



NVF7
MotionGO Inverter
Programming Software

User Instruction

Preface

Thank you for using MotionGO Inverter Programming Software V1.0.

MotionGO represents the latest advancement in PC-based inverter programming software, developed by Zhejiang Chint Electric Appliance Co., Ltd. It supports connections via Modbus RTU and Modbus TCP, offering features such as parameter editing, parameter comparison, parameter monitoring, fault recording, and oscilloscope functions. This software enables the operation of the inverter, including setting target frequency, issuing commands for forward rotation, reverse rotation, forward jog, reverse jog, deceleration stop, freewheel stop, and fault reset.

This manual details how to use MotionGO. First-time users should read it thoroughly. For any questions, please contact our technical support staff.



We reserve the right to optimize and improve the MotionGO, and the information is subject to change without prior notice.




Safety precautions

- ① Before use, please read the user manual carefully and follow all safety precautions. Neglecting these may result in personal injury, equipment damage, or even death.
- ② Our company shall not be liable for any injuries or equipment damage caused by failure to comply with the safety precautions in the user manual by your company or your clients.


♦ Safety Definitions

Symbol	Description
 Danger	Indicates a situation where failure to follow instructions may result in death or serious injury.
 Caution	Indicates a situation where failure to follow instructions may result in moderate or minor injury, or property damage.

♦ Wiring

 Caution	<ul style="list-style-type: none">◇ Chint MotionGO Inverter Programming Software V1.0 connects to the NVF7 series products via a standard double-ended Ethernet cable or serial cable!◇ If using the MotionGO Inverter Programming Software on other Chint inverter drive products outside this series, please consult the manufacturer first, otherwise equipment damage may occur!◇ In environments with strong electricity, magnetic fields, or radiation, ensure appropriate shielding measures are taken, otherwise the equipment may malfunction!
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♦ Wiring

 Danger	<ul style="list-style-type: none">◇ The inverter parameters must be correctly set in the control panel before operation, otherwise there is a risk of equipment damage!◇ Non-professionals are prohibited from testing signals during operation, as this may cause injury or equipment damage!
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1 Product information

1.1 Introduction

MotionGO supports multiple languages such as Chinese, English, Russian, and Spanish.

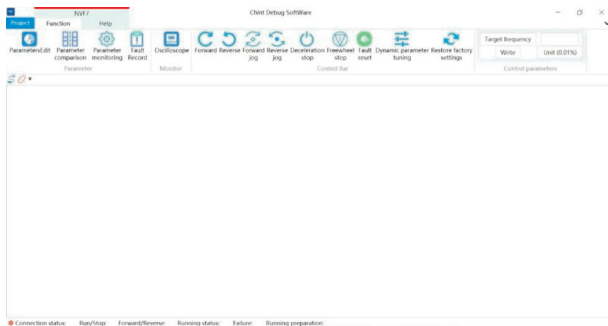


Figure 1.1.1 MotionGO Interface

1.2 The interface

The interface consists of five parts: menu bar, toolbar, shortcut toolbar, content area and status bar.



Figure 1.2.1 Example of a Display Interface

Table 1.2.1 List of display interface descriptions

Region	Display content	Description
Menu bar	Different menu contents	Tap to toggle different menu functions
Toolbar	Specific functions under the menu	Click to proceed with the operation
Content area	See the descriptions on the respective pages	Displays the main contents of the current functional interface
The status bar	Connection status	Displays the current connection status with the inverter, connected or disconnected
	Run/Stop	Reflecting the run/stop status of the inverter
	Forward/Reverse	Reflecting the forward/reverse state of the inverter
	Operational status	Reflecting the operating status of the inverter
	Failure	Reflecting whether the inverter is currently in fault state
	Runtime readiness	Reflecting the current inverter operation readiness

2 Functions and applications

2.1 Functional overview

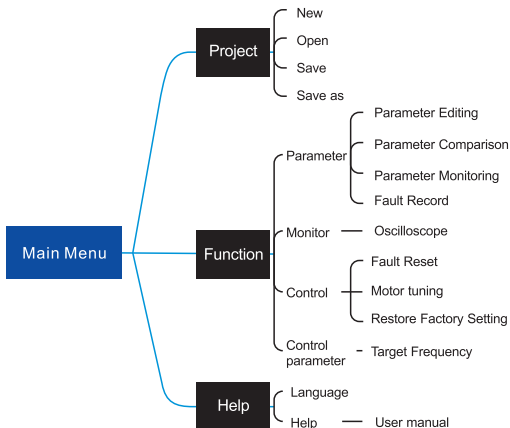


Figure 2.1.1 Programming Software Functions

2.1.1 Launching the view

Start the software, select a device to connect, and wait for the function to load.

2.1.2 Home page view

The home page allows users to select various functions that need to be accessed. These functions include parameter editing, parameter comparison, parameter monitoring, fault logging, oscilloscope, forward rotation, reverse rotation, forward rotation pointing, reverse rotation pointing, deceleration and stopping, free stopping, fault reset, dynamic parameter calibration, restoration of factory settings, target frequency writing, language switching, instruction manual, and about section.

2.2 Connection

Inverters can be connected via serial and network cables in the following ways:

2.2.1 Modbus RTU connection

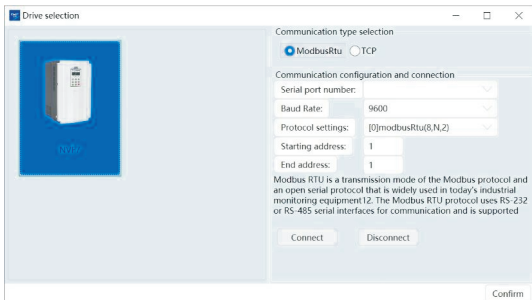
(1) After launching the application, as in Figure 2.1.1 select the device you need to connect in the home menu.

(2) After selecting the device, as in Figure 2.1.2, Modbus RTU is selected by default.

(3) Select the port number where the device is connected, other parameters as shown in Figure 2.1.2 are default value. Upon successful connection, the device selection page will be automatically closed. If the connection fails, there will be a pop-up window.



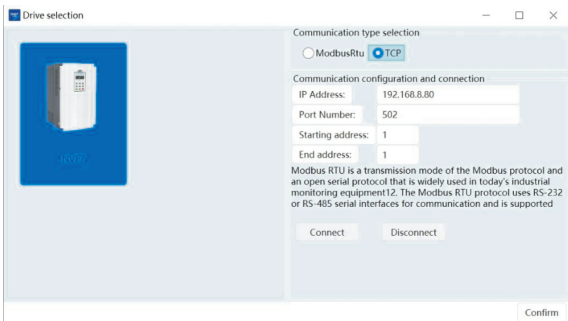
Figure 2.1.1 Connection Interface

**Figure 2.1.2 The Connection Interface**

2.2.2 Modbus TCP connection

(1) One end of the double-ended network cable is plugged into the computer and the other end is plugged into the Modbus-TCP/IP expansion card of the inverter

(2) Start the application program to select the device, and choose TCP as the communication type, as shown in Figure 2.2.1.

**Figure 2.2.1**

(3) The default parameters are shown in Figure 2.2.1. If the IP address of the local computer and the IP address of the device are not in the same network, you need to modify the IP address of the local computer and the IP address of the device to be in the same network, the steps are as follows:

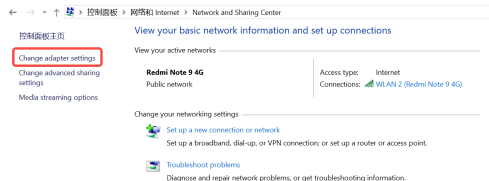
Open the Control Panel, select Network and Internet



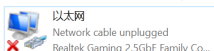
Select Network and Sharing Center



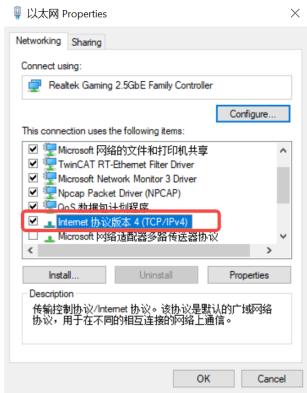
Select Change Adapter Settings



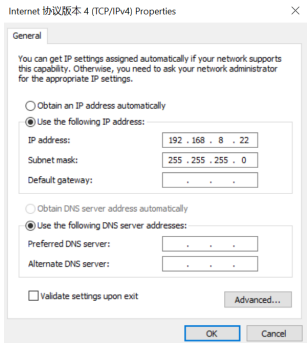
Locate the Ethernet



Right click on the mouse and select Properties, find IPV4



Click the Properties button, modify the IP address and subnet mask, IP address can be 192.168.8.xxx, subnet mask is fixed to 255.255.255.0, setup is complete, click OK, so that the changes take effect.



(3)After establishing a successful connection,the interface will automatically close and load the function module. If the connection fails, a pop-up window with the relevant prompt will appear.

2.2.3 Offline

After selecting the device, click OK.

2.3 Project

Click the Project button, the interface is shown in Figure 2.3.1



Figure 2.3.1

2.3.1 New

Selection screen will pop up for re-selection and connection.

2.3.2 Open

Double-click the last opened project in the right box, or open other directories where the project file parameters are set.

2.3.3 Save

Save the file in the user default directory.

2.3.4 Save as

Select the directory to save the project file.

2.4 Function

2.4.1 Parameters

Parameter edit

- The interface is shown in Figure 2.4.1.1

Parameters of d8											
Parameter number or name		Switch	Export Enable	Import Enable	Parameter export	Parameter import	Check All	Uncheck	Write check	Refresh	
Parameter List											
<input type="checkbox"/> Common parameters											
Choose	Parameter	Parameter name	Parameter Value	Display value	Factory vs	Unit	Minimum	Maximum	Setting m	Effective n	
<input type="checkbox"/>	FO-00	TP type setting	1: T type (constant t	1: T type (constant t	1	1	1	2	Set dis...	Take e...	
<input type="checkbox"/>	FO-01	First motor control...	2: V/F control	2: V/F control	2	1	0	2	Set dis...	Take e...	
<input type="checkbox"/>	FO-02	Run command sete...	0: Operation panel	0: Operation panel	0	1	0	2	Set at...	Take e...	
<input type="checkbox"/>	FO-03	Main frequency co...	0: Digital setting (inc	0: Digital setting (inc	0	1	0	9	Set dis...	Take e...	
<input type="checkbox"/>	FO-04	Auxiliary frequency...	0: Digital setting (inc	0: Digital setting (inc	0	1	0	9	Set dis...	Take e...	
<input type="checkbox"/>	FO-05	Auxiliary frequency...	0: relative to the ma	0: relative to the ma	0	1	0	1	Set at...	Take e...	

Figure 2.4.1.1

Search

- Enter the parameter number or name in the text box.
- Click the Enter button or the Search button to display the searched parameters. Continue clicking the Enter button or the Search button to navigate to the next search item, as illustrated in Fig. 2.4.1.1.1.1.

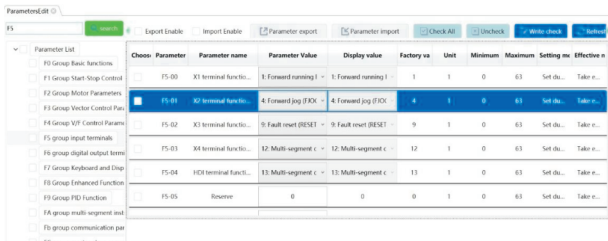


Figure 2.4.1.1.1.1

Parameter export

- Check the Export Enable button.
- Select parameters to export by clicking on the tree node or individual parameters in the interface.
- Click the export button. A .CSV file will be saved in the UserData folder of the program directory, as shown in Figure 2.4.1.1.2.1.

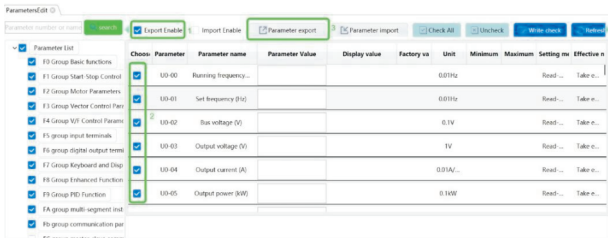


Figure 2.4.1.1.2.1

Parameter import

- If the Import Enable button is checked, only the selected parameters will be imported; otherwise, all parameters will be imported.
- Click the parameter import button, choose the file to be imported, and click OK.

Check all

- Click to check current page parameters.

Uncheck the box

- Click to uncheck all parameters on the current page.

Write checked parameters

- Write the parameter values of all the selected parameters on the current page to the inverter. The writing process is displayed on the progress screen, and any writing failures are also shown on the progress screen, as illustrated in Figure 2.4.1.1.6.1.

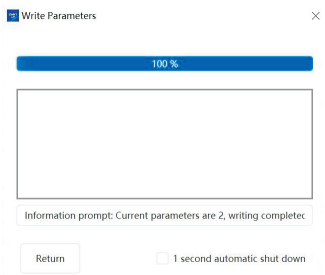


Figure 2.4.1.1.6.1

Refresh checked parameters

- Read the checked parameters' values from the driver on the current page. The progress screen shows the reading process and any failures, as shown in Figure 2.4.1.1.7.1.

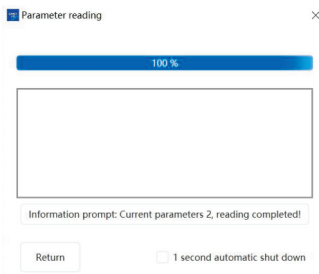


Figure 2.4.1.1.7.1

Write parameter list

- Write the values of all parameters to the inverter, whether checked or unchecked.

Refresh parameter list

- Reads all parameter values from the inverter, both checked and unchecked.

Move the arrows left and right

- As illustrated in Figure 2.4.1.1.10.1, the light blue triangular buttons located on the left and right sides of the interface are designed to facilitate navigation. By clicking the button on the left, the list of buttons will shift to the left, whereas clicking the button on the right will shift the list to the right.

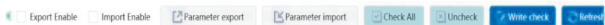


Figure 2.4.1.1.10.1

Parameter interface

- As shown in Figure 2.4.1.1.11.1, select parameters to display from parameter list. The parameter value is the actual value read from the inverter.

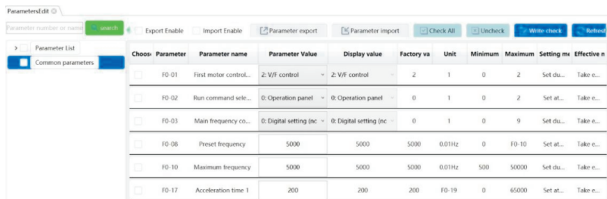


Figure 2.4.1.1.11.1

Parameter comparison

Compare to factory value

- Compare the current parameter values with the factory values of the inverter, and mark any differences in gold, as shown in Fig. 2.4.1.2.1.1

Parameter comparison

Choose

☒ Compare with factory value ☐ Offline comparison ☐ Show only differences

Import offline data

Param	Parameter name	Parameter Value	Factory value	Unit	Minimu	Maximum
FO-00	TP type setting	1	1	1	1	2
FO-01	First motor contr...	2	2	1	0	2
FO-02	Run command s...	0	0	1	0	2
FO-03	Main frequency c...	0	0	1	0	9
FO-04	Auxiliary frequen...	0	0	1	0	9
FO-05	Auxiliary frequen...	0	0	1	0	1
FO-06	Auxiliary frequen...	100	100	1%	0	150
FO-07	Frequency comm...	0	0	1	0	34
FO-08	Preset frequency	5000	5000	0.01Hz	0	FO-10
FO-09	Running direction	0	0	1	0	1
FO-10	Maximum freque...	5000	5000	0.01Hz	500	50000
FO-11	Upper limit frequ...	0	0	1	0	5
FO-12	Lower frequen...	0	0	0.01Hz	FO-14	FO-10

Figure 2.4.1.2.1.1

Offline Comparison

• Click the Import Offline Data button to import the two files for comparison. Differences will be marked in gold, as shown in figure 2.4.1.2.2.1.

Parameter comparison

Choose

☐ Compare with factory value ☒ Offline comparison ☐ Show only differences

D:\Users\dybaig\Desktop\20250506144914\NVF7.csv

Import offline data

Param	Parameter name	Parameter Value	Factory value	Unit	Minimu	Maximum
FO-00	TP type setting	1	1	1	1	2
FO-01	First motor contr...	2	2	1	0	2
FO-02	Run command s...	0	0	1	0	2
FO-03	Main frequency c...	0	0	1	0	9
FO-04	Auxiliary frequen...	0	0	1	0	9
FO-05	Auxiliary frequen...	0	0	1	0	1
FO-06	Auxiliary frequen...	100	100	1%	0	150
FO-07	Frequency comm...	0	0	1	0	34
FO-08	Preset frequency	5000	5000	0.01Hz	0	FO-10
FO-09	Running direction	0	0	1	0	1
FO-10	Maximum freque...	5000	5000	0.01Hz	500	50000
FO-11	Upper limit frequ...	0	0	1	0	5
FO-12	Lower frequen...	0	0	0.01Hz	FO-14	FO-10

D:\Users\dybaig\Desktop\20250506144925\NVF7.csv

Import offline data

Param	Parameter name	Parameter Value	Factory value	Unit	Minimu	Maximum
FO-00	TP type setting	2	1	1	1	2
FO-01	First motor contr...	1	2	1	0	2
FO-02	Run command s...	0	0	1	0	2
FO-03	Main frequency c...	0	0	1	0	9
FO-04	Auxiliary frequen...	0	0	1	0	9
FO-05	Auxiliary frequen...	0	0	1	0	1
FO-06	Auxiliary frequen...	100	100	1%	0	150
FO-07	Frequency comm...	0	0	1	0	34
FO-08	Preset frequency	5000	5000	0.01Hz	0	FO-10
FO-09	Running direction	0	0	1	0	1
FO-10	Maximum freque...	5000	5000	0.01Hz	500	50000
FO-11	Upper limit frequ...	0	0	1	0	5
FO-12	Lower frequen...	0	0	0.01Hz	FO-14	FO-10

Figure 2.4.1.2.2.1

Show only differences

Select the box to display only the parameters with differences, as illustrated in Fig. 2.4.1.2.3.1.

Parameter comparison

Choose

☐ Compare with factory value ☒ Offline comparison ☒ Show only differences

D:\Users\dybaig\Desktop\20250506144914\NVF7.csv

Import offline data

Param	Parameter name	Parameter Value	Factory value	Unit	Minimu	Maximum
FO-00	TP type setting	1	1	1	1	2
FO-01	First motor contr...	2	2	1	0	2

D:\Users\dybaig\Desktop\20250506144925\NVF7.csv

Import offline data

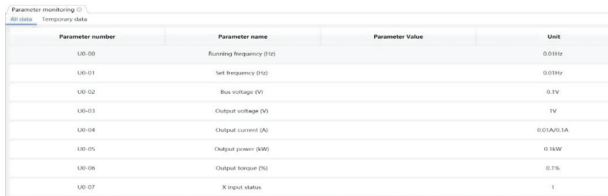
Param	Parameter name	Parameter Value	Factory value	Unit	Minimu	Maximum
FO-00	TP type setting	2	1	1	1	2
FO-01	First motor contr...	1	2	1	0	2

Figure 2.4.1.2.3.1

Parameter monitoring

All data

- Monitor the U0 group parameters and refresh them in real time. The interface is shown in Figure 2.4.1.3.1.1



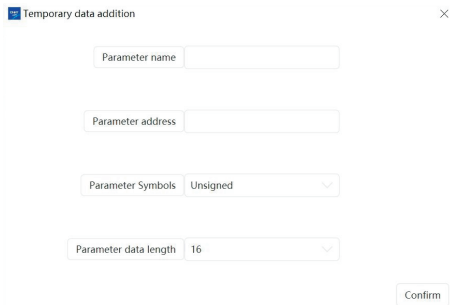
The screenshot shows a software window titled "Parameter monitoring" with two tabs: "All data" and "Temporary data". The "All data" tab is active, displaying a table with four columns: "Parameter number", "Parameter name", "Parameter Value", and "Unit". The table lists eight parameters from U0-00 to U0-07.

Parameter number	Parameter name	Parameter Value	Unit
U0-00	Running frequency (Hz)		0.0Hz
U0-01	Set frequency (Hz)		0.0Hz
U0-02	Bus voltage (V)		0.1V
U0-03	Output voltage (V)		1V
U0-04	Output current (A)		0.01A/0.1A
U0-05	Output power (kW)		0.1kW
U0-06	Output torque (%)		0.1%
U0-07	X input status		1

Figure 2.4.1.3.1.1

Temporary data

- Click the Add button, enter the information in the pop-up interface. Name the parameter, provide its address, specify if it's a positive or positive-negative number, and indicate its bit length. See Fig. 2.4.1.3.2.1 for the interface.
- Click OK. The temporary data interface will show monitoring parameters. To delete old data, click the delete button.



The screenshot shows a pop-up window titled "Temporary data addition" with a close button (X) in the top right corner. It contains four input fields and a "Confirm" button at the bottom right.

Parameter name	<input type="text"/>
Parameter address	<input type="text"/>
Parameter Symbols	Unsigned <input type="button" value="v"/>
Parameter data length	16 <input type="button" value="v"/>

Figure 2.4.1.3.2.1

Fault record

- Select the Fault Read button to retrieve fault data from the drive. The corresponding interface is illustrated in Fig. 2.4.1.4.1.
- Conduct troubleshooting based on the identified cause of the issue and appropriate treatment measures. If any problems persist after the treatment, please contact after-sales technical support.



Figure 2.4.1.4.1

2.4.2 Surveillance

Oscilloscope

- The interface is shown in Figures 2.4.2.1.1, 2.4.2.1.2

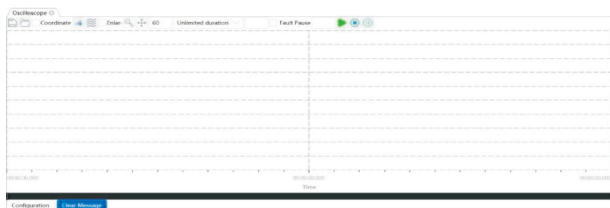


Figure 2.4.2.1.1

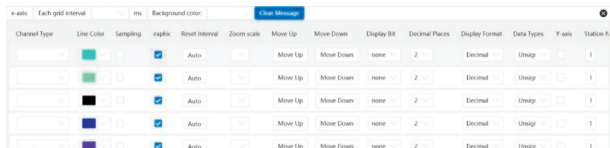


Figure 2.4.2.1.2

- (1) Click the Configure button
- (2) Enter parameter address and comments in the Channel type column as "parameter address: comments", e.g., 0x0008: parameter 8.
- (3) Check the Sampling button, as shown in Figure 2.4.2.1.3

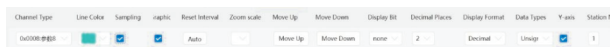


Figure 2.4.2.1.3

(4) As shown in Fig. 2.4.2.1.4, the input sampling interval has a default setting of 60ms for each collection; the collection time is set to unlimited by default.



Figure 2.4.2.1.4

(5) Enter the number of samples required for automatic collection cessation, as illustrated in Figure 2.4.2.1.5.

(6) The fault pause button can be activated; specify the number of faults, upon reaching the predetermined number of faults, automatic cessation will occur as demonstrated in Figure 2.4.2.1.5.



Figure 2.4.2.1.5

(7) Click the start button to sample, as shown in Figure 2.4.2.1.6



Figure 2.4.2.1.6

(8) Click the pause button to pause the acquisition; click again to continue the acquisition, as shown in Figure 2.4.2.1.7



Figure 2.4.2.1.7

(9) Click the stop button to stop the acquisition, as shown in Fig. 2.4.2.1.8



Figure 2.4.2.1.8

(10) Toolbar graphics operation, as shown in Figure 2.4.2.1.9



Figure 2.4.2.1.9

Buttons from left to right:

- Coordinate check: Shows vertical cursor and current collection point info.
- Display coordinate point: Shows all collection points.
- Tile: Tiles all current waveforms.
- Zoom in: Select the region to zoom in with the left mouse button.
- Zoom out or move to zoom out: Double-click the waveform to recover based on prompts.
- Mouse move to drag: Drag the waveform left or right with the right mouse button or use the bottom scroll bar.

(11) Click the Save button to save the waveform; click the Open File button to import the waveform, as shown in Figure 2.4.2.1.10



Figure 2.4.2.1.10

(12) Line Color, modify the color of the waveform;

Sampling check box, sample when sampling;

Graph check box, display the waveform, uncheck the box, hide the waveform;

Reset Interval column, click Auto, reset the Y-axis interval;

Zoom Scale column, modify the Y-axis scale;

Shift Up, move the waveform upward;

Shift Down, move the waveform downward;

Show Bit Bits, after selecting, show the selected bit value;

Decimal Digits, the valid decimal places;

Show Format column, display data in different binary;

Data Type, the same as the type of data to be sampled;

Y-axis, show or hide the Y-axis;

Station number, the address of the slave station to be captured, default bit 1; as shown in

Figure 2.4.2.1.11



Figure 2.4.2.1.11

2.4.3 The control bar

Positive rotation

Click to write 1 to 0x3200, forward to run; button as shown in Figure 2.4.3.1.1



Forward

Figure 2.4.3.1.1

Reverse

Click Write 2 to 0x3200, reverse run; button as shown in Figure 2.4.3.1.2



Reverse

Figure 2.4.3.1.2

Forward jog

Click to write 4 to 0x3200, forward jog; button as shown in Figure 2.4.3.1.3



Forward jog
Figure 2.4.3.1.3

Reverse jog

Click to write 5 to 0x3200, reverse jog; button as shown in Figure 2.4.3.1.4



Reverse jog
Figure 2.4.3.1.4

Deceleration stop

Click the Write 3 to 0x3200, deceleration stop; button as shown in Figure 2.4.3.1.5



Deceleration stop
Figure 2.4.3.1.5

Freewheel stop

Click the Write 7 to 0x3200, freewheel stop; button as shown in Figure 2.4.3.1.6



Freewheel stop
Figure 2.4.3.1.6

Fault reset

Click Write 8 to 0x3200, fault reset; button as shown in Figure 2.4.3.1.7



Fault reset
Figure 2.4.3.1.7

Dynamic parameterization

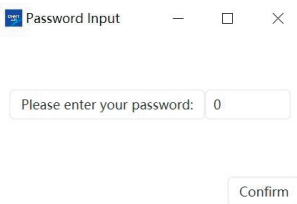
Figure 2.4.3.8.1 shows three types of motor tuning methods. Calibration is done by choosing the appropriate method based on usage conditions.

Method	Conditions of Use	Tuning Effect	Operate	State
Partial static self-learning	<ul style="list-style-type: none"> When the wiring distance is more than 50 m under V/f control When the motor output and inverter capacity are different 	Standard	<input type="button" value="Start tuning"/>	
Dynamic self-learning	<ul style="list-style-type: none"> When the motor can be separated from the mechanical load and the motor can rotate freely during self-learning. For constant torque output characteristics. For high-precision control. 	Optimal	<input type="button" value="Start tuning"/>	
Complete static self-learning	<ul style="list-style-type: none"> The motor cannot be separated from the mechanical load and the motor load exceeds 30% 	Better	<input type="button" value="Start tuning"/>	

Figure 2.4.3.8.1

Restoring the factory parameters

Click the Restore Factory Parameters button. A pop-up window will appear as shown in Figure 2.4.3.9.1. Enter the password (default is 0) and click OK. If no error is reported, the factory parameters, excluding the motor parameters, will be restored.



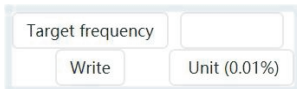
A dialog box titled "Password Input" with a CHNT logo. It contains a text input field with the placeholder "Please enter your password:" and the value "0". Below the input field is a "Confirm" button.

Figure 2.4.3.9.1

2.4.4 Control parameters

Target frequency

Enter the target frequency and click the Write button to save it. If the operation fails, an error message will be displayed. Refer to Figure 2.4.4.1.1 for the interface layout.



An interface for setting the target frequency. It includes a text input field labeled "Target frequency", a "Write" button, and a text input field labeled "Unit (0.01%)".

Figure 2.4.4.1.1

2.5 Help

Language

Select the language from the drop-down box, restart the program to apply the change, as shown in Figures 2.5.1.1 and 2.5.1.2.



Figure 2.5.1.1

Language switching prompt



Figure 2.5.1.2

Help

Manuals

Click the Manuals button to open the catalog and select the manual you want to view, as shown in Figure 2.5.2.1.1.



User Manual

Figure 2.5.2.1.1

About

Selecting the "About" button will open a pop-up window, illustrated in Figure 2.5.2.2.1. This window provides information such as the software name, version, copyright details, web address, and relevant warnings.

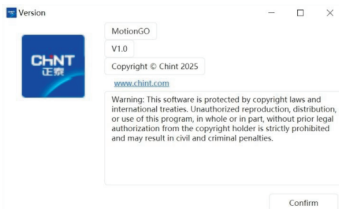


Figure 2.5.2.2.1

2.6 Quick Toolbar

2.6.1 Connection

Refer to Figure 2.6.1.1 and click the Connect button. If it connects automatically, the connection window will not appear. If it does not connect, the window will appear for you to select a configuration, as shown in Figure 2.6.1.2.



Figure 2.6.1.1

Serial port number: COM3

Baud Rate: 9600

Protocol settings: [0]modbusRtu(8,N,2)

Starting address: 1

End address: 1

Modbus RTU is a transmission mode of the Modbus protocol and an open serial protocol that is widely used in today's industrial monitoring equipment¹². The Modbus RTU protocol uses RS-232 or RS-485 serial interfaces for communication and is supported

Connect Disconnect

Figure 2.6.1.2

2.6.2 Disconnect

As shown in Figure 2.6.2.1, click the Disconnect button to disconnect



Figure 2.6.2.1

2.6.3 The status bar

As shown in Fig. 2.6.3.1, the status columns, from left to right, are: Connection Status, Run/Stop, Forward /Reverse, Operational Status, Fault, Ready to Operate, etc

Connection status: Run/Stop: Forward/Reverse: Running status: Failure: Running preparation:

Figure 2.6.3.1

CHINT

QC PASS

NVF7
MotionGO Inverter
Programming Software
GB/T 12668.2

Check 05

Test date: Please see the packing

ZHEJIANG CHINT ELECTRICS CO., LTD.



CHINT

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NVF7

MotionGO Inverter Programming Software User Instruction

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