

ZLAC8030D 上位机使用说明

ZLAC8030D PC Software Instruction

版本/Version	说明/Description	日期/Date
V1.00	初版/First Edition	2024/3/22

目录

CATALOGUE

一、选择中英文版本上位机（上位机软件只能使用 RS485 连接） SELECT CHINESE AND ENGLISH VERSIONS OF PC SOFTWARE（THE SOFTWARE ONLY SUPPORTS RS485 PROTOCOL）	2
二、使用上位机控制电机运行 USE PC SOFTWARE TO CONTROL MOTOR	3
三、修改参数 CHANGE PARAMETERS	9
四、导出参数 EXPORT PARAMETERS	12
五、导入参数 IMPORT PARAMETERS	14

一、选择中英文版本上位机（上位机软件只能使用 RS485 连接）Select Chinese and English versions of PC software（The software only supports RS485 protocol）

1.1、打开上位机软件

Open software

双击上位机应用文件 → 出现如下图对话框 → 选择“English”，上位机就是英文版本，不选择，上位机就是中文版本 → 选择对应的驱动器型号。

Double → Click the software icon → The dialog box appears as follows → If wanting English version, click "English", if wanting Chinese version, do not click "English" → Select the corresponding driver part number.



中文版本（Chinese version）



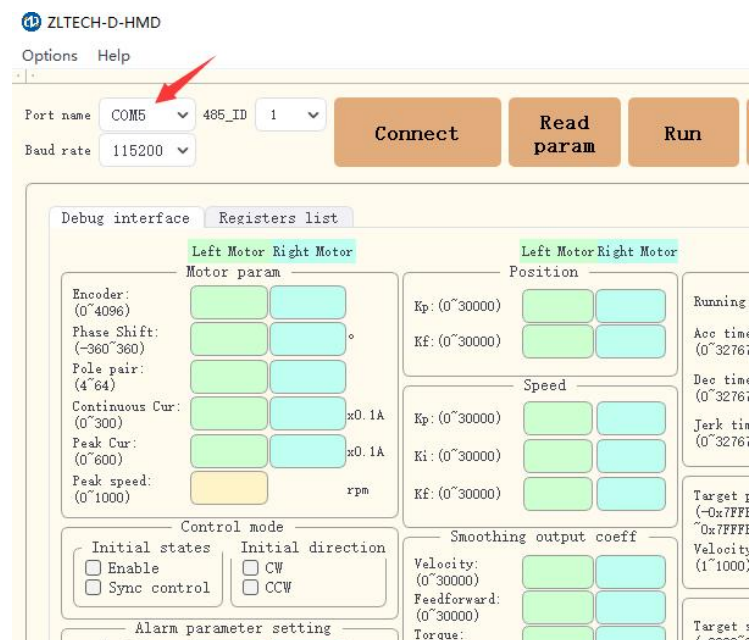
英文版本（English version）

二、使用上位机控制电机运行 Use PC software to control motor

2.1、给驱动器上电，选择对应的串口、485 站号和波特率

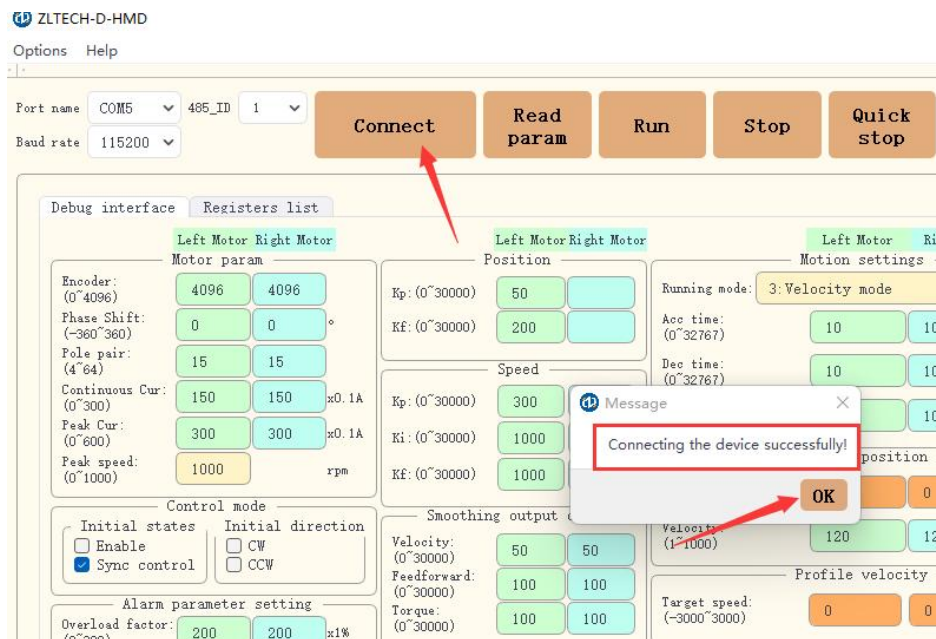
Power on the driver, then select the corresponding serial port, 485_ID and baud rate.

Warning: The ZLAC8030D host software supports only 19200-128000



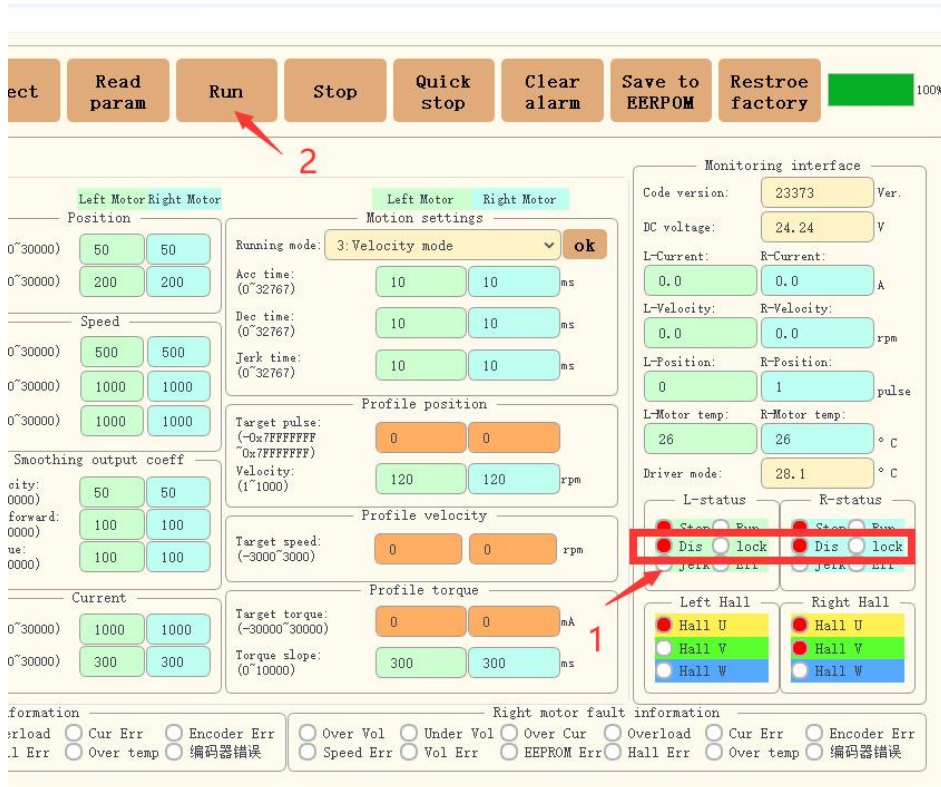
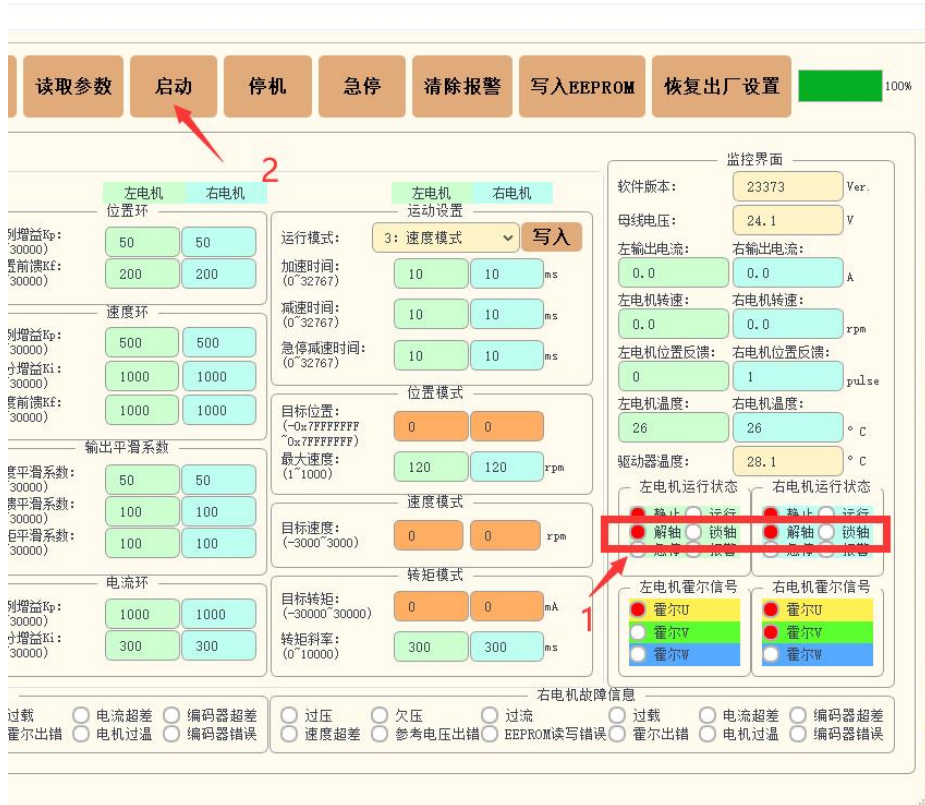
2.2、选择好相应的串口后，点击“连接”按钮→上位机就会弹出“设备连接成功”且自动读取上位机界面的参数→再点击“OK”

After selecting the corresponding serial port, click the "Connect" button →software will pop up "Connecting the device successfully", then read driver's parameters automatically → Click "OK"



2.3、先看上位机“锁轴”是否开启，没有开启就要先点击“启动”

Check if the motor states is "lock". If not, click "Run" firstly.



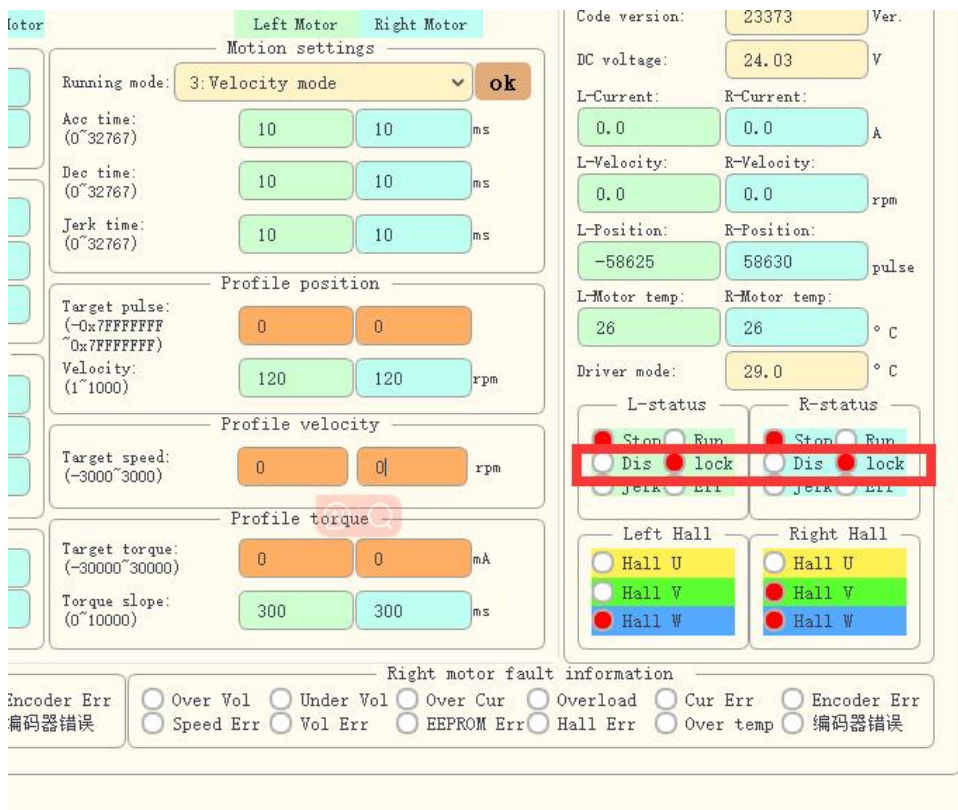
2.4、点击“启动”之后，电机的状态就会变成“锁轴”

After clicking "Run", the state of the motor will change to "lock"



The screenshot displays the software interface for the ZLAC8030D hub servo motor. It is divided into several sections:

- Position Mode (位置模式):** Includes fields for deceleration time (10 ms), emergency stop deceleration time (10 ms), target position (0), and maximum speed (120 rpm).
- Speed Mode (速度模式):** Includes a field for target speed (0 rpm).
- Torque Mode (转矩模式):** Includes fields for target torque (0 mA) and torque slope (300 ms).
- Motor Status (电机运行状态):** Shows left and right motor speeds (0.0 rpm), positions (-58624 and 58630 pulse), and temperatures (26 °C). A red box highlights the status indicators for "Lock" (锁轴) for both motors.
- Right Motor Fault Information (右电机故障信息):** Lists various fault conditions like overvoltage, undervoltage, overcurrent, etc., with corresponding status indicators.



This screenshot shows another view of the software interface, focusing on motion settings and motor status:

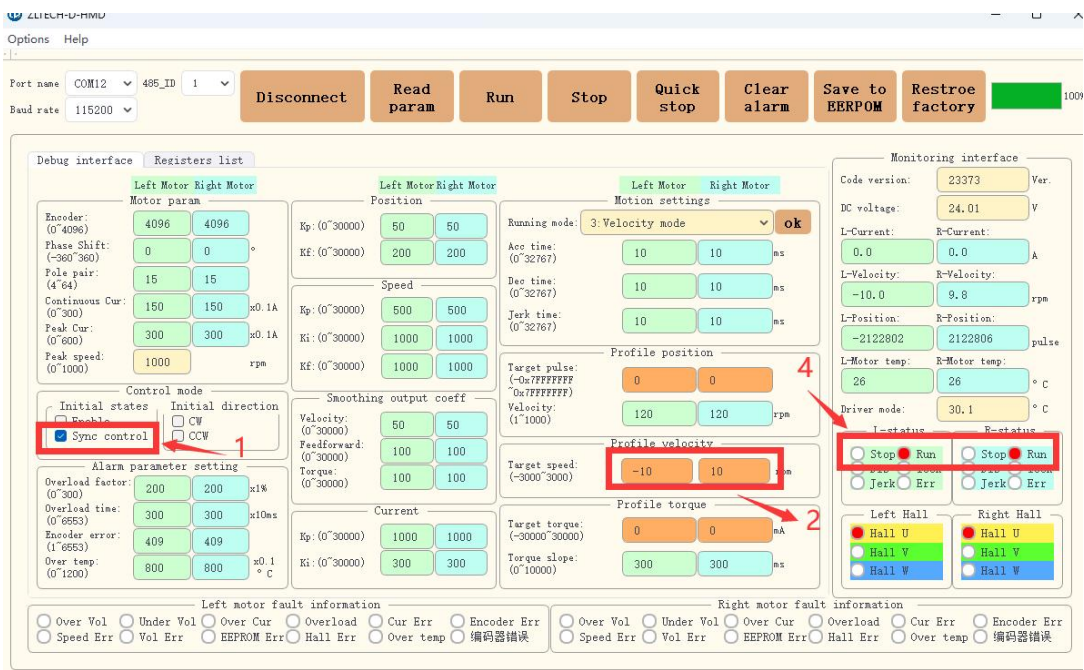
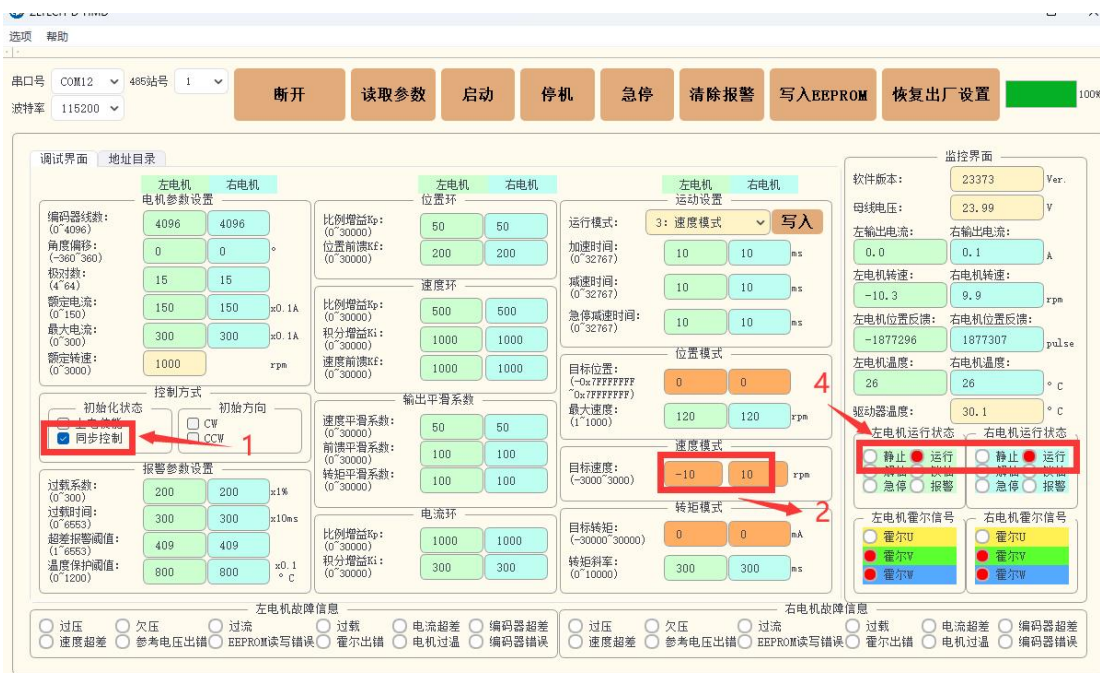
- Motion settings (运动设置):** Includes running mode (3: Velocity mode), acceleration time (10 ms), deceleration time (10 ms), and jerk time (10 ms).
- Profile position (轮廓位置):** Includes target pulse (0) and velocity (120 rpm).
- Profile velocity (轮廓速度):** Includes target speed (0 rpm).
- Profile torque (轮廓转矩):** Includes target torque (0 mA) and torque slope (300 ms).
- Motor Status (电机运行状态):** Shows DC voltage (24.03 V), L-Current (0.0 A), R-Current (0.0 A), L-Velocity (0.0 rpm), R-Velocity (0.0 rpm), L-Position (-58625 pulse), R-Position (58630 pulse), L-Motor temp (26 °C), R-Motor temp (26 °C), and Driver mode (29.0 °C). A red box highlights the status indicators for "Lock" (锁轴) for both motors.
- Right motor fault information (右电机故障信息):** Lists various fault conditions like overvoltage, undervoltage, overcurrent, etc., with corresponding status indicators.

2.5、打钩就是同步控制、没打钩就是异步控制

If synchronization control is selected, it means synchronous control; if it is not selected, it means asynchronous control

2.6、同步模式 synchronous mode

- (1) 同步控制 synchronous control
- (2) 给定“目标速度” Set target speed
- (3) 按键盘的“Enter”键 press the "Enter" key on the keyboard
- (4) 电机运行 then motor runs

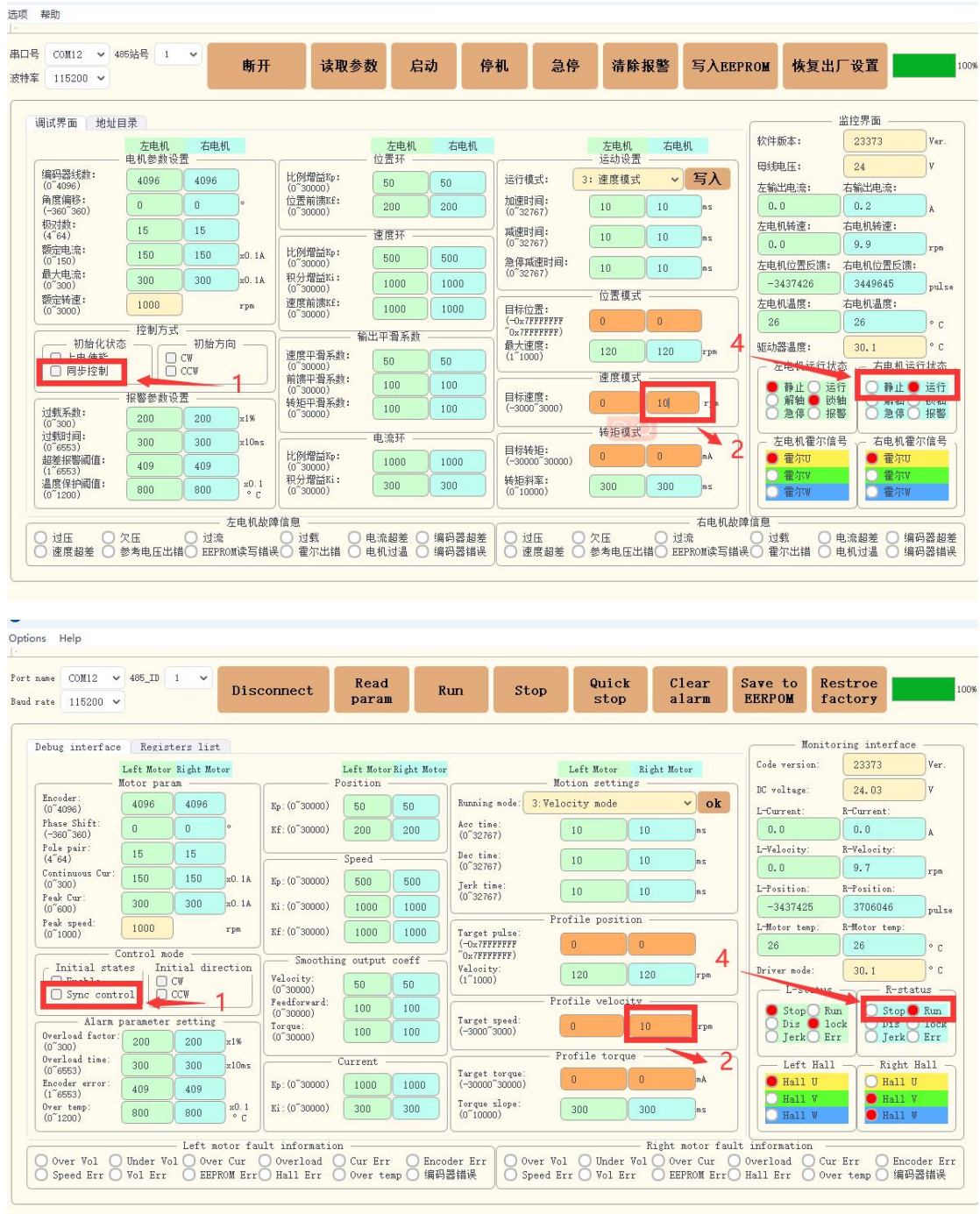


2.7、异步模式 asynchronous mode

- (1) 异步控制 asynchronous control
- (2) 给定“目标速度” Set target speed
- (3) 按键盘的“Enter”键 press the "Enter" key on the keyboard
- (4) 电机运行 then motor runs

※其他模式使用以上同样的方法

※In other modes this method could be used



三、修改参数 Change Parameters

3.1、调试界面修改参数 Change parameters on Debug interface

(1) 点击“调试界面”→修改想要修改的参数→按键盘的“Enter”键（目标值生效）

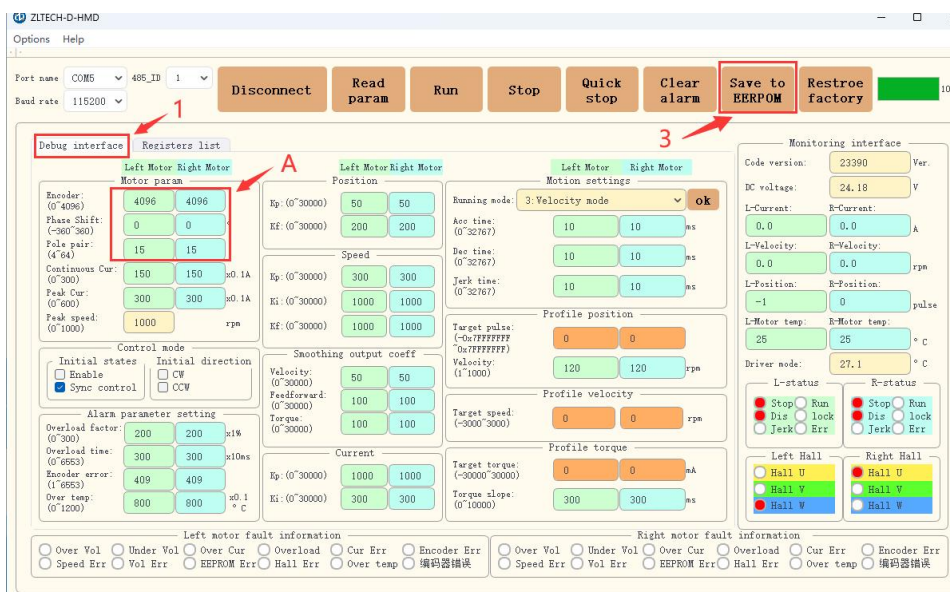
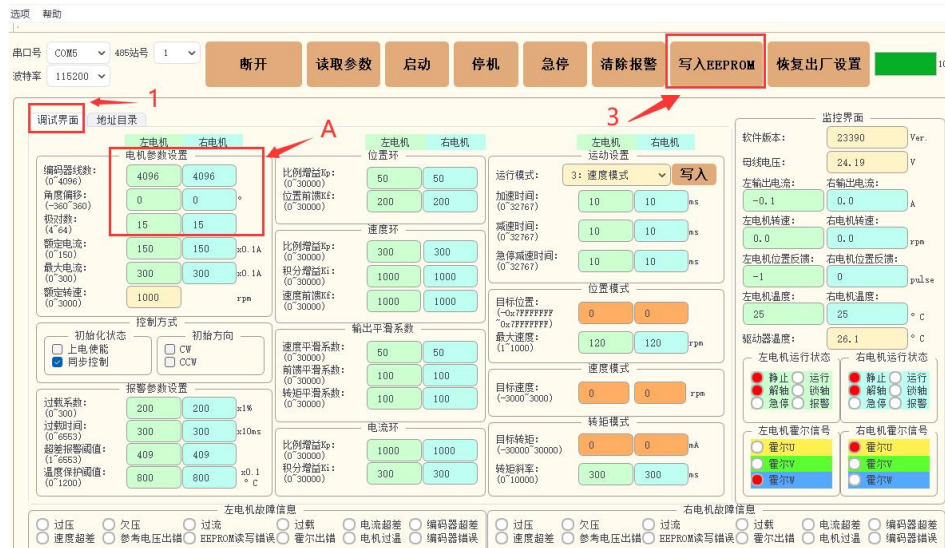
Click "Debug Interface" → Change parameters → press "Enter" on the keyboard to make the target value to take effect

(3) 如果用户需要将参数保存（重启电源也生效）→需要点击“写入 EEPROM”

If user needs to save the parameters (making the value to take effect after restarting) → Click "Save to EEPROM"

(A) 如果用户需要更改“A”区域三个参数：修改参数→按键盘的“Enter”键→写入 EEPROM→重启电源

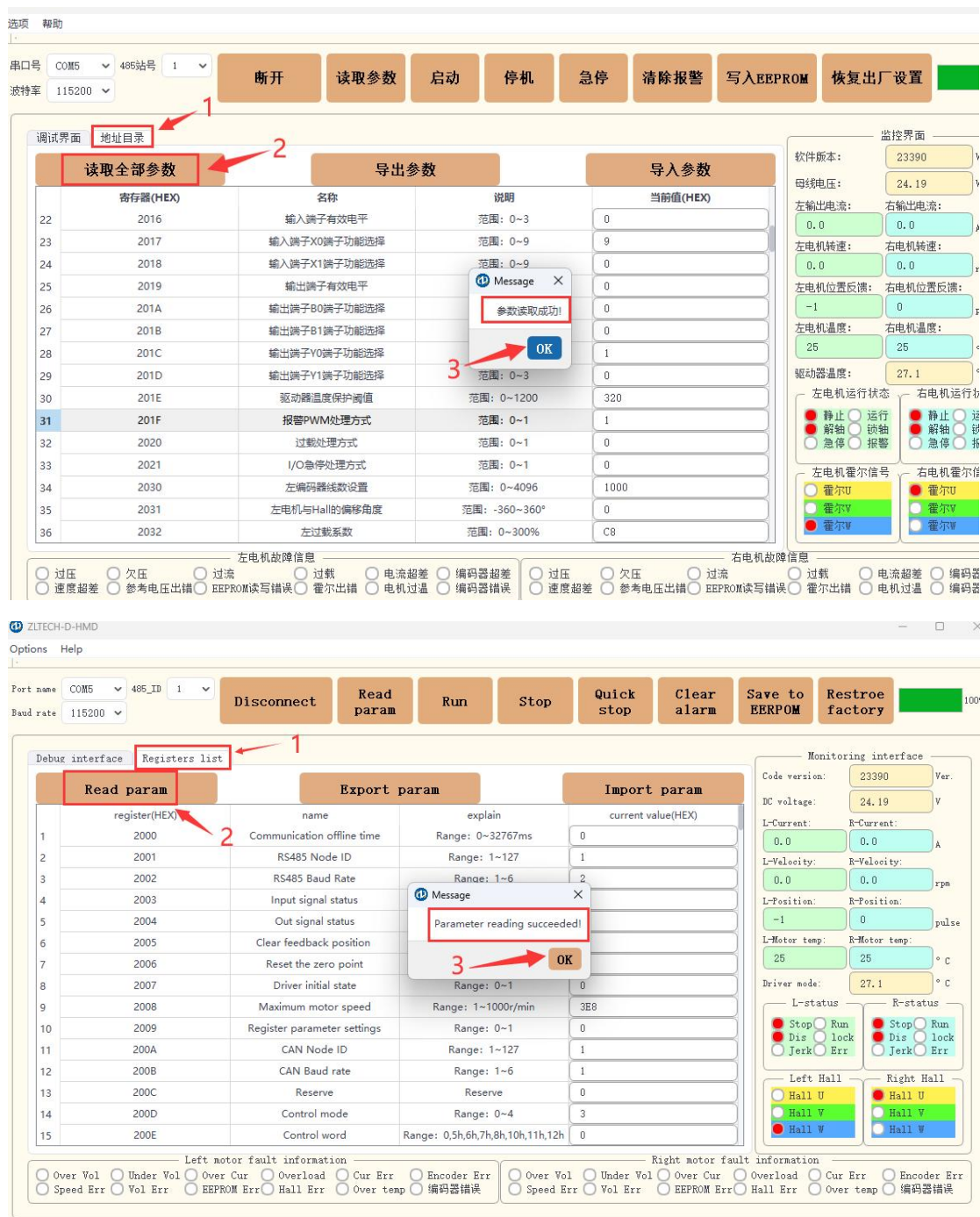
If user needs to change 3 parameters in the A area: Modify parameters → press "Enter" on the keyboard → Click "Save to EEPROM" → Restart the driver



3.2、地址目录修改参数 Change parameters in Registers List

3.2.1、点击“地址目录”→ 读取全部参数 → OK

Click "Registers List" → Read parameters → OK



The screenshot displays the ZLAC8030D hub servo motor PC Software interface. The top section shows the 'Registers List' tab selected, with a 'Read all parameters' button highlighted. A message box indicates 'Parameter reading successful!'. The bottom section shows the 'Registers List' tab selected, with a 'Read param' button highlighted. A message box indicates 'Parameter reading succeeded!'. The interface includes various monitoring and control options, such as 'Disconnect', 'Read param', 'Run', 'Stop', 'Quick stop', 'Clear alarm', 'Save to EEPROM', and 'Restore factory'.

Registers List Table:

寄存器(HEX)	名称	说明	当前值(HEX)
2016	输入端子有效电平	范围: 0~3	0
2017	输入端子X0端子功能选择	范围: 0~9	9
2018	输入端子X1端子功能选择	范围: 0~9	0
2019	输出端子有效电平	范围: 0~1	0
201A	输出端子B0端子功能选择	范围: 0~1	0
201B	输出端子B1端子功能选择	范围: 0~1	0
201C	输出端子Y0端子功能选择	范围: 0~1	1
201D	输出端子Y1端子功能选择	范围: 0~1	0
201E	驱动温度保护阈值	范围: 0~1200	320
201F	报警PWM处理方式	范围: 0~1	1
2020	过载处理方式	范围: 0~1	0
2021	I/O急停处理方式	范围: 0~1	0
2030	左编码器线数设置	范围: 0~4096	1000
2031	左电机与Hall的偏移角度	范围: -360~360°	0
2032	左过载系数	范围: 0~300%	C8

Registers List Table (continued):

寄存器(HEX)	名称	说明	当前值(HEX)
2000	Communication offline time	Range: 0~32767ms	0
2001	RS485 Node ID	Range: 1~127	1
2002	RS485 Baud Rate	Range: 1~6	2
2003	Input signal status	Range: 0~1	0
2004	Out signal status	Range: 0~1	0
2005	Clear feedback position	Range: 0~1	0
2006	Reset the zero point	Range: 0~1	0
2007	Driver initial state	Range: 0~1	0
2008	Maximum motor speed	Range: 1~1000r/min	3E8
2009	Register parameter settings	Range: 0~1	0
200A	CAN Node ID	Range: 1~127	1
200B	CAN Baud rate	Range: 1~6	1
200C	Reserve	Reserve	0
200D	Control mode	Range: 0~4	3
200E	Control word	Range: 0,5h,6h,7h,8h,10h,11h,12h	0

3.2.2、修改参数 Change Parameters

- (1) 修改想要修改的参数 Change the parameters you want
- (2) 按键盘的“Enter”键 Press “Enter” on the keyboard
- (3) 写入 EEPROM Click “Save to EEPROM”



项 帮助

口号 COM5 485站号 1 115200

断开 读取参数 启动 停机 急停 清除报警 写入EEPROM 恢复出厂设置 100%

调试界面 地址目录

寄存器(HEX)	名称	说明	当前值(HEX)
2000	通信掉线保护时间	范围: 0~32767ms	3E8
2001	RS485自定义驱动节点号	范围: 1~127	1
2002	RS485自定义通讯波特率	范围: 1~6	2
2003	输入信号状态	bit0,bit1:X0,X1两路输入口状态	0
2004	输出信号状态	bit0,bit1:Y0,Y1两路输出口状态	6
2005	反馈位置清零	范围: 0~3	0
2006	绝对位置模式当前位置清零	范围: 0~3	0
2007	上电锁轴方式	范围: 0~1	0
2008	电机最大转速	范围: 1~1000r/min	3E8
2009	寄存器参数设置	范围: 0~1	0
200A	CAN自定义驱动节点号	范围: 1~127	1
200B	CAN自定义波特率	范围: 0~6	1
200C	保留	保留	0
200D	运行模式	范围: 0~4	3
200E	控制字	范围: 0,5h,6h,7h,8h,10h,11h,12h	0

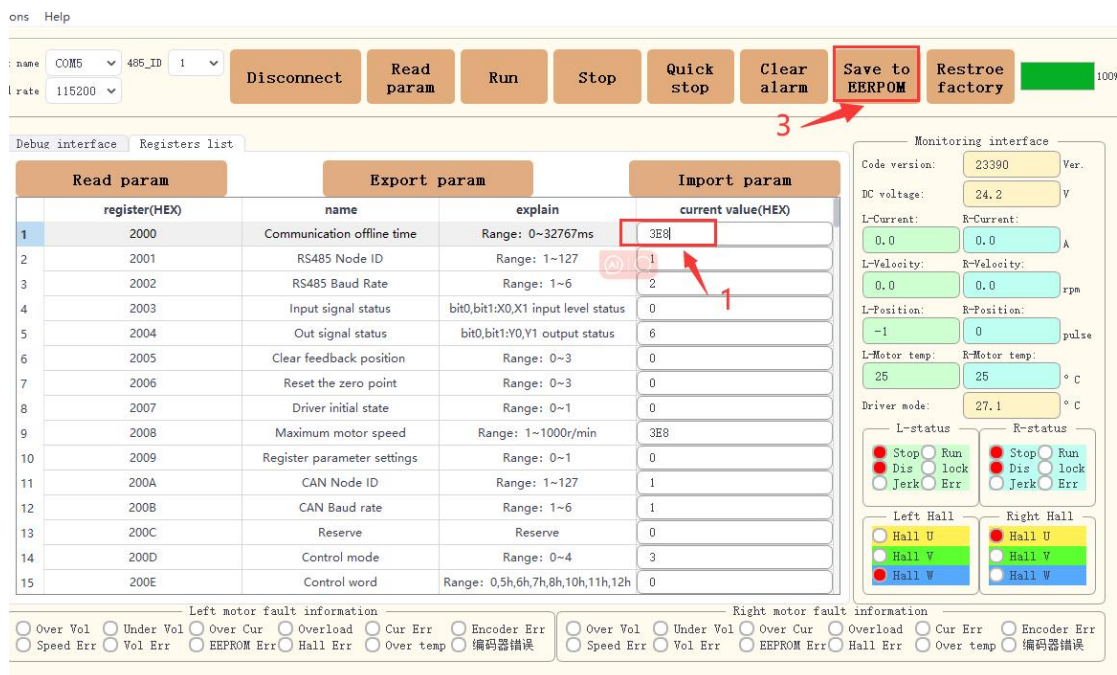
左电机故障信息: ☐ 过压 ☐ 欠压 ☐ 过流 ☐ 过载 ☐ 电流超差 ☐ 编码器超差 ☐ 速度超差 ☐ 参考电压出错 ☐ EEPROM读写错误 ☐ 霍尔出错 ☐ 电机过热 ☐ 编码器错误

右电机故障信息: ☐ 过压 ☐ 欠压 ☐ 过流 ☐ 过载 ☐ 电流超差 ☐ 编码器超差 ☐ 速度超差 ☐ 参考电压出错 ☐ EEPROM读写错误 ☐ 霍尔出错 ☐ 电机过热 ☐ 编码器错误

软件版本: 23390 Ver. 母线电压: 24.2 V 左输出电流: 0.0 A 右输出电流: 0.0 A 左电机转速: 0.0 rpm 右电机转速: 0.0 rpm 左电机位置反馈: -1 pulse 右电机位置反馈: 0 pulse 左电机温度: 25 °C 右电机温度: 25 °C 驱动器温度: 27.1 °C

左电机运行状态: ☐ 静止 ☐ 运行 ☐ 解轴 ☐ 锁轴 ☐ 急停 ☐ 报警 右电机运行状态: ☐ 静止 ☐ 运行 ☐ 解轴 ☐ 锁轴 ☐ 急停 ☐ 报警

左电机霍尔信号: ☐ 霍尔U ☐ 霍尔V ☐ 霍尔W 右电机霍尔信号: ☐ 霍尔U ☐ 霍尔V ☐ 霍尔W



ons Help

name COM5 485_ID 1 115200

Disconnect Read param Run Stop Quick stop Clear alarm Save to EEPROM Restroe factory 100%

Debug interface Registers list

寄存器(HEX)	name	explain	current value(HEX)
2000	Communication offline time	Range: 0~32767ms	3E8
2001	RS485 Node ID	Range: 1~127	1
2002	RS485 Baud Rate	Range: 1~6	2
2003	Input signal status	bit0,bit1:X0,X1 input level status	0
2004	Out signal status	bit0,bit1:Y0,Y1 output status	6
2005	Clear feedback position	Range: 0~3	0
2006	Reset the zero point	Range: 0~3	0
2007	Driver initial state	Range: 0~1	0
2008	Maximum motor speed	Range: 1~1000r/min	3E8
2009	Register parameter settings	Range: 0~1	0
200A	CAN Node ID	Range: 1~127	1
200B	CAN Baud rate	Range: 1~6	1
200C	Reserve	Reserve	0
200D	Control mode	Range: 0~4	3
200E	Control word	Range: 0,5h,6h,7h,8h,10h,11h,12h	0

Left motor fault information: ☐ Over Vol ☐ Under Vol ☐ Over Cur ☐ Overload ☐ Cur Err ☐ Encoder Err ☐ Speed Err ☐ Vol Err ☐ EEPROM Err ☐ Hall Err ☐ Over temp ☐ 编码器错误

Right motor fault information: ☐ Over Vol ☐ Under Vol ☐ Over Cur ☐ Overload ☐ Cur Err ☐ Encoder Err ☐ Speed Err ☐ Vol Err ☐ EEPROM Err ☐ Hall Err ☐ Over temp ☐ 编码器错误

Code version: 23390 Ver. DC voltage: 24.2 V L-Current: 0.0 A R-Current: 0.0 A L-Velocity: 0.0 rpm R-Velocity: 0.0 rpm L-Position: -1 pulse R-Position: 0 pulse L-Motor temp: 25 °C R-Motor temp: 25 °C Driver mode: 27.1 °C

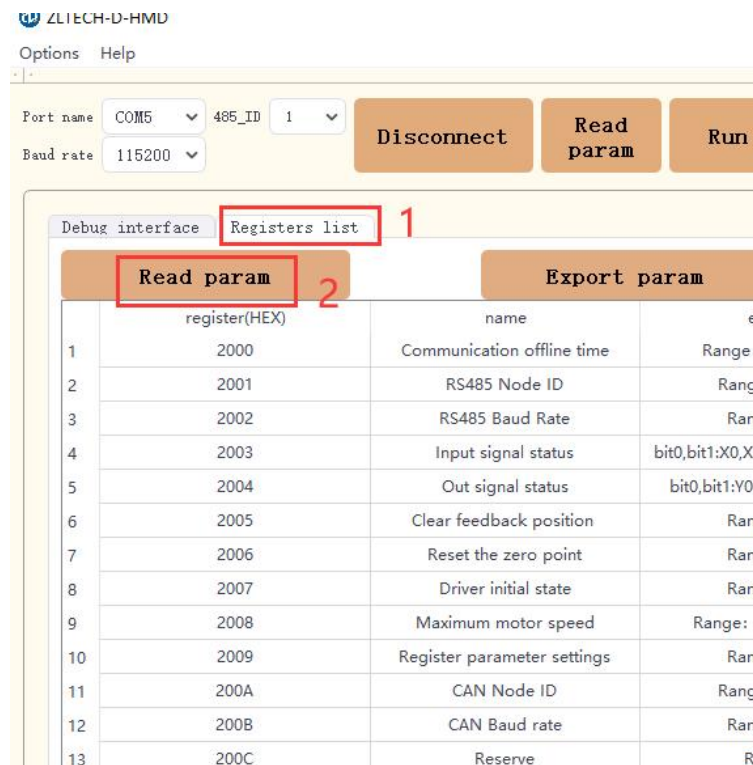
L-status: ☐ Stop ☐ Run ☐ Dis lock ☐ Jerk ☐ Err R-status: ☐ Stop ☐ Run ☐ Dis lock ☐ Jerk ☐ Err

Left Hall: ☐ Hall U ☐ Hall V ☐ Hall W Right Hall: ☐ Hall U ☐ Hall V ☐ Hall W

四、导出参数 Export Parameters

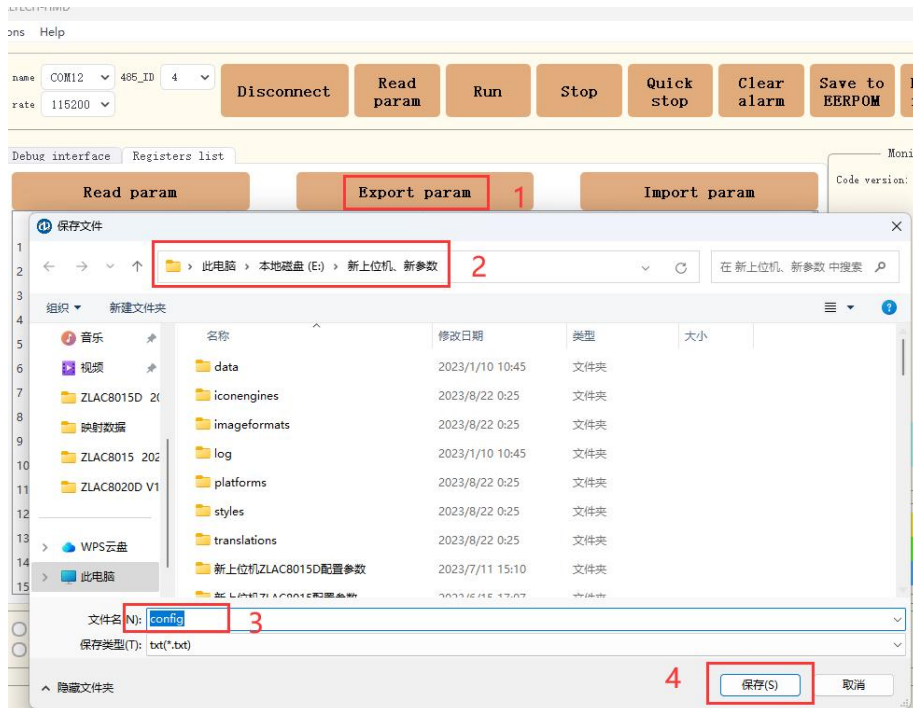
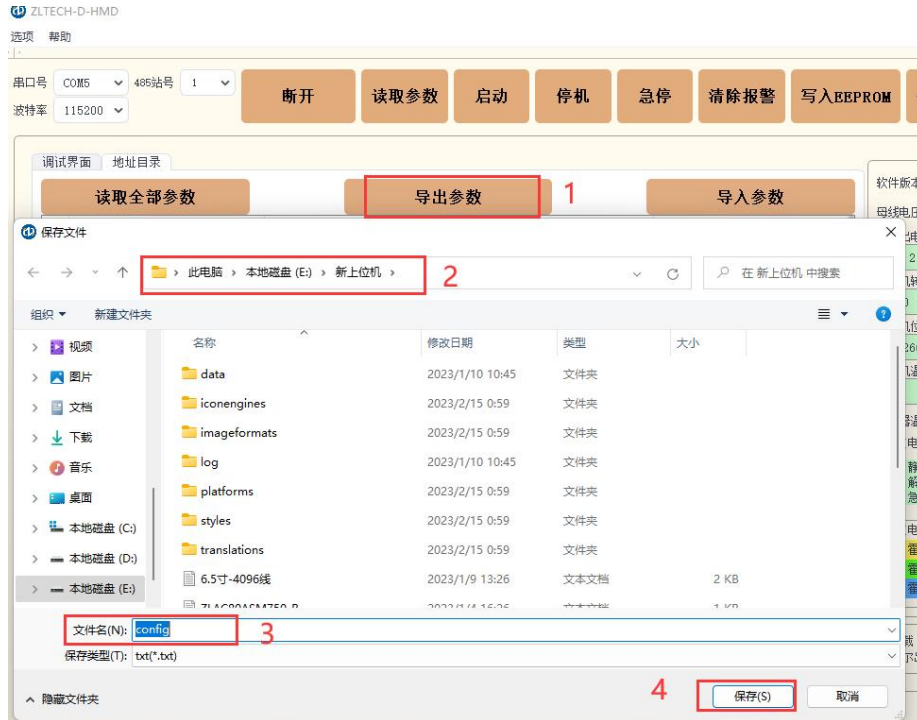
4.1、先点击“地址目录”→再点击“读取全部参数”→OK

Click "Registers List " → then click "Read parameters"→OK



4.2、点击“导出参数”→选择保存参数的目录→修改保存参数的“文件名”→ 保存

Click "Export Parameters" →Select the directory you want to save the parameter file→Modify the "file name" of saved parameter file → Click “Save”



五、导入参数 Import Parameters

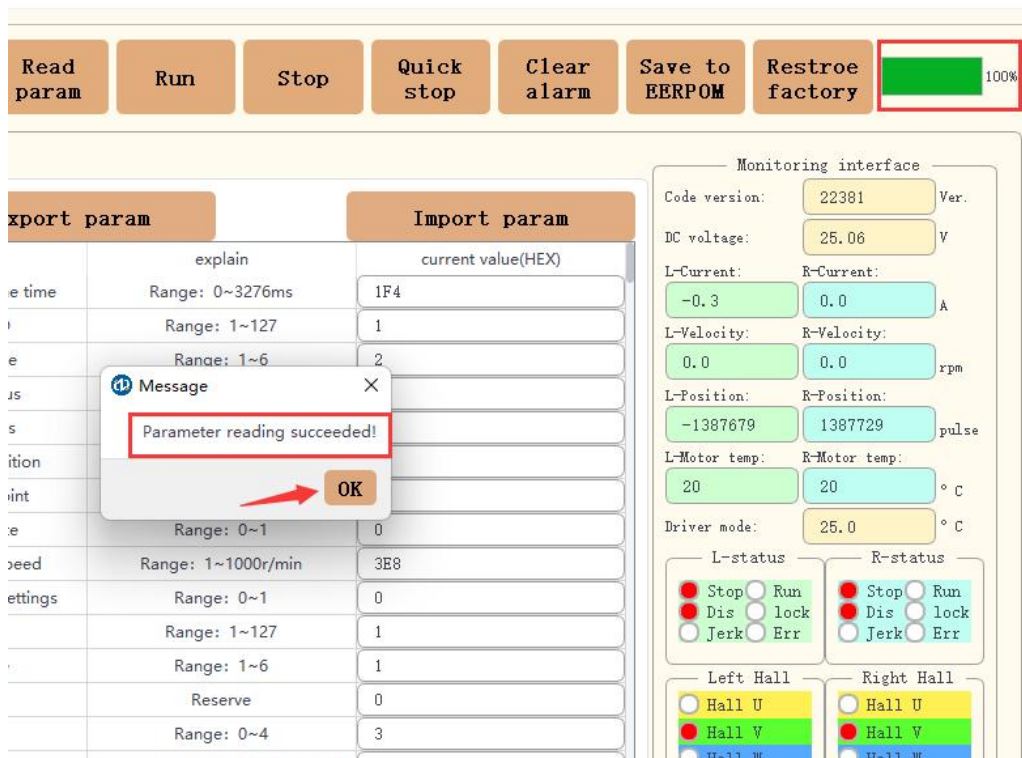
5.1、点击“导入参数”按钮→选择想要导入参数的文件→点击打开

Click "Import Parameters" button → Select the parameter file you want to import → Click "Open"



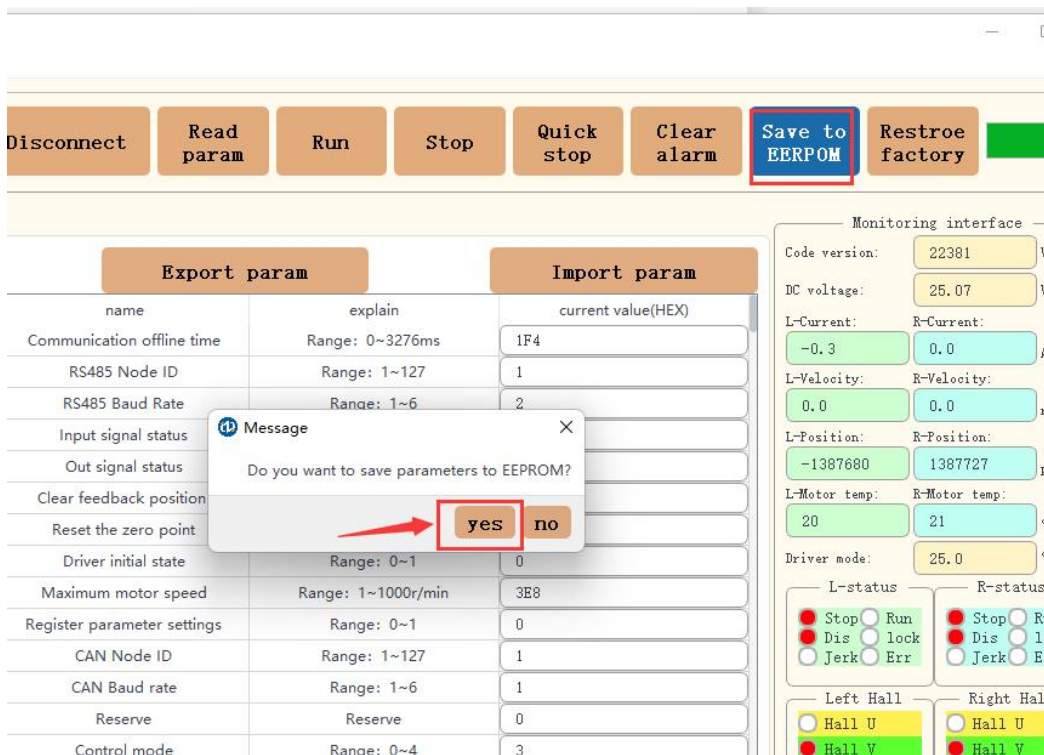
5.2、选择相应文件之后进度条就开始变化，直到进度条到达 100%并弹出对话框“参数读取成功”→点击“OK”

After selecting the corresponding parameter file, the progress bar will start to reach 100%, and "Parameter reading succeeded" will pop up → Click"OK"



5.3、点击“写入 EEPROM”按钮→弹出对话框点击“YES”

Click "Save to EEPROM" button → Click "YES" in the pop-up dialog box



5.4、点击“YES”之后进度条就会开始变化直到 100%并弹出对话框“写入 EEPROM 成功”字样
→点击“OK”→重启电源

After clicking "YES", the progress bar will start to reach 100%, and "Description Succeeded on writing to the EEPROM " will pop up→ Click "OK" → Restart the driver



注意：写入 EEPROM 成功之后必须重启电源

Note: You need to restart the driver after the EEPROM is successfully written