



适用于MACH3系统
Application system: MACH3

MACH3有线电子手轮

Mach3 system wired MPG instructions

说明书



型号
MODEL

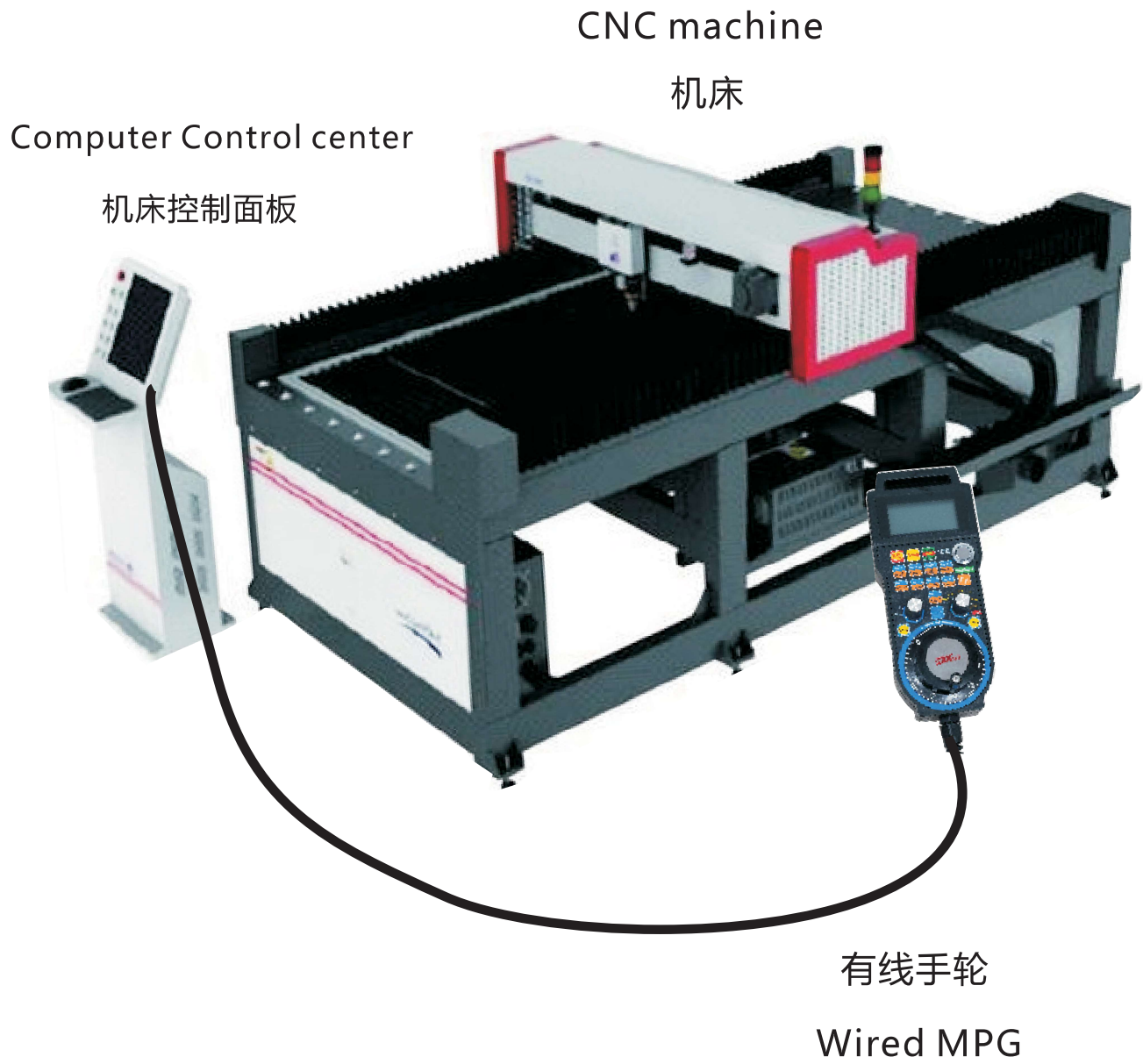
- LHB04B-4:4轴, 有线电子手轮
LHB04B-4:4 axis,wired handwheel
- LHB04B-6:6轴, 有线电子手轮
LHB04B-6:6 axis,wired handwheel

● 特点 Characteristic

- 采用带屏蔽的5米USB线进行连接，信号传输稳定可靠
- 100PPR电子手轮功能，支持10个自定义按键
- 显示X,Y,Z,A,B,C轴的机械坐标和工作坐标
- 显示主轴转速值，加工进给速度值
- Connected with a shielded 5meters USB cable,signal transmission is stable and reliable.
- 100PPR manual pulse generator,support 10 macro function button
- LCD Display:machine coordinates and workpiece coordinates X,Y,Z,A,B,C-axis
- LCD Display:Spindle speed value,processig feed rate value

● 产品功能介绍 Product function introduction





- ① **将遥控器USB线插到电脑主机的USB端口，等待电脑自动安装硬件设备驱动。**

Insert the USB line to PC, wait for the automatic driver installation is completed.

- ② **在MACH3安装目录下有个“PlugIns”文件夹,然后把驱动文件（在光盘里边）ShuttlePro.V3.84.dll拷贝到此文件夹\Mach3\PlugIns下。**

The drivers (in the CD inside) ShuttlePro.V3.84.dll copied to \Mach3 \ PlugIns.









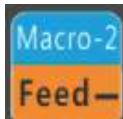




- ③ **宏代码安装：**

将光盘里macro文件夹下的所有文件拷贝到MACH3安装目录..\Mach3\macros\Mach3Mill下。

The all macro files (in the CD inside macro folder) copied to .. \ Mach3 \ macros \ under Mach3Mill.

- ④ **有线电子手轮，直接打开手轮的电源开关，就可以正常使用了**




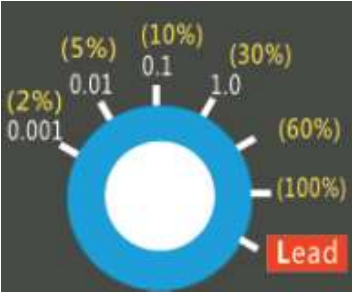
Wired MPG,turn on the power switch of the handwheel directly,you can normally use.

对应图标 Icon	功能 Function
	复位按钮 RESET button
	停止按钮 Stop button
	开始/暂停按钮：当机器停止时，按下按钮机器开始工作；当机器工作时，按下按钮，机器停止工作 Start/Pause button:When machine stops,press the button,machine starts to work;When machine is working, press the button,machine stop working
	宏代码功能1/进给速度+按钮：单独按下按钮,宏代码功能1输出;按下  +  按钮,加工速度增加 Macro-1/Feed+ button:When press the button alone,macro function-1 works; When press the  +  ,Processing speed increase.
	宏代码功能2/进给速度-按钮：单独按下按钮,宏代码功能2输出;按下  +  按钮,加工速度减小 Macro-2/Feed- button:When press the button alone,macro function-2 works; When press the  +  ,Processing speed decreases.

对应图标 Icon	功能 Function
	<p>宏代码功能3/主轴速度+按钮：单独按下按钮,宏代码功能3输出;按下  +  按钮,主轴速度增加</p> <p>Macro-3/Spindle- button:When press the button alone,macro function-3 works; When press the  + ,Spindle speed increases.</p>
	<p>宏代码功能4/主轴速度-按钮：单独按下按钮,宏代码功能4输出;按下  +  按钮,主轴速度减小</p> <p>Macro-4/Spindle- button:When press the button alone,macro function-4 works; When press the  + ,Spindle speed reduction.</p>
	<p>宏代码功能5/机床原点按钮：单独按下按钮,宏代码功能5输出;按下  +  按钮,回机床原点.</p> <p>Macro-5/M-HOME button:When press the button alone,macro function-5 works; When press the  + ,refer all home.</p>
	<p>宏代码功能6/返回安全Z高度按钮：单独按下按钮,宏代码功能6输出;按下  +  按钮,返回安全高度.</p> <p>Macro-6/M-HOME button:When press the button alone,macro function-6 works; When press the  + ,Return to the safe height of the Z axis</p>

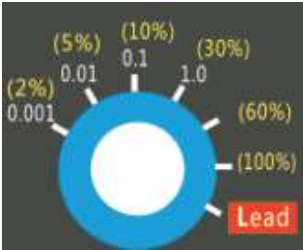
对应图标 Icon	功能 Function
	<p>宏代码功能7/工件原点按钮：单独按下按钮,宏代码功能7输出;按下  +  按钮,返回工件原点.</p> <p>Macro-7/W-HOME button:When press the button alone,macro function-7 works; When press the  + ,go to zero work.</p>
	<p>宏代码功能8/主轴开关按钮：单独按下按钮,宏代码功能8输出;按下  +  按钮,主轴开启或者关闭.</p> <p>Macro-8/S-ON/OFF button:When press the button alone,macro function-8 works; When press the  + ,Spindle on or off.</p>
	<p>宏代码功能9/对刀按钮：单独按下按钮,宏代码功能9输出;按下  +  按钮,执行对刀操作.</p> <p>Macro-9/ probe-Z button:When press the button alone,macro function-9 works; When press the  + ,probe Z</p>
	<p>宏代码功能10按钮：按下按钮，宏代码功能10输出</p> <p>Macro-10 button:press the button,macro function-10 works.</p>
	<p>功能按钮:用来实现组合按钮功能</p> <p>Function button:When you press the button, then press the other button to achieve the combination function.</p>

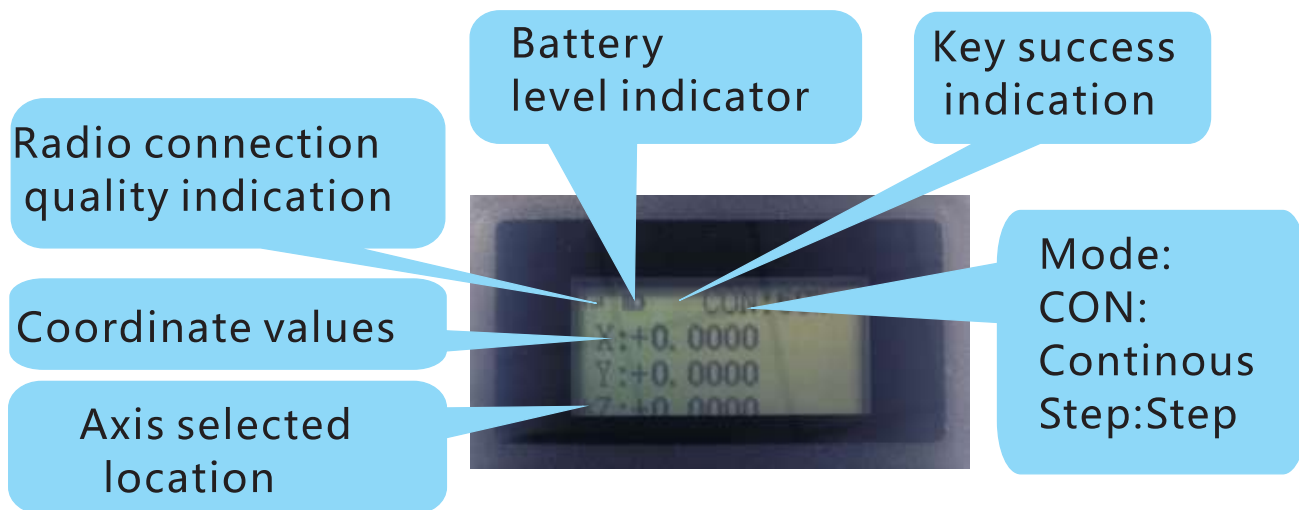
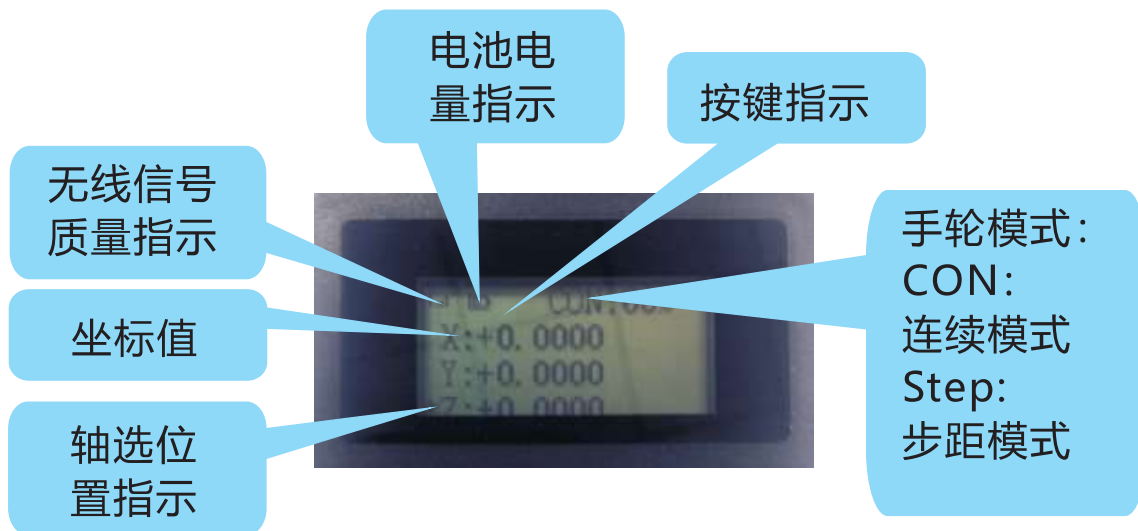
● MACH3手轮按键功能说明

对应图标 Icon	功能 Function
	<p>连续按钮：按下按钮，手轮进入连续模式 MPG button:press the button,Hand wheel into Continuous mode.</p>
	<p>步距按钮：按下按钮，手轮进入步距模式 Step button: press the button,Hand wheel into Step mode</p>
	<p>轴选择波段开关：OFF位置，关闭电子手轮功能。 X,Y,Z,A,B,C:实现对应的X,Y,Z,A,B,C:6个轴选择功能。 Axis selection band switch: OFF position to switch off MPG X, Y, Z, A, B, C: 6 axis selection function.</p>
	<p>倍率开关： 0.001 (2%) :当手轮在步距模式时,单位是0.001;当在连续模式时,手轮速度是2%. 0.01(5%):当手轮在步距模式时,单位是0.01,当在连续模式时,手轮速度是5%. 0.1(10%):当手轮在步距模式时,单位是0.1,当在连续模式时,手轮速度是10%. 1.0(30%):当手轮在步距模式时,单位是1.0,当在连续模式时,手轮速度是30%. 60%:当手轮在连续模式时,手轮速度是60%. 100%:当手轮在连续模式时,手轮速度是100%. Lead:手动引导加工速度</p>

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

to control the various function of the hand wheel through the band switch

对应图标 Icon	功能 Function
	<p>Selection speed:</p> <p>0.001 (2%): When handwheel in Step mode, move unit 0.001; when in Continuous mode, move speed is 2%</p> <p>0.01 (5%): When handwheel in step mode, move unit 0.01; when in Continuous mode, move speed is 5%</p> <p>0.1 (10%): When handwheel in step mode, move unit 0.1; when in Continuous mode, move speed is 10%</p> <p>1.0 (30%): When handwheel in step mode, move unit 1.0; when in Continuous mode, move speed is 30%</p> <p>60%: When handwheel in Continuous mode, move speed is 60%</p> <p>100%: When handwheel in Continuous mode, move speed is 100%</p> <p>Lead location : Processing Lead mode; By shaking the MPG to change the processing speed</p>



说明:

按键指示: 当按下按键, 接收器接收到按键值后, 该指示灯闪烁一下, 表示按键操作成功。

倍率指示: 当按下step按键, 波段开关选择0.001,0.01等, 对应倍率值; 当按下Continuous按键, 波段开关选择2%, 5%等, 对应不同速度

轴选位置指示: 轴选开关位置, 对应LCD显示轴选。X代表X轴工件坐标,X1表示X轴机械坐标.

Explantion:

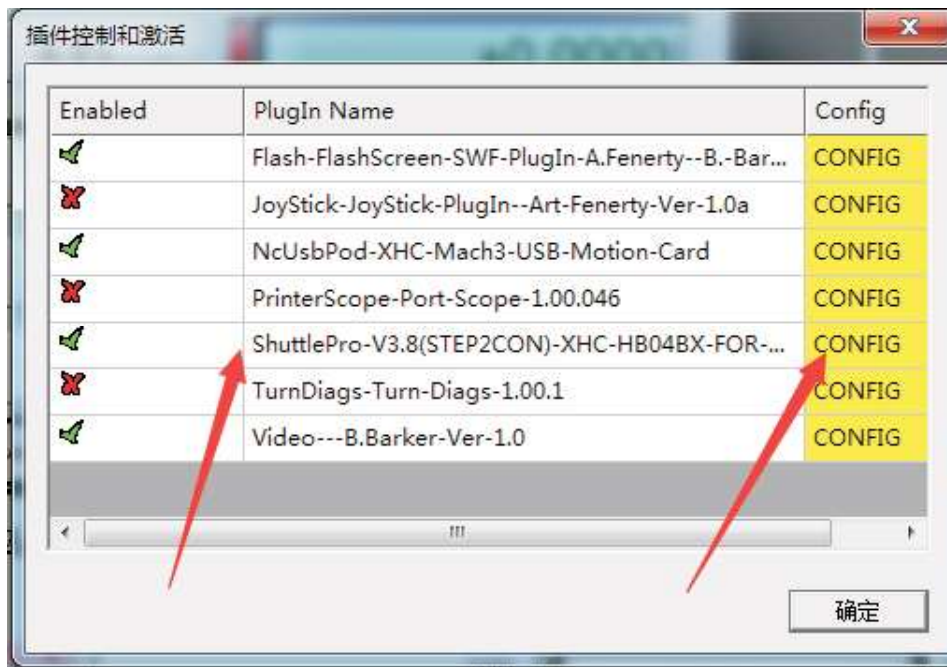
Key success indication:When you press the button,the receiver receives the key value,the indicator flashes about,indicating successful key operation.

Speed indicator:When you press CONTINUOUS button,band switch to select 2%,5%...,LCD display CON and different speed. When you press Step button,band switch to select 0.001,0.01..., LCD display Step and different speed.

Axis selected location:Axis selection switch position,LCD display axis selected. X: X axis workpiece coordinate axis, X1: X axis mechanical coordinate

1.打开软件, 在"Config"配置菜单下,选择"Config Plugins"配置插件找到手轮插件"ShuttlePro-VXX-XHC-HB04BX-FOR-MACH3", 点击黄色"CONFIG",会弹出手轮配置窗口, 在窗口里面设置宏功能按钮,

Open Mach3 and go to the "Config" menu choice and select "Config Plugins" .You should see "ShuttlePro-V3xx-XHC-HB04BX-FOR-MACH3" ,Click the "CONFIG" in yellow and macro button function as you wish.



2.如下图所示, 可以直接在macro-1的下拉菜单中选择自带的扩展功能, 保存之后即可生效。

如果你自己编写了宏代码文件, 你可以根据下面的图示进行设置:
 第一步:点击Macro-1的下拉菜单按钮, 选择Custommacro#1; 点击Macro-2的下拉菜单按钮, 选择Custom Macro#2,以此类推, 将Macro1-Macro-8设置完成. 点击Macro-9下拉菜单按钮,选择OEM Button#1,将Macro-10选择为OEM Button#2.

第二步:在下面Macro-1对应的Macro number 1输入你需要的M代码, 在下面Macro-9对应的OEM Custom Code#1输入你需要的OEM代码.以此类推,将其他按钮设置完成.最后点击OK保存设置.
 (你输入的M代码必须已经拷贝到Mach3>Macro>Mach3Mill里面否则无法工作)

Macro-1

- Custom Macro #1
- Custom Macro #1
- Custom Macro #2
- CV feed toggle
- Cycle MPG jogging mode
- Flood on/off
- FeedUp
- FeedDn
- Feedrate reset
- Goto Z's
- Go Home
- Goto Safe_Z
- Home All
- Home Z (Turn)
- Home X,Home Z
- Ignore Tool Change togg
- Jog Follow
- Jog Toggle
- Jog Step Incr++
- Jog Step Incr--
- Jog increment cycle
- Joystick Toggle
- Jog Step/Conti/MPG
- Lock/Unlock Movement
- Lock/Unlock Shuttle

Custom OEM Code #1

1001

Macro number 1

930

XHC HB04BX-3.8-Configuration

Custom Key As You Do

Macro-1: Custom Macro #1

Macro-2: Custom Macro #2

Macro-5: Custom Macro #5

Macro-6: Custom Macro #6

Macro-9: OEM Button #1

Macro-3: Custom Macro #3

Macro-4: Custom Macro #4

Macro-7: Custom Macro #7

Macro-8: Custom Macro #8

Macro-10: OEM Button #2

Please input Mach3 OEM Button Code Number:

Custom OEM Code #1: 0

Custom OEM Code #2: 0

Please input M Code Number, then choose it in Macro box:

Macro number 1: 0

Macro number 2: 0

Macro number 3: 930

Macro number 4: 0

Macro number 5: 0

Macro number 6: 0

Macro number 7: 0

Macro number 8: 0

ResetToDefault

OK

2.As shown in the figure below, you can select the extension function of the plug-in directly from the drop-down menu of macro-1, which will take effect after saving.If you write your own macro code file, you can set it according to the following illustrations:

First step:Click the Macro-1 drop-down menu button,choice "Custom Macro#1" , Macro-2 choice "Custom Macro#2", And so on.Click Macro-9 drop-down menu button,choice "OEM Custom Code#1" , Macro-10 choice "OEM Custom Code#2" .

Second step:In the following "Macro Number" input M code you need.Macro-1 corresponds to Macro number 1. and so on. Macro-9 corresponds to OEM Custom Code#1, Macro-10 corresponds to OEM Custom Code#2.

(The M code you entered must be copied to the Mach3> macro>Mach3Mill folder)



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