

# **CLV PC Tool**

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**— Introduction of CLV  
Inverter Communication  
Software**

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## 1. Introduction

This manual mainly introduces the functions and use of CLV inverter communication software CLV PC Tool, which currently supports V900 general-purpose inverters, excluding V900E and V900M.

Key functions and features include:

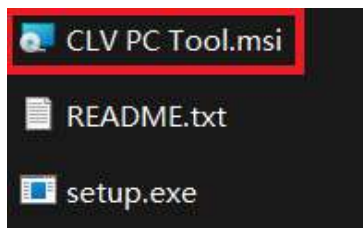
- Based on serial port to communicate with V900 inverter, external USB to RS485 converter is required;
- Windows system requirements: Windows 7 and above;
- The interface is simple and intuitive, and the operation is simple;
- Support Chinese and English languages;
- Support batch upload and download of inverter parameters;
- Support upload and download of individual and group parameters;
- Support parameter search query;
- Supports saving parameters to local documents and loading parameters from the documents.

## 2. Software Installation

2.1 Users can download CLV PC Tool by Click the link below.

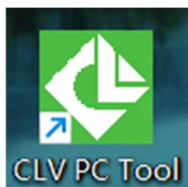
<http://www.clvdrives.com/UpdateApplication>

2.2 After downloading the installation package, click CLV PC Tool.msi in the compressed package start the installation.



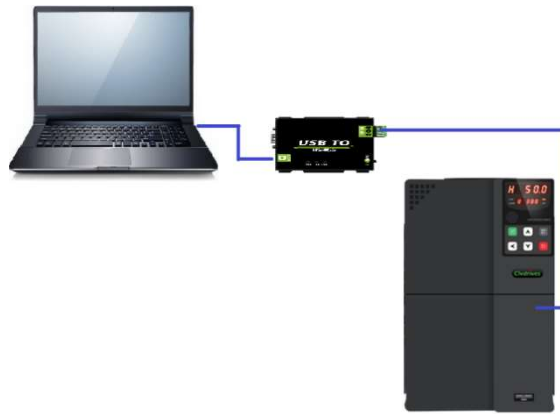
2.3 Then the installation of the software can be completed according to the installation wizard.

2.4 Double-click the desktop shortcut to run CLV PC Tool.



## 3. Hardware Connection

The computer is connected to the inverter communication terminals S+/S- by USB to RS485 converter.



## 4. Application Interface

Cont	Index	Parameter Name	Info	Actual Value (Editable)	Default Value	Minimum Value	Maximum Value	Property
	F0 - 00	Command Source Selection	***	0	0	0	3	Read/Write
	F0 - 01	Main Frequency Source Selection	***	1	1	0	9	Read Only @Ru
	F0 - 02	Auxiliary Frequency Source Selection	***	0	0	0	9	Read Only @Ru
	F0 - 03	Frequency Source Selection	***	0	0	0	34	Read/Write
	F0 - 04	Acceleration Time	***	20.0 s	20.0 s	0.1 s	500.0 s	Read/Write
	F0 - 05	Deceleration Time	***	20.0 s	20.0 s	0.1 s	500.0 s	Read/Write
	F0 - 06	Control Terminal DC Output Selection	***	1	1	0	2	Read Only @Ru
	F0 - 07	Analog Input and Output Signal Format	***	0	0	0	1122	Read Only @Ru
	F0 - 08	Stop Mode	***	0	0	0	1	Read/Write
	F0 - 09	Frequency Upper limit	***	50.0 Hz	50.0 Hz	0.0 Hz	599.9 Hz	Read Only @Ru
	F0 - 10	Frequency Lower limit	***	0.0 Hz	0.0 Hz	0.0 Hz	50.0 Hz	Read/Write
	F0 - 11	Torque Boost	***	0.0 %	0.0 %	0.0 %	30.0 %	Read/Write
	F0 - 12	Torque Boost Cut-off Frequency	***	50.0 Hz	50.0 Hz	0.0 Hz	50.0 Hz	Read Only @Ru
	F0 - 13	Switching Frequency	***	6.0 KHz	6.0 KHz	1.0 KHz	16.0 KHz	Read/Write
	F0 - 14	Output Phase Sequence	***	0	0	0	1	Read/Write
	F0 - 15	Speed Tracking Start	***	0	0	0	1	Read Only @Ru
	F0 - 16	Preset Frequency	***	0.0 Hz	0.0 Hz	0.0 Hz	50.0 Hz	Read/Write
	F0 - 17	Low Frequency Action	***	0	0	0	2	Read/Write
	F0 - 18	Command Source & Frequency Source Binding	***	0	0	0	999	Read/Write
	F0 - 19	JOG/REV Key Function Selection	***	0	0	0	4	Read Only @Ru
	F0 - 20	STOP Key Function	***	1	1	0	1	Read/Write

### 4.1 Main Menu

The menu includes File, Settings, Language, and Help menus.

#### 4.1.1 File Menu

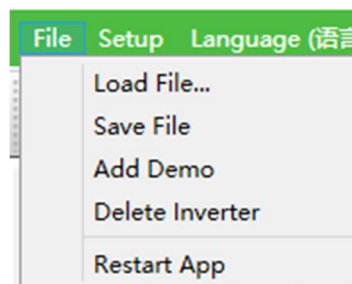
**Load File:** Load the saved parameters file, the file extension is .xml .

**Save File:** Save the parameters of current inverter to the parameter file.

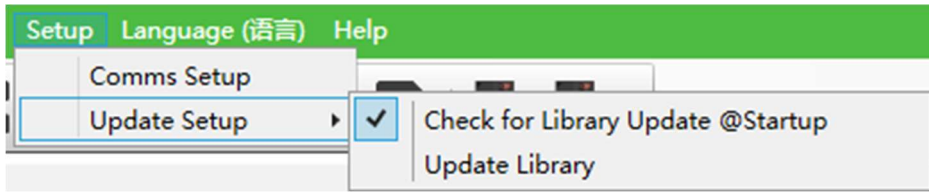
**Add Demo:** Add an example to the inverter list, users can choose the inverter type, version number and power rating (as shown in the figure below).

**Delete Inverter:** Remove the selected inverter from the inverter list.

**Restart App:** Restart the app CLV PC Tool.



### 4.1.2 Setting Menu



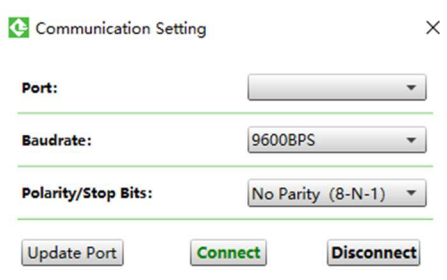
#### Comms Setup:

Click the menu "Communication Settings" to pop up a new window, on the new window user can setup communication parameters, including USB port number, baud rate and communication data format.

When the USB to RS485 adaptor is connected to the computer, the system will automatically install the USB to RS485 adaptor driver (or the computer needs to install the driver supporting the USB to RS485 adaptor separately), and the computer system will assign the corresponding port number to the inverter.

The setting of baud rate and parity/stop bit needs to be consistent with the communication setting of the connected inverter, and the inverter parameter F7-01 sets the communication baud rate, and F7-02 sets the data format.

**Note:** The higher the baud rate, the faster the communication speed, which will shorten the time to download or upload parameters.



#### Update Setup:

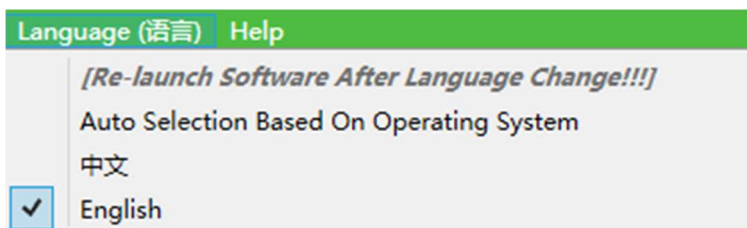
##### Check for database updates at startup:

Enable this option, CLV PC Tool will communicate with the server at startup to check for database updates (please make sure that the computer can access the internet normally);

When this option is disabled, CLV PC Tool does not check for updates, which will reduce the startup time.

Update database: Clicking this menu will update the database directly (please make sure that the computer can access the internet normally).

### 4.1.3 Language Menus



The software currently supports Chinese and English, and the language can also be selected

automatically according to the locale of the computer's operating system. After the software language setting is changed, the user needs to restart CLV PC Tool to complete the language change.

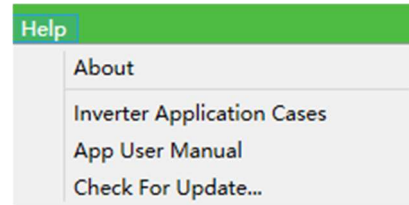
#### 4.1.4 Help Menu

About: Displays CLV PC Tool related information, including version number, Official website, etc.

Inverter Application Cases: Open the website link to display the inverter application relevant parameter settings

App User Manual: CLV PC Tool help information, introducing the software features and usage.


Check For Updates: Check for updates of CLV PC Tool.




#### 4.2 Tool Menu





The toolbar supports the operation of inverter parameters, which is convenient for users.


: Communication settings button , same function as the “Communication settings menu”.

: Upload all parameters from the connected inverter.


: Download all parameters to the connected inverter.

: Download the currently selected group parameters to the connected inverter.

: Loading parameters from the file, same function as “Import file menu”.

: Save parameters to the file, same function as “Save file menu”.

: Add a sample inverter, same function as “Add offline sample menu”.

: Deleting the selected inverter, same function as “Delete inverter menu”.

#### 4.3 Inverters List

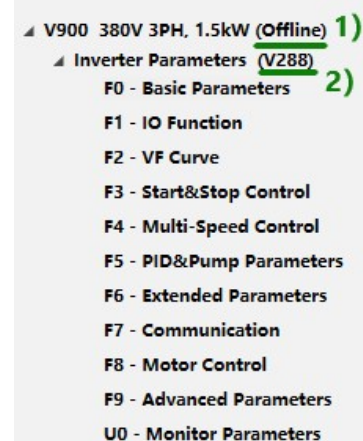
The inverter list displays all inverters, including user-added sample inverters, and the real inverter.

Users can click the triangle symbol on the left or the name of the inverter to switch the inverter.

The first line shows the inverter name, power ratings, and inverter source (as shown in 1, including offline and inverter);

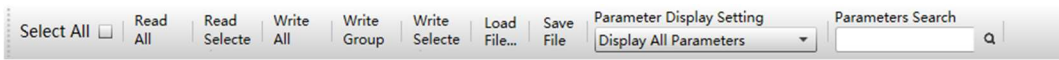
The second line shows the inverter parameter version number (as shown in 2);

All parameter group names are displayed at the bottom, and users can click the parameter group name to switch parameter groups, the parameter display area on the right will display



all parameters within the selected parameter group.

#### 4.4 Inverter Parameter Operation Menu



**Select All:** Select all parameters of the current parameter group.

**Read All:** Read all parameters of the current frequency inverter.

**Write All:** Download all parameters to the currently connected inverter.

**Write Group:** Download all parameters of the current group to the currently connected inverter.

**Write Selected:** Download the currently selected parameters to the currently connected inverter.

**Load File:** Loads parameters from the saved file.

**Save File:** Save the parameters of the current inverter to the file.

**Parameter Display Setting:** support 3 options.

*Display All Setting:* Normal display of parameters.

*Display Searched Parameters Different from Factory Values:* Displays the modified parameters.

*Display Searched Parameters:* Only show parameters with names match the search field.

**Parameter Search:** You can search for parameters in parameter names by keywords.

#### 4.5 Parameter Display

Cont 1)	Index	Parameter Name	Info	Actual Value (Editable)	Default Value	Minimum Value	Maximum Value	Property
↑ ↓ □	F0 - 00	Command Source Selection	...	0 2) 3)	0	0	3	Read/Write 4)
↑ ↓ □	F0 - 01	Main Frequency Source Selection	...	1	1	0	9	Read Only @Ru
↑ ↓ □	F0 - 02	Auxiliary Frequency Source Selection	...	0	0	0	9	Read Only @Ru
↑ ↓ □	F0 - 03	Frequency Source Selection	...	0	0	0	34	Read/Write
↑ ↓ □	F0 - 04	Acceleration Time	...	20.0 s	20.0 s	0.1 s	500.0 s	Read/Write
↑ ↓ □	F0 - 05	Deceleration Time	...	20.0 s	20.0 s	0.1 s	500.0 s	Read/Write
↑ ↓ □	F0 - 06	Control Terminal DC Output Selection	...	1	1	0	2	Read Only @Ru
↑ ↓ □	F0 - 07	Analog Input and Output Signal Format	...	0	0	0	1122	Read Only @Ru
↑ ↓ □	F0 - 08	Stop Mode	...	0	0	0	1	Read/Write
↑ ↓ □	F0 - 09	Frequency Upper limit	...	50.0 Hz	50.0 Hz	0.0 Hz	599.9 Hz	Read Only @Ru
↑ ↓ □	F0 - 10	Frequency Lower limit	...	0.0 Hz	0.0 Hz	0.0 Hz	50.0 Hz	Read/Write
↑ ↓ □	F0 - 11	Torque Boost	...	0.0 %	0.0 %	0.0 %	30.0 %	Read/Write

The parameter display area shows the properties of parameters, including parameter index, parameter description, parameter details, parameter actual value, factory default value, parameter minimum value, parameter maximum value and parameter type.

1) The left button is used to download and upload individual parameters, which is convenient for users to change and debug parameters.

2) After moving the mouse to the parameter details symbol "...", the bubble prompt will show the parameter details, which is convenient for users to understand the parameter functions and options.

3) Users can directly click the actual value of the parameter to change the parameter value, if the parameter value is different from the factory value, the color of the parameter value will be changed to blue.

The parameters of the monitoring parameter group cannot be changed, and all parameters are read-only.

4) Parameter types include read-write at any time, read-only running, and read-only.

Read-only parameters cannot be changed, they can only be read from the inverter;

The operation read-only parameter can only be changed when the inverter is not running, it is not

allowed to be changed when the inverter is running;

Read and write parameters at any time, and parameters can be downloaded and uploaded at any time.