

Programmable drive power

Setup Software User ManualR2.0

1. Operating environment

1.1 Hardware

1GHz or higher processor (32 bit)

512Mb or more RAM

More than 20GB of available hard disk space

Mouse and keyboard

1.2 Software

Operating systems such as Windows XP, Windows 7, and Windows 10 with Microsoft .NET Framework 4.0 environment or higher.

2. Instructions for use

2.1 Software Installation

2.1.1 Install USB driver and serial driver library

Figure: 2.1.1.1

1. Unzip the file ch341ser.rar
2. After unzipping, run ch341ser.exe
3. Go to the installation interface, click Next, then click Finish.

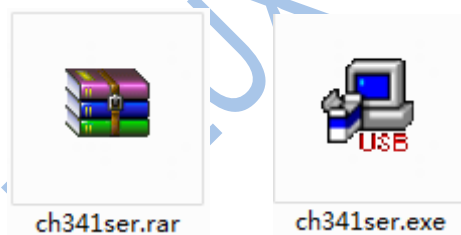


Figure 2.1.1.1 USB Driver Installation Package



2.1.2 Software Installation

This software is a green free installation version, you can use it after decompression.

2.2 Software open

After the software is decompressed, double-click the icon to open the software "LUMLUX Driver Power Configuration", as shown in Figure 2.2.1.



Figure 2.2.1 Software Launch Icon

3. Programmable Drive Power User Operation Example

3.1 Software online upgrade

If the computer is connected to the Internet, you can upgrade online by checking the update option when there is a version update. As shown in Figure 3.1.1.

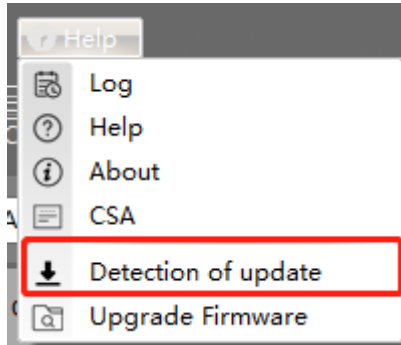


Figure 3.1.1 Upgrade interface

3.2 Port setting

After connecting the matching programmer, the corresponding COMx port (x is a number) will appear by default. If multiple USB serial devices are connected, please select the correct serial port name before reading or writing the power supply.

If the corresponding serial device is not found, please make sure that the hardware connection is correct, click the drop-down box again, the software will automatically refresh the port information. There is a status bar at the bottom of the interface to display the current working status of the software.

As shown in Figure 3.2.1

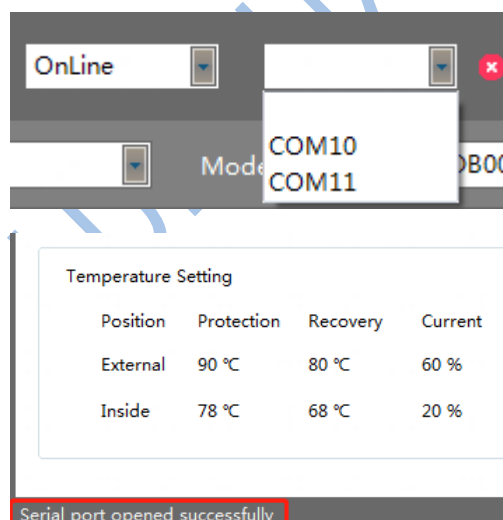


Figure 3.2.1 Port Settings

3.3 Configuration read, save

Save the configuration file: save all the configurations of the current software interface (including model, mode, dimming mode, dimming mode, etc.) to LD.

The xxxxxx.set file is stored in the computer for easy configuration.

Read the configuration file: read the configuration content in the LDxxxxxx.set file from the computer, and display the configuration parameters on the software interface.

See Figure 3.3.2

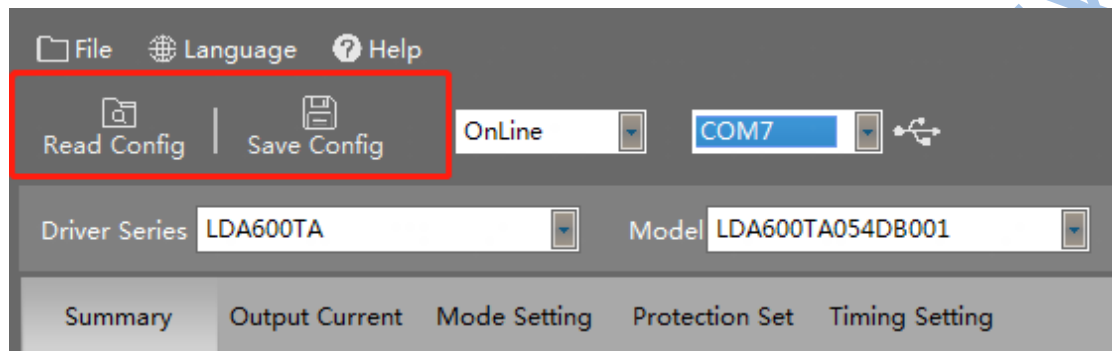


Figure 3.3.1 Configuration button

The file menu bar can also read and save configuration files. See Figure 3.3.1

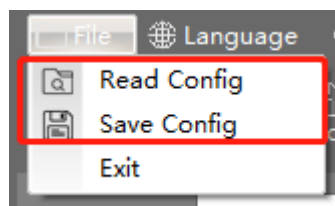


Figure 3.3.1 File menu bar

3.4 Select the drive power series and model

Use the pull-down menu to select the series and model of the corresponding drive power.

As shown in Figure 3.4.1



Figure 3.4.1 Series and Model

3.5 Drive power working area diagram

Select different series of drive power, draw the working area according to the set current value, and place the mouse on the curve point.

Position, display coordinate points. As shown in Figure 3.5.1.

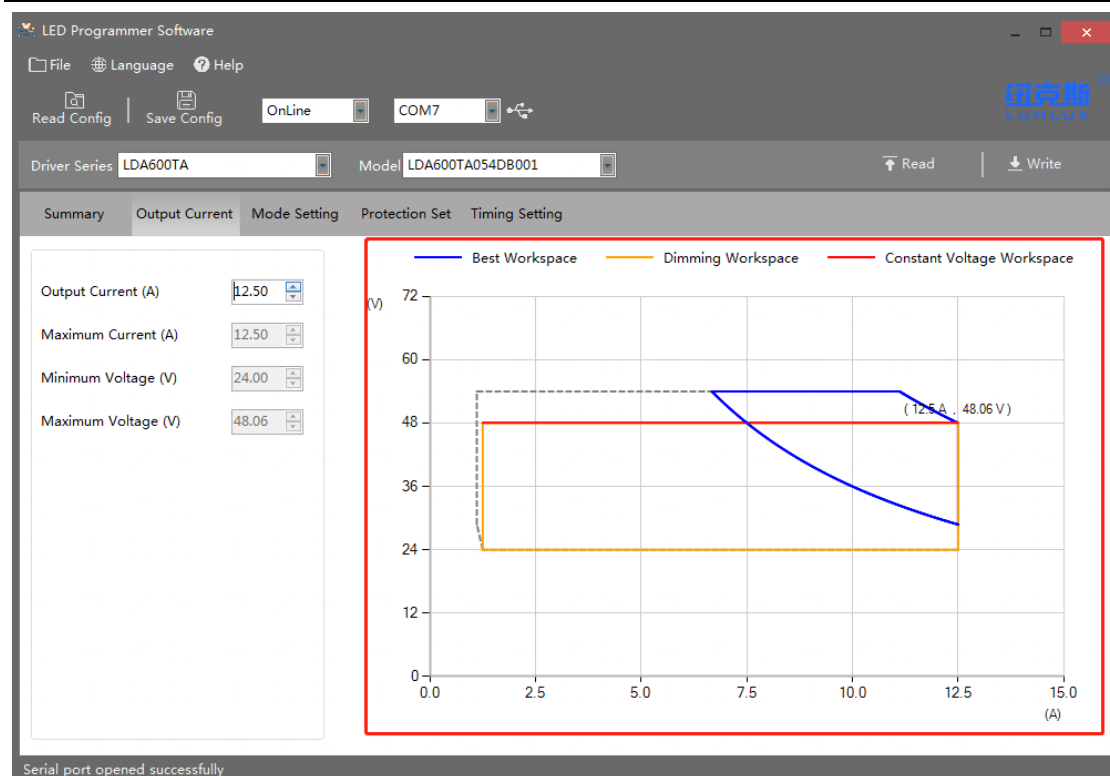


图3.5.1

3.6 Drive power current setting

Select different series of drive power, draw the working area according to the set current value on the “Output Current” page, and display the set current value, maximum working voltage, minimum output voltage and maximum current value.

Set the current value: Select the corresponding current value in the Set Current drop-down menu; you can manually input the correct current value, or press the up and down arrows to increase and decrease. The current setting value step is 2% of the maximum current value. If it is not at the 2% point, it will automatically round off to select the closest value. According to the set current value, the software will automatically match the voltage in the image to ensure the power is normal. Within the scope.

3.7 Select dimming mode and operating mode

Select the page “Mode Settings” to select as shown in Figure 3.7.1

There are currently five dimming modes/operating modes available.

constant current mode:

1. 0-10V dimming: Dimming with an external input 0-10V analog voltage signal.
2. Communication (digital dimming): digital dimming, and read the internal parameters of the drive (output voltage, current, internal and external temperature, model working status, power-on duration, etc.), only read parameters in online mode Wait for the operation to take effect.

3. PWM dimming: dimming with an external input PWM signal. There are two modes of

positive and negative logic.

4. Timer (timing dimming): In this mode, there are two dimming modes: timing dimming, adaptive midpoint alignment, and different running time and running current values can be set.

5. Constant power mode: constant output maximum rated power, adaptive load voltage to adjust current.

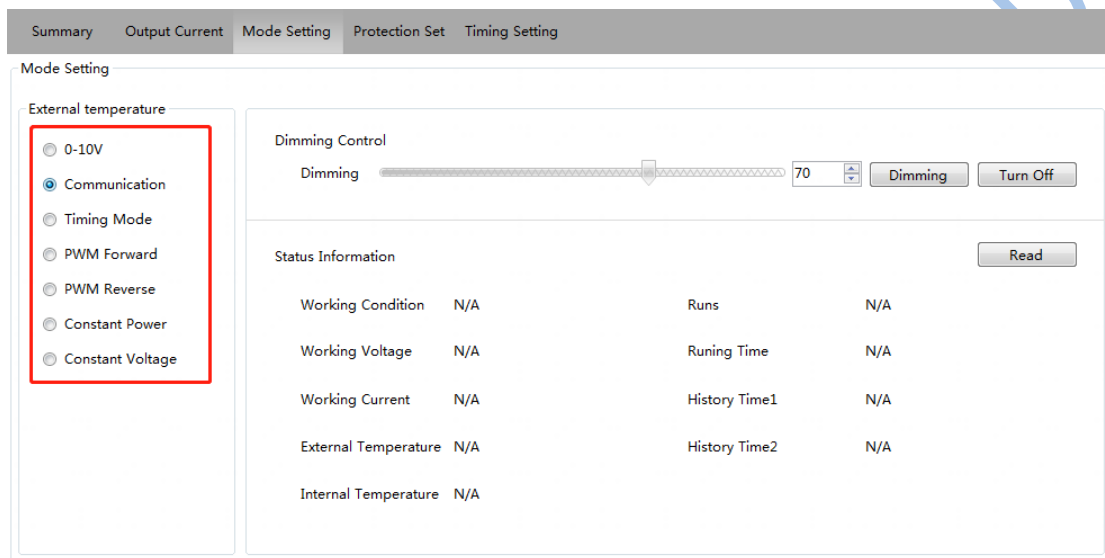
constant pressure mode

1. Suitable for direct connection to the constant current load operating mode.

PS:

1. The default is 0~10V dimming.

2. Different series, only show the dimming modes it supports.

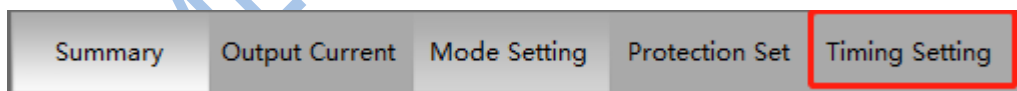


Status Information			
Working Condition	N/A	Runs	N/A
Working Voltage	N/A	Runing Time	N/A
Working Current	N/A	History Time1	N/A
External Temperature	N/A	History Time2	N/A
Internal Temperature	N/A		

Figure 3.7.1 Mode Settings Page

3.8 Timing dimming mode setting

The timing mode can be turned on by selecting Time Control in Mode Setup or by enabling the Enable check box on the Time Control Settings page. As shown in Figure 3.8.1.



External temperature

☐ 0-10V

☐ Communication

☒ Timing Mode

☐ PWM Forward

☐ PWM Reverse

☐ Constant Power

☐ Constant Voltage

Figure 3.8.1 Timing mode

3.9 Timing dimming mode curve setting

3.9.1 Timing dimming mode selection

Complete the 3.8 operation and select the timing mode.

3.9.2 Timing mode selection

Choose Standard-Time

☒ Enable Default Full Power

Time Control Mode

☒ Standard Time Control ☐ Adaptive Timing Mode

Time Control Settings

Serial	Retention (min) (0-1440)	Gradient (min) (0-60)	Dimming Ratio% (0,10-100)
1	60	60	100
2	60	60	90
3	60	60	80
4	60	60	70
5	60	60	60
6	50		

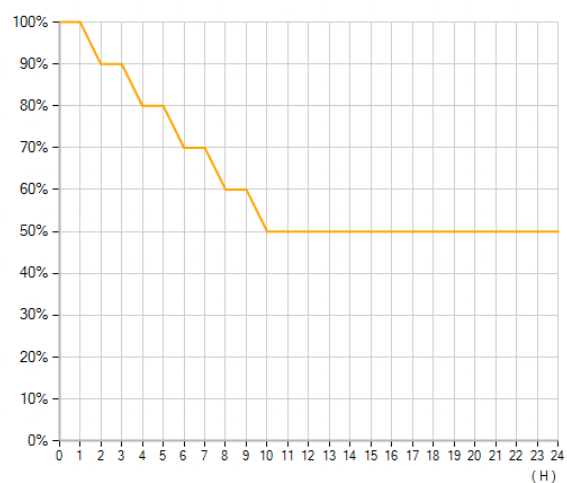


Figure 3.9.1 Standard Timing

3.9.3 default setting

Convenient and intuitive to see the effect of timing dimming, you can set the initial drive power output

current percentage, initial hold time. The default value is shown in Figure 3.9.1. After the drive power is turned on, it runs according to the timing curve.

3.9.4 Setting curve

On the left side of the time control page, with the time control setting bar, you can set the time period of the time control, the gradation time, the duration, and the percentage of the drive power output current for the corresponding time period. After the setting is completed, the dimming curve in the lower right corner will be automatically adjusted. You can respond to changes in real time and visually see the curve effect.

3.9.5 Default curve

Click the 'Default Curve' button to return to the default factory curve.

3.9.6 Full power setting

Click the 'Full Power Curve' button and all dimming levels are set to 100%.

3.10 Midpoint alignment dimming mode setting

3.10.1 Midpoint alignment dimming mode selection

Complete the 3.8 operation and select the timing mode.

3.10.2 Midpoint alignment dimming mode selection

Select MidNight as shown in Figure 3.10.2 (midpoint alignment time control dimming mode)

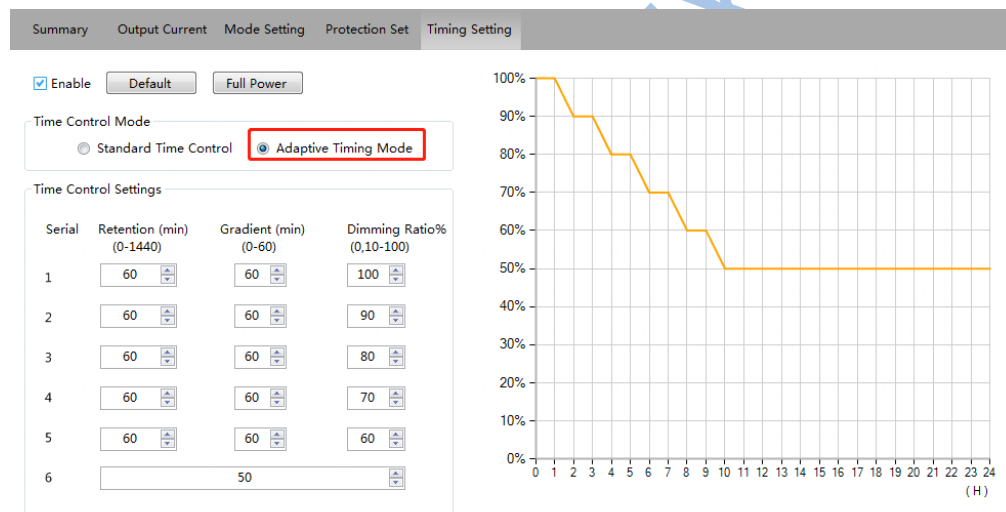


Figure 3.10.2 Adaptive midpoint alignment

3.10.3 parameter settings

The initial drive power output current percentage, initial hold time, and total duration can be set. As shown, the driving power supply can adaptively adjust the dimming duration according to the duration of two consecutive switching machines, and select the starting dimming curve point when the power is turned on according to the midpoint and the duration.

3.10.4 Setting curve

On the left side of the time control page, with the time control setting bar, you can set the time period of the time control, the gradation time, the duration, and the percentage of the drive power output current for the corresponding time period. After the setting is completed, the dimming curve in the lower right corner will be automatically adjusted. You can respond to changes in real time and visually see the curve effect.

3.10.5 Default curve

Click the 'Default Curve' button to return to the default factory curve.

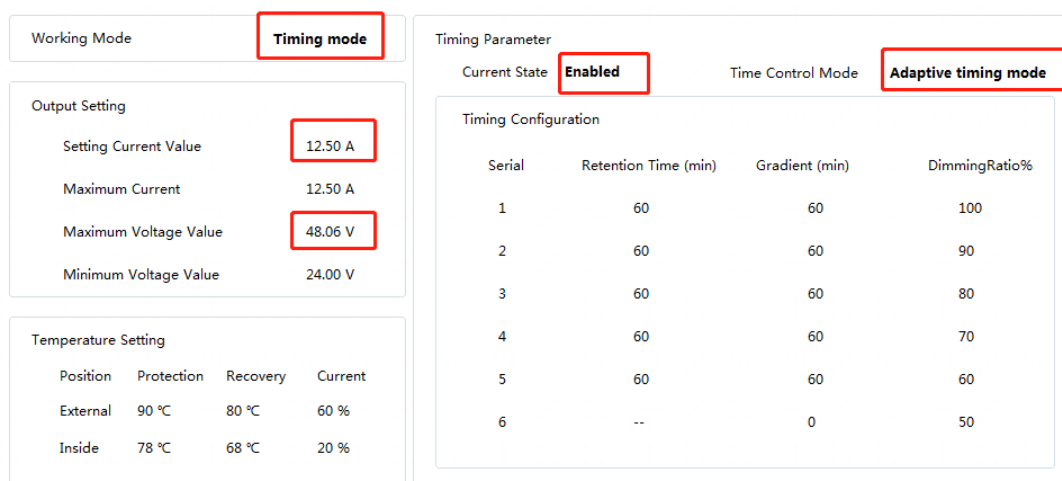
3.10.6 Full power setting

Click the 'Full Power Curve' button and all dimming levels are set to 100%.

3.11 Overview page display

Click on the Overview page to display the currently set items, such as: Mode Settings, Output Current, Timing Settings, Temperature Protection Settings.

The function blocks displayed by the timing parameters and temperature protection settings are determined by the selected function. As shown in Figure 3.11.1.



Working Mode: **Timing mode**

Output Setting

Setting Current Value	12.50 A
Maximum Current	12.50 A
Maximum Voltage Value	48.06 V
Minimum Voltage Value	24.00 V

Temperature Setting

Position	Protection	Recovery	Current
External	90 °C	80 °C	60 %
Inside	78 °C	68 °C	20 %

Timing Parameter

Current State: **Enabled** Time Control Mode: **Adaptive timing mode**

Timing Configuration

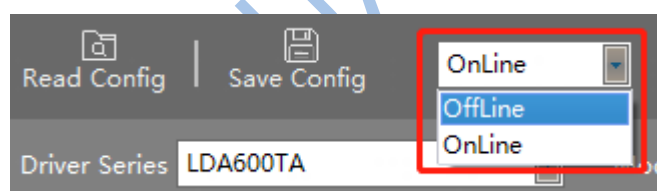
Serial	Retention Time (min)	Gradient (min)	DimmingRatio%
1	60	60	100
2	60	60	90
3	60	60	80
4	60	60	70
5	60	60	60
6	--	0	50

图3.11.1

3.12 Offline programming and read and write of online power

The programmer is divided into two modes: online mode (online) and offline mode (offline).

The selection mode is shown in Figure 3.12.1.



Read Config | Save Config

Driver Series: LDA600TA

OnLine
OffLine
OnLine

Figure 3.12.2 Selecting the Programmer Mode Example

Online mode:

The programmer can be directly connected to the drive power supply and the configuration parameters can be lowered.

Write power:

After setting the content on the current interface, you can click the "Settings" or "Dimming" button to release the command.

Read the power:

Click the "Read" button on the corresponding interface to read the current settings in the drive power into the software interface. As shown in Figure 3.12.2.

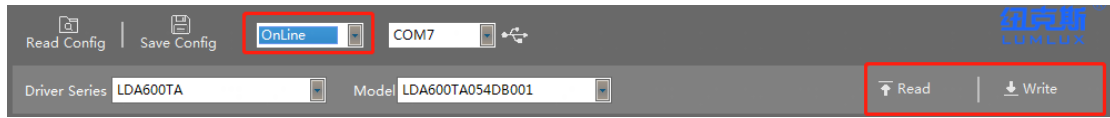


Figure 3.12.2 Read and write drive power supply

Offline mode:

Write settings to the programmer, even if the programmer is offline, the PC can still use the programmer's drop settings.

Write to the programmer:

After setting the content on the current interface, you can click the “Settings” or “Dimming” button to release the command.

Read the programmer:

Click the “Read” button on the corresponding interface to read the current settings in the programmer into the software interface.

As shown in Figure 3.12.3.



Figure 3.12.3 Read and Write Programmer Example

3.13 External temperature protection setting

The “Modify” check box in the “Temperature Settings” page controls whether the external temperature is turned on or off.

3.13.1 External temperature protection setting

External temperature protection settings include protection points, recovery points, and corresponding current percentages.

3.13.2 Default curve

Click the “Default” button in the “Temperature Protection Settings” temperature setting page to return to the default factory curve.

As shown in Figure 3.13.1.

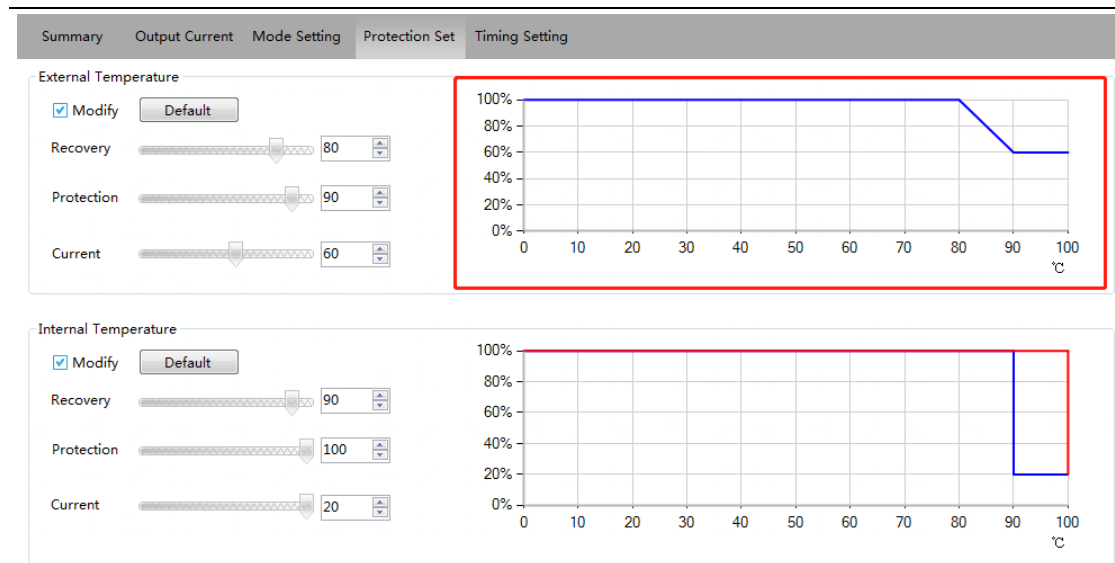


Figure 3.13.1 External Temperature Protection Settings

3.14 Internal temperature protection setting

The "Modify" check box in the "Temperature Protection Settings" temperature setting page controls whether the internal temperature is turned on or off.

3.14.1 Internal temperature protection setting

Internal temperature protection settings include protection points, recovery points, and corresponding current percentages.

3.14.2 Default curve

Click the "(Default) Default" button in the "protection set" temperature setting page to return to the default factory curve.

As shown in Figure 3.14.1.

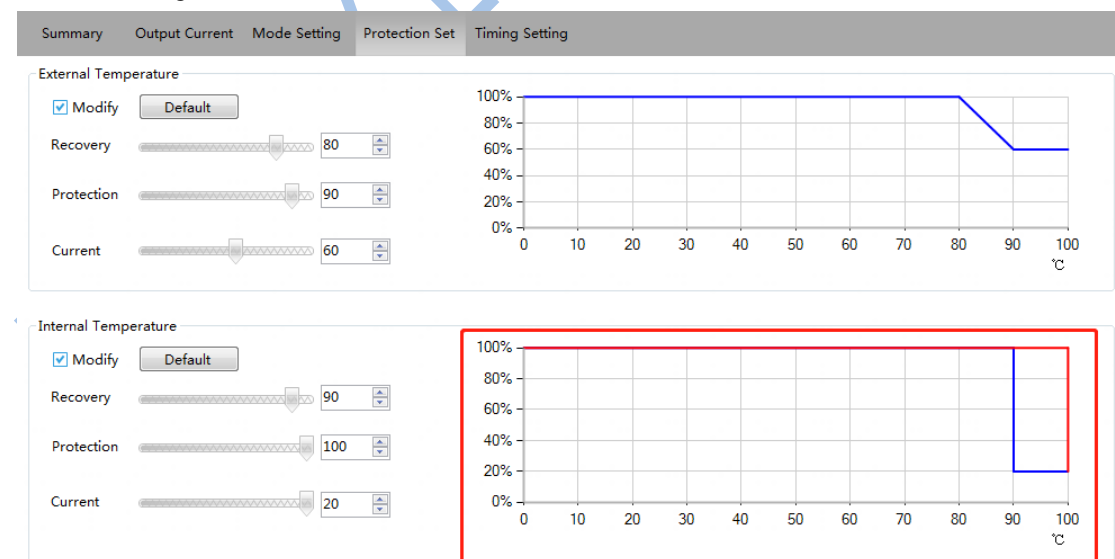


Figure 3.14.1 Internal Temperature Protection Settings

3.15 Help menu and firmware upgrade

3.15.1 help

To view the documentation for this software (this document), click Help to open the User Manual.

3.15.2 Log

Click the log to view the history update record.

3.15.3 About

Click About to see more company information.

3.15.4 CSA

The drive interface supports the CSA protocol(Chinese), which can be viewed.

3.15.5 Firmware upgrade

The firmware of the programmer can be upgraded online, and this can be done if there is a newer version of the firmware.

As shown in Figure 3.15.5.

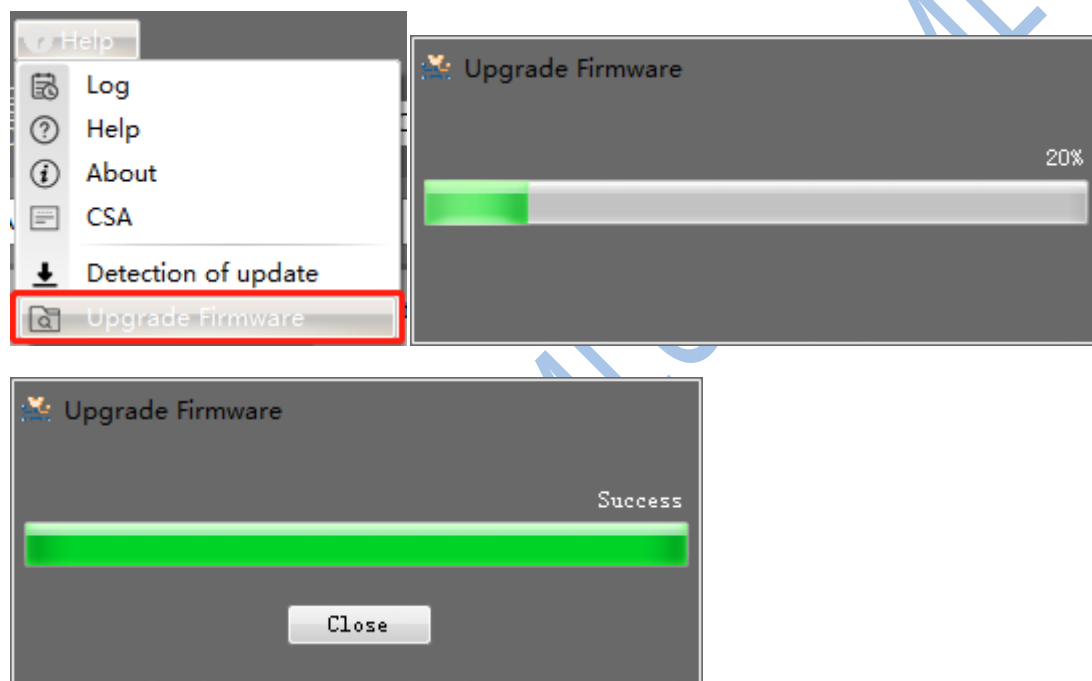


Figure 3.15.5 Help menu and firmware upgrade

4. Programmer connection and usage

4.1.1 See the programmer specification for details.

follows: http://en.lumlux.cn/list/?71_1.html#about-box1