

Signal Generator Ultrawave Software Help

Welcome to use ultrawave software. Users can create, edit, upload, download waveform and remote control through this software.

The user manual of the waveform generator and the following help content are for your reference.

I. Device Connection

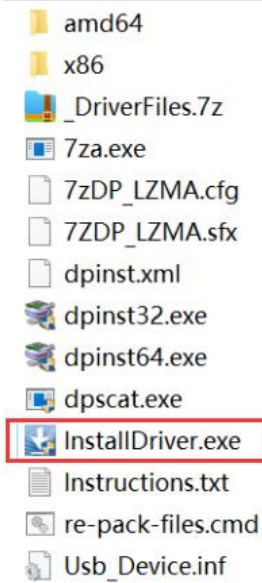
USB with better rate and reliability is a kind of data transmission mode to widely use in connecting with PC. (PS: USB interface of HandHold type device series is mini USB. Please refer the device instruction)

The serial port is another kind of transmission mode in some outdated PC as a supplementary in failure of USB transmission.

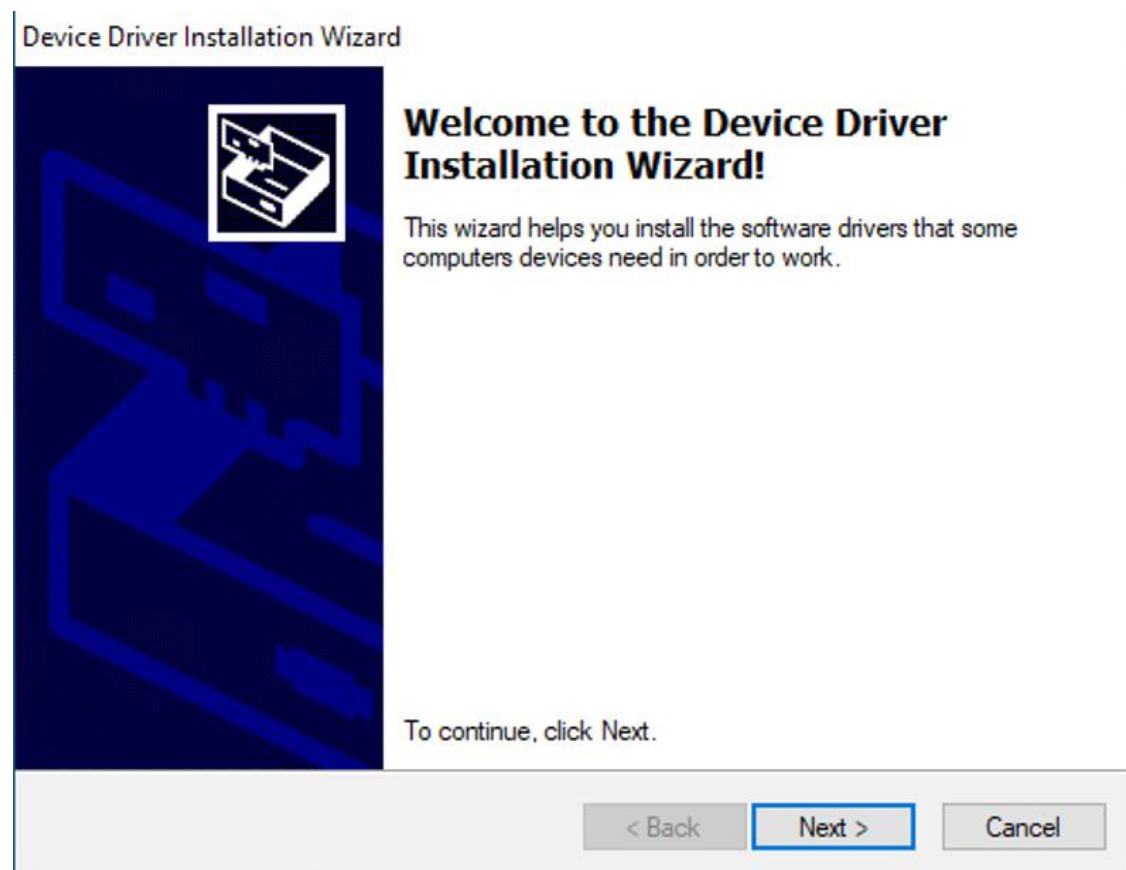
The above two are both fit for Windows NT(XP or later).

Driver Installation

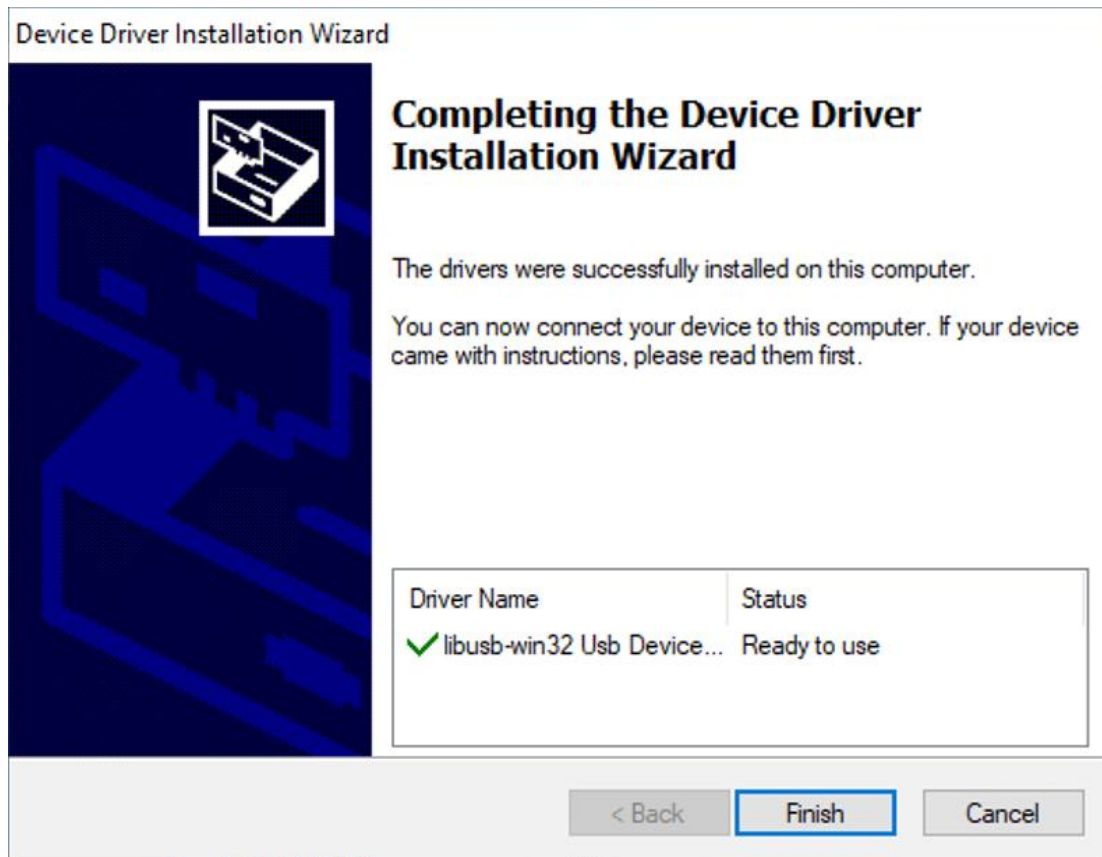
(1) Locate InstgallDriver.exe in the driver folder in the installation directory and double-click it to run it.



(2) Click Next and wait for the drive to complete.



(3) When the following interface appears, the installation is complete.



II. User Interface

The main interface is shown as the figure below :



1. **Menu Bar:** provide various functions introductions.
2. **Toolbar:** provide usual shortcut bar of menu options.
3. **Waveform Edit Area**
4. **Status Bar**

III. Menu:

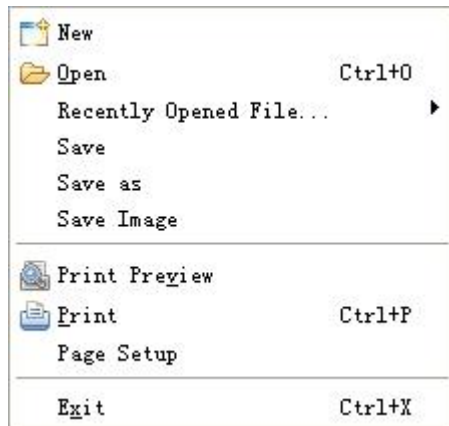
The following menus shows in the menu bar:

1. File
2. Edit
3. View
4. Format
5. Communications
6. Draw
7. Language
8. Help

The followings are the detailed description.

(1) File

The File menus are shown in the following figure:



New: Create a new waveform file. After clicking this menu, the users can set the property of the new waveform.

Open: Open the saved files with bin suffix.

Recently Opened File: List of the 10 recently opened files.

Save: If users have not saved the waveform before, a dialog box will prompt you to set the file name and saving path. If users have saved the waveform, the waveform in the current window will be saved.

Save as: Save the waveform as another file name, it will prompt users to set the file name and saving path. The file type of the waveforms is “.bin”.

Save Image: Save the current waveforms as picture, support bmp, png, gif etc.

Print Preview: Preview the print effect.

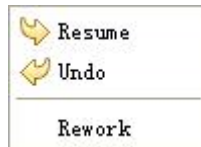
Print: Print by printer.

Page Setup: set the boundary value for printing.

Exit: exit the software.

(2) Edit

The Edit menus are shown in the following figure:



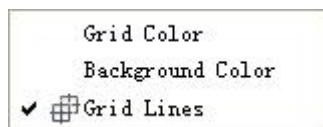
Resume: Cancel the “Undo” operation, make the waveform return to the status before undoing.

Undo: Undo the last operation and return the waveform to the previous status.

Rework: You can modify the property of the waveform.

(3) View

The View menus are shown in the following figure:



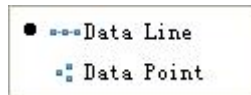
Grid Color: Bring out the color dialogue box and change the color.

Background Color: Choose this menu or double click waveform area of display to bring out the color dialogue box and change the background color.

Grid Lines: Display or hide the grid scale of image background.

(4) Format

The Format menus are shown in the following figure:

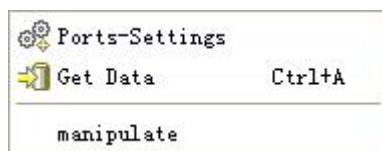


Data Line: Connect the waveform points together by straight line to form a continuous waveform.

Data Point: Draw the point discretely.

(5) Communications

The Communications menus are shown in the following figure:



Ports-Settings: choose the port for communicate with Waveform Generator.

Set as USB and search USB port from connecting Waveform Generators.

Press "refresh" button to refresh the multiple available USB ports.

If the port is set as LAN, you should set IP and port.

Get Data:

Click "**GetFiles**" to get the name list of the waveforms stored in the Waveform Generator and display it in the FileList window.

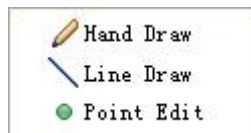
Select one of the file name in the list and click "**Download**", the waveform will be downloaded to the software and displayed in the Waveform Edit Area.

If the waveform in the Waveform Edit Area has been saved, you can upload it to the storage of Waveform Generator by clicking "**Upload**".

Manipulate: The Waveform Generator can be controlled remotely by software. See for [\(2\)Operation of Remote control](#) detailed operations.

(6) Draw

The Draw menus are shown in the following figure:



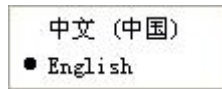
Hand Draw: In the Waveform Edit Area, click and hold the left key of the mouse, drag arbitrarily to draw the waveform you like and release the mouse to finish the drawing. The hand drawing waveform will automatically connect to the waveform that has been stored. Users can modify the waveform again.

Line Draw: In the Waveform Edit Area, click the mouse, if there is a waveform segment before, the software will draw a line from the end point of the waveform segment to the point you have just clicked (else from the zero point), this is the first line you draw, click the mouse at another location, the second line will be drawn. Use the same way to draw a series lines as you like. Users can modify the waveform again.

Point Edit: In the Waveform Edit Area, you can set a point by clicking it.

(7) Language

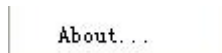
The Language menus are shown in the following figure:



Users can choose one of the languages as in need.

(8) Help

The Help menus are shown in the following figure:















About: Display the version number of the software.

IV. Toolbar

Toolbar is the shortcut of common menu items, as follows:






Icon	Name	Function
	New	Create a new waveform file
	Open	Open the stored bin file
	Print	Print by printer
	Print Preview	Preview the print effect
	Resume	Cancel the “Undo” operation
	Undo	Undo the last operation

	Display/hide grids	Display or hide grids scale of waveform background
	Display linked waveform	Connect the waveform points together by straight line
	Display data point	Draw the point discretely
	Ports-settings	Set communication parameters
	Get Data	Download, upload the waveform file
	Point Edit	Enter Point Edit mode
	Line Draw	Enter Line Draw mode
	Hand Draw	Enter Hand Draw mode
	Read Wave	Click to read wave
	Write Wave	Click to write wave
	Recall CH1	Click to recall CH2 waveform output
	Recall CH2	Click to recall CH2 waveform output


V. Relevant operations

Relevant operations of this software.

(1) To Create and Edit Waveform

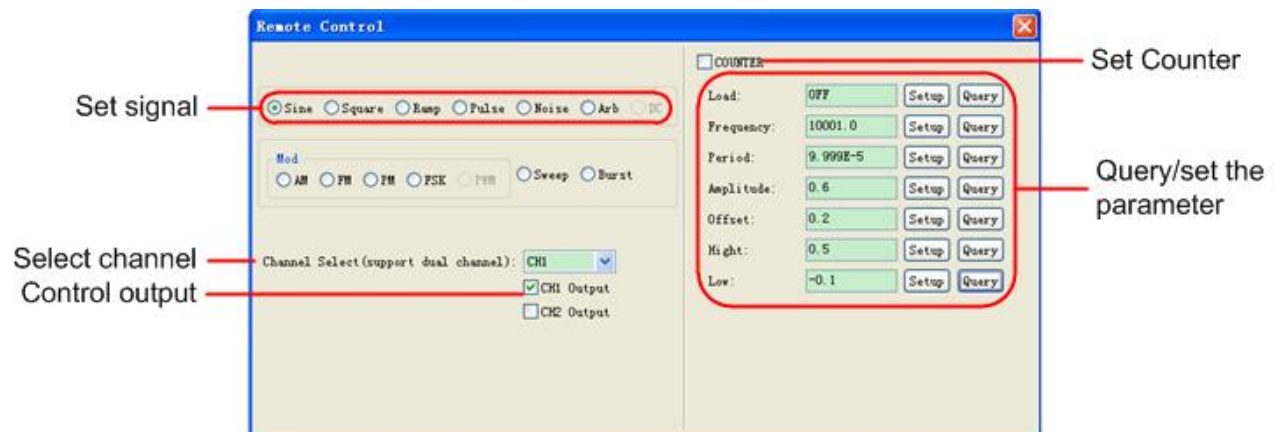
- 1) Click "File" in the menu bar and select "New" (or click the icon of  in the toolbar), input the number of points and voltage, click "OK".
- 2) Click "Draw" in the menu bar (or click the icon of  in the toolbar) to choose the proper mode to draw the waveform. For more details, see [\(6\) Draw](#).
- 3) Select "Save" or "Save as" in the "File" menu to save the current waveform.
- 4) Upload the waveform: After saving the waveform, click "Communications" in the menu bar and select "Get Data" (or click the icon of  in the toolbar). In the Dialog, click "Upload" to store the current waveform into the storage of the Waveform Generator.

How to import the user-definable waveform in the Waveform Generator:

- 1) Click "Communications" in the menu bar and select "Get Data" (or click the icon of  in the toolbar). In the Dialog, click "GetFiles" to get the name list of the waveforms stored in the Waveform Generator and display it in the FileList window.
- 2) Select one of the file name in the list and click "Download", the waveform will be downloaded to the software and displayed in the Waveform Edit Area.

(2) Operation of Remote control

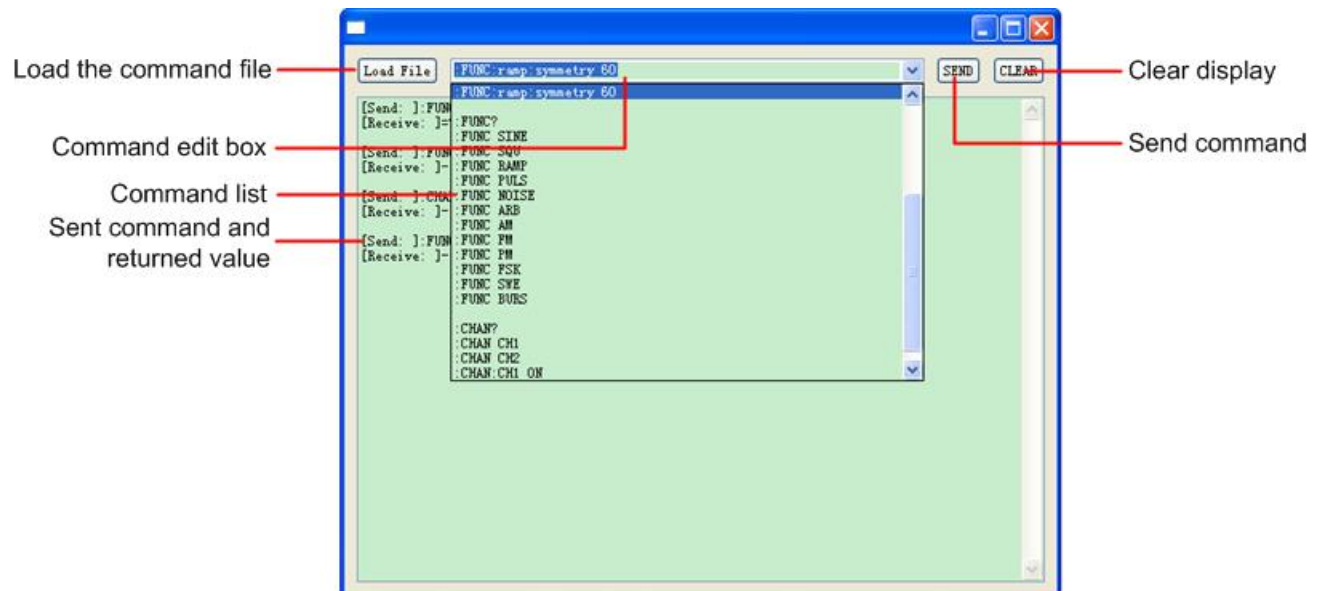
Click "Communications" in the menu bar and select "manipulate" to open the Remote Control panel.



- **Set signal:** Select the desired signal.
- **Mod, Sweep, Burst:** The corresponding function will be enabled if the Waveform Generator supports.
- **Select channel :** Select the channel, equal to the "CH1/2" button on the front panel of the generator.
- **Control output:** Turn on/off output of the corresponding channel.
- **Set Counter:** Check to set the corresponding parameters of counter.
- **Query/set the parameter:** Click "Query" to display the value of current parameter. After inputting the desired value, click "Setup" to send it to the generator.

(3) SCPI Command Control

Click "Communications" in the menu bar and select "CommandLine" to open the SCPI Control panel



- **Load the command file:** You can save the SCPI commands into a TXT file first and load it here, the command list will display the commands in the TXT file.
- **Command edit box:** You can edit the command here.
- **Command list:** Select the desired command.
- **Sent command and returned value:** Display the commands have been sent and the returned values.
- **Clear Display:** Clear the window.
- **Send command:** Send the command in the edit box to the generator.