

DALI Tool for EUCO-series quick start

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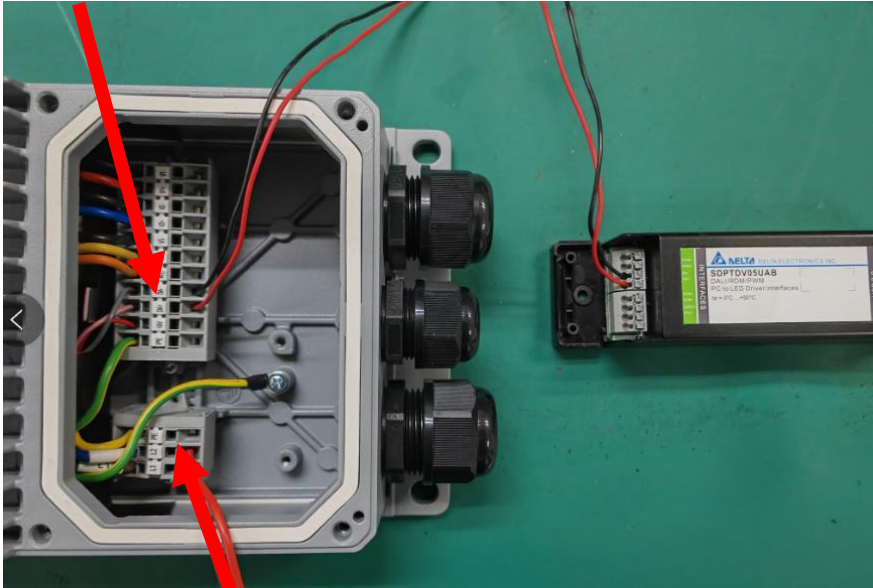
04

Firmware update

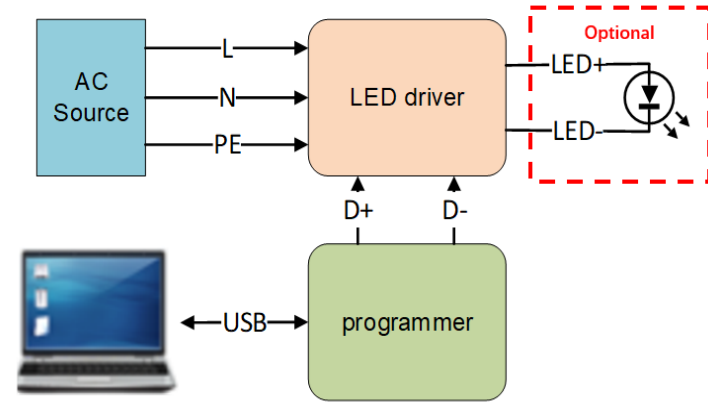
1.Connection

➤ 1.1 Physical connection

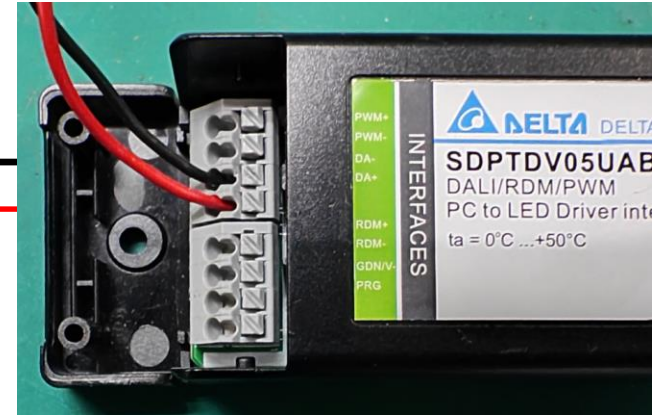
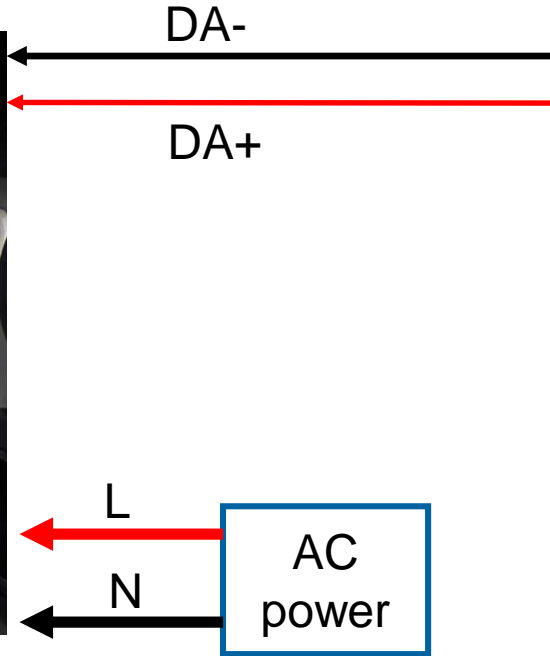
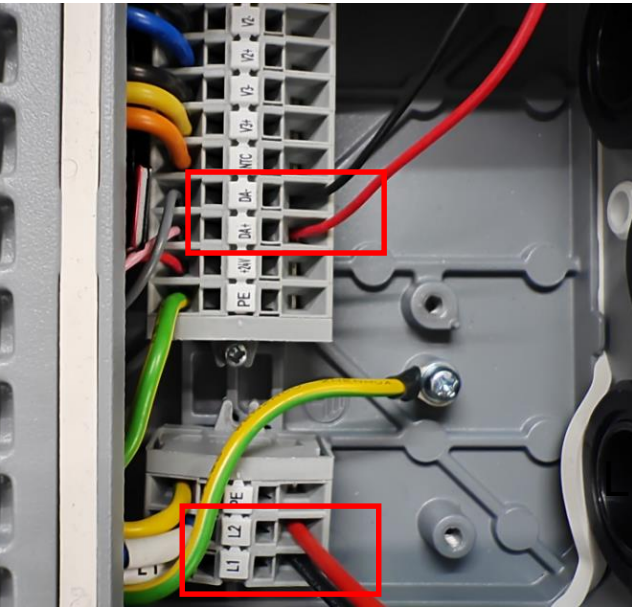
DA+,DA-



AC line: L1, L2,PE(Optional)

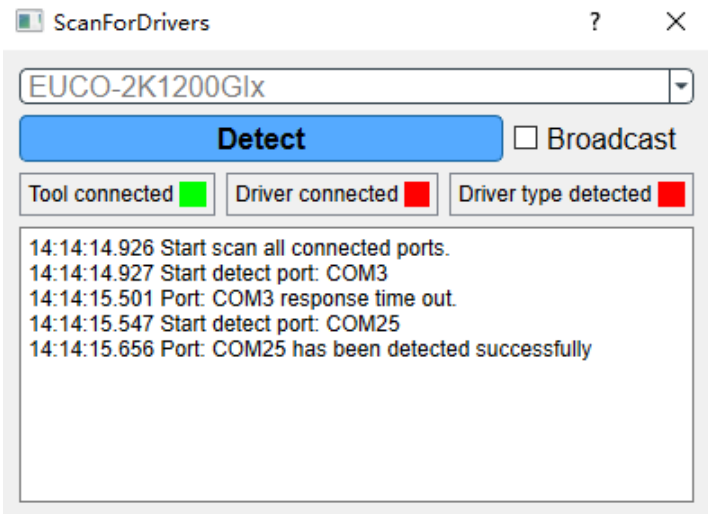


➤ 1.1 Physical connection



➤ 1.2 Open GUI

- ◆ Step 1. After connection, turn on the AC power.
- ◆ Step 2. Open the GUI.



- ◆ State->Tool connected
- ◆ State-> Driver connected
- ◆ State-> Driver type detected



There are two ways to use the GUI:

One by one: Connect only one driver with the programming tool.

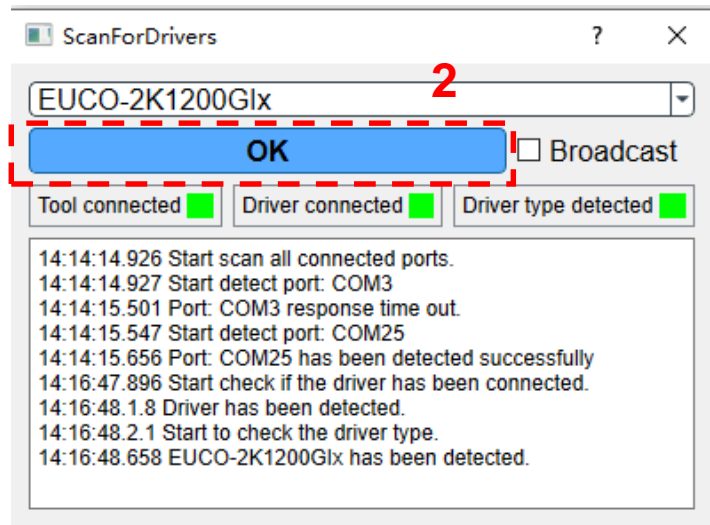
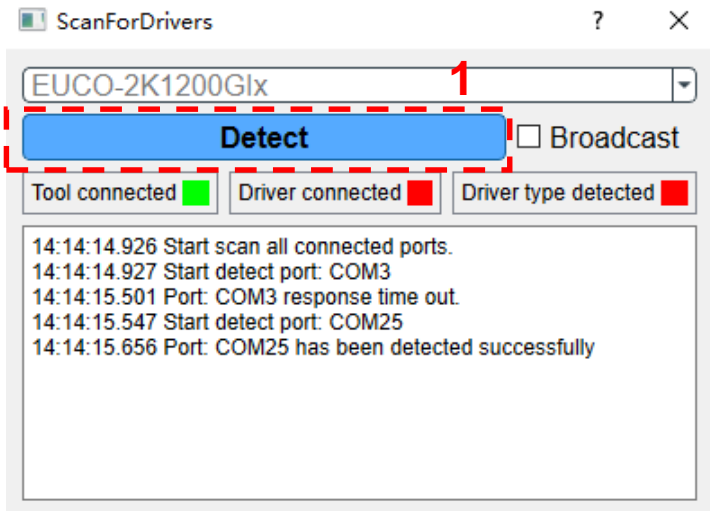
Broadcast: Connect at most 32pcs drivers with the programming tool.

➤ 1.2 Open GUI

One by one:

Step1: Click “Detect button”. The GUI will detect the driver type automatically.

Step2: Click “OK” enter main GUI.

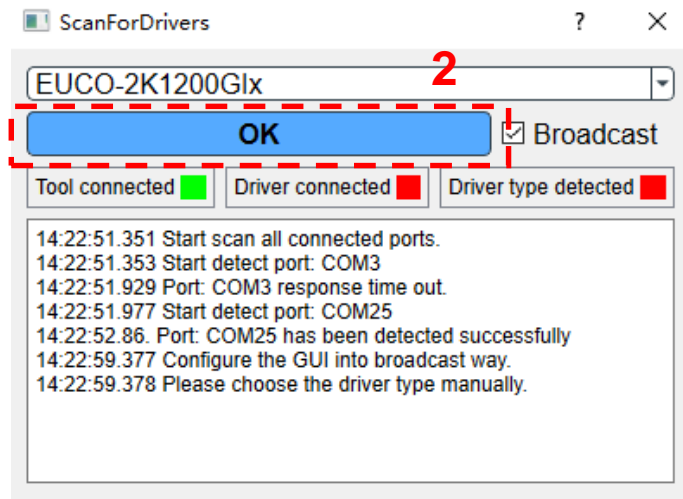
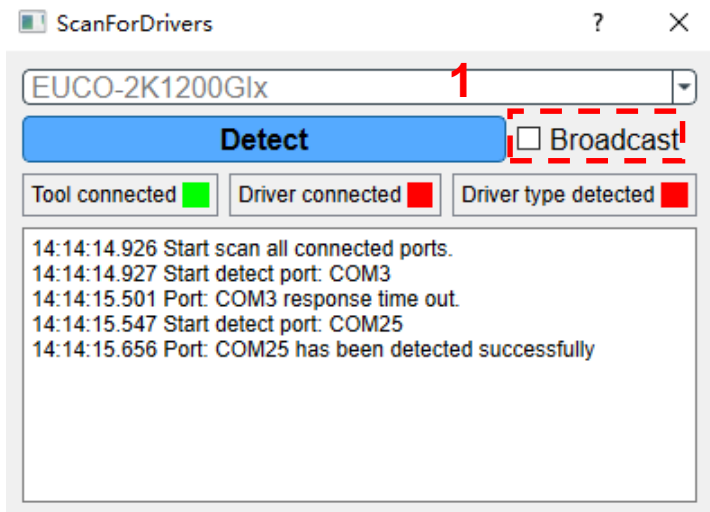


➤ 1.2 Open GUI

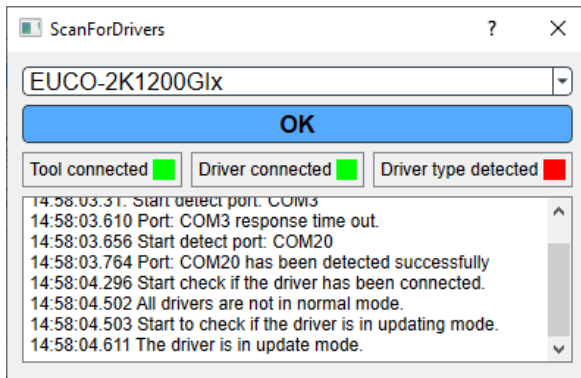
Broadcast:

Step1: Select “Broadcast” checkbox. And choose the drive type manually.

Step2: Click “ OK” enter main GUI.



➤ 1.2 Open GUI

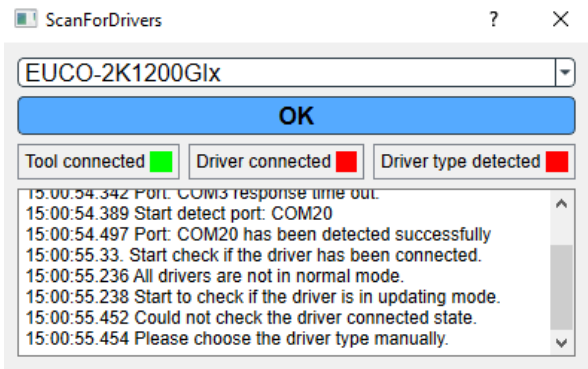


- ◆ State-> Tool connected
- ◆ State-> Driver connected
- ◆ State-> Driver type detected



1.Drvier is in update mode

2.GUI doesn't support this type of driver



- ◆ State-> Tool connected
- ◆ State-> Driver connected
- ◆ State-> Driver type detected



1.The connection between tool and driver failed.

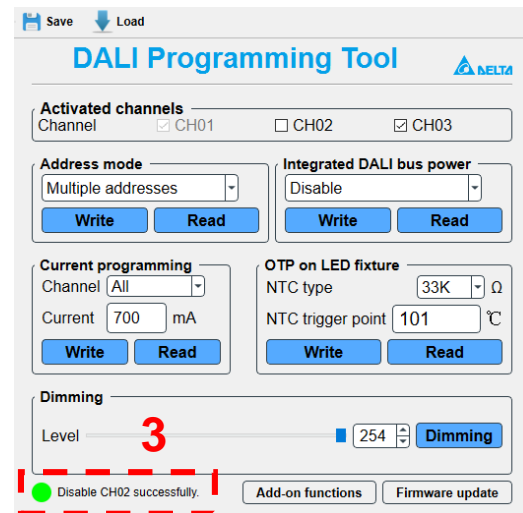
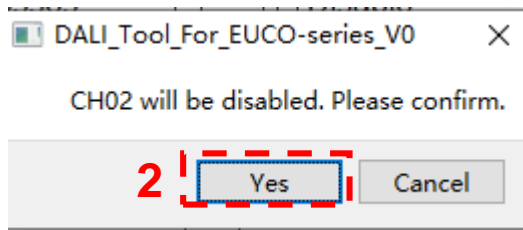
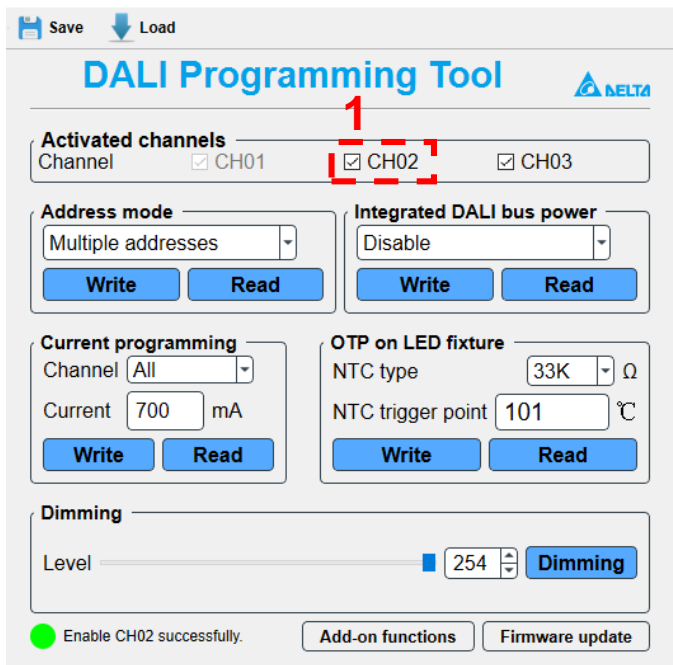
2.Regular function

➤ 2.1 Channel disable

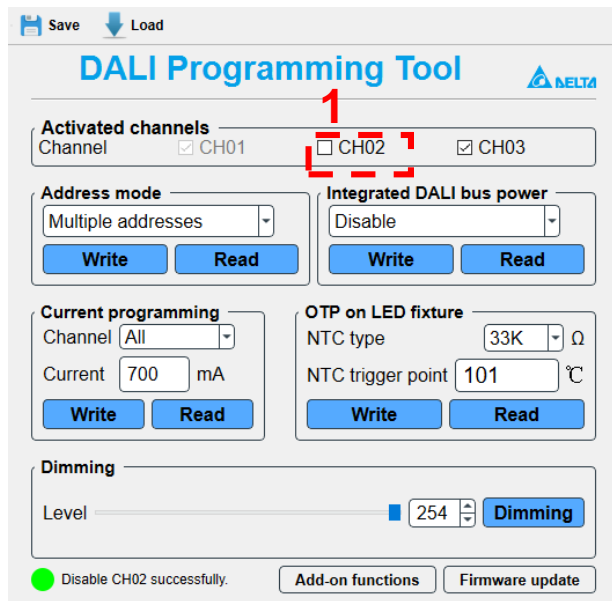
- ◆ Step 1. Click checkbox of the specific channel.
- ◆ Step 2. Click “Yes” button on the pop-out window.
- ◆ Step 3: Check the result in the bottom line.

Disable CH0x successfully: ✓

Disable CH0x Failed: ✕



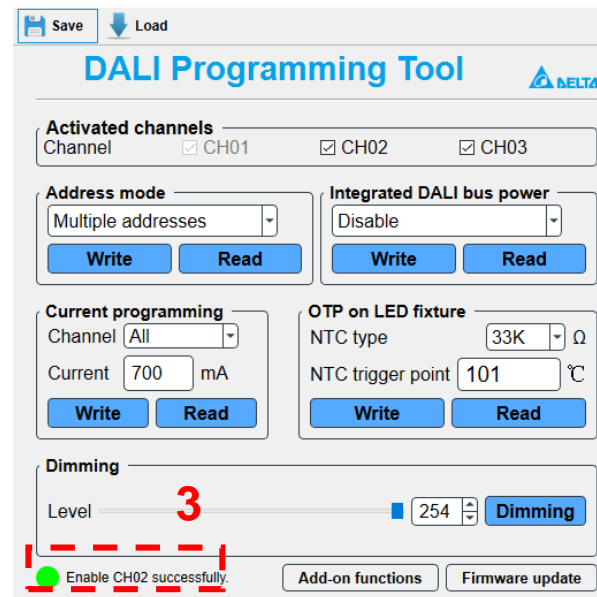
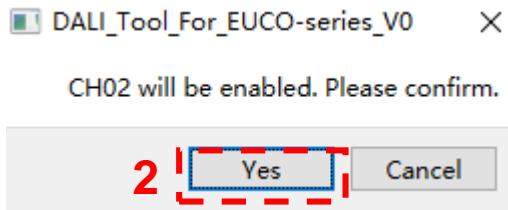
➤ 2.2 Channel enable



- ◆ Step 1. Click checkbox of the specific channel.
- ◆ Step 2. Click “Yes” button on the pop-out window.
- ◆ Step 3: Check the result in the bottom line.

Enable CH0x successfully: ✓

Enable CH0x Failed: ✗



➤ 2.3 address mode

- ◆ Step 1. Choose the operating mode.
Click “**Write**” button.
- ◆ Step 2. Check writing status from bottom line.

Write address mode successful: ✓

Write address mode failed: ✕

Save Load

DALI Programming Tool

Address mode: Single address

Integrated DALI bus power: Disable

Current programming: Channel All, Current 2000 mA

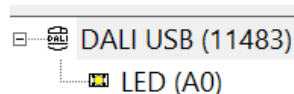
OTP on LED fixture: NTC type 33K Ω, NTC trigger point 100 °C

Dimming: Level 254

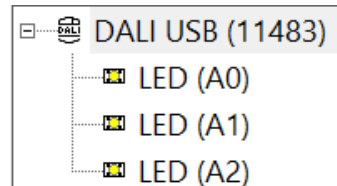
Write address mode successfully.

Add-on functions Firmware update

Single address



Multiple addresses



➤ 2.3 address mode

- ◆ Step 1. Click “**Read**” button.
- ◆ Step 2. Check reading status from bottom line

Read address mode successful: ✓
Read address mode failed: ✕

The screenshot shows the DALI Programming Tool interface. At the top, there are 'Save' and 'Load' buttons. The main title is 'DALI Programming Tool' with the DELTA logo. The 'Address mode' section has a dropdown menu set to 'Multiple addresses' and two buttons, 'Write' and 'Read'. The 'Read' button is highlighted with a red dashed box and a red number '1' next to it. Below this, there are sections for 'Current programming' (Channel: All, Current: 2000 mA) and 'OTP on LED fixture' (NTC type: 33K Ω, NTC trigger point: 100 °C), each with 'Write' and 'Read' buttons. At the bottom, there is a 'Dimming' section with a 'Level' slider set to 254 and a 'Dimming' button. A red dashed box at the very bottom highlights a green status indicator and the text 'Read address mode successfully.' followed by 'Add-on functions' and 'Firmware update' buttons. A red number '2' is placed next to the status message.

➤ 2.4 DALI bus power

DALI bus power state-> IEC 62386 Part 250, memory bank201, location 0x06

DALI Programming Tool

Save Load

Address mode
Single address
Write Read

Integrated DALI bus power
Disable
Write Read

Current programming
Channel: All
Current: 2000 mA
Write Read

OTP on LED fixture
NTC type: 33K Ω
NTC trigger point: 100 °C
Write Read

Dimming
Level: 254
Dimming

● Read information successfully. Add-on functions Firmware update

9.2.3 Memory bank 201, device identification (Mandatory)

Address	Description	Default value (factory)	RESET value ^a	Memory type
0x00	Address of last addressable memory location	0x06	No change	ROM
0x01	Indicator byte	Manufacturer specific	Manufacturer specific	Manufacturer specific
0x02	Lock byte Lockable bytes in the memory bank shall be read-only while the lock byte has a value different from 0x55.	0xFF	0xFF ^b	RAM-RW
0x03	Version of the memory bank	0x01	No change	ROM
0x04	Guaranteed supply current of integrated DALI bus power supply (in mA); Range: [0x32, maximum supply current]	Manufacturer specific	No change	ROM
0x05	Maximum supply current of integrated DALI bus power supply (in mA); Range [Guaranteed supply current, 0xFA]	Manufacturer specific	No change	ROM
0x06	DALI bus power supply status (on = 0x01, off = 0x00)	Manufacturer specific	No change	NVM-RW (protectable) ^c

^a Reset value after "RESET MEMORY BANK".

^b Also used as power on value.

^c This field is write protectable.

➤ 2.4 DALI bus power

The screenshot shows the 'DALI Programming Tool' interface. At the top, there are 'Save' and 'Load' buttons. The main title is 'DALI Programming Tool' with the DELTA logo. The interface is divided into several sections:

- Address mode:** A dropdown menu set to 'Multiple addresses' (marked with a red '1'). Below it are 'Write' and 'Read' buttons.
- Integrated DALI bus power:** A dropdown menu set to 'Disable'. Below it are 'Write' and 'Read' buttons. The 'Write' button is highlighted with a red dashed box.
- Current programming:** A section with 'Channel' set to 'All' and 'Current' set to '2000 mA'. Below it are 'Write' and 'Read' buttons.
- OTP on LED fixture:** A section with 'NTC type' set to '33K' and 'NTC trigger point' set to '100'. Below it are 'Write' and 'Read' buttons.
- Dimming:** A section with a 'Level' slider set to '254' and a 'Dimming' button.

At the bottom, there is a status bar with a green circle icon and the text 'Write DALI power successfully.' (highlighted with a red dashed box and a red '2'). To the right of this are two buttons: 'Add-on functions' and 'Firmware update'.

◆ Step 1. Choose DALI bus power state

Click “**Write**” button.

◆ Step 2. Check writing status from bottom line.

Write DALI power successful: ✓

Write DALI power failed: ✕

➤ 2.4 DALI bus power

- ◆ Step 1. Click “**Read**” button.
- ◆ Step 2. Check reading status from bottom line.

Read DALI power state successful: ✓

Read DALI power state failed: ✕

The screenshot shows the 'DALI Programming Tool' interface. At the top, there are 'Save' and 'Load' buttons. The main section is divided into four panels: 'Address mode' (set to 'Multiple addresses'), 'Integrated DALI bus power' (set to 'Disable'), 'Current programming' (Channel: 'All', Current: '2000 mA'), and 'OTP on LED fixture' (NTC type: '33K', NTC trigger point: '100'). Each panel has 'Write' and 'Read' buttons. The 'Read' button in the 'Integrated DALI bus power' panel is highlighted with a red dashed box and a red arrow labeled '1'. At the bottom, there is a 'Dimming' section with a 'Level' slider set to '254' and a 'Dimming' button. Below this, a status bar shows a green circle and the text 'Read DALI power state successfully.' followed by 'Add-on function: Firmware update'. This status bar is highlighted with a red dashed box and a red arrow labeled '2'.

➤ 2.5 Current programming

DALI Programming Tool

Save Load

Address mode
Single address
Write Read

Integrated DALI bus power
Disable
Write Read

Current programming
Channel: All
Current: 2000 mA
Write Read

OTP on LED fixture
NTC type: 33K Ω
NTC trigger point: 100 °C
Write Read

Dimming
Level: 254
Dimming

Read information successfully. Add-on functions Firmware update

Current programming

Channel: All

Current: All mA
CH01
CH02
CH03

Write Read

- ◆ **Channel: All**-> All channel are programmed to same current.
- ◆ **Channel: CH0x**-> Program the specific channel.

Current range: 700mA~2000mA

➤ 2.5 Current programming

The screenshot shows the DALI Programming Tool interface. At the top, there are 'Save' and 'Load' buttons. Below them is the title 'DALI Programming Tool' and the Delta logo. The interface is divided into several sections:

- Address mode:** A dropdown menu set to 'Multiple addresses' with 'Write' and 'Read' buttons below it.
- Integrated DALI bus power:** A dropdown menu set to 'Disable' with 'Write' and 'Read' buttons below it.
- Current programming:** A section with a 'Channel' dropdown set to 'All', a 'Current' input field set to '700 mA', and 'Write' and 'Read' buttons. A red dashed box highlights the 'Write' button, with a red '1' next to it.
- OTP on LED fixture:** A section with 'NTC type' set to '33K Ω ' and 'NTC trigger point' set to '100 $^{\circ}\text{C}$ ', with 'Write' and 'Read' buttons below.
- Dimming:** A section with a 'Level' slider set to '254' and a 'Dimming' button.
- Status bar:** At the bottom, a green circle icon and the text 'Program output current successfully.' are highlighted with a red dashed box, with a red '2' next to it. To the right are buttons for 'Add-on function' and 'Firmware update'.

- ◆ Step 1. Key in output current and programmed channel. Click **“Write”** button.
- ◆ Step 2. Check writing status from bottom line.

Program output current successfully: ✓

Program output current failed: ✗



➤ 2.5 Current programming

The screenshot shows the DALI Programming Tool interface. At the top, there are 'Save' and 'Load' buttons. Below them is the title 'DALI Programming Tool' and the Delta logo. The interface is divided into several sections:

- Address mode:** A dropdown menu set to 'Multiple addresses' with 'Write' and 'Read' buttons below it.
- Integrated DALI bus power:** A dropdown menu set to 'Disable' with 'Write' and 'Read' buttons below it.
- Current programming:** A section with a 'Channel' dropdown set to 'All', a 'Current' input field set to '700 mA', and 'Write' and 'Read' buttons. The 'Read' button is highlighted with a red dashed box and a red '1' above it.
- OTP on LED fixture:** A section with 'NTC type' set to '33K Ω' and 'NTC trigger point' set to '100 °C', with 'Write' and 'Read' buttons below.
- Dimming:** A section with a 'Level' slider set to '254' and a 'Dimming' button.
- Status bar:** At the bottom, there is a green circle and the text 'Read programmed current successfully', which is highlighted with a red dashed box and a red '2' above it. To the right of this are buttons for 'add-on function' and 'firmware upda'.

- ◆ Step 1. Select output channel. Click “Read” button.
- ◆ Step 2. Check reading status from bottom line.

Read programmed current successful: ✓

Read programmed current failed: ✕

➤ 2.6 OTP on LED fixture

Save Load

DALI Programming Tool

Address mode: Single address [Write] [Read]

Integrated DALI bus power: Disable [Write] [Read]

Current programming: Channel: All [Write] [Read]

Current: 2000 mA

OTP on LED fixture

NTC type: 33K Ω [Write] [Read]

NTC trigger point: 100 $^{\circ}\text{C}$

Dimming: Level: 254 [Dimming]

Read information successfully. [Add-on functions] [Firmware update]

NTC type: 33K Ω or 10K Ω . Before changing the NTC type, please make sure the driver supports this type of NTC.

Trigger point: 70 $^{\circ}\text{C}$ ~120 $^{\circ}\text{C}$

➤ 2.6 OTP on LED fixture

The screenshot shows the DALI Programming Tool interface. At the top, there are 'Save' and 'Load' buttons. The title 'DALI Programming Tool' is in blue, with the DELTA logo to the right. The interface is divided into several sections:

- Address mode:** A dropdown menu set to 'Multiple addresses' with 'Write' and 'Read' buttons below it.
- Integrated DALI bus power:** A dropdown menu set to 'Disable' with 'Write' and 'Read' buttons below it.
- Current programming:** A dropdown menu set to 'All', a text input for 'Current' set to '700' mA, and 'Write' and 'Read' buttons below it.
- OTP on LED fixture:** A section with 'NTC type' set to '10K' Ω and 'NTC trigger point' set to '100' $^{\circ}\text{C}$. The 'Write' button is highlighted with a red dashed box and a red '1' above it. A 'Read' button is also present.
- Dimming:** A section with a 'Level' slider set to '254' and a 'Dimming' button.
- Status bar:** At the bottom, there is a green circle icon, a message 'Write OTP successfully.', and two buttons: 'Add-on functions' and 'Firmware update'.

Red dashed boxes and numbers are used to highlight specific elements: a red dashed box around the 'Write' button in the 'OTP on LED fixture' section with a red '1' above it, and a red dashed box around the status bar with a red '2' above it.

- ◆ Step 1. Choose NTC type and key in the OTP trigger point. Click “**Write**” button.
- ◆ Step 2. Check writing status from bottom line.

Write OTP successful: ✓

Write OTP failed: ✕

➤ 2.6 OTP on LED fixture

The screenshot shows the DALI Programming Tool interface. At the top, there are 'Save' and 'Load' buttons. The title 'DALI Programming Tool' is in blue, with the DELTA logo to the right. The interface is divided into several sections: 'Address mode' with a dropdown set to 'Multiple addresses' and 'Write'/'Read' buttons; 'Integrated DALI bus power' with a dropdown set to 'Disable' and 'Write'/'Read' buttons; 'Current programming' with a 'Channel' dropdown set to 'All', a 'Current' input set to '700 mA', and 'Write'/'Read' buttons; and 'OTP on LED fixture' with 'NTC type' set to '10K Ω' and 'NTC trigger point' set to '100 °C'. A red dashed box labeled '1' highlights the 'Write' and 'Read' buttons in the 'OTP on LED fixture' section. Below this is a 'Dimming' section with a 'Level' slider set to '254' and a 'Dimming' button. At the bottom, a red dashed box labeled '2' highlights a status bar containing a green circle icon, the text 'Read OTP successfully.', and two buttons: 'Add-on functions' and 'Firmware update'.

- ◆ Step 1. Click “**Read**” button.
- ◆ Step 2. Check reading status from bottom line.

Read OTP successful: ✓

Read OTP failed: ✕

➤ 2.7 Dimming control by the tool

Click the “Dimming” button will send out “DAPC” command in broadcast way.

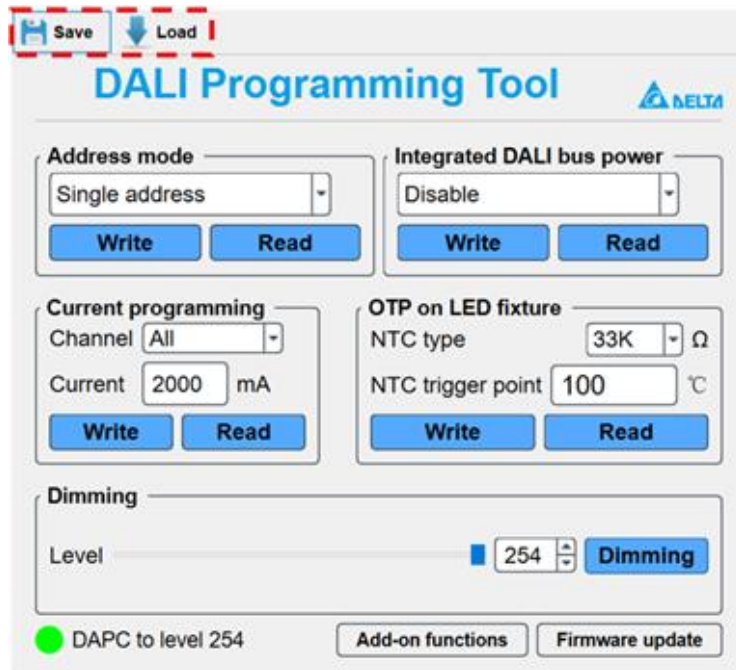
The screenshot displays the DALI Programming Tool interface. At the top, there are 'Save' and 'Load' buttons. The title 'DALI Programming Tool' is prominently displayed, followed by the DELTA logo. The interface is organized into several sections:

- Address mode:** A dropdown menu set to 'Single address' with 'Write' and 'Read' buttons below it.
- Integrated DALI bus power:** A dropdown menu set to 'Disable' with 'Write' and 'Read' buttons below it.
- Current programming:** Includes a 'Channel' dropdown set to 'All', a 'Current' input field set to '2000 mA', and 'Write' and 'Read' buttons.
- OTP on LED fixture:** Includes an 'NTC type' dropdown set to '33K Ω ', an 'NTC trigger point' input field set to '100 $^{\circ}\text{C}$ ', and 'Write' and 'Read' buttons.
- Dimming:** This section is highlighted with a red dashed border. It features a 'Level' slider and a numeric input field set to '254', followed by a blue 'Dimming' button.

At the bottom, a green status indicator is shown next to the text 'DAPC to level 254'. To the right of this are two buttons: 'Add-on functions' and 'Firmware update'.

➤ 2.8 Save & Load profile

The GUI can save all current parameters in the main GUI. The saved file could be copied or used in another PC.



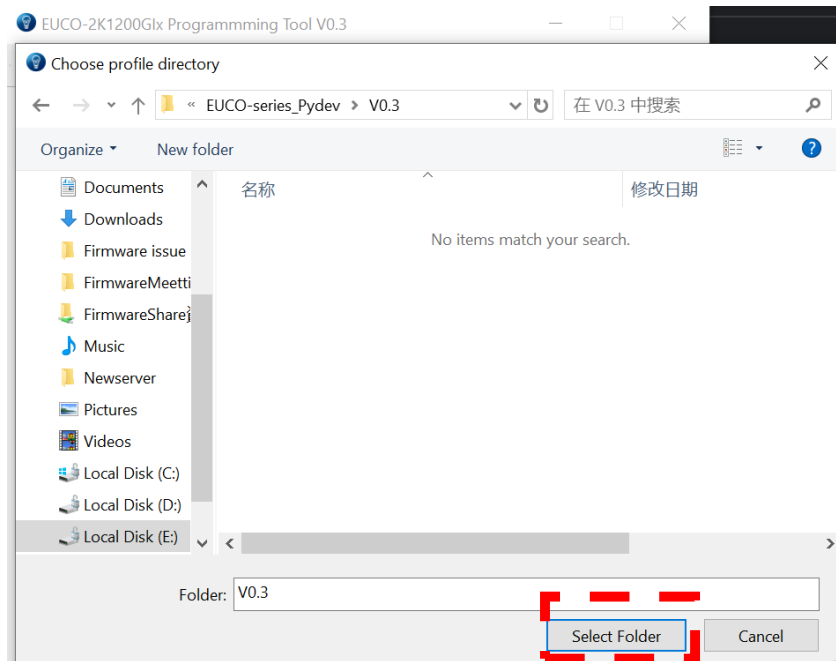
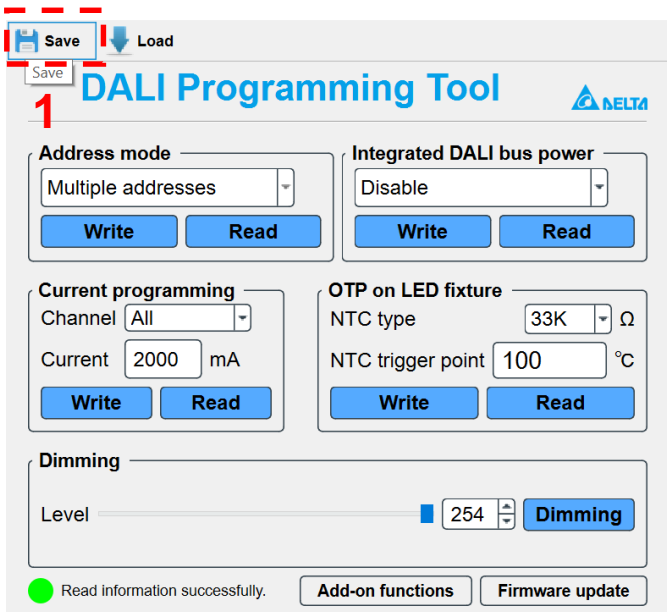
The screenshot displays the 'DALI Programming Tool' interface. At the top left, the 'Save' and 'Load' buttons are highlighted with a red dashed box. The interface includes several configuration sections:

- Address mode:** A dropdown menu set to 'Single address' with 'Write' and 'Read' buttons below it.
- Integrated DALI bus power:** A dropdown menu set to 'Disable' with 'Write' and 'Read' buttons below it.
- Current programming:** A 'Channel' dropdown set to 'All', a 'Current' input field set to '2000 mA', and 'Write' and 'Read' buttons.
- OTP on LED fixture:** An 'NTC type' dropdown set to '33K' with a unit symbol 'Ω', an 'NTC trigger point' input field set to '100' with a unit symbol '°C', and 'Write' and 'Read' buttons.
- Dimming:** A 'Level' slider and input field set to '254', with a 'Dimming' button.

At the bottom, there is a green status indicator labeled 'DAPC to level 254', and two buttons: 'Add-on functions' and 'Firmware update'.

➤ 2.8 Save & Load profile

Step1: Click “Save” button. Then choose the file directory. Click “Select folder”. The profile will be saved.

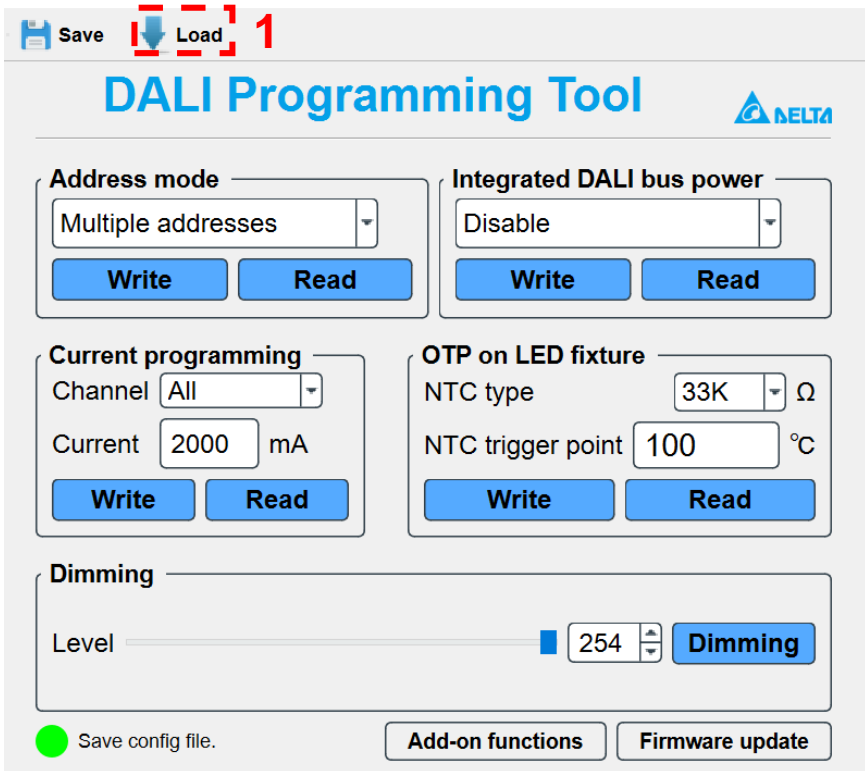


Saved file

configEUCO_2K1200Glx	2/21/2024 3:52 PM	Configuration settings	1 KB
DALI_Tool_For_EUCO-series User Manual V0.3	2/19/2024 11:41 AM	Microsoft Word 文档	3,415 KB
DALI_Tool_For_EUCO-series_V0.3	2/19/2024 11:42 AM	Application	37,909 KB

➤ 2.8 Save & Load profile

Step1: Click “Load” button. Then choose the saved profile. Click “Open”. The profile will be loaded.



DALI Programming Tool

Address mode
Multiple addresses
Write **Read**

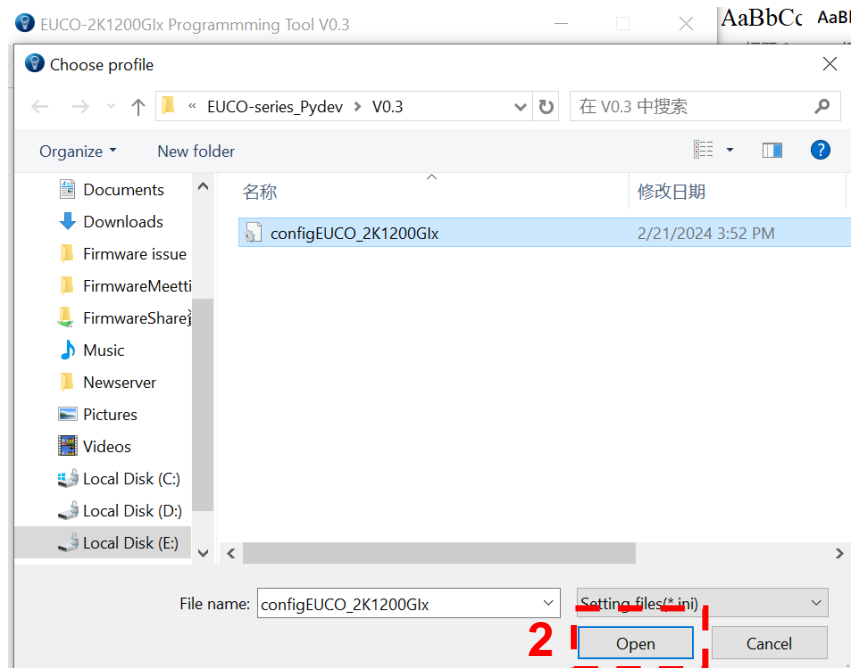
Integrated DALI bus power
Disable
Write **Read**

Current programming
Channel: All
Current: 2000 mA
Write **Read**

OTP on LED fixture
NTC type: 33K Ω
NTC trigger point: 100 °C
Write **Read**

Dimming
Level: 254
Dimming

Save config file. Add-on functions Firmware update



3.Add on functions

➤ 3 Add on functions

Click “Add-on functions” in the bottom line will active add on functions: DALI config, DALI part 251, DALI part 252, DALI part 253, Constant lumen, Smart timer dim

DALI Config

Part 251

Part 252

Part 253

Constant lumen

Smart timer dim

Constant lumen output curve

Operation Time (K Hours)	Output Level (%)
0	50
25	60
51	70
76	85

Setting

kHours	Percent/%
0	50
10	55
20	60
30	65
40	70
50	75
60	80
70	85

Read

Write

Information

CH1 start time

0

hours

Read

Enable

CH2 start time

0

hours

CH3 start time

0

hours

Clear

Disable

Extra functions tab

➤ 3.1 DALI config

The group provide some usual functions for DALI config. It should be noted that all these DALI configuration are sent in broadcast way.

DALI Config | Part 251 | Part 252 | Part 253 | Constant lumen output | Smart timer dim

Dim Parameters

Power on level

0

Fade time

0 (0s)

System failure level

0

Ex fade time

1

X

0 (0ms)

Dimming curve

Log

Fade rate

1 (358steps/s)

Driver information

GTIN

000000000000

ID

000000000000

Status

Control gear failure

NO

Lamp failure

NO

Lamp on

NO

Reset state

NO

Power cycle seen

NO

Limit error

NO

Short address

NO

Fade running

NO

Dim

DAPC

0

Off

Recall max level

Recall min level

Down

UP

Query

➤ 3.2 DALI Part 251

Please refer to IEC 62386 Part 251 to get more detail about this module.

DALI Config	Part 251	Part 252	Part 253	Constant lumen output	Smart timer dim
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Memory bank 1 extension

Luminaire information

Light feature

Luminaire manufacturer GTIN

000000000000

Read

Write

Luminaire ID

0000000000000000

Read

Write

Luminaire year of manufacture:0-99

00

Read

Write

Luminaire week of manufacture:1-53

00

Read

Write

Luminaire colour

Read

Write

Luminaire identification string

Read

Write

➤ 3.3 DALI Part 252

Please refer to IEC 62386 Part 252 to get more detail about this module.

DALI Config	Part 251	Part 252	Part 253	Constant lumen output	Smart timer dim
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Energy reporting

Active energy	<input type="text" value="0"/>	W·H	Active power	<input type="text" value="0"/>	W
Apparent energy	<input type="text" value="0"/>	W·H	Apparent power	<input type="text" value="0"/>	W

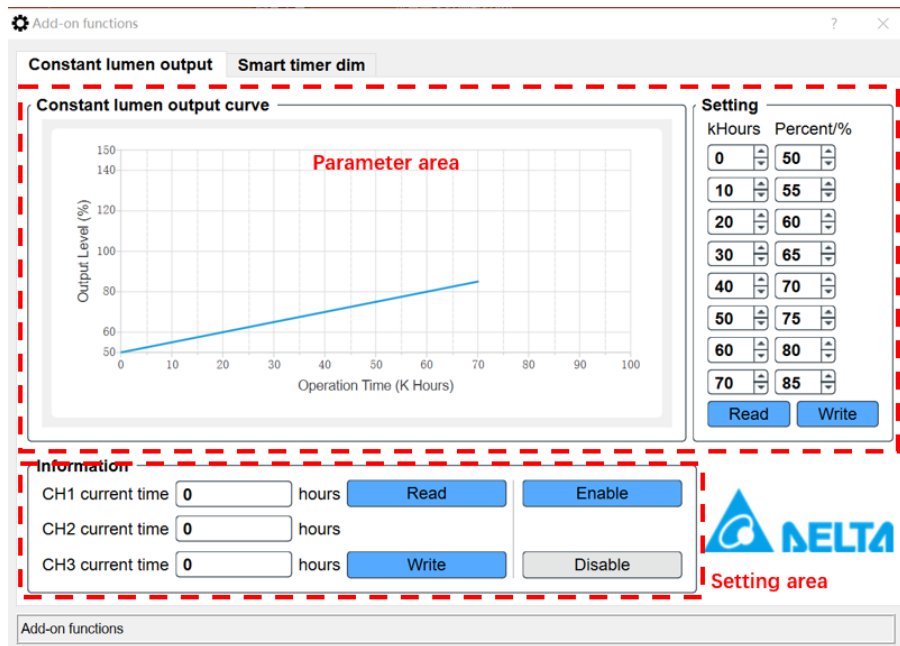
➤ 3.3 DALI Part 253

Please refer to IEC 62386 Part 253 to get more detail about this module.

DALI Config	Part 251	Part 252	Part 253	Constant lumen output	Smart timer dim
Diagnostic & Maintenance					
Control gear features Light source features Luminaire features					
AC voltage		0000	V	AC frequency	
				00	
				Hz	
Power factor				00	
Control gear operating time		00000000	S	Control gear start counter	
				000000	
Overall failure condition		00		Overall failure count	
				00	
AC voltage UVP		00		AC voltage UVP count	
				00	
AC voltage OVP		00		AC voltage OVP count	
				00	
Output power limitation		00		Output power limitation count	
				00	
Thermal derating		00		Thermal derating count	
				00	
Thermal shutdown		00		Thermal shutdown count	
				00	
Control gear supply temperature		00	°C		
Control gear output percent		00	%		

➤ 3.4 Constant lumen output

Generally speaking, the LED module will get a little darker even with the same output current as the working time increases.

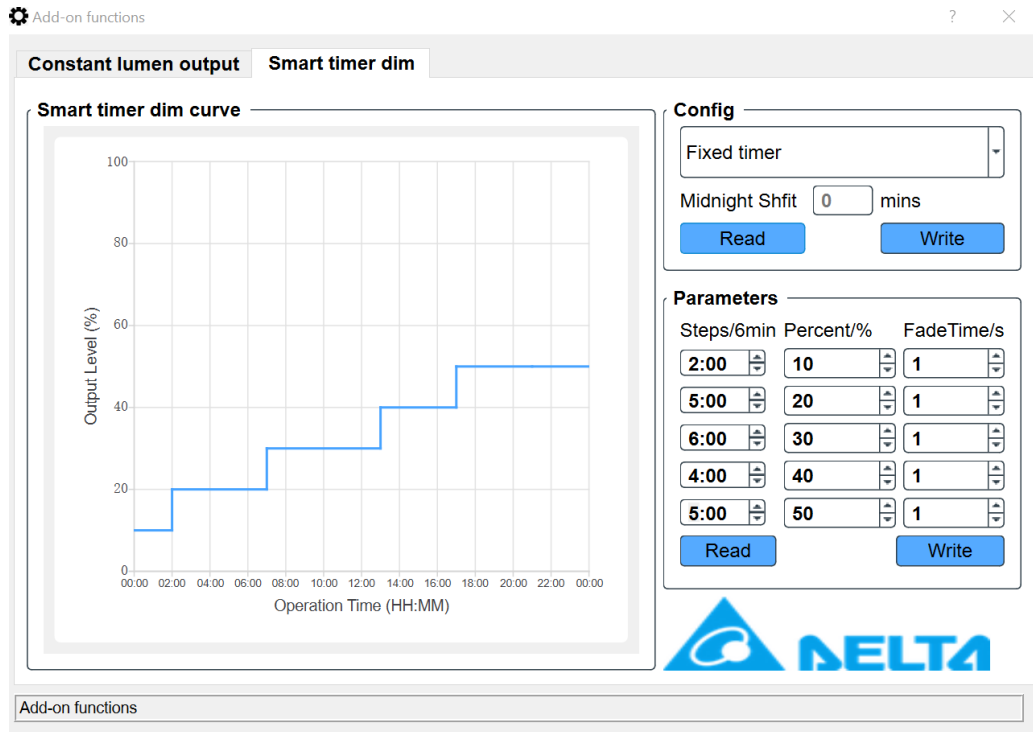


Parameter area: Based on the feature of used LED module, modify the relation of time and output current percent.

Setting area: Reset current time. Enable or disable CLO function.

➤ 3.5 Smart timer dim

The module is used for 24hours automatic dimming. There are all three different modes: Fixed timer, midnight centric timer and ratio rescale timer.



Config

Fixed timer

Disable

Fixed timer

Midnight centric timer

Ratio rescale timer

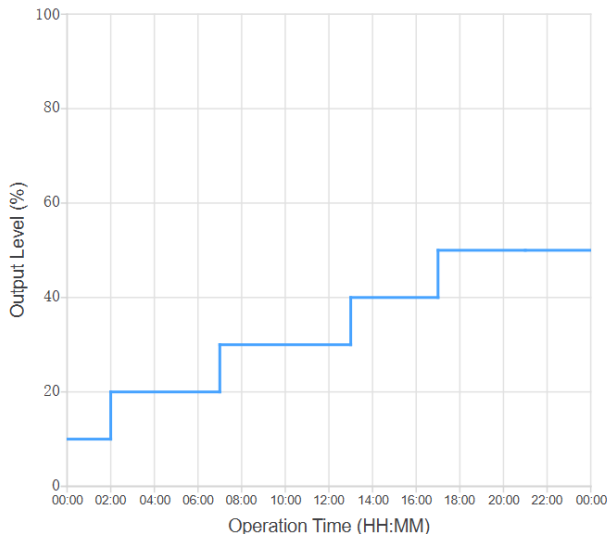
➤ 3.5 Smart timer dim: Fixed timer

⚙ Add-on functions

Constant lumen output

Smart timer dim

Smart timer dim curve



Config

Fixed timer

Midnight Shift 0 mins

Read

Write

Parameters

Steps/6min	Percent/%	FadeTime/s
2:00	10	1
5:00	20	1
6:00	30	1
4:00	40	1
5:00	50	1

Read

Write



Add-on functions

Time step1 **2:00** means 2hours.00:00->02:00, dim to 10%.

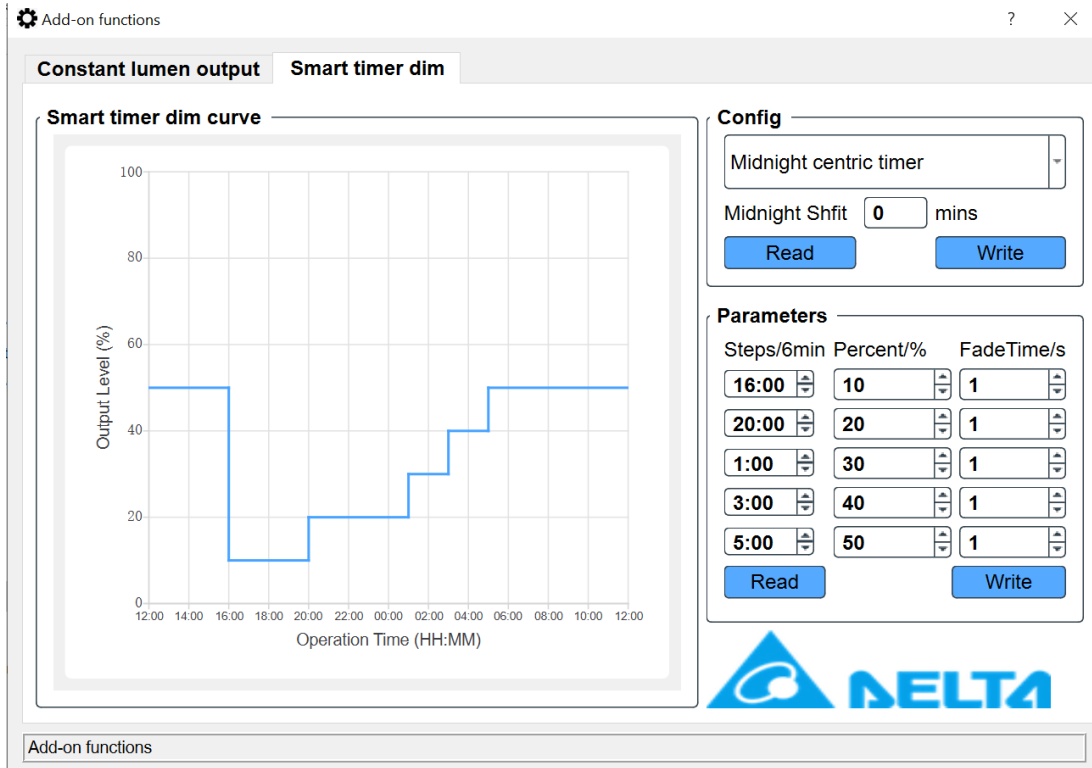
Time step2:**5:00** means 5hours, 02:00->07:00 dim to 20% .

Time step3:**6:00** means 6hours, 07:00->13:00 dim to 30% .

Time step4:**4:00** means 6hours, 13:00->17:00 dim to 40% .

Time step5: the value has no meaning. 17:00->24:00 dim to 50% .

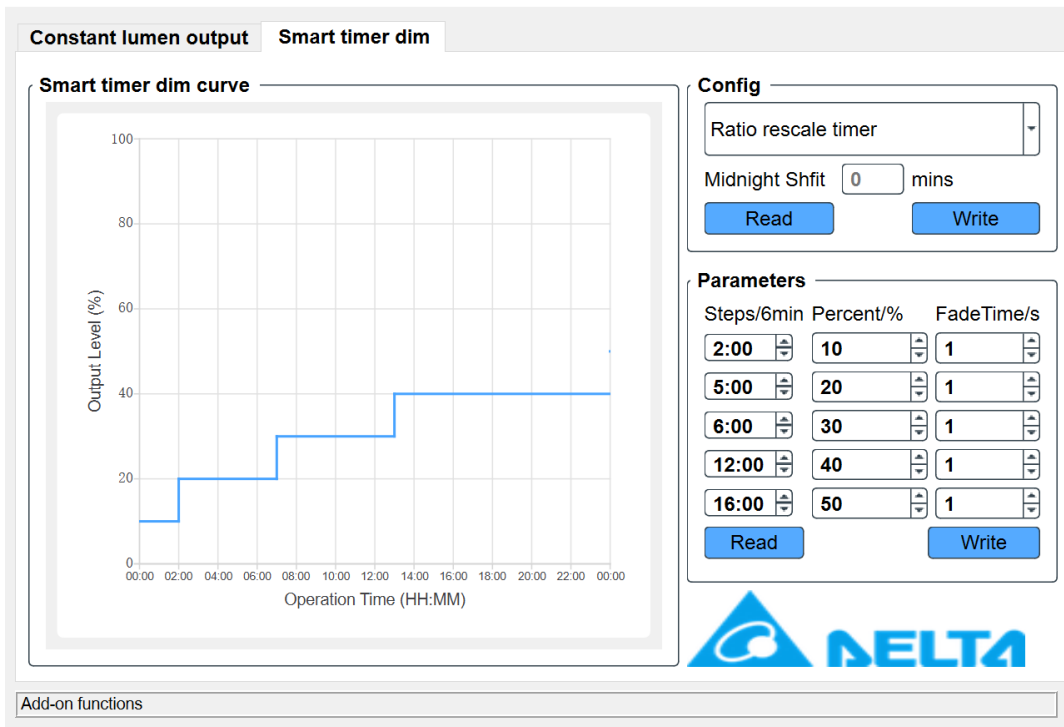
➤ 3.5 Smart timer dim: Midnight centric timer



This mode supposes the driver's work time two days before are 00:00 centered, such like from 20:00->08:00 next day.

Then setting the parameter will reassign the dimming process in this time range.

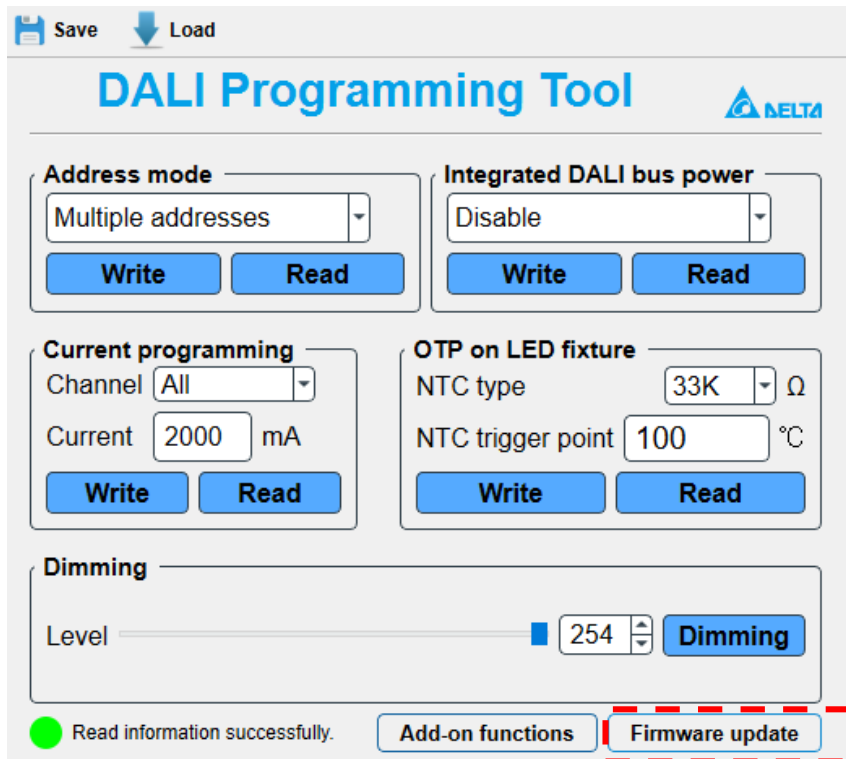
➤ 3.5 Smart timer dim: Ratio rescale timer



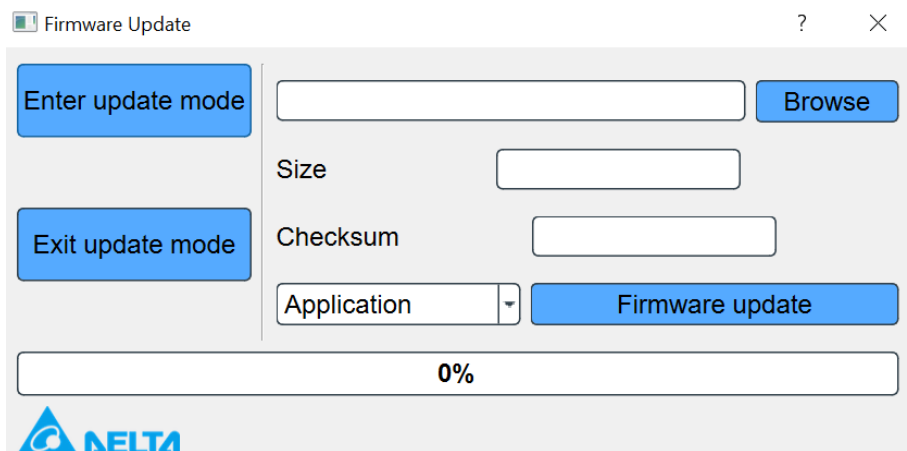
This mode is very similar with the fixed timer mode. In fixed timer mode, we assign 24hours dimming process. However, in this mode, it is allowed to assign the time slot of two day before. All time steps will equally scaled down from 24hours setting to the record time slot.

4. Firmware update

➤ 4. Firmware update



The DALI Programming Tool interface features a top bar with 'Save' and 'Load' buttons. Below this, the title 'DALI Programming Tool' is displayed alongside the DELTA logo. The main area is divided into several functional sections: 'Address mode' with a dropdown set to 'Multiple addresses' and 'Write'/'Read' buttons; 'Integrated DALI bus power' with a dropdown set to 'Disable' and 'Write'/'Read' buttons; 'Current programming' with a 'Channel' dropdown set to 'All', a 'Current' input set to '2000 mA', and 'Write'/'Read' buttons; 'OTP on LED fixture' with 'NTC type' set to '33K Ω' and 'NTC trigger point' set to '100 °C', also featuring 'Write'/'Read' buttons; and a 'Dimming' section with a 'Level' slider and a 'Dimming' button. At the bottom, a green status indicator shows 'Read information successfully.', and two buttons, 'Add-on functions' and 'Firmware update', are present. The 'Firmware update' button is highlighted with a red dashed border.



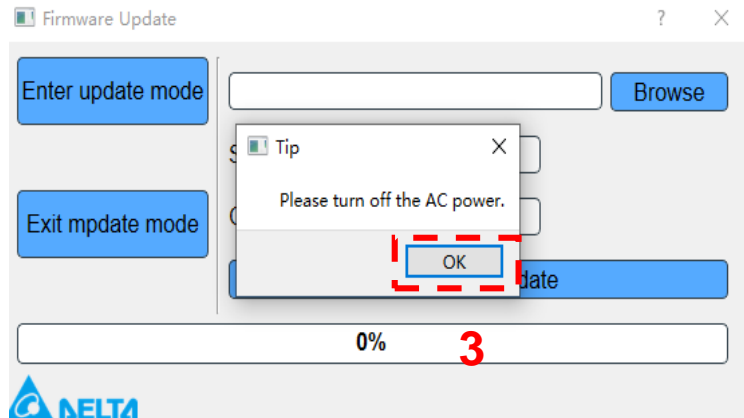
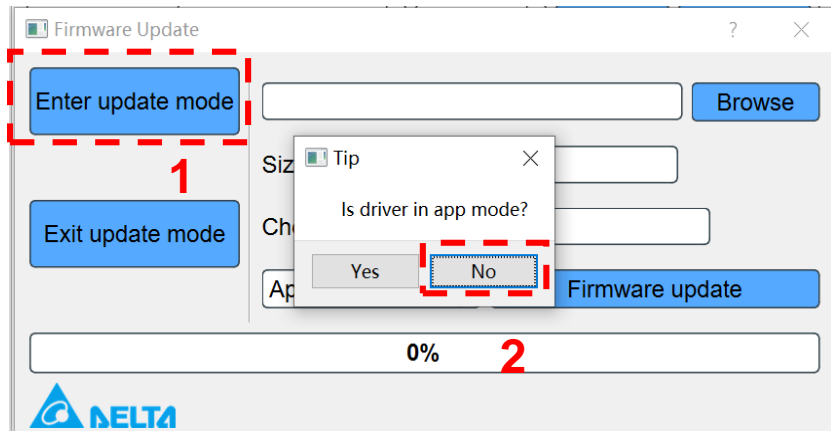
The Firmware Update dialog box has a title bar with a question mark and a close button. It contains an 'Enter update mode' button next to a text input field and a 'Browse' button. Below this is an 'Exit update mode' button. To the right, there are input fields for 'Size' and 'Checksum', and a dropdown for 'Application'. A 'Firmware update' button is located to the right of the 'Application' dropdown. At the bottom, a progress bar shows '0%' completion. The DELTA logo is in the bottom left corner.

Click the “Firmware update” button will active the firmware update function.

➤ 4.1 Enter update mode: AC power off

Step1: click the button “Enter update mode”.

Step2: Click button “OK”

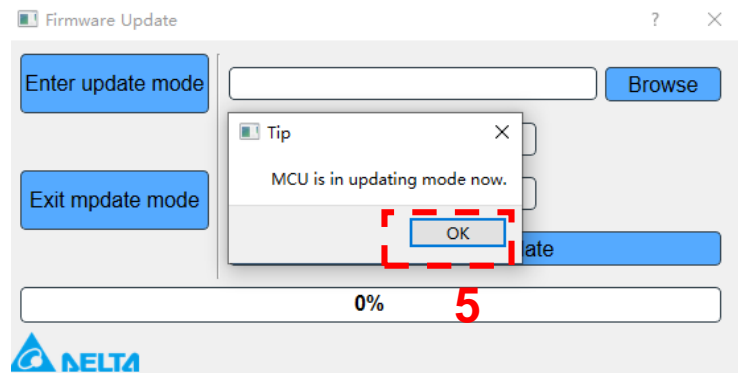
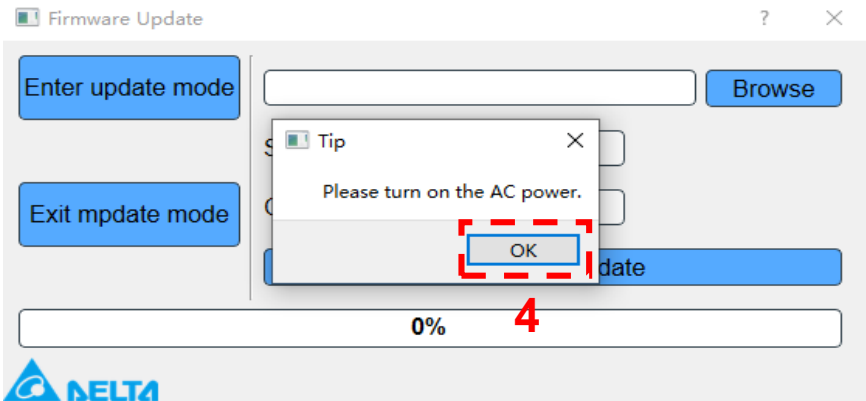


Step3: Power off the driver. Then click the button “OK”

➤ 4.1 Enter update mode: AC power off

Step4: Wait for the driver completely off. Click the button “OK”

Step5: Normally, the driver will enter update mode successfully.



➤ 4.1 Enter update mode: Normal app mode

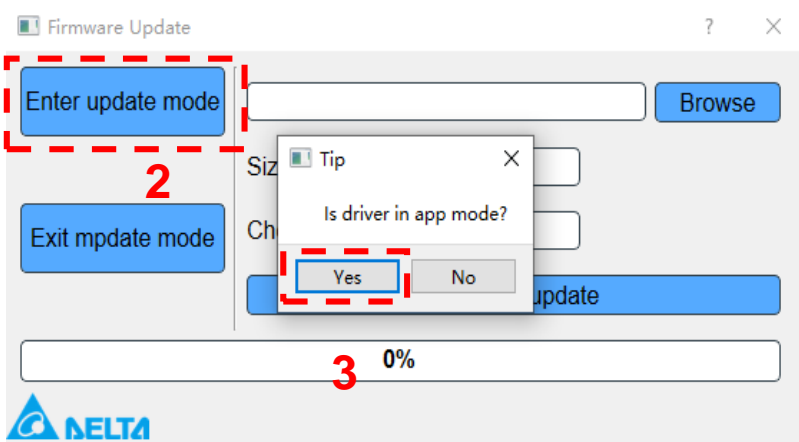
The screenshot shows the 'DMX512&RDM Program Tool' interface. At the top, there are 'Save' and 'Load' buttons. Below them is the title bar with the Delta logo. The main area is divided into several sections:

- Operating mode:** Includes a 'Mode' dropdown set to 'Single address', a 'CH01' dropdown, and 'Write' and 'Read' buttons.
- DMX512 default level:** Includes a 'Level' dropdown set to '255' and 'Write' and 'Read' buttons.
- Device address:** Includes an 'Address' dropdown set to '1' and 'Write' and 'Read' buttons.
- Current programming:** Includes a 'Channel' dropdown set to 'All', a 'Current' input field set to '2000' mA, and 'Write' and 'Read' buttons.
- OTP on LED fixture:** Includes an 'NTC type' dropdown set to '33K' Ω , a 'Trigger point' input field set to '100' $^{\circ}\text{C}$, and 'Write' and 'Read' buttons.
- Dimming:** Includes a 'Level' slider and a 'Dimming' button.

At the bottom, there is a status bar showing a green circle and the text 'Tool connected.', along with 'Add-on functions' and 'Firmware update' buttons.

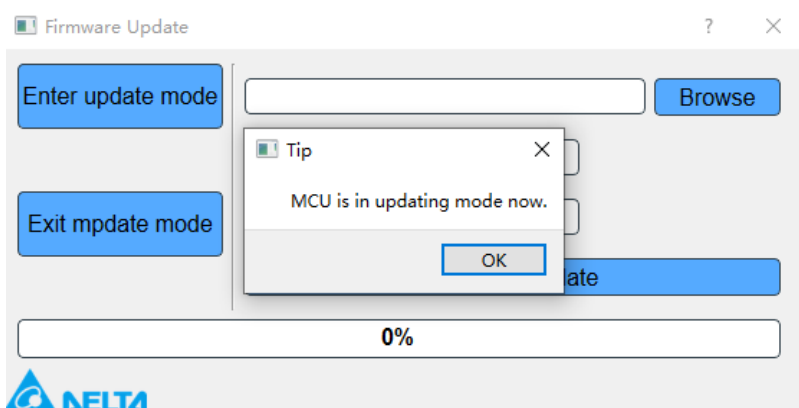
Step1 : Check communication. Click any “Read” button in the main GUI. The status in the bottom line shows “Read successfully”.

➤ 4.1 Enter update mode: Normal app mode



Step2: Click button “Enter update mode”

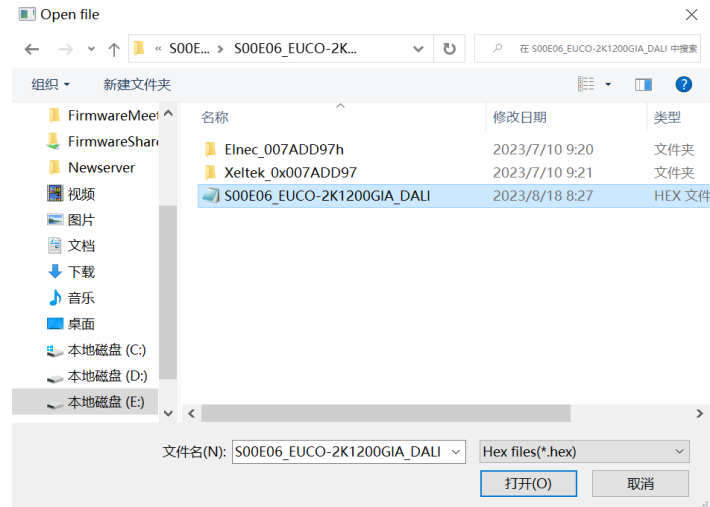
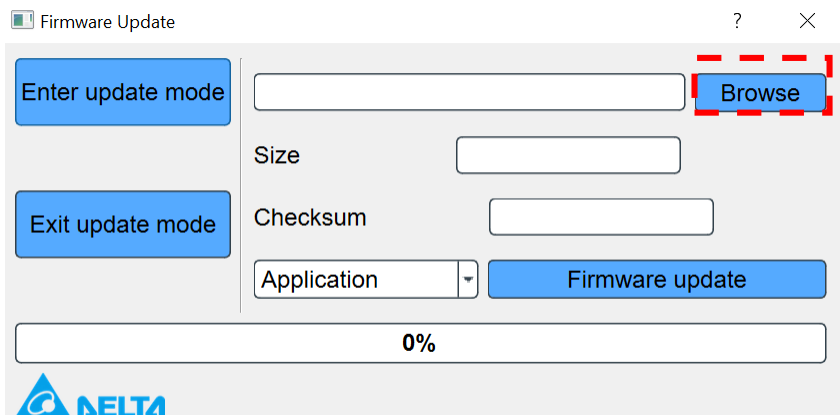
Step3: Click button “Yes”



Step4: Normally, the driver will enter update mode successfully.

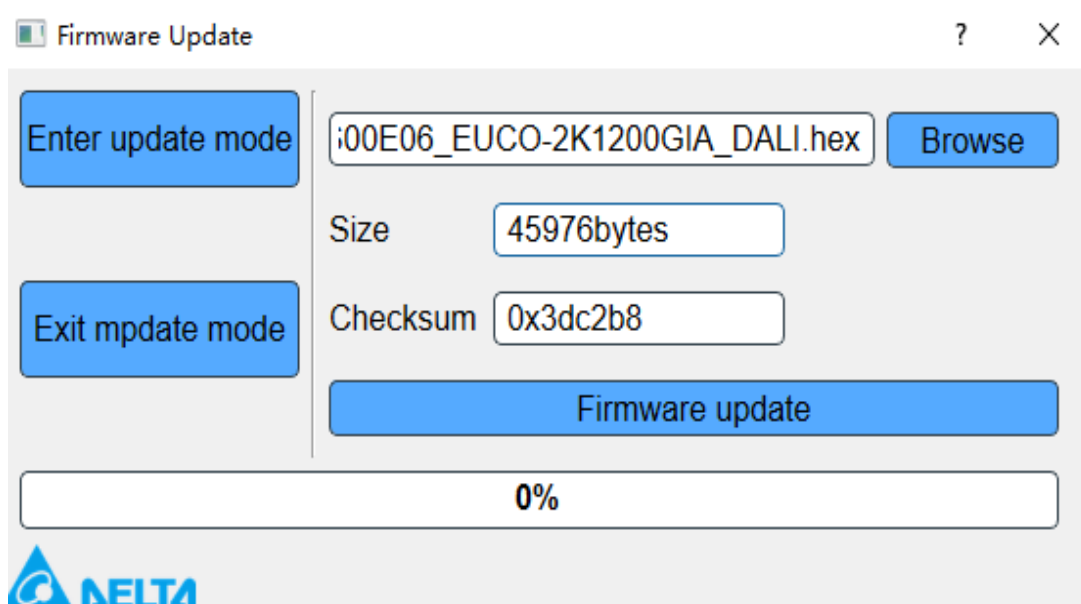
➤ 4.2 Choose firmware file

Step1: Click “Browse” button. And choose the correct firmware file



➤ 4.2 Choose firmware file

After reading, the size and checksum value of the GUI will be shown in the GUI.

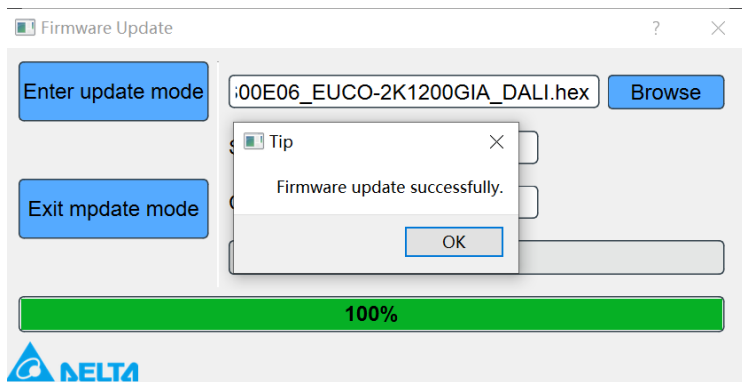
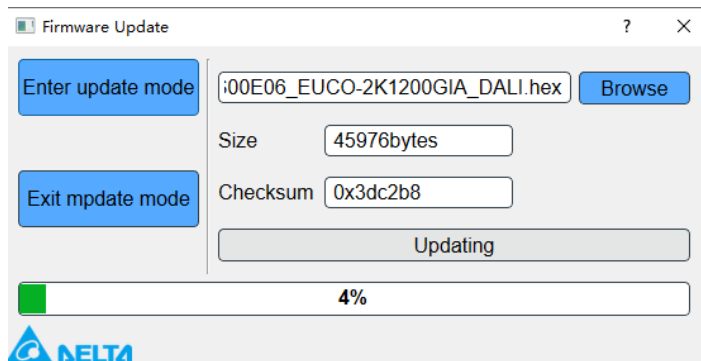
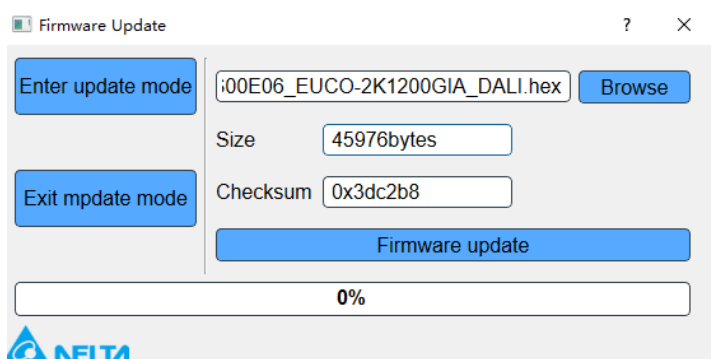


The screenshot shows a 'Firmware Update' window with a light gray background. On the left side, there are two blue buttons: 'Enter update mode' and 'Exit update mode'. The main area contains a text input field with the filename '00E06_EUCO-2K1200GIA_DALI.hex' and a 'Browse' button to its right. Below the filename, there are two more input fields: 'Size' with the value '45976bytes' and 'Checksum' with the value '0x3dc2b8'. A large blue button labeled 'Firmware update' is positioned below these fields. At the bottom of the window, there is a progress bar showing '0%' completion. The Delta logo is visible in the bottom-left corner of the window.

Field	Value
Filename	00E06_EUCO-2K1200GIA_DALI.hex
Size	45976bytes
Checksum	0x3dc2b8
Progress	0%

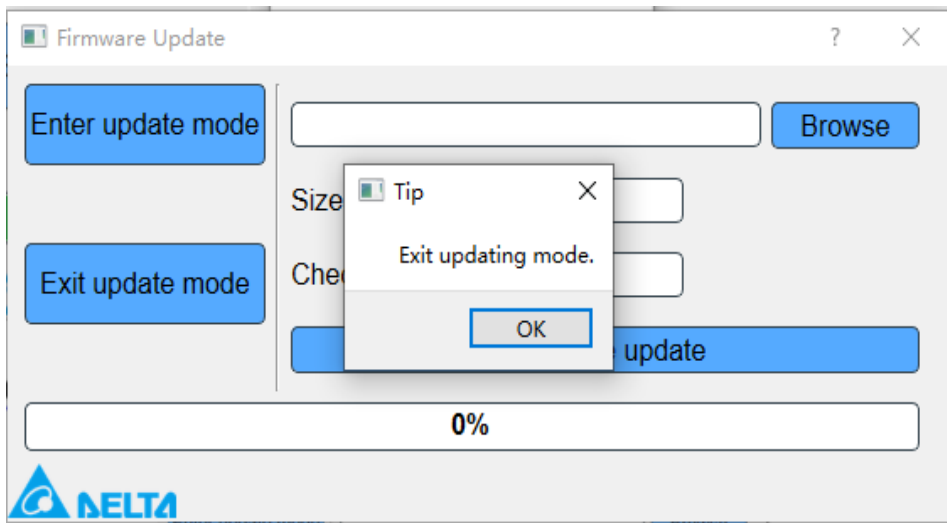
➤ 4.3 Updating the firmware

Step1: Click “Firmware update” button. Wait for 1-2minutes



➤ 4.4 Exit update mode

Step1: Click “Exit update mode” button. The driver will recover to normal app.



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