
ZLC06系列 A 型一体导正架

ZLC06 series A-type integrated guide fram

^e
用户使用手册

User Guide



目 录 Catalogue

1	系统概述 system survey.....	错误!未定义书签。
2	技术规格 Technical specifications.....	5
2.1	纠偏传感器技术参数 Technical parameters of the rectifying sensor	5
2.2	纠偏导正架技术参数 Technical parameters of deviation correction frame	6
2.3	纠偏导正架接口定义 Define of rectifying interface	6
3	设备安装 Equipment installation	9
3.1	导正架本体安装 Frame body installation	9
3.2	进料及出料导向辊的安装 Installation of feed and discharge guide rollers	10
3.3	导正架的安装方向 Install direction	11
4	操作说明 Operation declaration.....	12
4.1	主界面 Main interface.....	12
4.1.1	自动/手动纠偏按钮与标识 Automatic/Manual rectify buttons and identification	12
4.1.2	左旋右旋按钮 Left-handed right-handed button	12
4.1.3	导正架居中按钮 Guide center button.....	13
4.2	系统参数设置界面 System parameter setting interface.....	13
4.2.1	恢复出厂设置 Factory data reset	13
4.2.2	修改密码 Change password.....	14
4.2.3	中英文切换 Switch between Chinese and English.....	14
4.2.4	屏幕操作 Screen operation.....	14
4.2.5	屏幕方向 Screen Orientation	14
4.3	纠偏参数设置 Correction parameter setting.....	15
4.3.1	纠偏速度 Correcting deviation speed	15
4.3.2	纠偏方向（极性） Rectify direction（polarity）	15
4.3.3	机型 Model.....	15
4.3.4	纠偏模式 Corrective deviation mode.....	15
4.3.5	纠偏盲区 Correct the blind area	16
4.3.6	外部控制信号 External control signal.....	16
4.3.7	对中方式 In the way.....	16
4.3.8	中心位和限幅 Center position and limit	16
4.3.9	纠偏传感器设置 Rectify sensor setting.....	17

安全注意事项

感谢使用 Bedook 纠偏控制设备！

在您安装、使用、检查、维修之前，请务必仔细阅读本用户使用手册。

以下为说明书所提供的安全警示标志的含义：



危险：如果错误操作，将会产生危险情况，导致人员伤亡。



小心：如果错误操作，将会产生危险情况，造成设备损坏及财产损失。



注意：错误操作会导致设备配置混乱和异常操作



- 控制器、传感器和执行器均采用开关电源 24VDC 输出供电，切勿将 220VAC 直接接入以上设备。
- 安装工作必须在无电状态下进行。



- 只有正确连接保护接地，才能减少外界电磁干扰。
- 与电网断开后，要等电容放电完毕，才可进行操作。
- 不要让任何异物进入控制器内。在加工螺丝孔及配线时，切勿让铁屑及零碎电线落入其中。否则会有导致产品损坏、冒烟、起火、误动作等危险。
- 在使用前，要除去所有覆盖物，以防止产品过热。
- 切勿在易燃易爆等危险环境中使用。
- 请勿将本产品安装在高温、潮湿等恶劣环境下。
- 请勿将产品直接安装在易受震动冲击的环境中。
- 任何单位部门（Bedook 和 Bedook 指定公司除外）未经允许不得擅自拆卸、修理及更改产品。

注意：Bedook 对由于不遵守本说明或适用规则而造成的损坏概不负责。

因产品更新换代迅速，说明书变动之处，恕不另行通知，本公司对此保留最终解释权

Safety Precautions

Thank you for choosing Bedook® Web guiding control system!

Please read the instructions carefully before installation, operation, inspection and maintenance. The following illustrations show the meanings of the safety warning signs provided in the manual.



Warning: Faulty operations will cause dangerous situations including casualties.



Caution: Faulty operations will cause dangerous situations including equipment damage and property loss.



Notice: Faulty operations will cause disorder of the device configuration and abnormal operation.



● The controller, sensor and driver are all powered by switching power with 24VDC supply. Do not connect 220VAC directly to the equipment.

● Installation must be operated under no-power state.



● Only when the protective grounding is properly connected can the external electromagnetic interference be reduced.

● After disconnecting from the grid, wait until the capacitor is fully discharged before further operation.

● Do not let any foreign matter enter the device machining screw holes and wires, do not let iron filings or broken wire pieces fall into the device. Otherwise, there could be danger of product damage, smoke, fire, malfunction, etc.

● Remove all covers before operating in case of overheat.

● Do not operate in hazardous environment such as flammable or explosive.

● Do not install this product in harsh environment such as high temperature or humidity.


● Do not install this product directly in an environment subject to vibration.


● Any unit or department (apart from Bedook® and Bedook® designated companies) may not disassemble, repair or modify this product without permission.

Notice: Bedook® is not responsible for any damage caused by noncompliance with this instruction or applicable rules.

Due to rapid product upgrades, the specifications are subject to change without notice, and the company reserves the right of final interpret

1 技术规格 Technical specifications

 纠偏系统的功耗较大，选配的开关电源必须保证足够的容量，建议配置 24V200W 以上开关电源。

 The power consumption of the deviation correction system is relatively large, and the optional switching power supply must ensure enough capacity. It is suggested to configure the switching power supply of more than 24V200W.

1.1 纠偏传感器技术参数 Technical parameters of the rectifying sensor

型号	WS-UT	WS-IR
测量原理	超声波	红外光电
测量精度	0.01mm	0.02mm
测量范围	8mm	4mm
参数保存时间	>10 年	
电源与功耗	24VDC (18VDC ~ 28VDC), 5W	
通讯接口	CAN2.0	
工作环境	温度-10°C ~ +60°C, 湿度<95%无(水汽)凝结	
外形尺寸	长 x 宽 x 厚 (102mm x 81mm x 22mm), 开口宽度 40mm	

注 1: 除表格内的外形尺寸, 还有其他的尺寸可以选择。

注 2: 红外光电传感器内侧可加装喷气头, 防止特殊卷材的碎屑对镜片产生的干扰。

详见选型样本和纠偏传感器说明书!

Model	WS-UT	WS-IR
Measuring method	Ultrasonic	Infrared photoelectric
Measuring resolution	0.01mm	0.02mm
Measuring range	8mm	4mm
Parameter saves time	>10years	
Power and consumption	24VDC (18VDC ~ 28VDC), 5W	
Communication port	CAN2.0	
Working environment	Temperature -10 ° C ~ +60 ° C, humidity <95% without (water vapor) condensation	
Dimensions	Length x width x thickness (102mm x 81mm x 22mm), Opening width 40mm	

Note 1: there are other sizes to choose from besides the shapes in the table.

Note 2: the inner side of infrared photoelectric sensor can be equipped with a jet head to prevent the special coil of debris on the lens interference.

See sample selection and deviation sensor specification for details!

1.2 纠偏导正架技术参数 Technical parameters of deviation correction frame

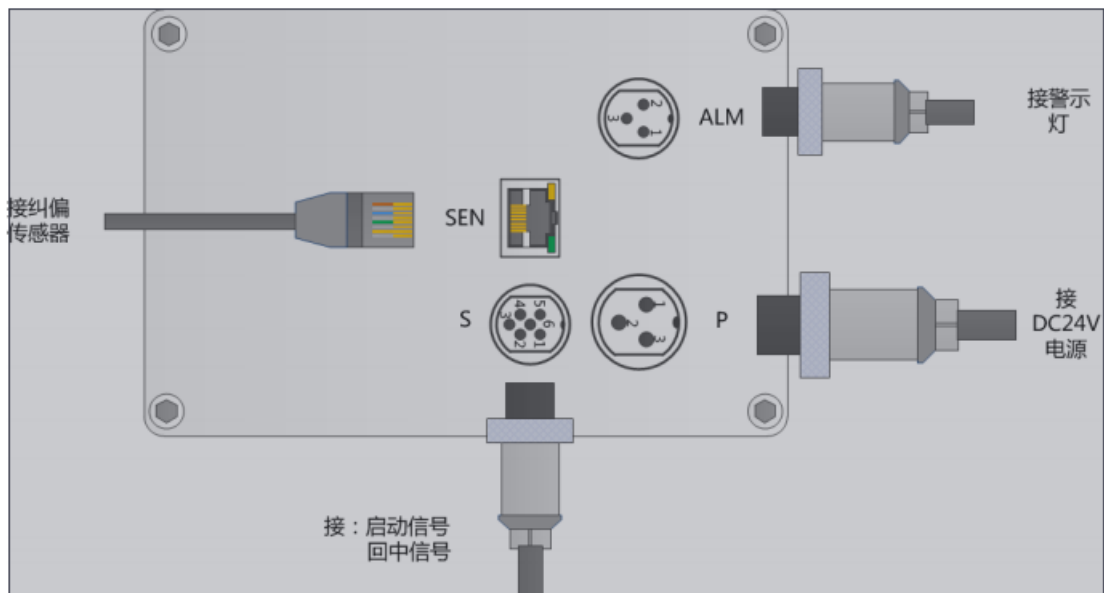
型号	ZLC06 系列 A 款
功能	一体中间纠偏导正架
最大运动速度	20mm/s
运动精度	0.02mm
最大行程纠偏	±40mm (不同规格详见机械尺寸部分内容)
纠偏角度	< ±5°
参数保存时间	>10 年
电源	24VDC (18VDC ~ 28VDC)
功耗	60W
工作时间	温度-10°C ~ +60°C, 湿度<95%无 (水汽) 凝结

Model	ZLC06 Series Model A
Function	One middle deviation correction is correct
Maximum movement speed	20mm/s
Kinematic accuracy	0.02mm
Maximum stroke correction	±40mm (See mechanical dimensions for different specifications)
Correction Angle	< ±5°
Parameter saving time	>10 年
Power	24VDC (18VDC ~ 28VDC)
Consumption	60W
Operate time	Temperature-10°C ~ + 60°C, humidity <95% without (water vapor) condensation

1.3 纠偏导正架接口定义 Define of rectifying interface

代号	名称	类型	线序
POW	电源输入	GX16-3P 航插	1 棕: 24VDC+; 2 蓝: 24VDC-; 3 黄绿: 接地线 PE

SGI	开关量输入	GX12-6P 航插	1 棕: DI0+, 居中信号+, 上升沿有效 2 蓝: DI1+, 启动/停止信号+, 高电平启动, 低电平停止 3 白: DI2+, 保留 4 黑: DI3+, 保留 5 灰: DI4+, 保留 6 橙: DICom, 开关量输入信号公共端
ALM	开关量报警输出	GX12-3P 航插	1 蓝: DOCom, 公共地 2 棕: DO0+, 纠偏极限报警+ 3 黑: DO1+, 保留
SEN	传感器接口	RJ45	CAN




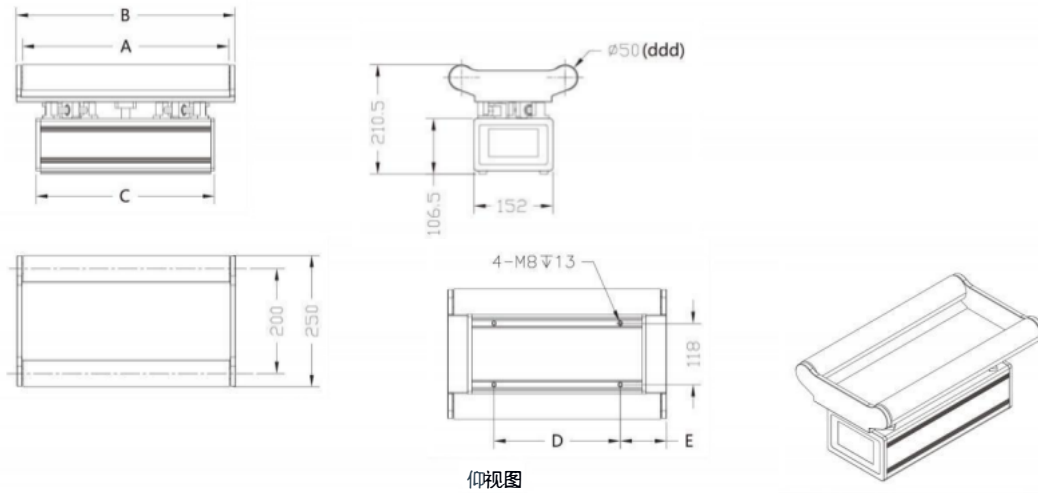
Mark	Name	Type	Line order
POW	Power supply	GX16-3P	1 Brown: 24VDC+ 2 Blue: 24VDC- 3 Yellow green: PE
SGI	Digital input	GX12-6P	1 Brown: DI0, Centering signal: Rising edge effective (PNP)/ Falling edge effective (NPN) 2 Blue: DI1, Start / stop signal 3 Write: DI2, Reserved 4 Black: DI3, Reserved 5 Green: DI4, Reserved 6 Orange: DICom

ALM	Digital alarm Output	GX12-3P	1 Blue: DCom, Command Gnd 2 Brown: DO0+, Rectify limit alarm+ 3 Black: DO1+, No coil alarm+
SEN	Sensor interface	RJ45	CAN bus


2 设备安装 Equipment installation

2.1 导正架本体安装 Frame body installation

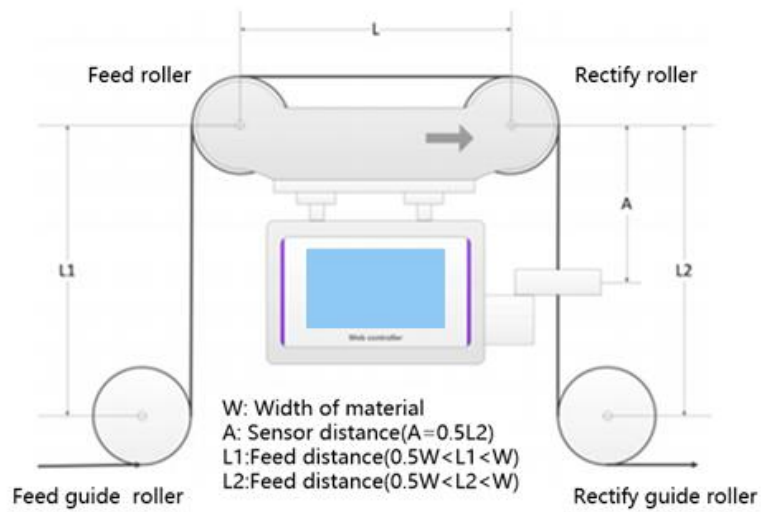
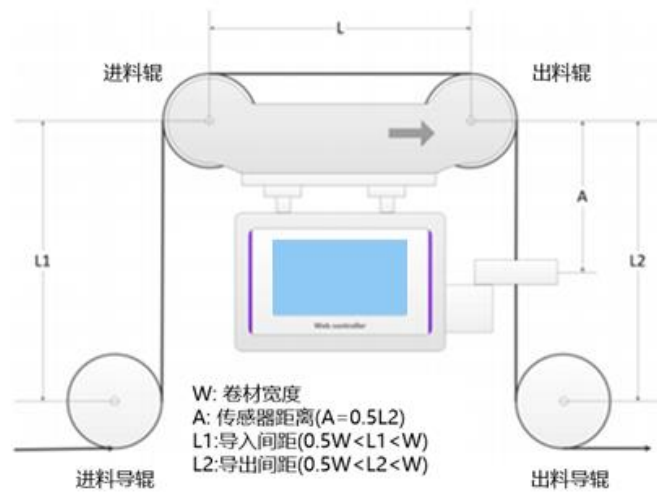
 必须在没有任何电气连接的前提下，才能进行机械安装。



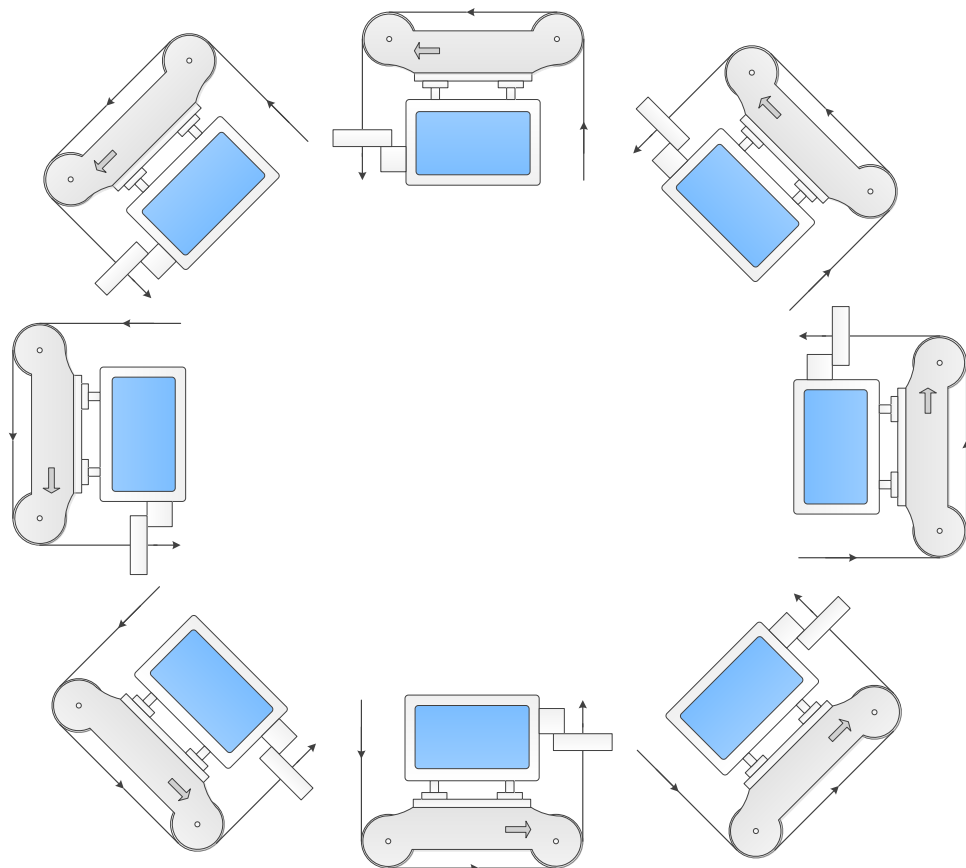
型号	A	B	C	D	E
ZLCO6-160-50	160	184	216	140	22
ZLCO6-200-50	200	224			42
ZLCO6-250-50	250	274			67
ZLCO6-300-50	300	324	246	180	72
ZLCO6-350-50	350	374	296	215	79.5
ZLCO6-400-50	400	424	346	245	89.5
ZLCO6-450-50	450	474	396	280	97
ZLCO6-500-50	500	524	446	315	104.5
ZLCO6-550-50	550	574	496	345	114.5
ZLCO6-600-50	600	624	546	380	122

 注：本产品通常按照客户要求设计外形和安装尺寸，以上尺寸仅供参考！

2.2 进料及出料导向辊的安装 Installation of feed and discharge guide rollers



2.3 导正架的安装方向 Install direction

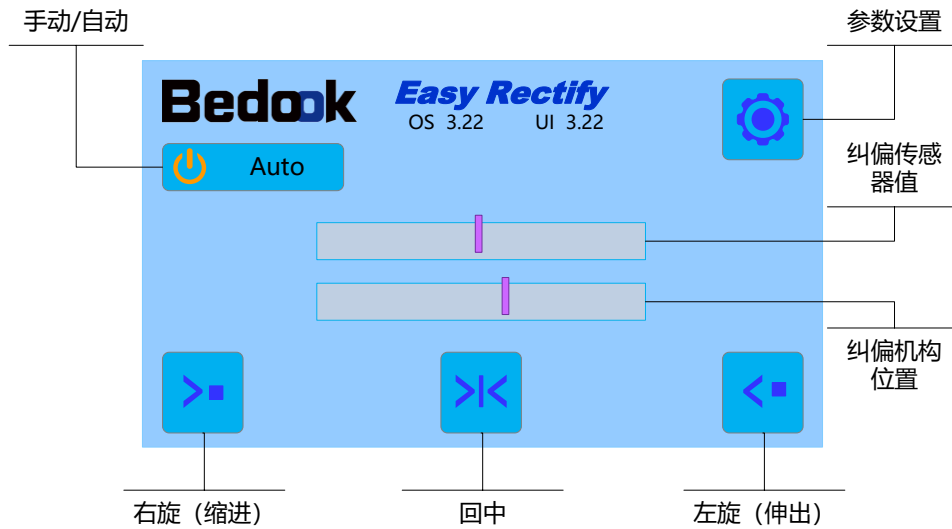


3 操作说明 Operation declaration



Easy Rectify 采用触摸显示屏，用户可通过手指触摸进行各类操作。

Easy Rectify Using the touch display screen, users can do all kinds of operations through the finger touch.



3.1 主界面 Main interface



3.1.1 自动/手动纠偏按钮与标识 Automatic/Manual rectify buttons and identification

点击纠偏“运行与停止”按钮，显示  时为自动运行，显示  时手动运行。也可通过开关量输入信号，控制纠偏运行状态。控制信号为高电平时，纠偏自动运行；控制信号为低电平时，纠偏手动运行。



在自动纠偏模式下，导正架的旋转运动不可人工控制，而由控制器根据传感器的检测值进行自动调节。

Click the "Run and Stop" button to run automatically  and manually . The switching quantity input signal can also be used to control the corrective operation state. When the control signal is high, the correction runs automatically; when the control signal is low, the correction is operated manually.



In the automatic correction mode, the rotation motion of the guide cannot be manually controlled, but is automatically adjusted by the controller according to the detection value of the sensor.



3.1.2 左旋右旋按钮 Left-handed right-handed button

点击“左旋”按钮 ，图标变为 ，导正架慢速向左旋转，再次点击“左旋”按钮，导正架停止运动。

点击“右旋”按钮 ，图标变为 ，导正架慢速向右旋转，再次点击“右旋”按钮，导正架停止运动。

注：只有在系统处于手动纠偏状态时，导正架左旋与右旋按钮使能；在系统处于自动纠偏状态时，系统禁止手动旋转导正架。


Click the "left" button , the icon becomes , the guide frame slowly rotate to the left, click the "left" button again, the guide frame stop movement.





Click the "right" button , the icon to , the guide slowly to the right, click the "right" button again, the guide stop movement.

Note: Only when the system is in manual correction state, the system shall not rotate the guide frame manually when the system is in automatic correction state.


3.1.3 导正架居中按钮 Guide center button

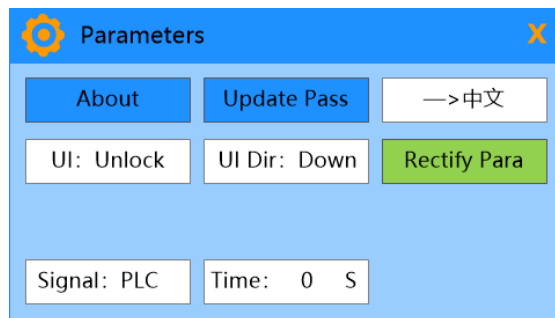
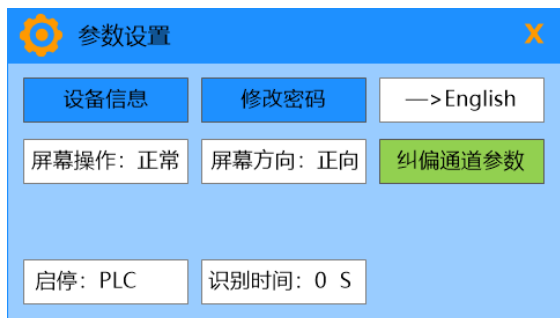
点击“居中”按钮 , 图标变为 , 导正架自动运动到中间位置并停止, 图标显示为 。


注: 只有在系统处于手动纠偏状态时, 导正架居中按钮使能; 在系统处于自动纠偏状态时, 系统禁止人工调节导正架, 居中按钮使能  也可通过开关量信号控制导正架居中。

Click the "center" button , the icon becomes , the guide frame will automatically move to the middle position and stop, the icon shows as . Note: Only when the system is in the manual correction state, the system forbids the manual adjustment. the center button  can control the center through the switching signal.

3.2 系统参数设置界面 System parameter setting interface

在主界面上点击屏幕右上角“设置”按钮 , 设备弹出密码输入框, 输入正确密码后进入系统参数设置界面。



On the main interface, click the button  on the screen, the device will pop up a password input box, enter the correct password and enter the system parameter setting interface.

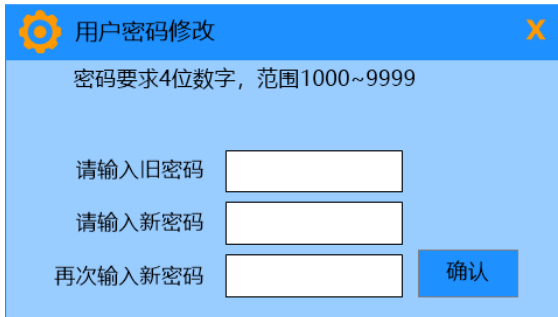
3.2.1 恢复出厂设置 Factory data reset

可通过点击“恢复出厂设置”操作恢复出厂设置, 一般情况下不要轻易操作。

Click "restore factory Settings" operation to restore factory Settings, generally do not operate easily.

3.2.2 修改密码 Change password

点击“修改密码”按钮，可在弹出页面中修改密码。



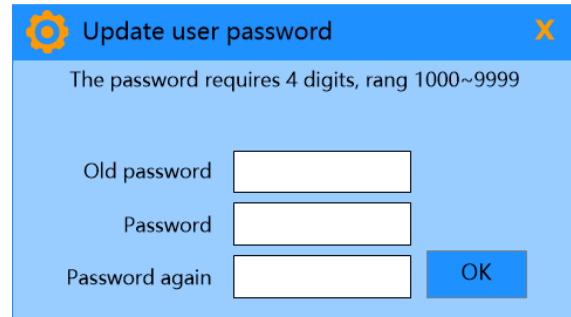
用户密码修改

密码要求4位数字，范围1000~9999

请输入旧密码

请输入新密码

再次输入新密码



Update user password

The password requires 4 digits, rang 1000~9999

Old password

Password

Password again

Click the "Modify Password" button to change the password in the pop-up page.

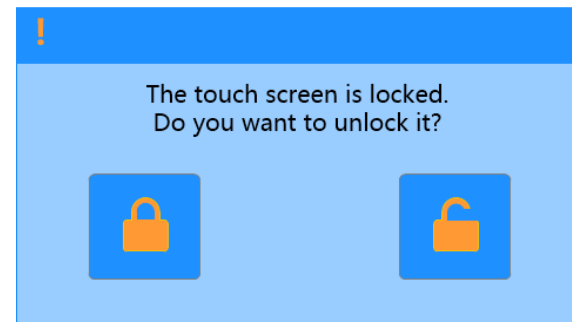
3.2.3 中英文切换 Switch between Chinese and English

和 用于中英文切换。

and Used for switching between Chinese and English.

3.2.4 屏幕操作 Screen operation

屏幕操作分为正常和锁定两种模式。在正常模式可直接操作主界面上控件；在锁定模式下需要解锁后才能操作控件，此功能用于防止误操作。



The screen operation is divided into two modes: normal and locked. In normal mode, you can directly operate the controls on the main interface; in locked mode, you need to unlock the controls before you can operate them. This function is used to prevent misoperation.

3.2.5 屏幕方向 Screen Orientation

显示屏可进行 180° 翻转。

The display can be flipped 180°

3.3 纠偏参数设置 Correction parameter setting

机型: 右手机	极性: +	传感器设置
传感器: 超声波	速度: 3	无料侦测: 停用
	盲区: 100	启动方式: 外部
中心位: 50 %	限幅: ± 45 % (最大允许 50 %)	

Type: Left hand	Polarity: +	Sensor setting
Sensor: UT	Speed: 3	No coil: Yes
	DZ: 100	Start: Main UI
Center: 50 %	Range: ± 45 % (Max 50 %)	

3.3.1 纠偏速度 Correcting deviation speed

纠偏速度可以设为 1~5 级。速度越快，纠偏越灵敏，但惯性也越大，容易引起震荡，且对开关电源的功率要求更高。在使用过程中，应根据实际需求，合理选择，一般来说卷材边缘有细小锯齿的，不宜选择高速模式。

The rectify speed can be set to 1~5 grades. The faster the speed, the more sensitive the rectification is, but the inertia is also greater, which is easy to cause vibration, and the power requirements of the switching power supply are higher. In the process of use, it should be selected reasonably according to the actual needs. Generally speaking, if the edge of the coil has small serrations, it is not suitable to choose the high-speed mode.

3.3.2 纠偏方向 (极性) Rectify direction (polarity)

纠偏极性 (正/负) 影响纠偏方向，当极性设反时，越纠越偏。出现这种情况时，只需更改一下极性即可。Rectify polarity (positive/negative) affects the rectify direction, when the polarity is reversed, the rectify direction is reversed. When this happens, just change the polarity.

3.3.3 机型 Model

右手机：面对显示屏，卷材从左边进入，从右边导出的称为右手机。左手机：面对显示屏，卷材从右边进入，从左边导出的称为左手机。纠偏传感器永远安装在出料辊侧。机型必须根据实际情况设置正确，否则设备不能正常工作。

Right mobile phone: facing the display screen, the coil enters from the left, exported from the right is called the right mobile phone. Left mobile phone: facing the display screen, the coil enters from the right, exported from the left is called the left mobile phone. The rectifying sensor is always installed on the discharge roll side. The model must be set correctly according to the actual situation, otherwise the equipment will not work normally.

3.3.4 纠偏模式 Corrective deviation mode

纠偏模式可分为：边/线、对中和错位三种模式，视实际情况选择。

The correction mode can be divided into three modes: edge / line, centering and dislocation, which can be selected according to the actual situation.

3.3.5 纠偏盲区 Correct the blind area

当偏差小于盲区时，系统不执行纠偏动作，可输入数字 0~99，一般选用 50。

When the deviation is less than the blind area, the system does not carry out the correction action, can input the number 0~99, generally choose 50.

3.3.6 外部控制信号 External control signal

设置为有效时，可用外部信号启动纠偏（高电平自动纠偏，低电平手动纠偏）；外部信号设置为无效时，从屏幕选择自动或手动纠偏。

When set to valid, the external signal can be used to start deviation correction (high level automatic correction, low level manual correction); when the external signal is set to invalid, select automatic or manual correction from the screen.

3.3.7 对中方式 In the way

可选择执行器点对点或传感器检测中间值对中两种方式，当传感器固定时，一般选择执行器对中方式。

You can choose the actuator point pair or the sensor detection intermediate pair. When the sensor is fixed, the actuator pair is generally selected.

3.3.8 中心位和限幅 Center position and limit

定义推杆完全缩进，为位置 0%，推杆完全伸出为位置 100%。纠偏执行器的中心位可设置 30~70% 之间，缺省值为 50%。

限幅的定义为中心位的左右摆动幅度，例如设置中心位为 40%，限幅为 25%，则推杆可在总行程的 15%~65%之间运行，超出此范围执行保护，并输出极限保护开关量信号。

Define push rod fully indented at position 0%, fully extended at position 100%. The center position of the deviation actuator can be set between 30 and 70%, and the default value is 50%.

The limit is defined as the left and right swing amplitude of the central position. For example, if the central position is 40% and the limit is 25%, the pushrod can run between 15% and 65% of the total stroke, beyond which protection is executed, and the limit protection switch quantity signal is output.

3.3.9 纠偏传感器设置 Rectify sensor setting

传感器校准与ID设置X

当卷材遮挡传感器电眼一半，显示值偏离40~60%区间时，需重新校准：完全遮挡电眼，点击校准按钮，看到外侧三盏灯闪烁；数秒钟后，转为里侧三盏灯闪烁时，迅速移开遮挡物；数秒钟后，当灯不再闪烁时，标定完成！

采用单传感器时，ID设为1；采用双传感器时，ID分别设为1和2。设置传感器ID时，只能连接一个传感器，检测到当前传感器ID为 1 ，新设为

开始校准

2

Sensor calibrate & IDX

Completely block sensor eye, click calibration button, the sensor outside three lights are flashing; after a few seconds, when the inside three lights are flashing, quickly remove the shield; after a few seconds, when no light is flashing, the calibration is completed!

Using single sensor, the ID is 1; using dual sensors, the ID is 1 and 2 . When setting the sensor ID, only one sensor can be connected. The sensor ID now is 1 .Now set the new ID as

Calibrating

2

对于红外光电传感器，出厂按照不透明材料进行标定。当现场使用透光性的材料，例如透明半透明薄膜、无纺布等时，必须采用的材料进行传感器标定。校准方法如下：

For infrared photoelectric sensors, the factory is calibrated according to the opaque material. When transparent materials are used in the field, such as transparent translucent films, non-woven fabrics, etc., the material must be used for sensor calibration. The calibration method is as follows:

- (1) 将卷材伸入 U 型传感器，完全遮挡光电发射和接收头；

Stretch the coiled material into the U-shaped sensor to completely block the photoelectric transmitting and receiving head;



- (2) 在界面上点击“开始校准”按钮，可以看到传感器上的指示灯发出绿光并闪烁；

Click the button of Calibrating, and you can see that the indicator light on the sensor emits green light and flashes;

- (3) 大约 5 秒钟之后，指示灯发出红光并闪烁，同时迅速将卷材取走；

After about 5 seconds, the indicator light glows red and flashes quickly remove the coil at the same time;



- (4) 又过大约 5 秒钟之后，指示灯不再闪烁，传感器校准完成。

After about 5 seconds, the indicator no longer flashes and the sensor calibration is complete.

此时将卷材遮挡光电头一半，如果传感器 3 或 4 个指示灯亮，说明传感器校准良好，否则可再一次校准。

At this time, the coil blocks half of the photoelectric head. If the sensor 3 or 4 indicators are on, it indicates that the sensor is well calibrated. Otherwise, it can be calibrated again.

同一种材料只需要校准一次，一般不需要重复校准。

The same material only needs to be calibrated once, and it is generally not necessary to repeat calibration.