

**Burning Tool Guide**

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Compared to last version, added new function description.

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This is the initial release.

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# Introduction

This tool is mainly used for production line burning on the Windows platform. It supports blank board burning, upgrade burning after erasing the old platform, large image (image file>1G) burning, and Key burning. The operation is simple. The interface is simple and intuitive.

Note: Please close anti-virus software such as 360 when burning, otherwise the burning tool will be abnormal.

# Tool Installation

## Preparation Before Installation

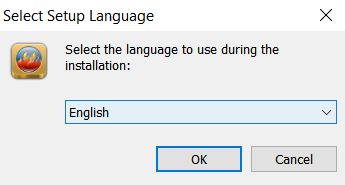
Please close the antivirus software before installing the tool, otherwise some library files may be killed by mistake, causing the tool to not run after installation.

## Tool Installation Steps

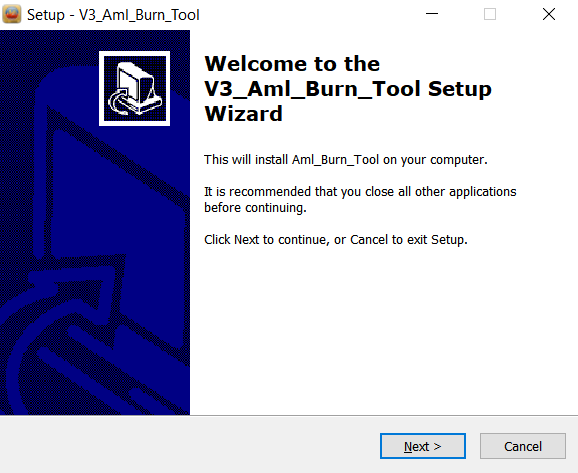
1. Click the tool installation file V3\_setup\_V3.\*.\*.exe to start the installation.



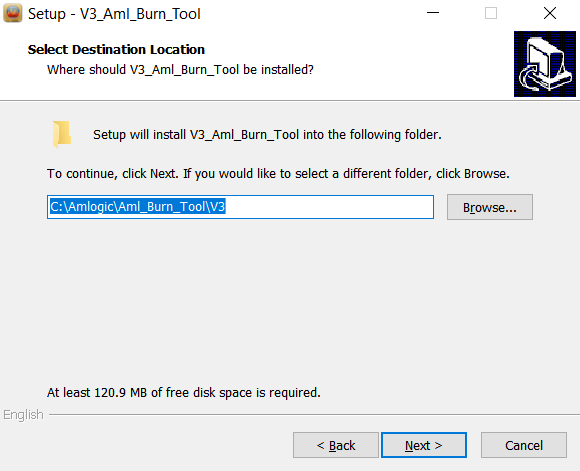
1. Select the installation language.



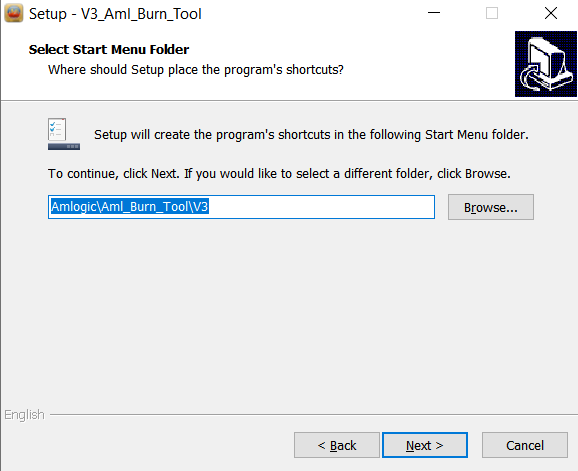
1. Go to the next step.



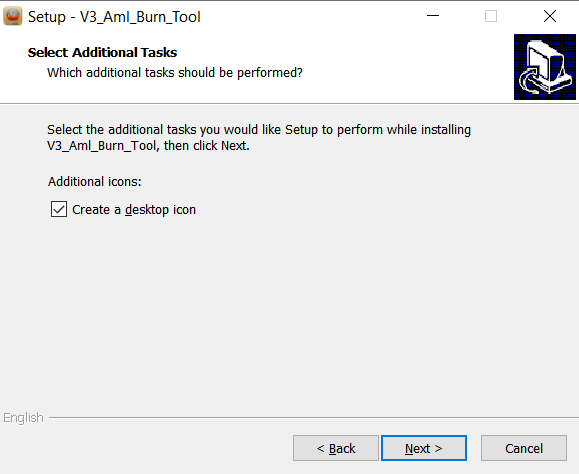
1. Select the installation path, the default is C:\Amlogic\Aml\_Burn\_Tool\V3, and the directory can be changed.



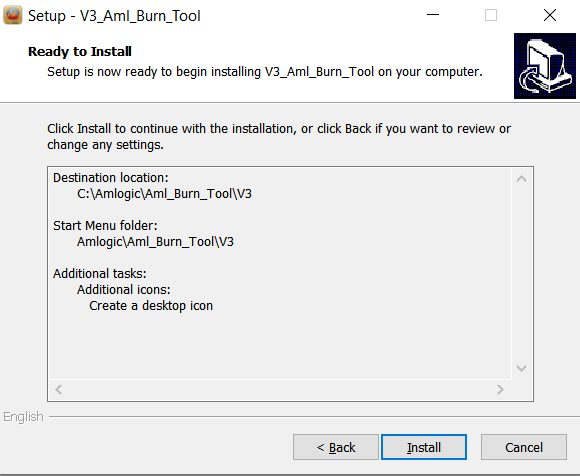
1. The next step is selected by default.



1. You can choose whether to create a desktop icon.



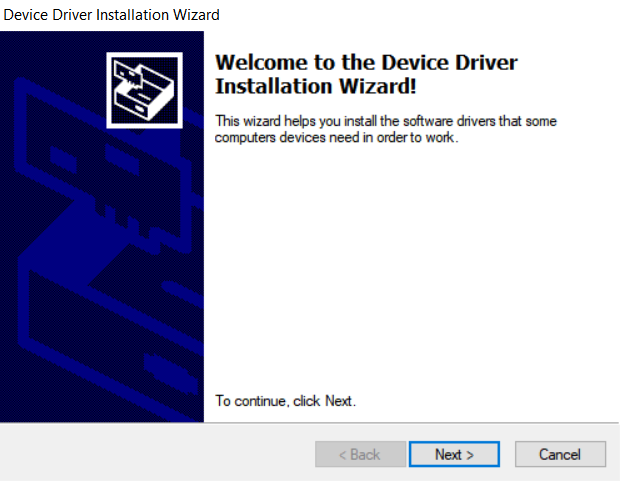
1. Click "Install" to start automatic installation.



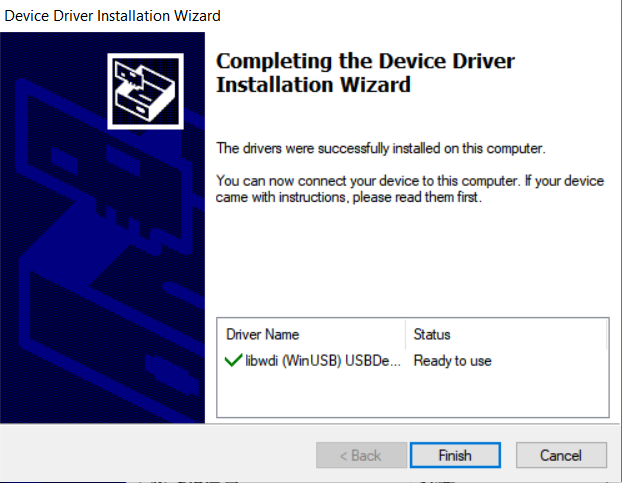
1. During the installation process, you will be prompted to install the driver, and the next step is by default.

## Installing DNL Driver

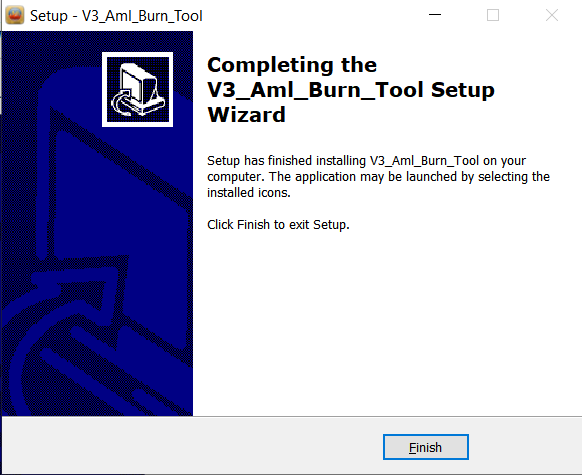
The installation of the DNL driver is automatic and does not need to be started manually.



DNL driver installation is complete.



DNL driver installation is complete.



## Tool Starting

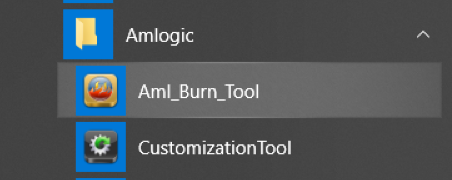
The tool is the V3 version of the burning tool. It supports the board that burns the V3 chip. The device manager shows Universal Serial Bus devices --> android\_winusb, which is used for burning the V3 version of the tool.



When the device displayed in the device manager is libusb-win32 Usb Devices --> WorldCup Device, as shown in the figure below, it is suitable for the V2 version of the tool to burn.

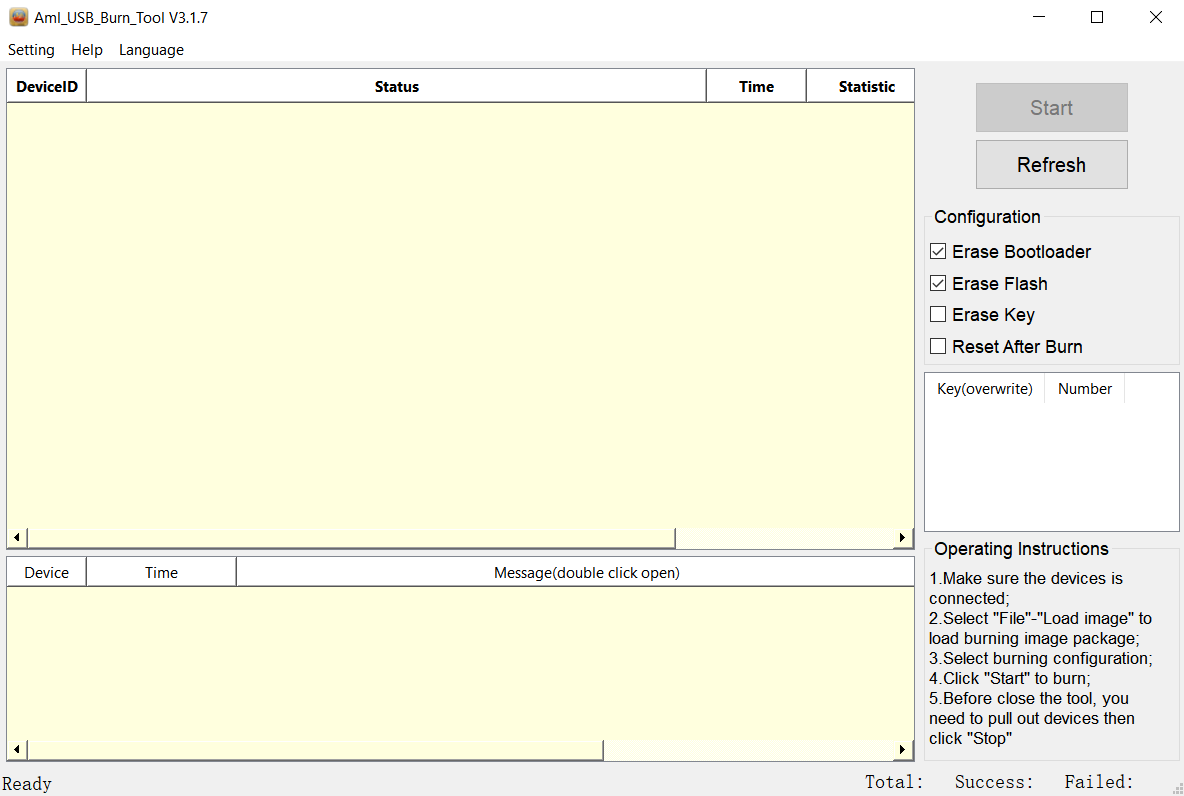


After the tool is installed, a icon named Aml\_Burn\_Tool will be generated in the launch bar on the desktop, as shown in the figure below.



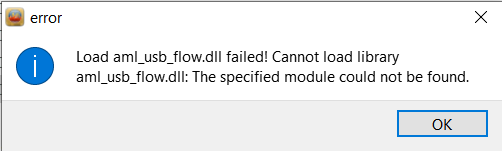
Tool start:

Figure 2‑1 Tool start interface

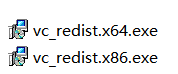


You can import the USB upgrade package to upgrade.  
Note: Burn upgrade package need close [Tencent](D:/%E6%9C%89%E9%81%93/Dict/8.9.8.0/resultui/html/index.html" \l "/javascript:;) [PC](D:/%E6%9C%89%E9%81%93/Dict/8.9.8.0/resultui/html/index.html" \l "/javascript:;) [Manager](D:/%E6%9C%89%E9%81%93/Dict/8.9.8.0/resultui/html/index.html" \l "/javascript:;), this program will [disturb](D:/%E6%9C%89%E9%81%93/Dict/8.9.8.0/resultui/html/index.html" \l "/javascript:;) usb data [transmission](D:/%E6%9C%89%E9%81%93/Dict/8.9.8.0/resultui/html/index.html" \l "/javascript:;).

If the tool opens and encounters the prompt as shown in the figure below, first confirm whether there is aml\_usb\_flow.dll in the installation directory of the tool. If the file exists, it means that the user PC may lack the VC2015 runtime library.

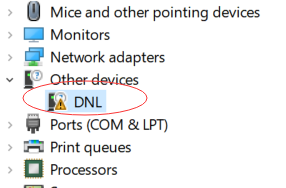


Select different runtime library installation packages according to the number of PC systems. This problem can generally be solved after installing the runtime library.

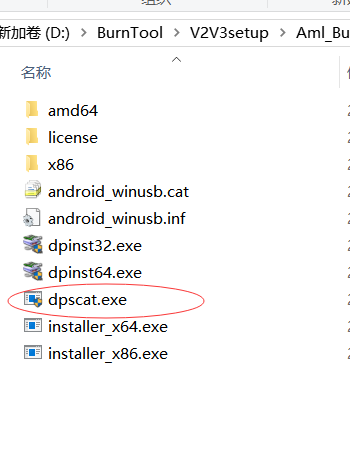


## Manually Installing the Driver

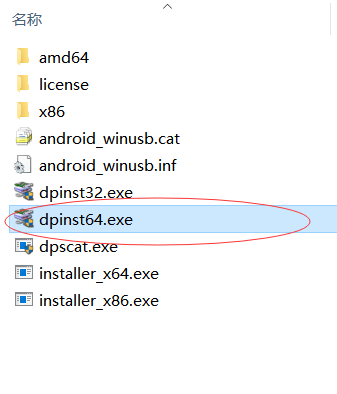
If a yellow exclamation point "!" appears when the device is connected in the device manager, it means that the driver has not been installed successfully, and you need to install the driver manually.



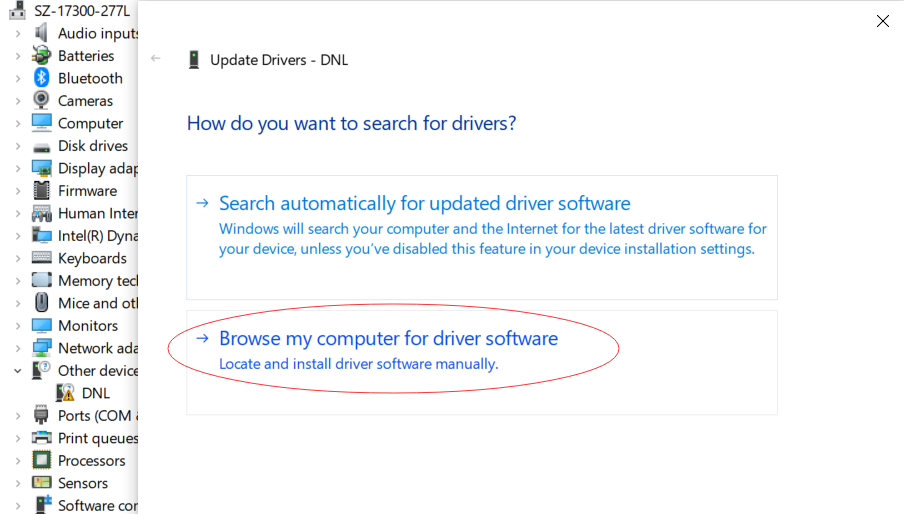
1. First enter the directory specified by the tool installation, first click dpscat.exe to sign the driver.



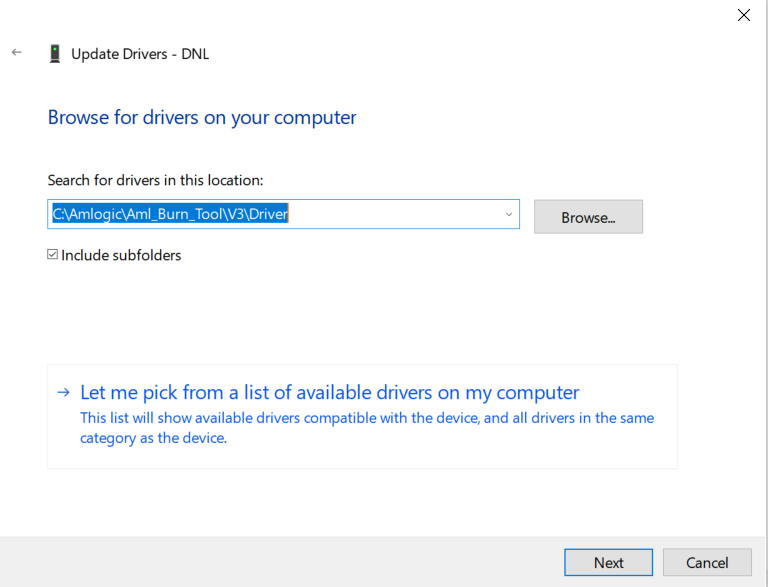
1. During the signing process, if security prompt when need signature or authorization, need allow this operation.
2. Choose the corresponding installation according to the system bitness of your own machine, choose dpinst64.exe for 64 bit and dpinst32.exe for 32 bit.



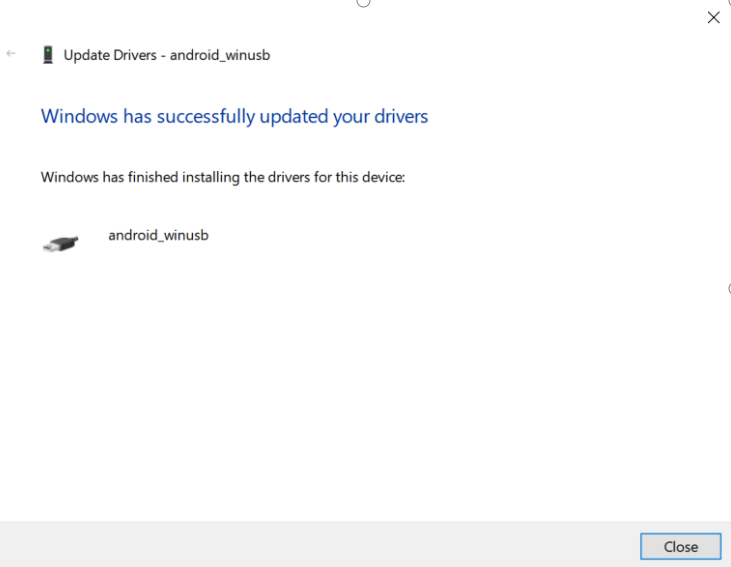
1. Or manually update the driver in the device manager, right-click on the problematic device and select update driver.



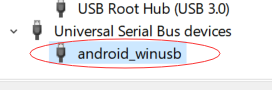
1. Select "Browse my computer for driver software", select C:\Amlogic\Aml\_Burn\_Tool\V3\Driver in the tool installation directory to update the driver.



1. The driver is installed successfully.



The device is recognized normally, you can directly use the tool to burn.

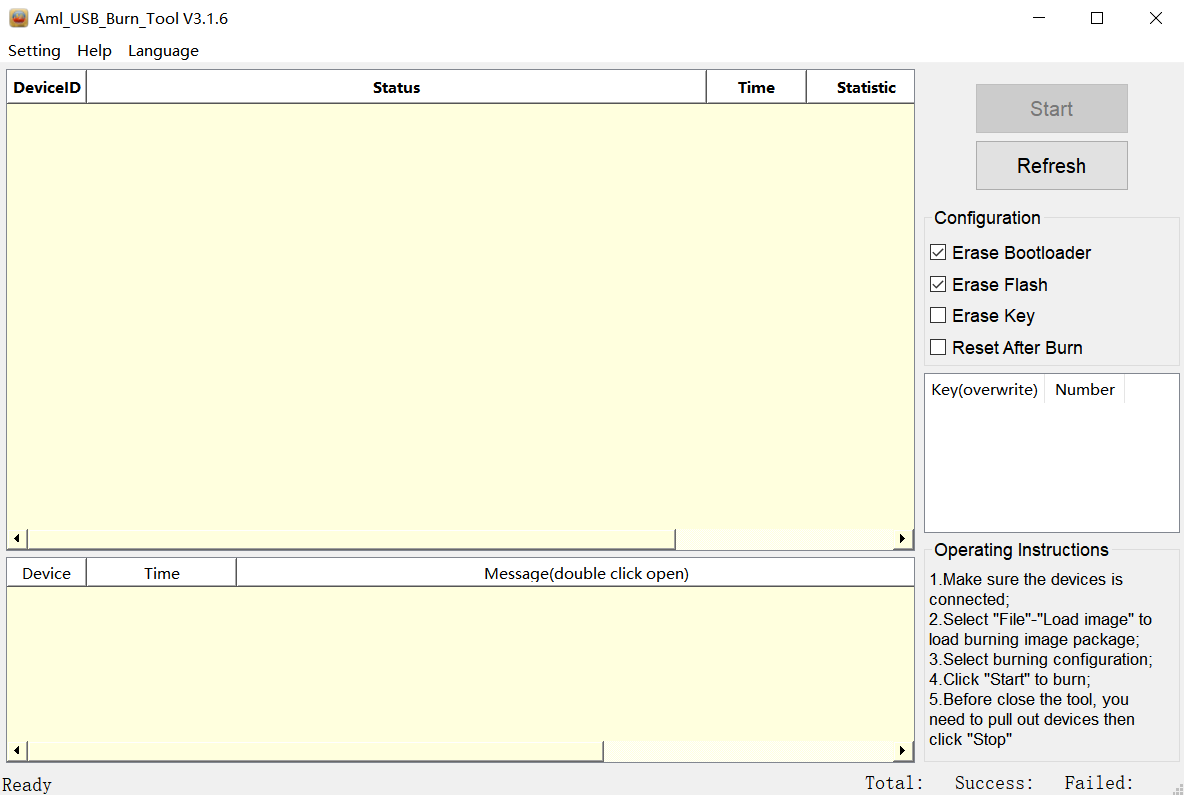


# Tool Interface and Operation

## Main Interface

Open the installed Aml\_Burn\_Tool.exe, the main interface of the tool is shown below.

Figure 3‑1 Main Interface



The information displayed in the status bar on the main interface is as follows:

* "Device ID"

Displays the port corresponding to the connected Hub, HUBx-4 indicates that the port is 4, x shows the serial number of the Hub scanned sequentially when scanning USB devices, and x is not a fixed value.

* "Status"

It displays information about whether the device is connected, the ongoing programming action, and the success or failure of the programming. It is the programming status display of the connected device.

* "Time"

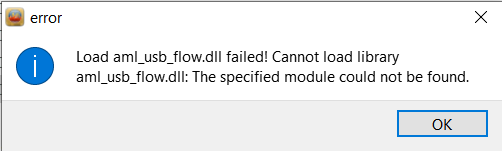
Display the time currently used for programming. The time will be cleared to zero during the next programming, and the time will be recalculated each time.

* "Statistics"

Statistics of the total number of programming times and the number of failed programming of the current port.

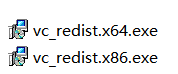
Note: If the following prompt appears when the tool is opened, first confirm whether aml\_usb\_flow.dll exists in the installation directory of the tool. If the file exists, it means that the user's PC may lack the VC2015 runtime library.

Figure 3‑2 Error prompt information



Select the corresponding runtime library installation package according to the number of PC system bits.

Figure 3‑3 Runtime libraries that need to be installed



## Device Connection

Before starting to burn, you need to connect the device. First, turn on the Hub power, connect the Hub to the USB port of the PC, and then turn on the Hub port connected to the burning platform. If the device is successfully connected, the light corresponding to the Hub port will be green and "Connect" will be displayed on the interface.

There are two ways for the device to enter the programming mode: direct connection to the blank board and connection through the serial port input command.

### Empty Board Directly Connected

When the device is an empty board, it will directly enter the burning mode after power-on, connect the USB cable, and the connection will be displayed on the interface.

### Connection Via Serial Port Input Command

Connect the serial port of the device, open the serial terminal and hold down the "Enter" key when the device starts up until the serial port appears.

sc2\_ah212#

sc2\_ah212#

Enter "adnl" and connect to the USB port, you will see the following display.

sc2\_ah212# adnl

<NULL>: not found

PHY2=0xfe03a020,PHY3=0xfe03a080

USB RESET

SPEED ENUM

Sof

At this time, the device will enter the burning mode, and the interface will display the connection.

Figure 3‑4 Device connected successfully

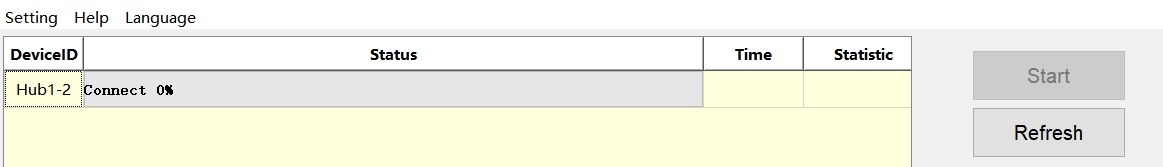
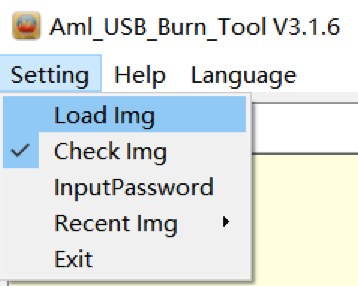
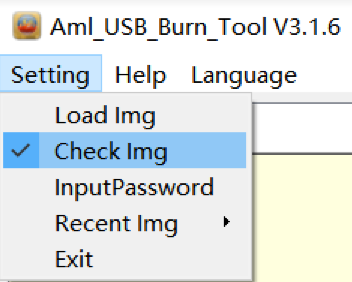


Figure 3‑5 Load burning package



Click "Load Image" to choose to load the image file to be burned, and the imported burn package is checked by default. If verification is not required, go to check "Check Img".

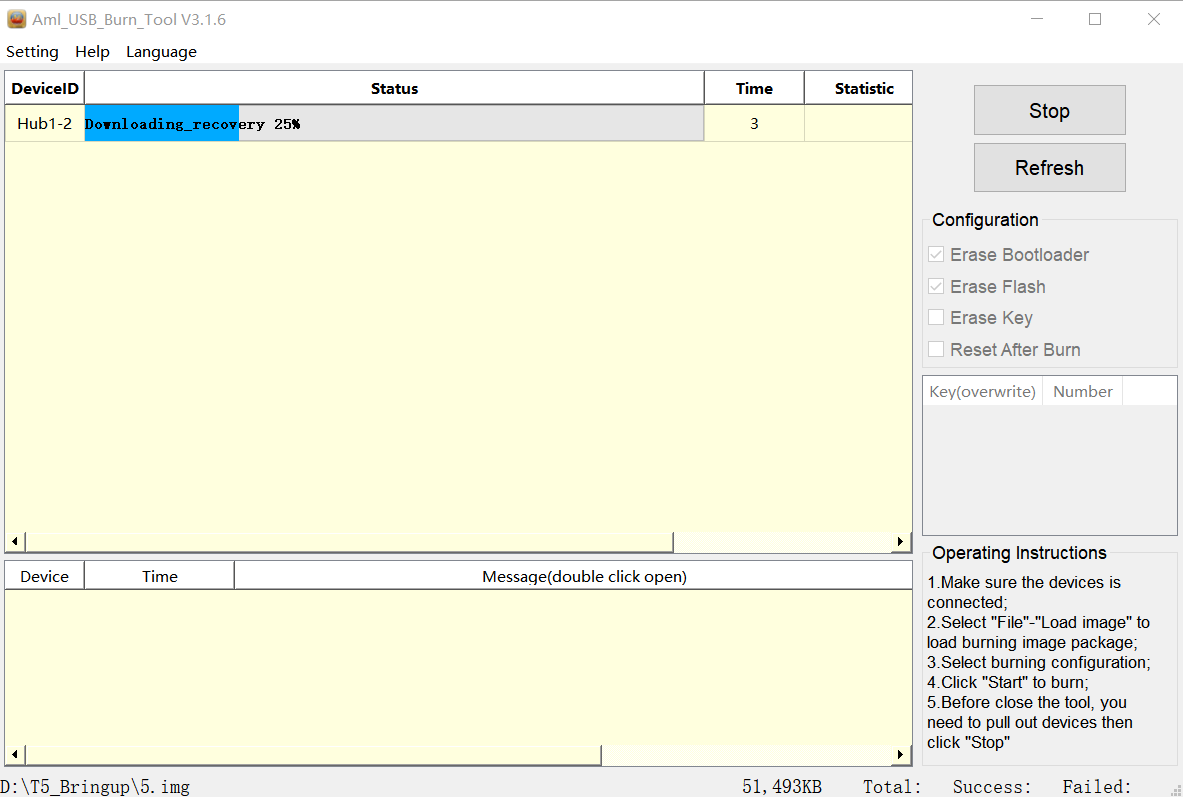
Figure 3‑6 Programming package verification



## Burning

Click the "Start" button to start the programming, the "Status" column will display the progress percentage and the ongoing programming operation, and the "Time" column will display the time used for the programming. The programming package cannot be replaced during programming.

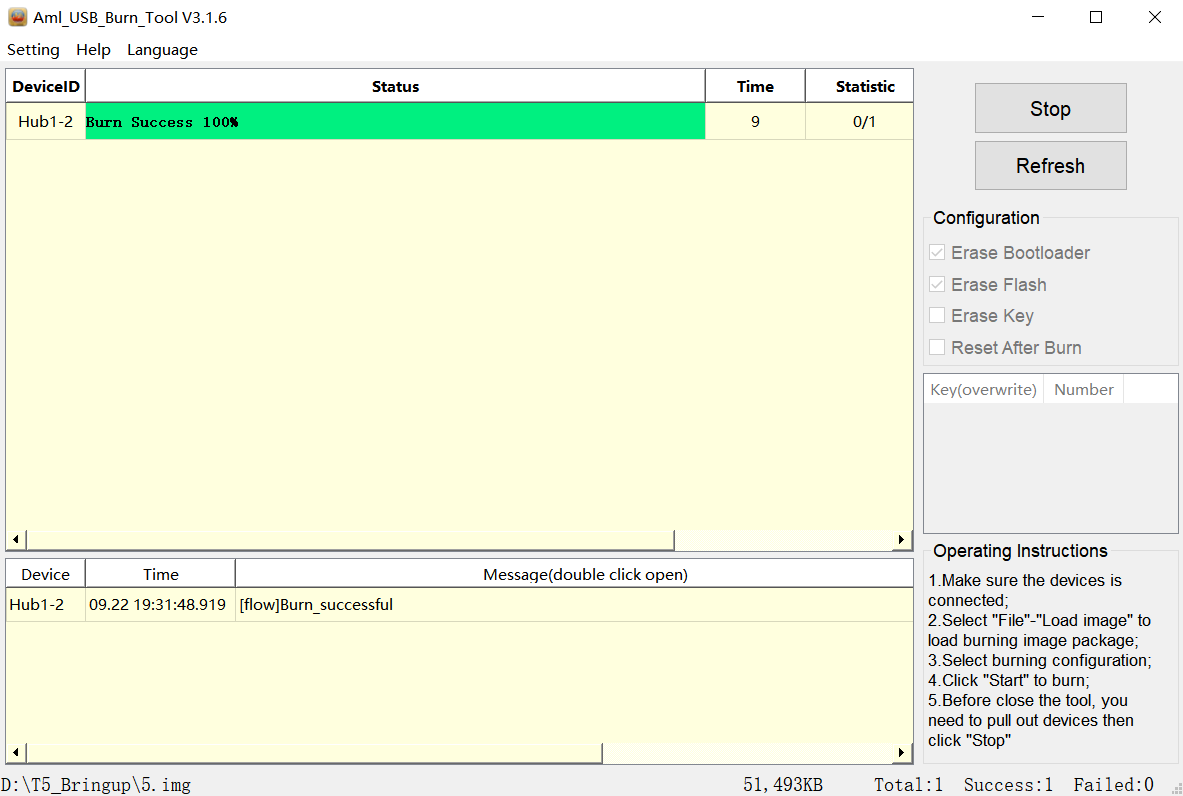
Figure 3‑7 Burning tool interface



## Finishing Burning

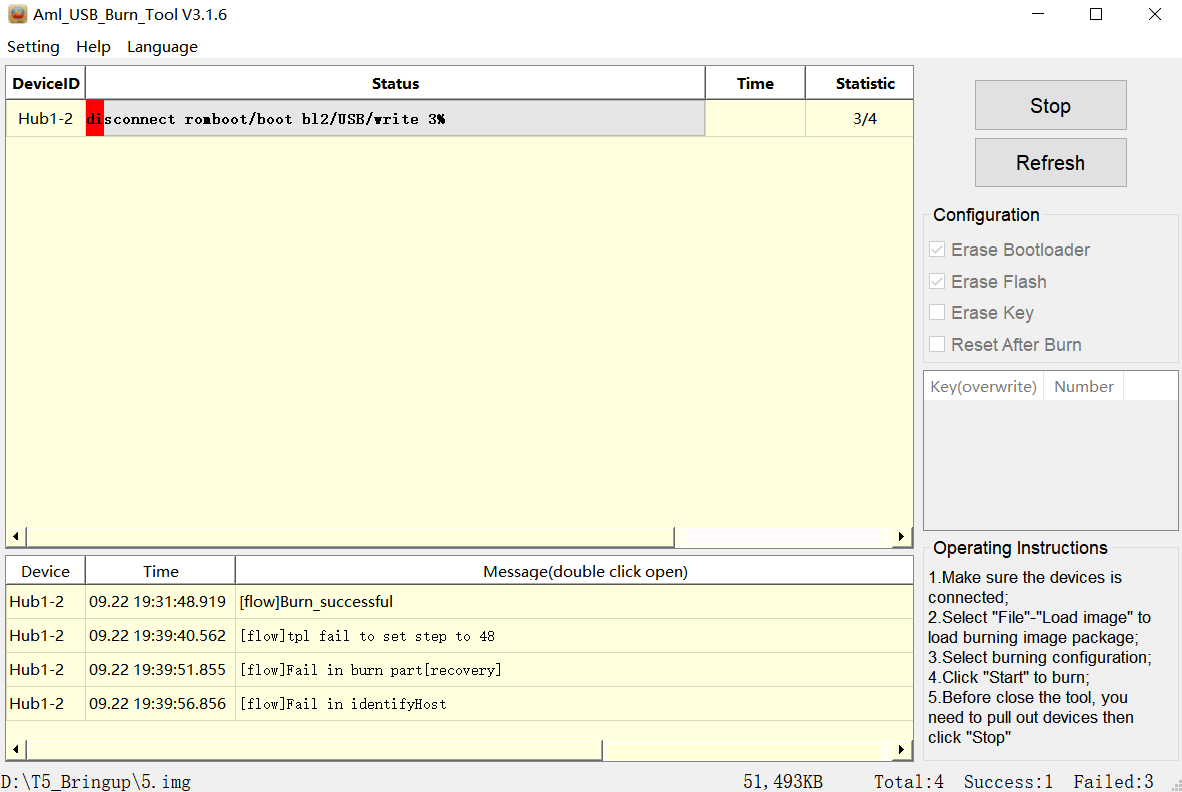
After the programming is completed, if successful, the "Status" column will show green.

Figure 3‑8 Burning success interface



If it fails, red is displayed.

Figure 3‑9 Burning failed interface



The statistics in the lower right corner shows the statistics of all ports of the tool. "Total" means the total number of programming, "Success" means the number of successes, and "Failed" means the number of errors. As follows.

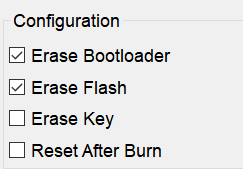
Figure 3‑10 Statistics



If you need to re-program after failure, you can unplug it and plug it in again, and the tool will automatically start programming.

## Burning Configuration

Figure 3‑11 Burning Configuration



"Erase Bootloader" means to erase bootloader;

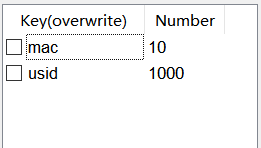
"Erase Flash" means to erase the original code;

"Erase Key" means erasing the normal key originally programmed;

"Restart after burning" means that the device will be restarted after successful burning, and it will not restart by default.

"Key (Overwrite)" means that in the process of burning, if the device already has the Key, the current Key is used to force the existing Key to be overwritten; if the device does not have a Key, the Key will be burned, and it will not be overwritten by default Burning: After loading the Key image, you can also set a key to individually overwrite and burn.

Figure 3‑12 Overwrite



## Log

Double-click the "message (double-click to open)" in the message box to open the log in the current hour.

The detailed log is stored in the "log" directory of the tool, in units of hours.

Figure 3‑13 Log file

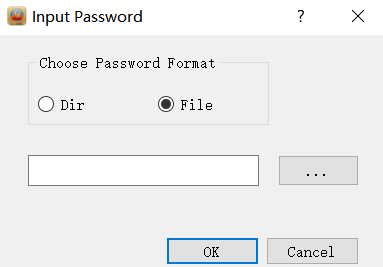


The detailed log is in the "log" directory of the tool, with each day as a subdirectory. For example, the subdirectory "2019.03.20" saves the log on March 20, 2019, and the hourly log on that day is in the directory, and "03.20-18" represents the log on March 20, 2019 at 18:00.

## Password

For devices that have already burned encryption software, you need to input a password to verify the device when burning. There are two options for inputting password: folder format or file format. If the password is based on the chipid of the device, the folder format must be selected; other file formats can be selected.

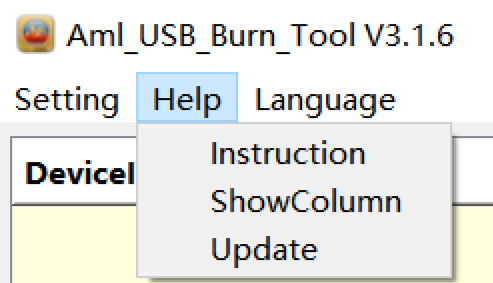
Figure 3‑14 Password



The entered password will be saved in the PassWordPath.ini file, and the path will be displayed next time you open it.

# Help Menu

Figure 4‑1 Help menu



"Instructions for use" means to open the instruction manual for the tool.

"Column Chose" means to select several commonly used keys for programming and display.

Figure 4‑2 Column Chose

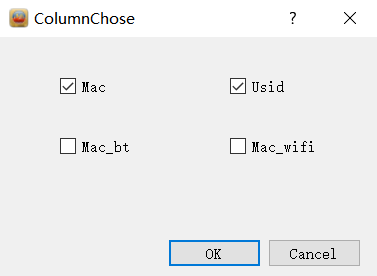
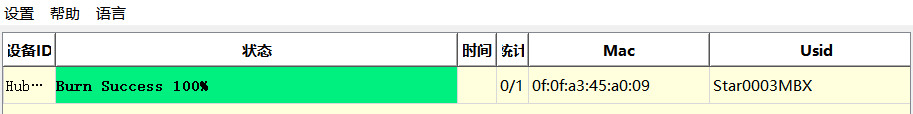
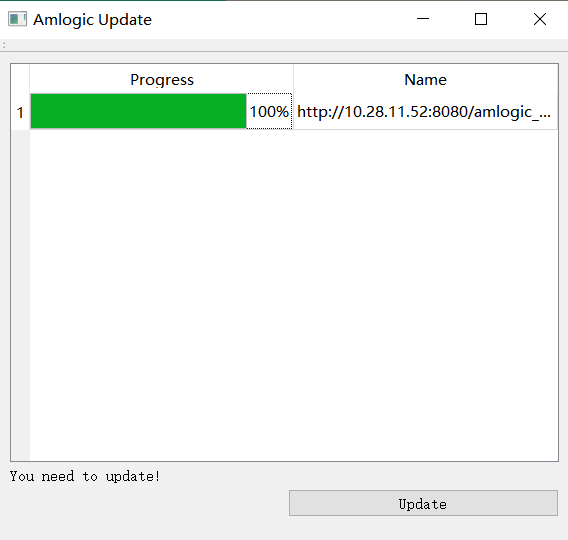


Figure 4‑3 Display the content of the burned key



Click "Update" to open the online upgrade page, find the latest version of the tool installation package, and click "Update" to start installing the new tool package.

Figure 4‑4 Online upgrade



# Language Menu

The tool gives the supported language types. When the tool is opened next time, the language type selected last time will be used by default.

Figure 5‑1 Language menu

