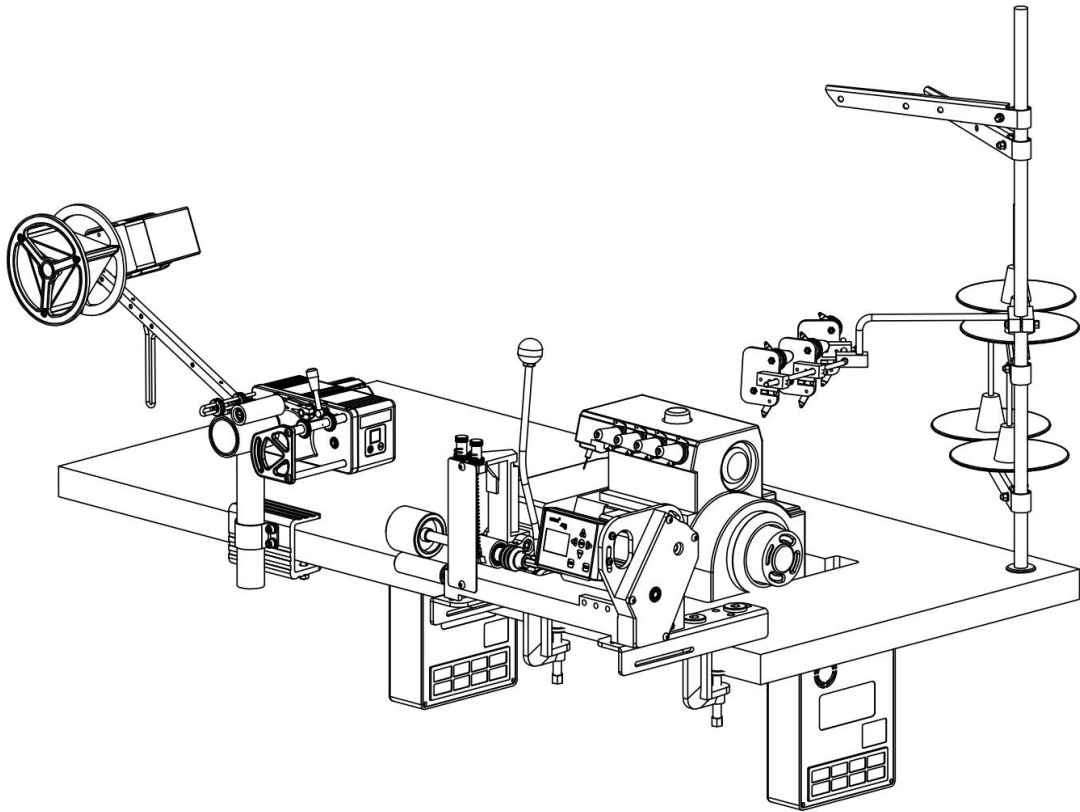


SXSTAR[®]

PY-ZD 自动同步牵引装置用户说明书

前拉式（意大利面专用）

USER MANUAL



目录

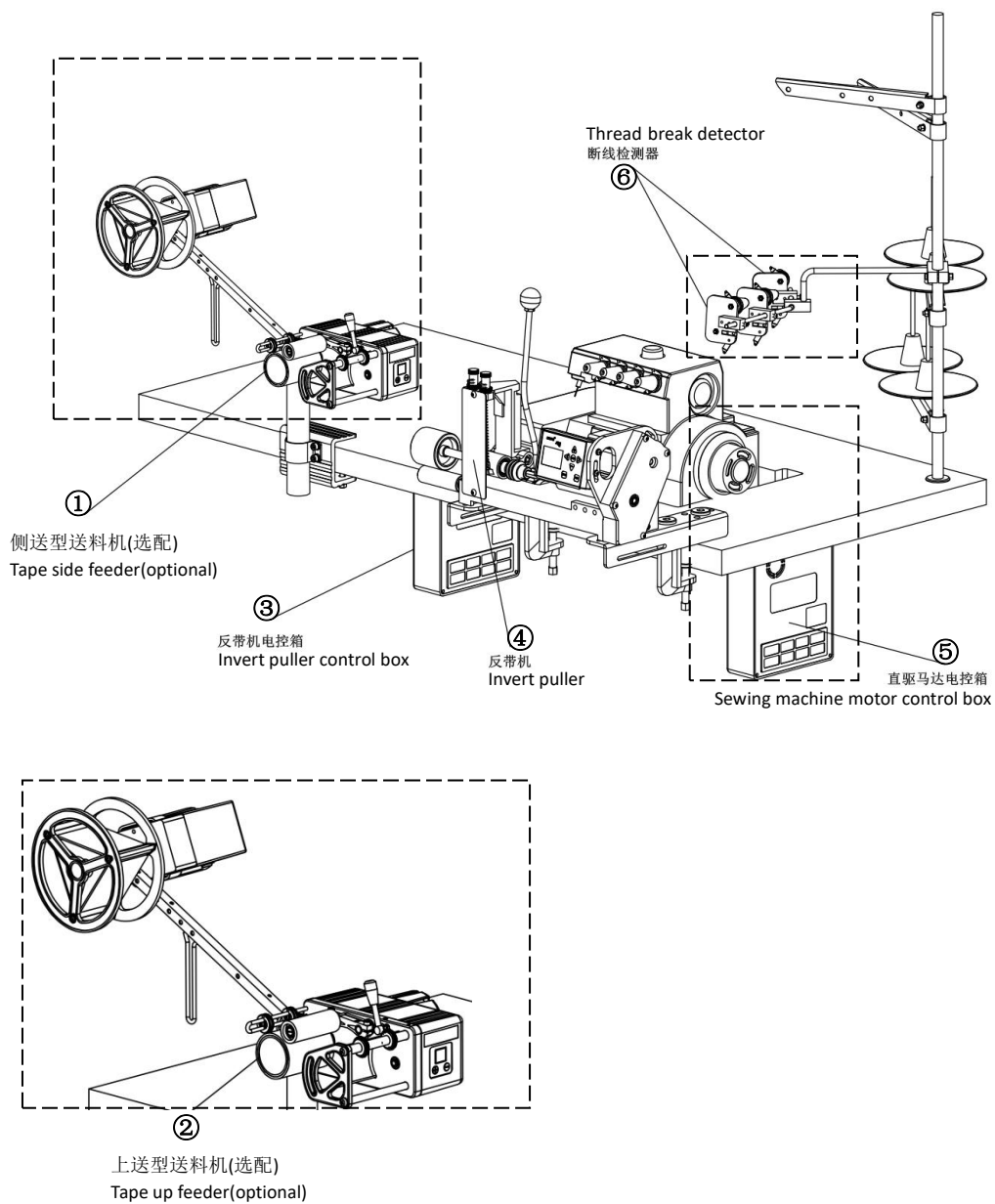
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一、安装图示

Installation diagram

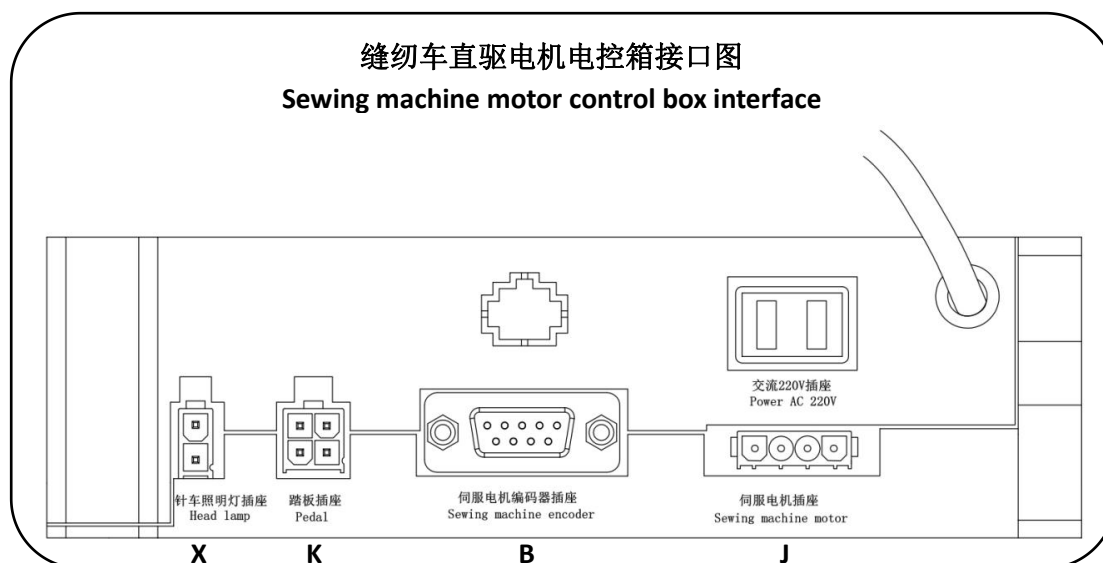
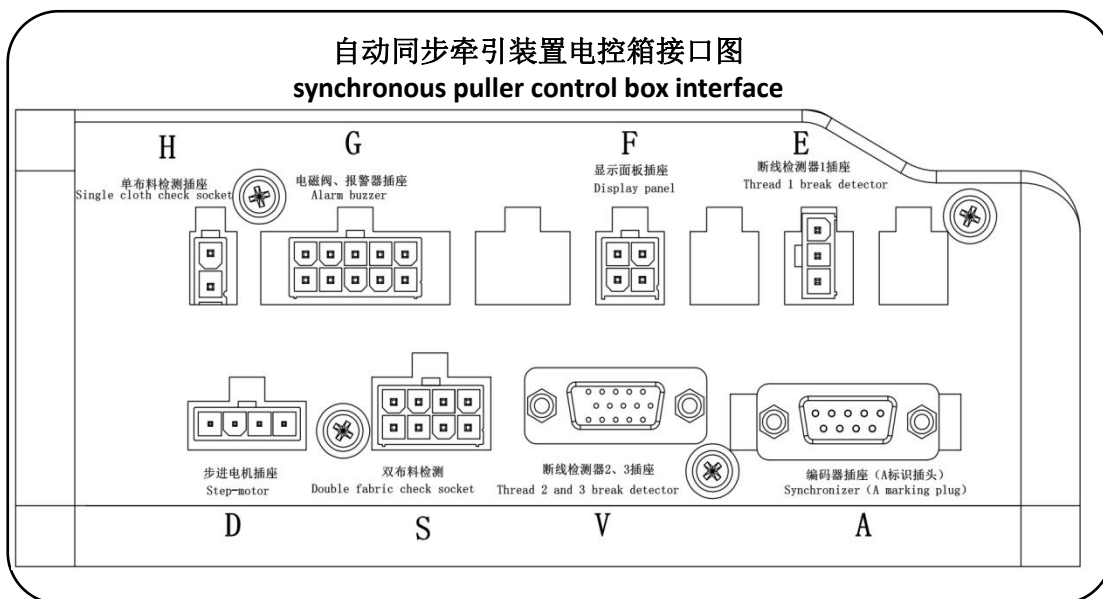
机器组件安装示意图

Machine components Installation diagram



注意：①侧送型送带机和 ②上送型送带机为选配装置

NOTE: ① tape side feeder and ② tape up feeder is optional part



注意：按照对应的字母编号进行连接

NOTE: connecting according to the alpha code

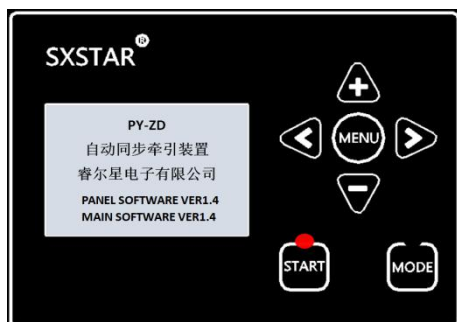
二、面板按键说明

Panel button guide

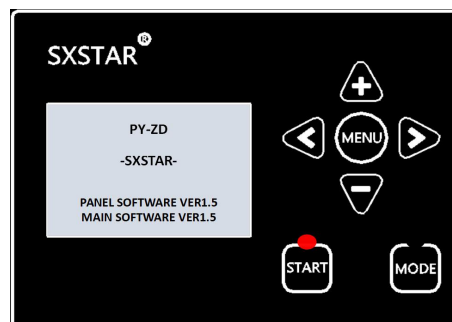
图标 Icon	按键名 button	按键用途 function	特别说明 note
	启动键 START button	用于进入同步车缝状态，也可用于清除异警信息 To start synchronous sewing or clear warning	按键灯亮起时表示进入启动状态 Button LED indicate the start status
	模式键 MODE button	用于手动模式和自动模式的切换操作 To switch the work mode(auto and manual mode)	按键灯亮起时表示系统工作在自动模式 Button LED turn on when work in auto mode
	菜单键 MENU button	用于进入工程参数设置和系统参数设置 To enter project parameter and system parameter setting	长按菜单键进入系统设置页面 Long pressing to enter system setting page
	左移键 LEFT SHIFT button	返回上一个页面 Return to previous page	
	右移键 RIGHT SHIFT button	执行选项操作 Perform actions	
	加号键 ADD button	用于系统功能选项切换及系统参数值的修改 Used for system option switch and system parameter	
	减号键 SUBSTRACT button	value modification	工作页面下长按减号键用于执行计数值归零操作 Long press to clear synchronous counter value

三、开机页面说明

Panel display page guide



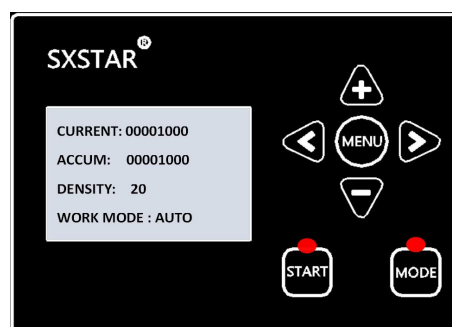
启动页面



Startup display page



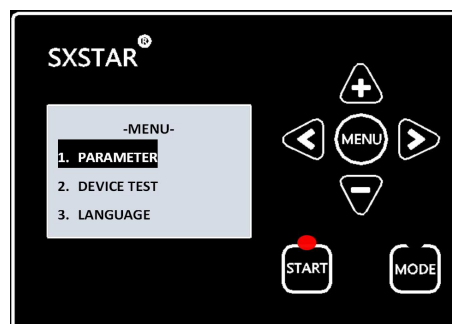
工作页面



Work display page



菜单选项页面



Menu option display page

四、功能及操作说明

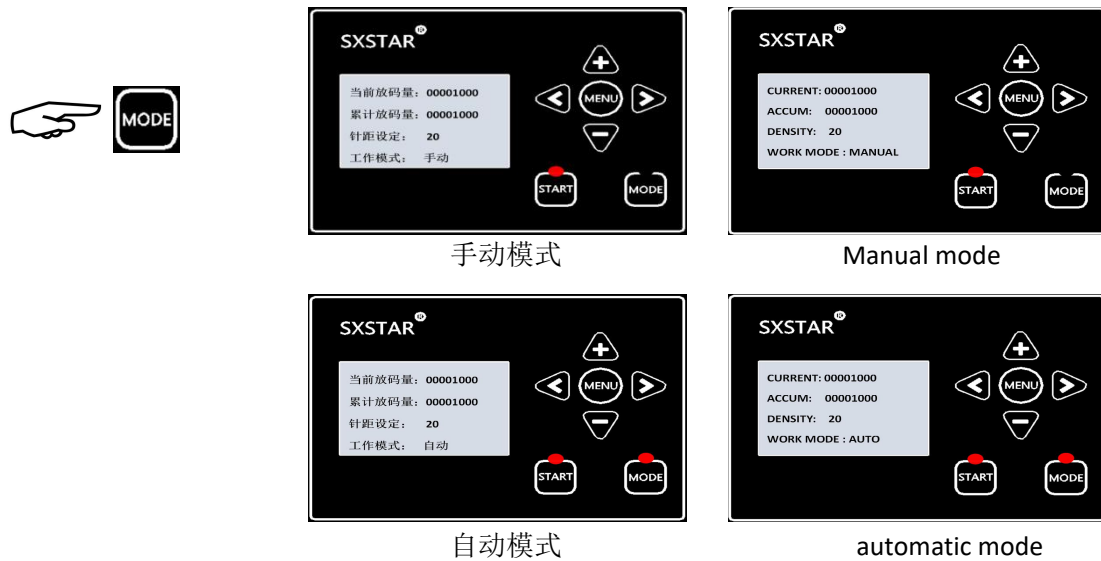
Function and operation guide

1. 工作模式

Work mode

设备工作状态包括自动模式和手动模式，手动模式下，用户可以通过踏板进行车缝和同步动作，自动模式下，设备自动进行车缝和同步动作，自动模式和手动模式可以在工作页面下通过 MODE 键进行切换

System can work in automatical mode or manual mode.when working in manual mode,user can start synchronous sewing by pressing the pedal.when working in automatic mode, device can start synschronous sewing withou pedal.user can switch the working mode by MODE button

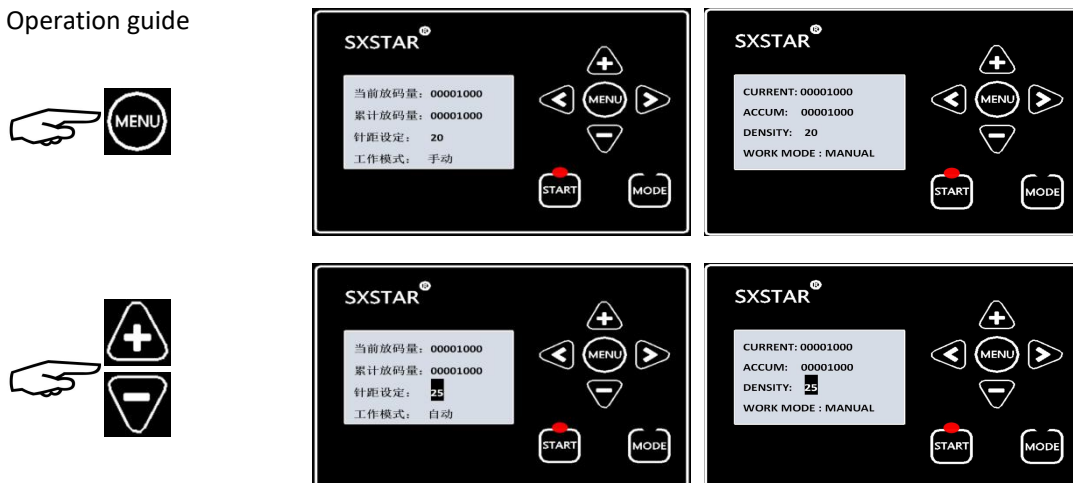


2. 针距设置 Stitching density setting

工作页面下短按 MENU 键进入针距设置状态，通过加号键或减号键对针距数值进行修改，可以改变同步速度，数值越大，针距越疏，反之，针距越密，修改完成后按 MENU 键退出针距设置状态，针距设定值有效范围为 1 ~ 120。

Press MENU button to enter Stitching density setting status ,modify the stitching density value by ADD button or SUBSTRACT button,press MENU button again to exit Stitching density setting status.The vaild rang of the Stitching density setting is 1 ~ 120.

操作图示：
Operation guide



3. 放码量统计功能 Synchronous counting

系统支持对累计放码量和当前放码量进行统计,并通过面板显示累计放码量统计值和当前放码量统计值(*注:累计放码量统计值支持断电存储,该统计值可以通过长按面板减号键进行手动清零;当前放码量在设备断电后会自动清零)。由于布料弹性的差异和针距设置的不同,当前放码量统计值与实际放码长度仅存在相对固定的比例关系,通过面板当前放码量统计值除以实际测量到的放码长度可以计算出每米对应的放码量,用于计算实际缝制的放码长度

System can count the cumulative pull length and current pull length, and show the statistic on the LCD panel (NOTE: cumulative pull length statistic can always be saved when power down, user can reset the statistic by long pressing SUBSTRACT button; Current pull length statistic will reset when power down). since the different of the material and the stitch density setting, there is relative proportion between the Current pull length statistic and physical pull length, user can calculate the statistic per meter according to the proportion relation, to get physical pull out length.

例: 假设面板当前放码量统计值显示为 600, 而测量到的实际放码长度为 5 米, 则

$$\begin{aligned} \text{每米对应的放码量} &= \text{当前放码量} / \text{实际放码长度} \\ &= 600 / 5 \\ &= 120/\text{m} \end{aligned}$$

而当当前放码量统计值为 1000 时, 根据上述的比例关系可以换算得到实际放码长度:

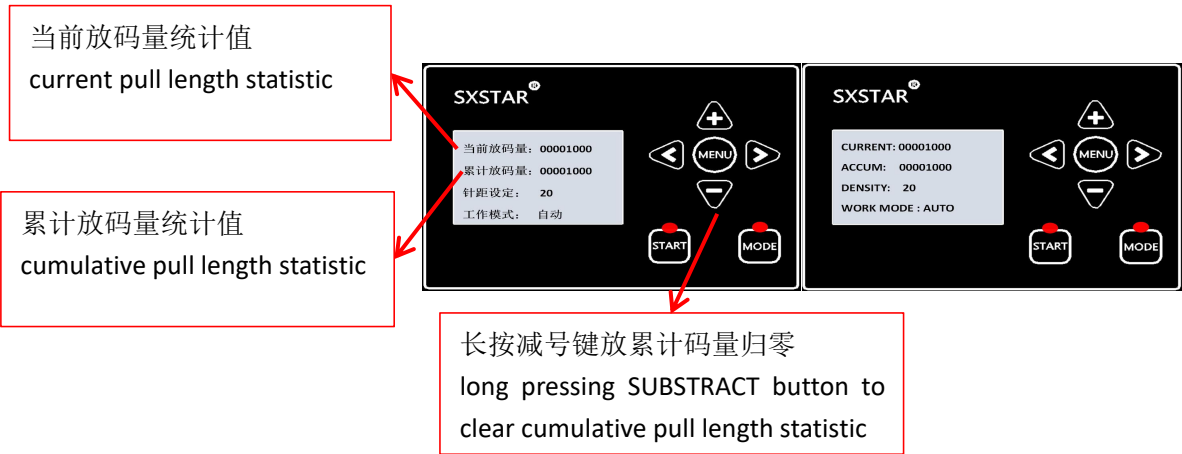
$$\begin{aligned} \text{实际放码长度} &= \text{当前放码量} / \text{每米对应的放码量} \\ &= 1000 / 120 \\ &\approx 8.3 \text{ m} \end{aligned}$$

Example: if current pull length statistic is 600, and physical pull length is 5 meter, then

$$\begin{aligned} \text{statistic of per meter} &= \text{current pull length statistic} / \text{Physical pull length} \\ &= 600 / 5 \\ &= 120/\text{m} \end{aligned}$$

When current pull length statistic reach 1000, according to the proportional relation :

$$\begin{aligned} \text{Physical pull length} &= \text{current pull length statistic} / \text{statistic of per meter} \\ &= 1000 / 120 \\ &\approx 8.3 \text{ m} \end{aligned}$$



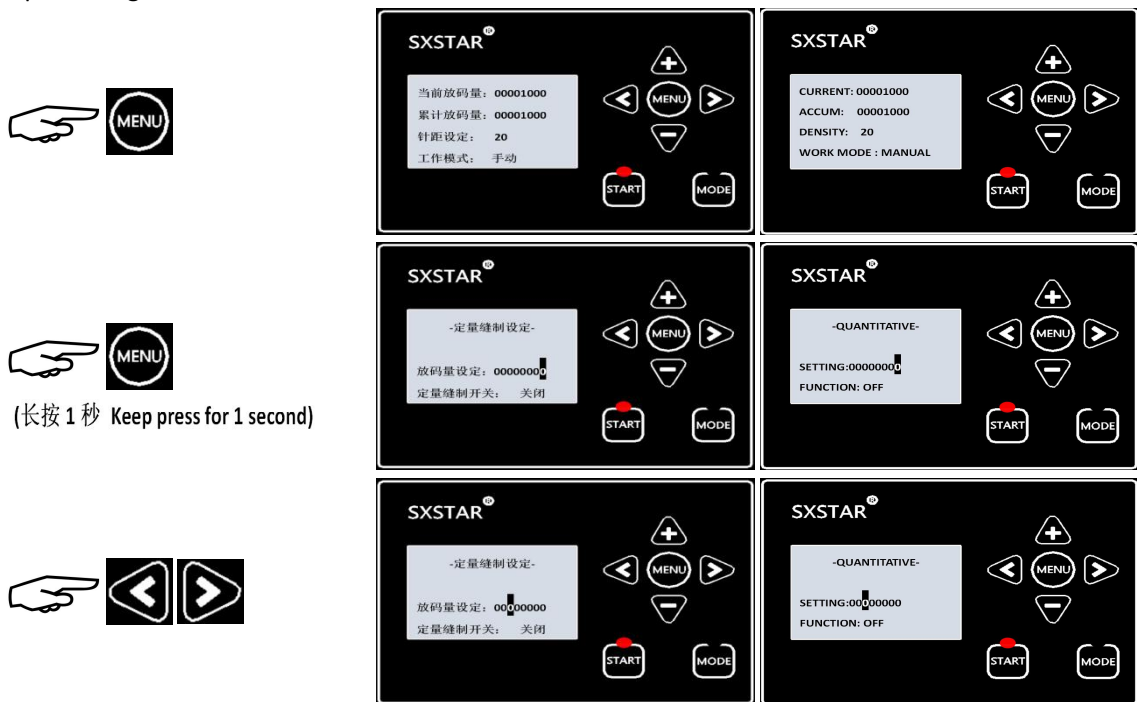
4. 定量缝制功能 Quantitative production function

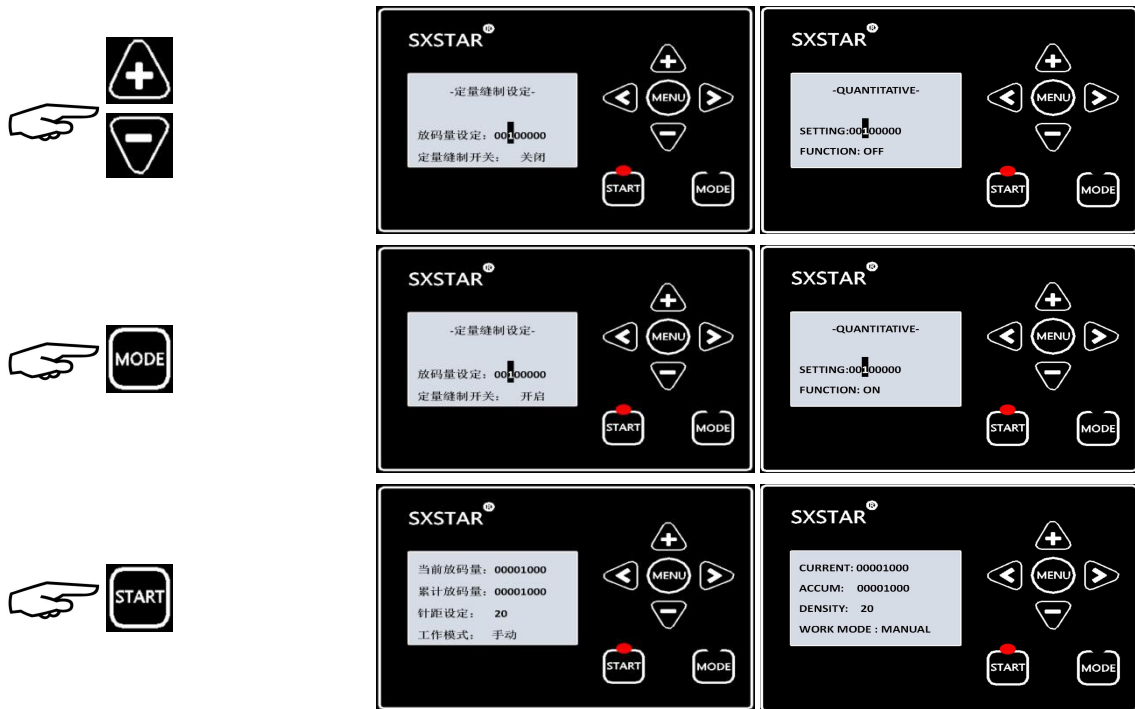
系统支持定量缝制，用户可以根据实际需要的缝制长度，通过放码量统计值与实际放码长度的比例关系式计算出的放码量设定值，设备在累计放码量统计值达到放码量设定值后会自动停止车缝动作，具体设置方法如下所示。

System supply Quantitative production function, user can set a pull-out length value to make system stop sewing automatically when the cumulative pull length statistic reach to the setting length, the operation guide is shown below.

操作图示：

Operation guide





5. 缺料、卡料和断线报警停机功能

Material and thread break warning and closing down

系统提供缺料、卡料和断线报警停机功能（*注：其中缺料、卡料报警停机为选配功能，需要搭配套带机使用，最高可搭配两台送带机同步使用；1号断线检测传感器为标配器件，用于面线检测；2/3/4号断线检测传感器为选配器件，用于底线检测）。每个检测通道均可独立启用或关闭，具体设置方法请参考下文所述的系统参数设置说明；此外系统支持累计放码量统计值溢出检测，当前累计放码量统计值溢出时，需要手动进行清零操作。当系统检测到异常时会自动停止车缝并在面板显示相关故障信息，同时发出警报声用以提示用户进行故障排除，当用户确认故障信息后可以通过操作面板上面的 START 按键清除相关故障提示

System supply material detection and thread break detection (**NOTE: material detection and material knotting detection is optional function ,tape feeder is required when using this function , system can support install two tape feeder at the same time. thread 1 break detection is a standar part to detect upper thread ,thread 2/3/4 break detection are optional part to detect under thread*). Each detection channel can be turn on or turn off independently, the operation guide refer to the system parameter setting . once system detected an accident , system will stop sewing and LCD panel will show the alarm infomation, also will make alarm sound to remind user to check .user can clear the alarm by pressing START button

故障提示表:

Alarm information table

故障提示 Alarm display	故障说明及排除 Alarm description and solution
断线 1 提示 Thread 1 break Alarm	设备出现断线故障，用户应检查对应线路并重新穿针引线，按面板 START 键清除故障提示 thread break is detected,check the thread and threading again,clear alarm by pressing START button
断线 2 提示 Thread 2 break Alarm	
断线 3 提示 Thread 3 break Alarm	
断线 4 提示 Thread 4 break Alarm	
缺料提示 Material detection Alarm	辅助送料装置出现缺料，用户应重新上料，按面板 START 键清除故障提示 Detected no material feeding, user should re-insert tape, clear alarm by pressing START button
卡料提示 Material block detection alarm	辅助送料装置出现卡料，用户应排除卡料问题，按面板 START 键清除故障提示 Detected material knotting , user should avoid knotting and clear alarm by pressing START button
累计放码量统计值溢出 cumulative pull length statistic overflow	累计放码量统计值达到最大值，用户可通过长按减号键对该值进行清零操作，按面板 START 键清除故障提示 cumulative pull length statistic reach to the maximum,long pressing SUBSTRACT Button to clear cumulative pull length statistic, clear alarm by pressing START button

6. 系统参数设置

System paramter setting

参数调节方法：工作页面下，长按 MENU 按键 1 秒进入菜单选项页面，使用加号键或减号键选择系统参数设置选项并按右移键进入系统参数选项页面，使用加号键或减号键选择需要修改的参数选项并按右移键进入相应的参数设置页面，使用加号键或减号键修改参数，左移键用于返回。

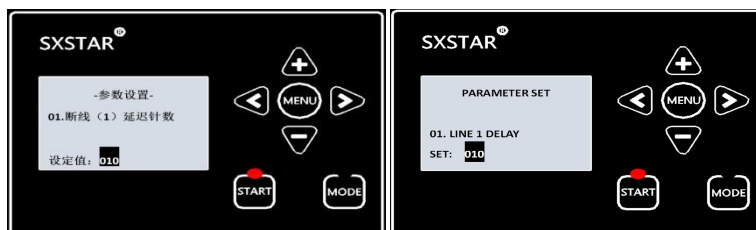
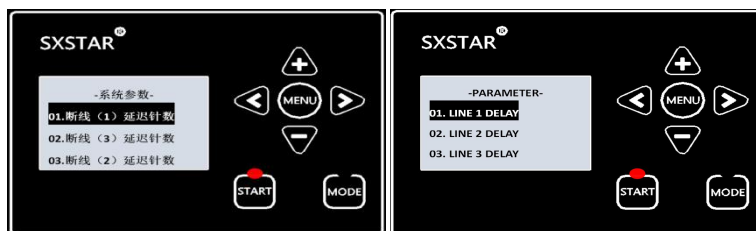
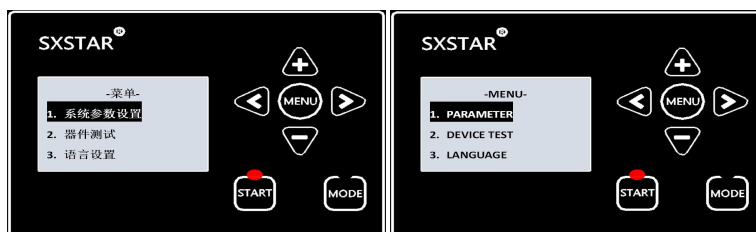
System paramter setting guide: keep long pressing MENU button for one second to enter menu optional page,ADD button and SUBSTRACT button is used for menu option select and RIGHT SHIFT button is used for enter option setting.then use ADD button or SUBSTRACT button to modify the paramter value, LEFT SHIFT button is used for return to the previous display page.

操作流程图示:

Operation guide



(长按 1 秒 Keep press for 1 second)



系统参数表:

System parameter table

参数名称 Parameter name	参数用途 Function	最小值 Minimum value	最大值 Maximum value	出厂默认值 Reference
01. 断线(1)延迟针数 LINE 1 BREAK	断线检测 1 延迟针数设置 Line 1 break detect delay stitch setting	0 (关闭检测) (no detect)	100	10
02. 断线(2)延迟针数 LINE 2 BREAK	断线检测 2 延迟针数设置 Line 2 break detect delay stitch setting	0 (关闭检测) (no detect)	100	0
03. 断线(3)延迟针数 LINE 3 BREAK	断线检测 3 延迟针数设置 Line 3 break detect delay stitch setting	0 (关闭检测) (no detect)	100	0
04. 断线(4)延迟针数 LINE 4 BREAK	断线检测 4 延迟针数设置 Line 4 break detect delay stitch setting	0 (关闭检测) (no detect)	100	0
05. 检料(1)延迟针数 TAPE 1 DETECT	1 号布料检测延迟针数设置 Material detect delay stitch setting	0 (关闭检测) (no detect)	100	0
06. 检料(2)延迟针数 TAPE 2 DETECT	2 号布料检测延迟针数设置 Material detect delay stitch setting	0 (关闭检测) (no detect)	100	0
07. 步进方向 DIRECTION SET	拖轮滚动方向调节 Step-motor turn direction setting	顺时针 POSITIVE	逆时针 NEGATIVE	顺时针 Clockwise
08. 外部报警音 ARLAM MODE	面板报警音和外接报警器的选择 To switch external alarm	OFF	ON	ON

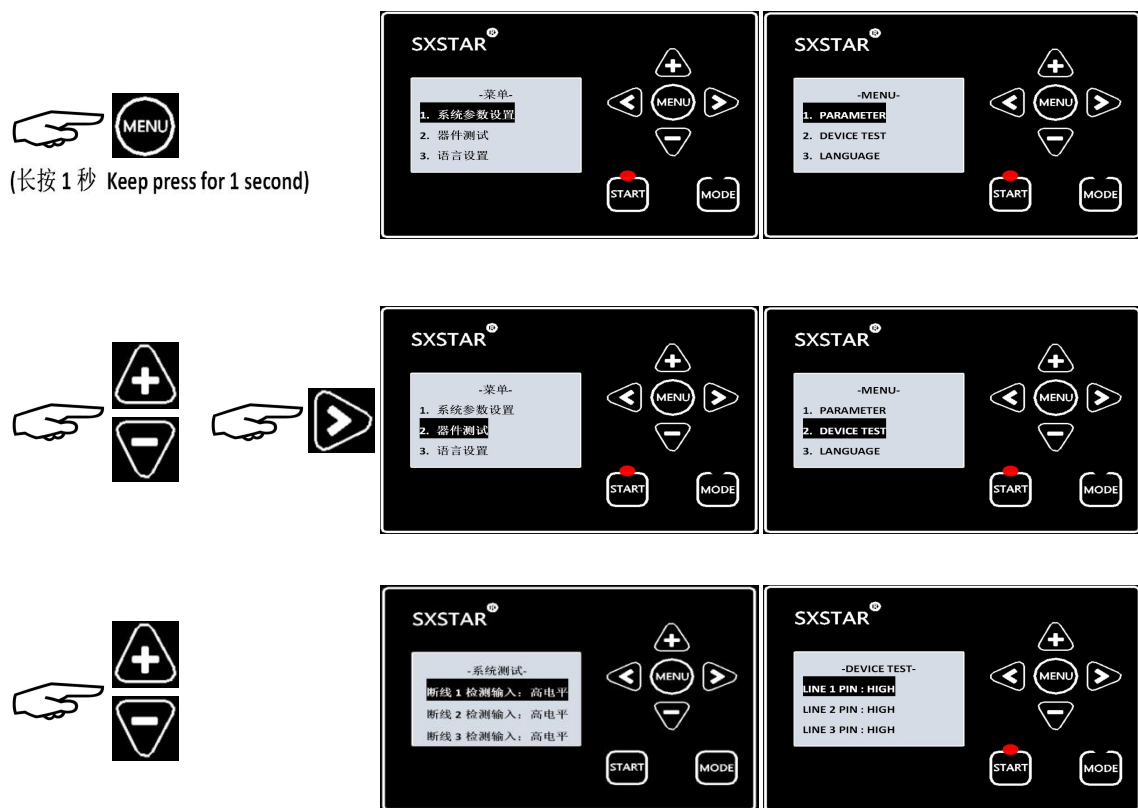
7. 测试功能 Device test

测试功能主要用于技术人员对设备的器件进行故障测试时使用，主要包含传感器输入状态监测、步进电机转动测试、车缝控制功能测试以及主板温度监测等，具体操作参考下文

Device test function is specially used for technicians to check the device working status, such as sensor input signal, step-motor drive, sewing control and the temperature of the circuit board.

操作图示：

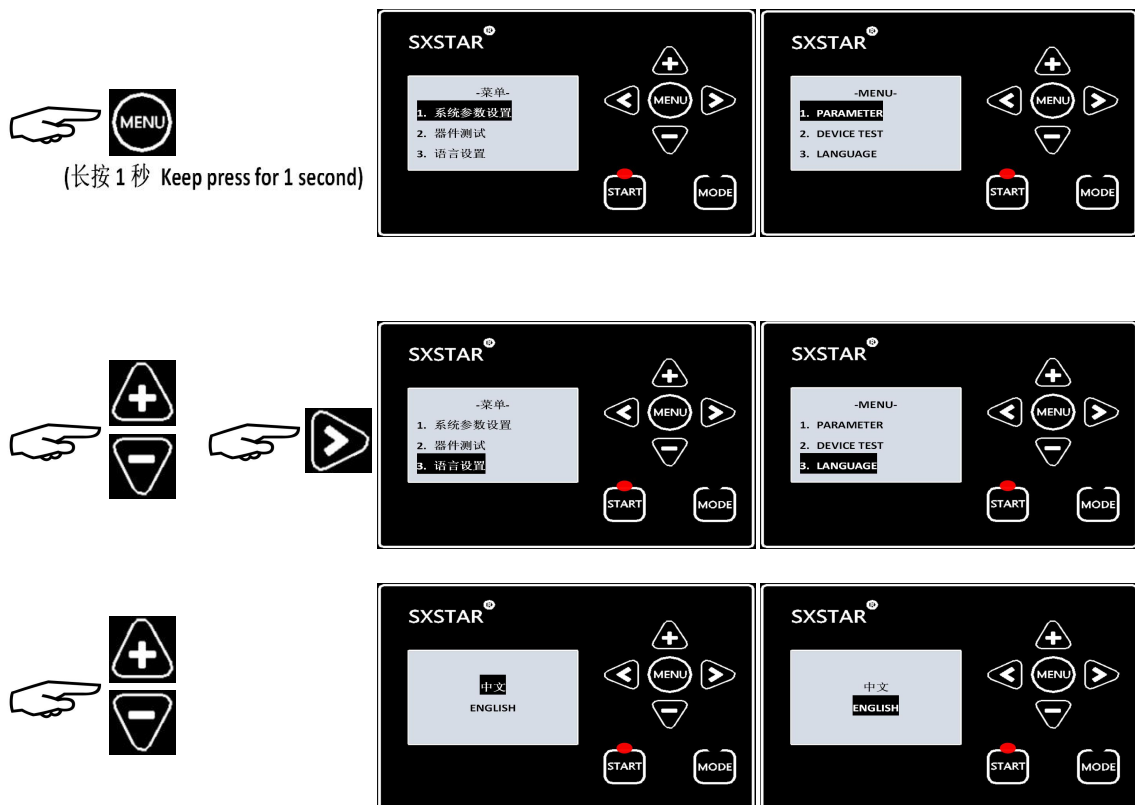
Operation guide



8. 语言设置 LANGUAGE SETTING

面板显示提供中文和英文两种语言供用户选择
System provide chinese and english language

操作流程图示：
Operation guide

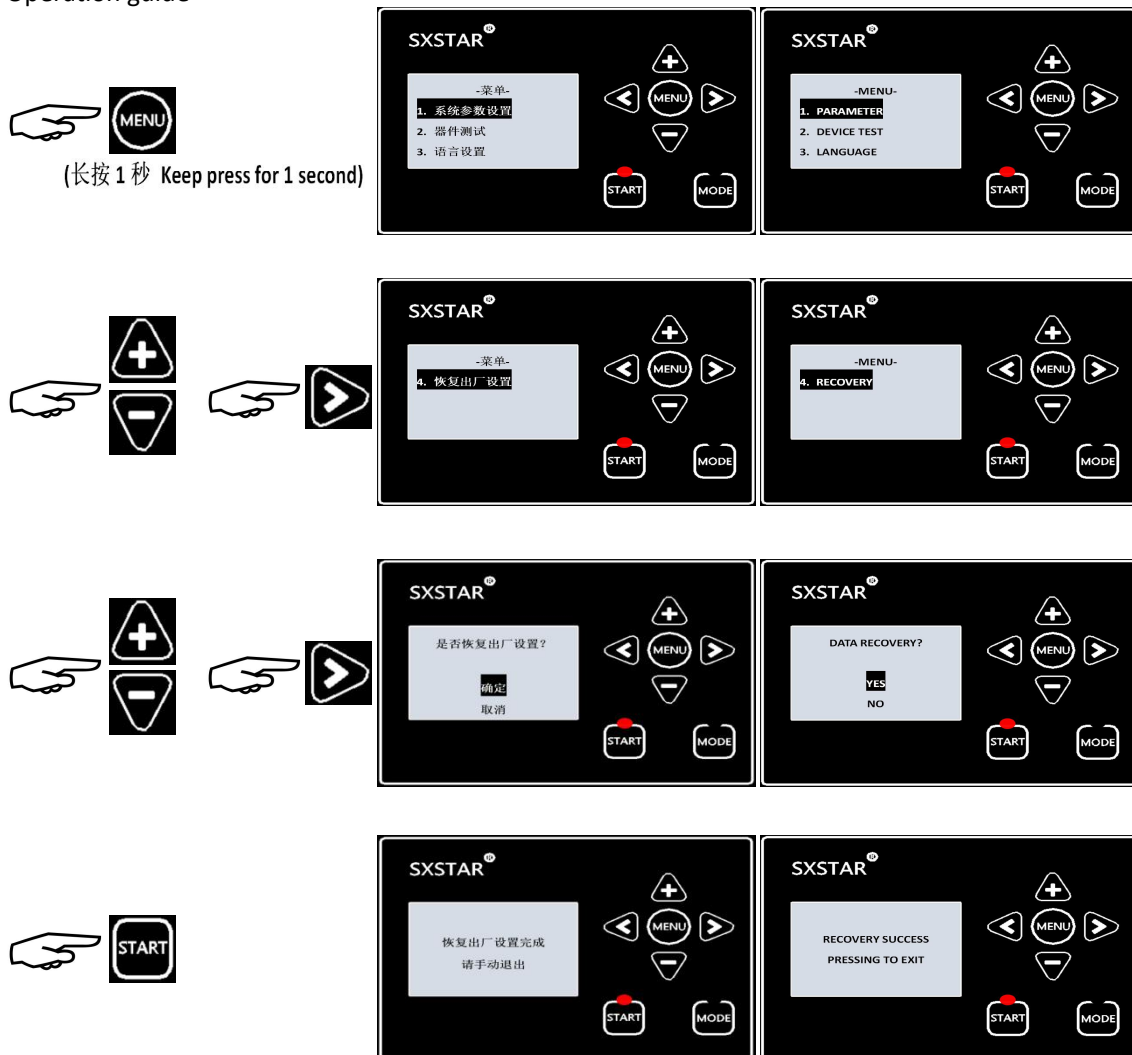


9. 恢复出厂设置 Restore factory

恢复出厂设置操作方式：工作页面下长按菜单键进入系统设置页面，通过加号键或减号键选择恢复出厂设置选项，单击右移键进入恢复出厂设置页面，再通过加号键或减号键选择确定选项，单击右移键执行恢复出厂设置功能，完成后面板会提示操作结果，此时用户可以通过单击 START 键返回工作页面

How to restore factory:keep pressing MENU button for 1 second to enter menu option page,select the restore factory option by add or subtract button,pressing right shift button to enter the restore factory option,and then select the sure option by add or subtract button,make it restore factory by right shift button ,wait for the result and finally press START button to return to work page

操作流程图示：
Operation guide



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