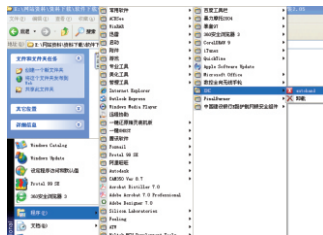
按照安装提示，直到驱动安装完成

Please follow the computer prompts, Set up the Driver Software until finished

● 操作使用步骤说明 Use the steps Description

■ 第2步: (Step 2)

打开软件: 打开刚刚安装的驱动软件, 然后再打开数控系统软件NcStudio
OPEN The Driver Software, then Open The NcStudio Software



从开始菜单里边打开刚刚安装的驱动
From the Start menu to open just installed the driver inside



运行驱动后, 出现驱动图标
Run the driver, the driver icon

■ 第3步: (Step 3)

将无线USB接收器, 插入电脑的USB接口。如果是第1次使用, 电脑会提示找到新硬件设备……

等待USB驱动自动加载成功。插入USB接收器后, 图标显示如下:

Please Insert Wireless USB Receiver into USB Jack

If this is the 1st use, the computer will be prompted to find a new hardware device; Automatically install the USB driver to wait for success.

USB receiver is inserted, the icon is displayed as follows:



插入接收器后, 图标变灰
Receiver is inserted, the icon is grayed out

■ 第4步：（ Step 4 ）

启动维宏系统软件，图标变成红色

Start Ncstudio system software, the icon turns red



启动维宏系统软件，图标变成红色

Start Ncstudio system software, the icon turns red

■ 第5步：（ Step 5 ）

将无线电子手轮装上2节AA电池，注意电池的正负方向
按下电源按键，正常情况，显示屏有坐标显示。

Install 2 AA batteries, press the power button, under normal circumstances, the display has a coordinate display

●使用功能描述 Features Description

■ 按键功能描述 (Button Features Description)

对应图标 Correspon- ding icon	名称 Name	按键功能描述 Key function description
	取消按钮 Cancel button	当软件出现选择界面时, 按下该键, 选择取消 When the selection screen appears, press the button, select NO
	确认按钮 Confirm button	当软件出现选择界面时, 按下该键, 选择确认 When the selection screen appears, press the button, select YES
	停止按钮 Stop button	当机床处于运行状态时, 按下该键, 机床复位停止加工 When the machine is running, press the button, the machine reset, Stop processing
	开始/暂停 Star/Puse	按下该键, 程序开始运行: 再次按下该键, 程序停止运行 Press the button, the machine starts to run; press the button again, the machine stop running
	断点继续 Keep on	当程序中断后, 按下该键, 从程序中断处开始运行 When the program is interrupted, press the button, running from the interruption of the program
	对刀 Probe	当按下该键, 机床执行对刀操作, 同时需要按下确认或者取消按键, 选择是否执行对刀操作 When you press the button, the machine operating the knife. at the same time need to press YES or NO choose button.

对应图标 Corresponding icon	名称 Name	按键功能描述 Key function description
	设置安全高度 set Safe Z	当按下该键,将当前Z轴位置设为安全高度 When you press the button,Set the current Z axis position as security height.
	返回工件原点 Back to the origin of workpiece	当按下该键,机床返回工件原点 When you press the button,the machine back to the origin of workpiece.
	坐标清零 coordinates zero	按一下该键,当前轴坐标值清零; press the button,the coordinates zero.
	坐标分中 coordinates 1/2	按一下该键,当前轴坐标值减半; press the button,the coordinates 1/2.
	微调按钮 Fine adjustment button	1. 当软件在手动模式时,按下此按键可以切换显示屏的机械坐标和工件坐标显示 2. 当软件在自动加工状态时,当你按下该键,配合手轮,对X.Y.Z轴运动进行微调。 1.When the software is in manual mode, press this button to switch the mechanical coordinates and workpiece coordinates of the display screen. 2. In automatic processing mode,press the button, with the handwheel, fine-tuning of the X.Y.Z axis movement.
	主轴启动/停止 Spindle start / stop	当你按下该键,主轴启动,再次按下该键,主轴停止。 When you press the button,spindle start,press the button again,spindle stop.

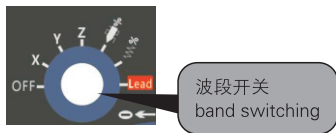
●使用功能描述 Features Description

	返回机械原点 Back to the mechanical origin	当你按下该键,出现返回机械原点提示 When you press the button, Appear back to the mechanical origin tips 1.再按下YES按键, 所有轴依次返回机械原点 press YES button,all axis back to the mechanical origin 2.再按下NO按键, 退出机械原点界面 Press NO button,exit mechanical origin interface 3.再按下机械原点按键, 根据轴选开关状态, 返回当前轴的机械原点 press the button again,according to the state of the axis selection switchback to the mechanical origin
	正向移动按键 Positive direction moving button	首先用轴选开关选择想要移动的轴, 再按下此按键进行连续移动 First, use the axis selector switch to select the axis that you want to move, then press the button to move continuously.
	负向移动按键 Negative direction moving button	首先用轴选开关选择想要移动的轴, 再按下此按键进行连续移动 First, use the axis selector switch to select the axis that you want to move, then press the button to move continuously.
	组合键	暂时无效, invalid

■ 波段开关功能说明 (Band switch Functional Description)

波段开关对手轮功能起到控制作用，手轮的各种功能，通过波段开关的档位切换，而进行相应切换

Band switch control opponents play a round of functional role of the various functions of Hand wheel, gear change through the band switch, and switch accordingly

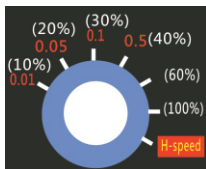


档位图标 display icons	图标名称 Icon name	功能描述 Functional Description
	OFF档位 OFF stalls	关闭手轮功能，平时不用手轮，需要将波段开关处于OFF状态，以防止对手轮的误触发和节约功耗，延长电池使用寿命 Off Hand wheel function, usually do not hand wheel, needs to be the band switch is in OFF state to prevent false triggering round opponents and saving power consumption and extend battery life
	X轴 X-axis	当进行微调或手动调节的时候，摇动手轮对X轴进行移动控制 When fine-tuning or manual adjustment of the time, shake the hand wheel on the X axis motion control
	Y轴 Y-axis	当进行微调或手动调节的时候，摇动手轮对Y轴进行移动控制 When fine-tuning or manual adjustment of the time, shake the hand wheel on the Y axis motion control

●使用功能描述 Features Description

档位图标 display icons	图标名称 Icon name	功能描述 Functional Description
	Z轴 Z-axis	当进行微调或手动调节的时候，摇动手轮对Z轴进行移动控制 When fine-tuning or manual adjustment of the time, shake the hand wheel on the Z axis motion control
	手轮引导 Hand wheel Lead	当机床处于运行状态下（对应的LCD屏上的运行图标闪烁）；摇动手轮，可以控制加工快慢和暂停运行控制。在机床处于停止状态下，和暂停状态下，手轮引导不起作用 When the machine is in running state (corresponding to run on the LCD screen flashing); shake the hand wheel to control the processing speed and the suspension of operational control. The machine is stopped state, and pause state, the Hand wheel Lead does not work
	进给速度控制 Feed speed control	当进给速度控制模式下，LCD屏幕显示进给的预设值和实际值，摇动手轮可以调节进给的快慢控制 When the feed speed control, LCD screen displays the default value of the feed and the actual values, shaking the hand wheel can adjust the feed speed control
	主轴转速控制 the spindle speed control	当主轴转速控制模式，LCD屏幕显示主轴转速的预设值和实际值，摇动手轮可以控制主轴转速的快慢设置。 When the spindle speed control mode, LCD screen displays the default value of spindle speed and the actual values, shaking the hand wheel to control the speed of the spindle speed setting.

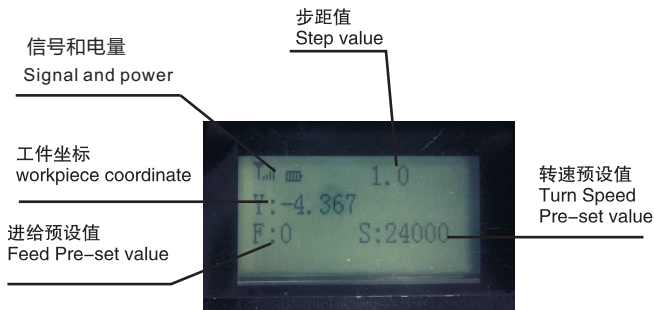
■ 波段开关功能说明 (Band switch Functional Description)



档位图标 display icons	图标名称 Icon name	功能描述 Functional Description
0.05	步距精度 Step distance precision	档位0.01, 0.05, ..., 1.0, 当手轮点动精确移动机器, 一个脉冲移动的精度, 选择不同的步距精度实现不同精度的点动, 0.01, 0.05, ..., 1.0, when you using the handwheel jog move the machine precisely, the precision of one pulse movement,
(100%)	低速模式 Low speed mode	切换到此档位进入手动低速模式 Switch to 100% into the manual low speed mode
H-speed	高速模式 High speed mode	切换到此档位进入手动高速模式 Switch to H-speed into the manual high speed mode

■ 当波段开关在X,Y,Z档时，显示坐标信息

When the band switch in the X,Y,Z gear display coordinate information



当按下切换按键时，工件坐标变为机械坐标；再次按下该按键，显示工件坐标

When you press the switch button, change the work coordinate into mechanical coordinates; when you press the button again, display workpiece coordinate



掉网提示，遥控器和接收器失去了连接，请检查接收器是否插好；

The remote control receiver and the receiver have lost connection. Please check if the receiver is inserted.

● 应用软件操作说明

启动驱动软件后，会在电脑任务栏显示驱动图标，如下图：

After starting the driver software, will be displayed on the computer taskbar drive icon, as shown below:



启动驱动后，会显示我们的驱动图标
Boot drive, we will show the drive icon

■ 图标状态指示无线电子手轮的工作状态

The icon status indicates the working status of wireless handwheel.

● 没有插入USB无线接收器

Did not insert the USB wireless receiver



没有插入USB无线接收器
Did not insert the USB wireless receiver

● 插入了无线USB接收器，但是维宏系统软件没有打开

Insert the USB receiver, but Ncstudio system software is not open



插入了无线USB接收器，但是维宏系统软件没有打开
Insert the wireless USB receiver, but Ncstudio system software is not open

● 工作正常：插入了无线USB接收器，维宏系统软件打开

Insert the USB receiver, and Ncstudio system software is open



工作正常：插入无线USB接收器，维宏系统软件打开
Insert the wireless USB receiver, and Ncstudio system software is open



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