Inventronics DALI Driver Programmer Manual Instruction

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1 Foreword

1.1 Objective

This document is the manual instruction for the programming software of Inventronics' DALI drivers, helping customer acknowledge the functions and methods of the software.

1.2 Background

Inventronics DALI drivers are based on the current constant power programmable drivers and add DALI dimming function. Applying to DALI protocol, it is able to consist maximum 64 addresses into a system with single lamp, group or broadcast mode, making turning on/off, screen and dimming etc. digital control.

1.3 Definition

DALI: (Digital Addressable Lighting Interface) Please refer to DALI website: <u>http://www.dali-ag.org</u>

DALI Driver: Exx-xxxSxxxBx: Outdoor Constant Power DALI Driver LUD-xxxSxxxBx: Indoor Constant Power DALI Driver

2. Software Overview

2.1 Objective

Help customer aware of the installation and application method of the programming software.

2.2 Function

Function Description

- 1. Choose Product and Start-up
- 2. Online Software Update
- 3. Interface Selection
- 4. Language Change ,such as Chinese, English and Turkish
- 5. Help documentation
- 6. Self-adaptive Programming Offline Mode

- 7. Read/Save Configuration
- 8. Set Series/Model Number
- 9. Constant Power Working Curve
- 10. Set the Maximum Output Current
- 11. Set Dimming Method (DALI, AC Dimming, Timer)
- 12. Set Timer Dimming Curve
- 13. Set OLC Curve
- 14. Set OTP Parameters
- 15. EOL Setup
- 16. Matching Verification of Series and Model Number
- 17. Select NFC Auto/None mode to Read/Write Configuration of Driver
- 18. Write/Read Configuration of Driver with PRG interface
- 19. Write/Read Configuration of Driver (Offline Mode) with PRG interface
- 20. DALI Testing Command
- 21. Add error code on programming result on title
- 22. Summary

3. Operating Environment

3.1 Hardware

1Ghz above Processor (32 bits) 512Mb above RAM 20GB above available hard-disk space Mouse and Keyboard

3.2 Software

Operation system is WindowsXP or Windows7, with Microsoft.NET Framework 4.0 environment or higher version.

4. Instruction

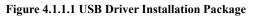
4.1 Software Installation

4.1.1 Install USB Driver and Serial Port Driver

See in Figure 4.1.1.1

- 1. Uncompress file USB_MCom.rar
- 2. Launch USB_MCom.exe
- 3. Enter installation interface, click Next, then click Finish





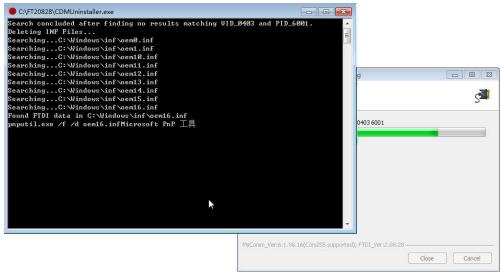


Figure 4.1.1.2

JUSB_MCom.exe	2014/5/8 10:32 应用程序	1,547 KB
	🕫 USB_MCom 0.10.0.1 Setup: Installing	
Device Driver Installation	1 Wizard	s 💷
	Welcome to the Device Driver Installation Wizard! This wizard helps you install the software drivers that some computers devices need in order to work.	
	To continue, click Next.	Close Cancel
	< 上一步 (8)) 下一步 (8) > □ 取消	

Figure 4.1.1.3

1	JUSB_MCom 0.10				
	- 005_mcom 0.10	0.0.1 Setup: I	nstalling		
evice Driver Installation Wizard	ł				S
	ompleting the stallation Wiz		river		
The	e drivers were successfu	ully installed on t	his computer.		
	u can now connect your ne with instructions, plea			ce	
And the					
	7 H.	1 2 14		_	
D	river Name	Status			
	FTDI CDM Driver Pac	Contraction of the second second			
		<u></u>		Close	Cancel
	 上一#	テ(8) 完成	1 取消	7	



4.1.2 Install CPR30-USB/ISC-PRH101-USB Driver

- 1. Uncompress file setup_cprusbio_v2.50(build20161102).zip and setup_obidusb_v3.10(build20170130).zip,
- 2. Launch setup.exe
- 3. Enter installation interface, then click Finish.

4.1.3 Software Installation

- 1. Uncompress zip file Inventronics Multi Programmer Setup.zip
- 2. Double click and launch Inventronics Multi Programmer Setup.msi, seen in Figure 4.1.3.1
- If no Microsoft.NET Framework 4.0 environment in the PC, then need to install Framework 4.0 first. Download link: https://www.microsoft.com/zh-cn/download/details.aspx?id=17718
- 4. Click Next, shown in Figure 4.1.3.2. Choose installation path, shown in Figure 4.1.3.3. Click Next again, shown in Figure 4.1.3.4. Continue with Next to Figure 4.1.3.5 showing the installation process of the software. Then, click Close to finish the installation,





😸 Inventronics Multi Programmer		
Welcome to the Inventronics Multi P Setup Wizard	rogrammer	5
The installer will guide you through the steps required to instal your computer.	II Inventronics Multi Programm	er on
WARNING: This computer program is protected by copyright Unauthorized duplication or distribution of this program, or any or criminal penalties, and will be prosecuted to the maximum e	portion of it, may result in sev	
Cancel	K Back No	ext >

Figure 4.1.3.2 Inventronics Multi Programmer Setup Installation

광 Inventronics Multi Programmer	
Select Installation Folder	5
The installer will install Inventronics Multi Programmer to the following fold To install in this folder, click "Next". To install to a different folder, enter it	
<u>F</u> older: C:\Program Files\Inventronics\	Browse
	Disk Cost
Install Inventronics Multi Programmer for yourself, or for anyone who us	es this computer:
O Everyone	
Just me	
Cancel < Ba	ck Next >

Figure 4.1.3.3 Inventronics Multi Programmer Setup Installation Path

Inventronics Multi Programmer			
Confirm Installation			
The installer is ready to install Inventronic Click "Next" to start the installation.	:s Multi Programmer (on your computer.	
	Cancel	< Back	Next >

Figure 4.1.3.4 Inventronics Multi Programmer Setup Installation

J Inventronics Multi Programmer	
Installing Inventronics Multi Programmer	5
Inventronics Multi Programmer is being installed.	
Please wait	
Cancel < Back	Next >
Figure 4.1.3.5 Inventronics Multi Programmer Setup In	istallation
Inventronics Multi Programmer	
Installation Complete	-
Inventronics Multi Programmer has been successfully installed.	
Click "Close" to exit.	
Please use Windows Update to check for any critical updates to the .NET I	Framework.
Cancel K Back	Close

Figure 4.1.3.6 Inventronics Multi Programmer Setup Finish

4.2 Open Software

When installation is finished, a new folder 'Inventronics' is set in the start menu. 'Start' -> 'All Programs' -> Inventronics -> ProductInformation

Meanwhile, a shortcut icon (Inventronics Multi Programmer.exe) is created on the desktop. Both paths can open the software, shown in Figure 4.2.1.





Figure 4.2.1 Software Launch Icon

5. Start-up Interface

5.1 Start-up Interface

Choose the product that is going to be programmed, including 0-10V dimming driver (Constant Power Driver), DALI driver (DALI Constant Power Programmer), Current Limiter (0-xV Dimmer) and Combo dimmer (Programmable Timer Dimmer).

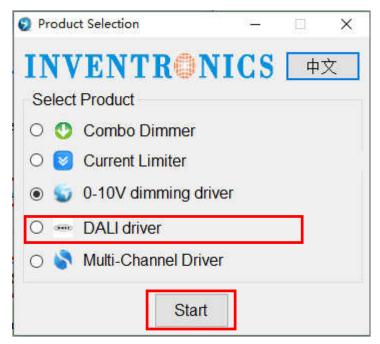


Figure 5.1.1 Software Interface

6. Operation Example

6.1 Software Online Update

When the computer is connected to Internet, there will be an update notification when a new version is released. See Figure 6.1.1.

- Update	8
Current production Version:1.0.9.10 Date: 2017.05.04	Latest production Version:1.1.1.11 Date: 2017.08.22
Update content: 1.Adjust the GUI dis 2.Add EBS-120Sxxx 3.Add German to L 4.Add output currer 0%	BTE Series
	n to get lastest version. IO WebSite

Figure 6.1.1 Update Interface

6.2 Interface Selection

There are PRG and NFC Reader interface, The Customer can choose interface to operate.

If the selection interface is PRG, When the connection between the programmer and PC is ready, the corresponding COM port number COMx shows on the software. If multiple USB serial port is used for programming, please make sure the COM port number is right before read/write the driver. If no USB serial port is detected, make sure the connection is right, then refresh the serial port.

If the selection interface is NFC Reader, The supported reader models are CPR30-USB and ISC-PRH101-USB, When the connection between the NFC Reader and PC is ready,the corresponding Reader information shows on the software, If multiple NFC Reader is used for programming, please make sure the NFC Reader is right before read/write the driver, If no NFC Reader is detected, make sure the connection is right, then refresh the Reader.

PRG		Reader
nterface Selec	tion	
Com Port	COM3 ~	



"Refresh": Click the button to refresh the interface

"OK": Click the button to confirm the selection interface

"Cancel": Click the button to cancel the selection interface

6.3 Language Change

Software default language is consisted with the language of PC. If computer language is Chinese, then the software interface is Chinese. If computer language is English, then the software is English. If computer language is Turkish, then the software is Turkish, If computer language is German, then the software is German.

- DA	LI Driver 1.2.0.15							-	- 0	X
File Ei Open	Language Adva English 中文	nced Help				IN	VENT	ROI	NIC	CS
Drite	Türkçe German	XXBT2	~	Model	EBS-080S070BT2	~	O Read	O Write	tead	Write

Figure 6.3.1

6.4 Read/Save Configuration (CFG)

Save Configuration: save all the configurations (including serial number, model number, output mode, dimming method, OTP setting, dimming setting and OLC setting) on the software as Default.ini in PC for next time.

Read Configuration: choose Default.ini from PC and all the configurations will show on the software interface.

The file menu bar can also be used to read and save configuration files. See Figure 6.4.1

File Language	Advanced	Help			
Open Configur	ation File				
Save Configura	ation File				
Exit		_			
DIVELOCICO EL	TONNOUDU-OC	~ ×			
211101 001100 21					
		Figure 6.4.1			
DALI Driver 1.2.0.15	1.07 454,874				
DALI Driver 1.2.0.15	Help		INVE	NTRO	

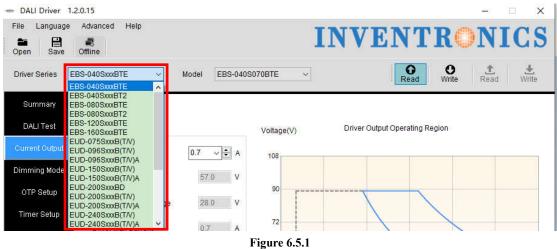
Figure 6.4.2

6.5 Choose Serial and Model Number of Driver

Choose corresponding serial and model number through pull-down menu.

If the selection interface is PRG, Only the serial and model that support the PRG interface shows in the list.

If the selection interface is NFC Reader, Only the serial and model that support the NFC Reader interface shows in the list.



6.6 Driver Working Area Curve

Choose different serial number, the corresponding curve will show on the interface. The curve also changes along with the output current setting. Put cursor on the curve, the coordinate values display on the curve, like shown in Figure 6.6.1.

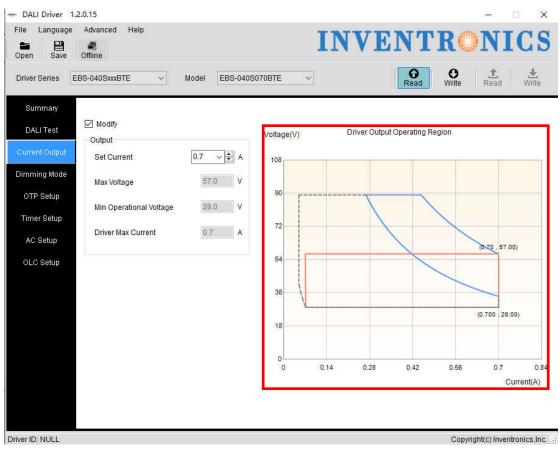


Figure 6.6.1

6.7 Drive current setting

Select the different series of drives in the "output current" page according to the set current value of the work area drawing, and display set current value, the maximum voltage value, the minimum recommended voltage value, the minimum operating voltage and the maximum current value, the mouse placed to the curve Point position, display coordinate point. As shown below.

Set the current value: select the corresponding current value in the set current drop-down menu; you can manually enter the correct current value, or press the up and down arrows to increase self-increment. The current setting step is 1% of the maximum current value. If it is not at 1%, it will automatically round the selected value.

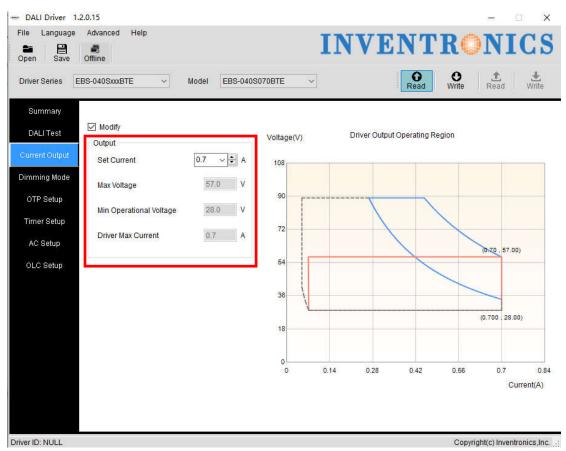


Figure 6.7.1

6.8 Choose Dimming Method

Select the page "Dimming settings" to select the dimming mode

There are 3 optional dimming methods:

- 1. DALI Dimming: only for DALI system
- 2. AC dimming: dimming through AC voltage, self-adapt to DALI.
- Timer: three ways of timer dimming traditional timer, self-adapt-midnight and self-adapt-percentage, both time and dimming level are adjustable.
 You can enable OLC

Enable OLC: check Enable OLC to enable the function. Reset time and read operation time are also possible. The default current is set to 80% and will gradually increase to 100% along with time.

Default setting is DALI dimming.

Note: Different series, only show the way it supports dimming.

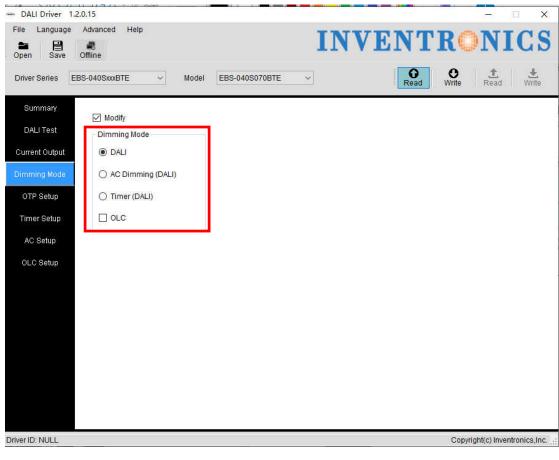


Figure 6.8.1

6.9 DALI dimming

If select the DALI radio button in the Dimming Settings page, select the DALI mode as shown.

- /#/ I I I I/7/							
- DALI Driver 1.2.0.15					(s=1)		\times
File Language Advanced	1 Help		INV	ENT	RON	IC	S
Open Save Offline							
Driver Series EBS-040Sxx	KBTE ~ Model	EBS-040S070BTE	~	Read	Write Read	W	I ite
Summary	dify						
DALL Treat	ming Mode						
Current Output							
Dimming Mode O A	C Dimming (DALI)						
OTP Setup OT	Timer (DALI)						
Timer Setup	DLC						
AC Setup							
OLC Setup							
Driver ID: NULL					Copyright(c) Inv	entronics	,Inc. 🔐

Figure 6.9.1

6.10 AC dimming

Select the modify checkbox to set the AC dimming parameters, as shown in Figure 6.10.1, Click the "Default" button and the AC setting parameter will be restored to the factory settings.

ile Language ppen Save	Advanced Help Offline		INVENTRONIC	: 5
Driver Series EE	3S-040SxxBTE	~ Model EBS-040S070B	BTE ~ Q Read Write Read W	
Summary DALI Test	🗹 Enable		Output Level	
DALI Test	Modify	Default	100%	
)imming Mode	AC Setting		30%	
OTP Setup	Start Voltage	220 → 🗘 V (180V~250V)	80%	
Timer Setup	Start Percent	100 ~ 🗢 % (30%~100%)		
AC Setup	Stop Voltage	170 ∨ 🗢 V (160V~230V)		
OLC Setup	Stop Percent	30 ~ 🗢 % (30%~85%)	40%	
			30%	_
			20%	_
			10% 110 130 150 170 190 210 230 250 270 Input Voltage(V rms)	29

Figure 6.10.1

6.11 Timer Dimming Mode Curve Setting

You can check the modify checkbox to set timer dimming mode curve, like shown in Figure 6.11

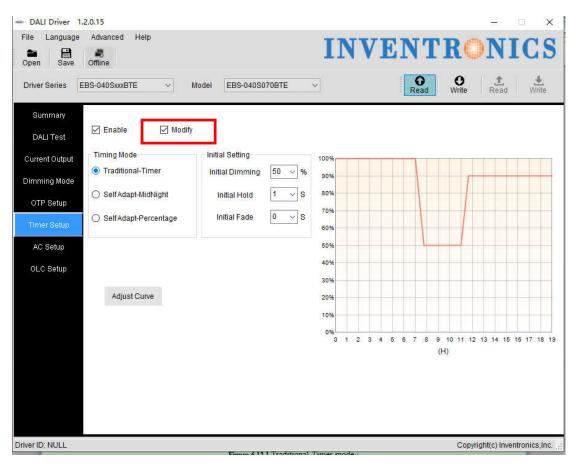


Figure 6.11

6.11.1 Choose Timer Dimming

Complete 6.11 operation, Set the timer dimming mode curve.

6.11.2 Choose Timer Mode

Choose Traditional-Timer, See Figure 6.11.2.1

river Series E	EBS-040SxxBTE V	Model EBS-040S	70BTE	~					Re	ad		W	ite		Re	1 ad		Wat	te
Summary DALI Test	🗹 Enable 🛛 Modify																		Ī
urrent Output	Timing Mode	Initial Setting		100%-															
	Traditional-Timer	Initial Dimming	50 ~ %	90%				1											
mming Mode	O SelfAdapt-MidNight	Initial Hold	1 v s	80%			_	_			_		1				_		
OTP Setup	O SelfAdapt-Percentage	Initial Fade	0 ~ 5	70%	-			-			+	-	1	-			-		
Timer Setup	O Sell'Adapt-Percentage	initial Lage		60%				-		$\left\{ \right\}$	-		1	-					
AC Setup				50%						4		-	-						
OLC Setup				40%								-							
	10 M 10			30%								1							
	Adjust Curve			20%				1											
				0%															
				0	1	2 3	4	5	6 7	8	9 (H)		1 1	2 1	3 14	15	16 1	7 18	в
											(11	1							

Figure 6.11.2.1 Traditional-Timer mode

6.11.3 Default Setting

The initial operating curve is presented. Initial diming, initial hold time and initial fade time can also be set, and the default values are like shown in 6.11.2.1. When driver is powered on, the output works according to the operation curve.

6.11.4 Set Curve

After clicking Adjust Curve button, a secondary window appears. For each light level, there are 3 different sliding blocks for adjusting dimming, holding time and fading time separately. When dragging the blocks, the operation curve would also changes directly.

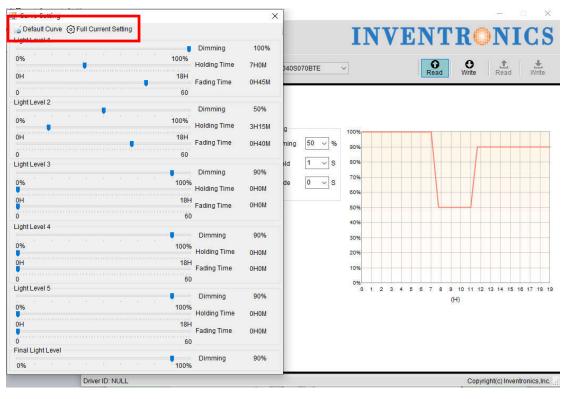


Figure 6.11.4.1

6.11.5 Default Curve

Click Default Curve button, and the setting is back to the default curve.

6.12 Self-Adapt-Midnight Timer Setting

6.12.1 Choose Timer Dimming

Complete 6.11 operation, Set the timer dimming mode curve.

6.12.2 Choose Self-adapt-midnight Timer Mode

Choose Self-Adapt-Midnight Timer Mode

Summary						Re		Wr		Read	8 ()	Write
DALI Test	🗹 Enable 🛛 Modi	fy										
Current Output	Timing Mode	Initial Setting	100%	-			_					
) Imming Mode	O Traditional-Timer	Initial Dimming 100 🗸 %	90%							r		
OTP Setup	SelfAdapt-MidNight	Initial Hold 0 🗸 S	80%							1		
Timer Setup	O SelfAdapt-Percentage	Initial Fade 0 v S	70% 60%					1				
AC Setup			50%	-		_						
OLC Setup		Setting Total Time 14H ~ 00M ~	40%									
	Adjust Curve	Actual Time H M	20%									
		MidNight 00:00 V	10%	_		_	_	_				
			0%	17:00	19:00 2	21:00	23:00	01:00	03:00	05:00	07:00	09-01

Figure 6.12.2.1 Self-adapt-midnight Timer Mode

6.12.3 Parameter Setting

Initial dimming, holding time, fading time, total time and midnight time are all adjustable. The default values are shown in Figure 6.12.2.1. Driver could manage to change the starting/ending points of operation curve according to the last two days' turning on/off time.

6.12.4 Set Curve

After clicking Adjust Curve button, a secondary window appears. For each light level, there are 3 different sliding blocks for adjusting dimming, holding time and fading time separately. When dragging the blocks, the operation curve would also changes directly.

Default Curve 🕢 Full Current Setting					-	-				- Linear	-	-	~
				Ι				4	R	63	N	1(
	Dimming	10%					T.		TC	100	TA	T	
0% 1009		10%							2				
	Stop Holding	16:30	040S070BTE	~				O ead	e Wri		1		Write
15:00 10:0	Ohner Englishe						R	ead	Wri	te	Read	e h i	Write
-10 6	 Stop Fading 	17:00											_
Light Level 2	•												
	Dimming	100%											
0% 1009													
15:00	Stop Holding	0:00	g	100%				-	1			- r	
10.0	Stop Fading	0:50	ming 100 ~ %										
-10 6	0	0.00		90%									
Light Level 3			ild 0 v S	80%							1		
	Dimming	50%		70%									
0% 1 1009		4:00	de 0 ~ S										
15:00 10:0	Stop Holding	4.00		60%									
	Stop Fading	4:40		50%									
-10 6	0			32000									
Light Level 4				40%									
•	Dimming	90%	H ~ 00M ~	30%		-	-						
0% 1009		10:00	НМ	2004									
15:00 10:0	Stop Holding	10.00	E M	20%									
		10:00	0:00 ~	10%									\vdash
-1 0	0			0%									
Light Level 5			1	15:00	17:00	19:00	21:00	23:00	01:00	03:00	05:00	07:00	09:0
	Dimming	90%											
0% 1009	6 Stop Holding	10:00											
15:00 10:0		10.00											
	Stop Fading	10:00											
-1 0 6	0		-										
Final Light Level	Dimmins	90%											
0% 1009	Dimming	90%											
Driver ID: NULL												ventron	_

Figure 6.12.4.1 Set Curve

6.12.5 Default Curve

Click Default Curve button, and the setting is back to the default curve.

6.12.6 Full Current Setting

Click Full Current Setting button, and the dimming setting is 100%.

6.13 Self-Adapt-Percentage Timer Dimming Mode

6.13.1 Choose Timer Dimming

Complete 6.11 operation, Set the timer dimming mode curve

6.13.2 Choose Self-Adapt-Percentage Mode

Choose Self-Adapt-Midnight Timer Mode

Driver Series E	BS-040SxxBTE V	Model EBS-040S070BTE	~	Re	ad O Write	Read Write
Summary DALI Test	🗹 Enable 🛛 Modi	fy				
Current Output	Timing Mode	Initial Setting	100%			
)imming Mode	O Traditional-Timer	Initial Dimming 100 🗸 %	90%			
OTP Setup	O SelfAdapt-MidNight	Initial Hold 0 🗸 S	80%			
Timer Setup	SelfAdapt-Percentage	Initial Fade 🛛 🗸 S	70% 60%			
AC Setup			50%			
OLC Setup		Setting Total Time 14H ~ 00M ~	40%			
	Adjust Curve	Actual Time H M	20%			
			10%			
			0% 10%	20% 30% 40	0% 50% 60%	6 70% 80% 90% 10

Figure 6.13.2.1 Self-Adapt-Percentage Mode

6.13.3 Parameter Setting

Initial dimming, holding time, fading time and total time are all adjustable. The default values are shown in Figure 6.13.2.1. Driver could manage to change the dimming percentage of operation curve according to the last two days' working percentage.

6.13.4 Set Curve

After clicking Adjust Curve button, a secondary window appears. For each light level, there are 3 different sliding blocks for adjusting dimming, holding time and fading time separately. When dragging the blocks, the operation curve would also changes directly.

Curve Setting		×							277		×
🖕 Default Curve 🔞 Full Current Setting				TT	V	ת יו	TT	R		JT (70
Light Level 1	Dimming	100%					ιT	TI .	9 T.	LT.	uD
0%	Holding Til	me 35%	040S070BTE			1	0	0	1.2	b . 117	
0%	80% Fading Tin	ne 4%	0405070BTE	~			Read	Write	Re	ad	Write
0%	5%	10 470	6.								
Light Level 2											
	Dimming	50%									
	Holding Ti	me 16%	a	10001							
0%	80% Fading Tin	ne .3%	ming 100 ~ 9	100% % 90%							
0%	5%			2010							
Light Level 3				S 80%							
	Dimming	90%		70%			1		_		
	100%	me 0%	de 0 ~ ;	S			1				
	Holding Ti	ne 0%		60%	-		1	- -			
0%	80% Fading Tin	ne 0%		50%				-			
0%	5%			00%							
Light Level 4	576			40%	_		_		_	_	
Light Level 4	Dimmino	90%	H ~ 00M >	·							
0%	00%			30%							
Ŭ.	Holding Ti	me 0%	H M	20%	_		_		_	_	-
	80%	ne 0%		8000							
	Fading Tin	le 0%		10%							
0%	5%		-	0%							
Light Level 5	Dimension	90%		096	10% 20	96 3096	40%	50% 60%	70%	80% 9	0% 100
0%	Dimming										
	Holding Ti	me 0%									
0%	80% Fading Tin	ne 0%									
0%	5%										
Final Light Level											
0%	Dimming	90%									
Driver ID: NULL	and the second							Con	right(c)	Inventrar	ice Inc.
DIVEND. NOLL								Copy	ingini(C)	Inventror	ics,inc.

Figure 6.13.4.1 Set Curve

6.13.5 Default Curve

Click Default Curve button, and the setting is back to the default curve.

6.13.6 Full Current Setting

Click Full Current Setting button, and the dimming setting is 100%.

6.14 OLC Curve Setting

6.14.1 OLC Curve Setting

Select the "OLC Setup" page and check the modify checkbox, you can set the OLC curve and reset times. Input required current percentage and time in the blanks.

Note: the unit of time is kHrs. The percentage range of output current is 60%-100%, Some series of time range is 0-64kHrs, And some series of time range is 0-120kHrs

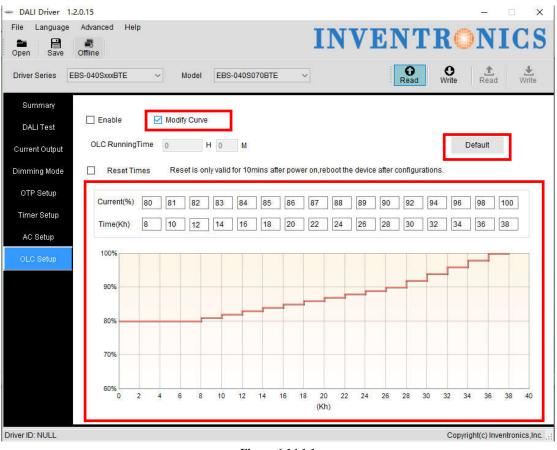


Figure 6.14.1.1

6.14.2 Default curve

Click the "Default" button to restore the default factory curve.

6.15 External temperature protection Settings(OTP)

The "Enable" check box in the "Temperature Settings" page controls the opening or closing of the external temperature. The default is on

6.15.1 External temperature protection Settings

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

- DALI Driver 1.2	2.0.15						-	×
File Language Open Save	Advanced Help Offline			IN	VEN	RO	NIC	CS
Driver Series El	BS-040SxxxBTE	~ Model	EBS-040S070B	re ~	Read	O Write	Read	
Summary	⊨xtemat							_
DALI Test	Modify	Default		-			7910	Ω
Current Output	Recovery Common Comm Trigger Common		-0	Ų			4260	Ω
Dimming Mode	Derated						⊃ 60	%
OTP Setup	100% 80%							
Timer Setup	40%							
AC Setup	20% 0% 10000	9000 8000	7000	6000 5000	4000 3000	2000	1000	0
OLC Setup	Taka sala			(Ω)				_



6.15.2 Default curve

Click the "Default" button in the "OTP Setup" temperature setting page to return to the default factory curve.

6.16 Internal temperature protection Settings(OTP)

The "Modify" check box in the "Temperature Settings" page controls the opening or closing of the internal temperature. Default state is off

6.16.1 Internal temperature protection Settings

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

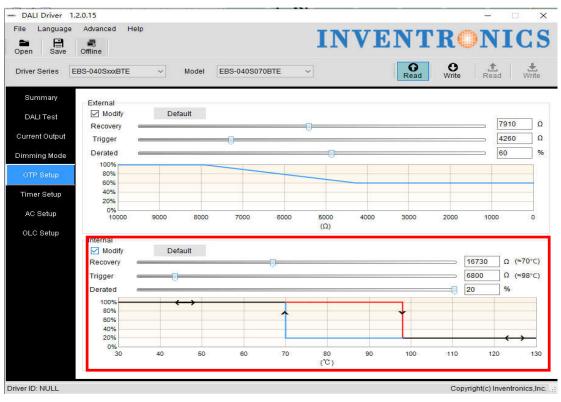


Figure 6.16.1.1

6.16.2 Default curve

Click the "Default" button that in the "Temperature Settings" page to return to the default factory curve.

6.17 EOL Setting

Click the "EOL Setup" page to set EOL switch and time, See Figure 6.17.1 EOL Switch : Including On/Off

EOL Time: The range of time is 0~127Kh

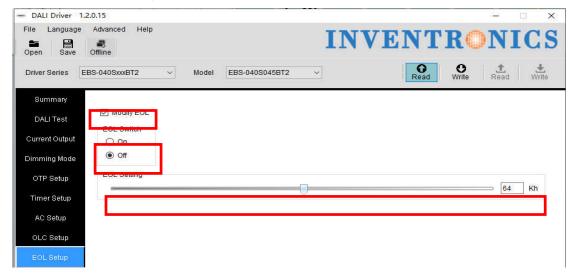


Figure 6.17.1.1

6.18 Summary page display

Click the "Summary" overview page to display the currently set items, such as: mode setting, output current, OTP setting, AC setting, timing curve setting, light failure compensation setting value, and the displayed function block is determined by the selected function. As shown below.

en Save	Offline			TTA A	ENTRONIC
ver Series	EBS-040SxxxBT2	~ Model	EBS-040S045BT2	~	Read Write Read Wr
Summary	🗹 Dimming Mod	е			DALI
DALI Test	Set Current				0.45A
rrent Output	Max Voltage				89.0V
nming Mode	Min Operation	al Voltage			44.0V
)TP Setup	Driver Max Cu	8			0.45A
mer Setup					
AC Setup	External OTP	Setting			
LC Setup	Internal OTP 9	Setting			
		Trigg	er	Derated	Recovery
OL Setup	External	1255	Ω(≈90°C)	20%	1677Ω(≈80°C)
	Internal	1122	5Ω(≈82°C)	20%	20066Ω(≈65°C)
	AC Setup				
	Start Voltage	Start Percent	Stop Voltage	Stop Percent	
	220V	100%	170V	30%	
	EOL Setup EOL Time(Kh)	Switch	Off		

Figure 6.18.1.1

6.19 Offline Mode

First the selection interface is PRG, If the function is fine, the status bar offLine is enabled. If not supported the offline function, the status bar offLine is not enabled.

DALI Driver	1.2.0.15							Х
File Languag	100 March 100 Ma			IN	VENTR	ON	IC	S
Driver Series	EBS-040SxxxBT2 ~	Model	EBS-040S045BT2	~	Read Write	Read	d Writ	te

Figure 6.19.1 Testing offline function

If the offline selected, the background color turns green, you can read and write the programmer EEPROM. It's use for the programmer to program the drive offline, as shown in Figure 6.19.1.

If offLine is not selected, the background color changes to gray. that is online mode, select

the different interface to read/write.

This Online mode is default.

6.20 Read/Write to Driver with PRG interface

6.20.1 Select connection interface

as shown in Figure 6.20.1.1

C Reader
Cance

Figure 6.20.1.1

6.20.2 Write to Driver

Write to Driver: when the setting on the software are all ready, click Write to Driver and the configurations can be written to the driver. If the data is transmitted successfully to the driver, there will be a pop up box with 'Success'. Otherwise, the pop up box would be saying 'Failure'.

See in Figure 6.20.2.1



Figure 6.20.2.1 Write to Driver

Driver Series EBS-040SxxxBTE Model Summary DALI Test Current Output Dimming Mode OTP Setup Timer Setup OLC Setup OLC Setup Model Model BS-040S000BTE Model BS-040S000BTE Model Summary DALI Test Modify Output Set Current: 0.700 100 101 102 103 103 104 105 105 106 1070 1070 108 109 109 100 100 100 101 101 102 103 104 105 105 106 1070 1070 108 109 109 109 100 100 100 100 100 100 100 101 101 102 103 104 105 105 106 1070 1070 108 109 1	- DALI Driver 1.2.0.15 File Language Advanced Help Popen Save Offline	I	NVENTR	NICS
DALI Test Current Output Dimming Mode OTP Setup Timer Setup OLC Setup OLC Setup OLC Setup Dimming Mode AC Setup OLC Setup Dimming Mode AC Setup Dimer Max Current Dimming Mode Dimming Mode Dimming Mode AC Setup Dimer Max Current Dimer Ma	Driver Series EBS-040SxxxBTE V Mod	tel EBS-040S070BTE 🗸	Read Write	Read Write
18 0 0 0.14 0.28 0.42 0.56 0.7 Current	DALI Test ✓ Modify Current Output Output Dimming Mode Max Voltage OTP Setup Min Operational Voltage Timer Setup Driver Max Current	CommunicationTip Communicating,please wait 13%		(0.700 . 28.00)

6.20.3 Read to Driver

Read Driver: read the configuration of the driver and show on the software. See in Figure 6.20.3.1

one DA	LI Driver	1.2.0.15						-3	
File Oper	Languag E Save		elp			1	NVENT	RON	ICS
Drive	er Series	EBS-040SxxxBTE	~	Model	EBS-040S070BTE	~	Read	Write Real	d Write

Figure 6.20.3.1 Read to Driver

6.21 Read/Write to Driver in manual mode of NFC Reader

6.21.1 Select connection interface

as shown in Figure 6.21.1.1

Interface	
O PRG	NFC Reader
Interface Selection	
Selected Interface	ID CPR30.xx ~
Selected Reader	611237731 ~

6.21.2 NFC detection mode setting

NFC AutoScan Settin	gs ×
 AutoScan Automatically Rea NFC tag when def 	d or Write to the driver tected.
None	
Require "Read" o each time	r "Write" to be selected
ОК	Cancel

6.21.3 Write to Driver

Write to Driver: when the setting on the software are all ready, click Write to Driver and the configurations can be written to the driver. If the data is transmitted successfully to the driver, there will be a pop up box with 'Success'. Otherwise, the pop up box would be saying 'Failure'.

See in Figure 6.21.3.1, 6.21.3.2,



Figure 6.21.3.1

	0.15 Advanced Help Offline		I	NVEI	NTR(NIC	S
Driver Series EB	IS-080SxxxBT2 v	Model EBS-080S	070BT2 ~	1	Read Write	L Read Wr	₽ rite
Summary	-					- 14	
DALI Test	Output		Voltage(V)	Driver Output Op	perating Region		
Current Output	Set Current	0.532 V 🗘 A	216				
Dimming Mode	Max Voltage	150.0 V					
OTP Setup		CommunicationT	ip				-
Timer Setup	Min Operational Voltage		ating,please wait		(0.53, 150.00)	1	
AC Setup	Driver Max Current	22%	aung,piease wai				
OLC Setup					\mathbf{X}		-
EOL Setup			72				
						(0.700, 57.00)	
			36				-
			0 0.1	4 0.28	0.42 0.56		0.84
						Current	(A)
							_

Figure 6.21.3.2

6.21.4 Read to Driver

Read Driver: read the configuration of the driver and show on the software. See in Figure 6.21.4.1

- DALI Driver 1.2.0.15	– 🗆 X
File Language Advanced Help	INVENTRONICS
Driver Series EBS-040SxxxBTE v Model EBS-040S07	0BTE → Read Write Read Write

Figure 6.19.4.1

6.22 Read/Write to Driver in Auto mode of NFC Reader

6.22.1 Select connection interface

as shown in Figure 6.22.1.1

Connection Setting	x
Interface O PRG	NFC Reader
Interface Selection	
Selected Interface	ID CPR30.xx ~
Selected Reader	611237731 ~
Refresh	OK Cancel

Figure 6.22.1.1

6.22.2 NFC detection mode setting

as shown in Figure 6.22.2.1

NFC AutoScan Setti	ngs ×
AutoScan	
Automatically Re NFC tag when de	ad or Write to the driver etected.
O None	
Require "Read" (each time	or "Write" to be selected
ок	Cancel

Figure 6.22.2.1

6.22.3 Auto Write to Driver

Auto Write: It is to detect NFC Tag automatically, when the NFC Tag is detected, then the configurations can be written to the driver, .If the data is transmitted successfully to the

driver, there will be a pop up box with 'Success', then the reader continues to detect NFC Tag, Otherwise, the pop up box would be saying 'Failure'. See in Figure 6.22.3.1

- DALI Driver	1.2.0.15						10-01	
File Languag				IN	VEN	FR O	N	[CS
Driver Series	EBS-040SxxxBT2 ~	Model	EBS-040S045BT2	~	Auto Read	O Auto Write	L Read	Write

Figure 6.22.3.1

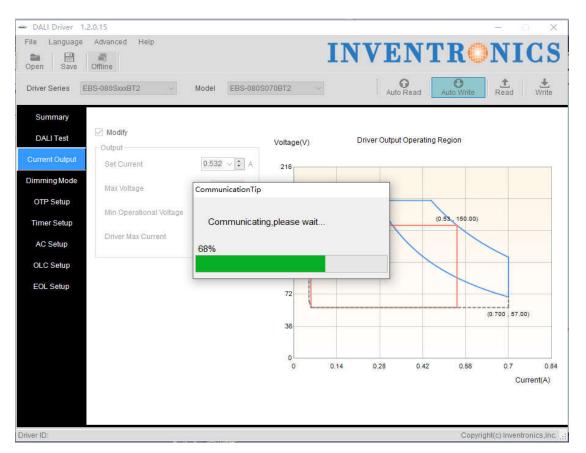
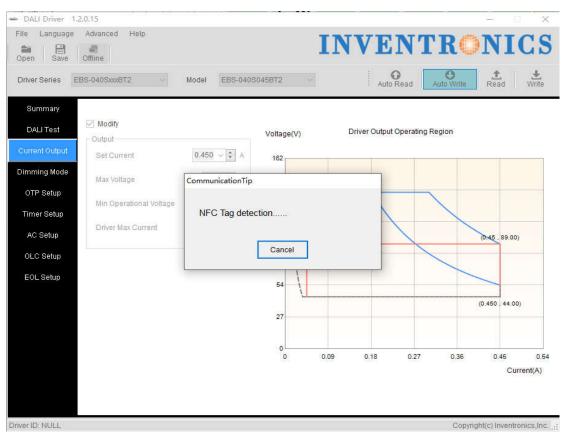


Figure 6.22.3.2



6.22.4 Auto Read

Auto Read: It is to detect NFC Tag automatically, when the NFC Tag is detected, then read the configuration of the driver and show on the software, If the data is transmitted successfully to the driver, there will be a pop up box with 'Success', then the reader continues to detect NFC Tag, Otherwise, the pop up box would be saying 'Failure'. See in Figure 6.22.4.1

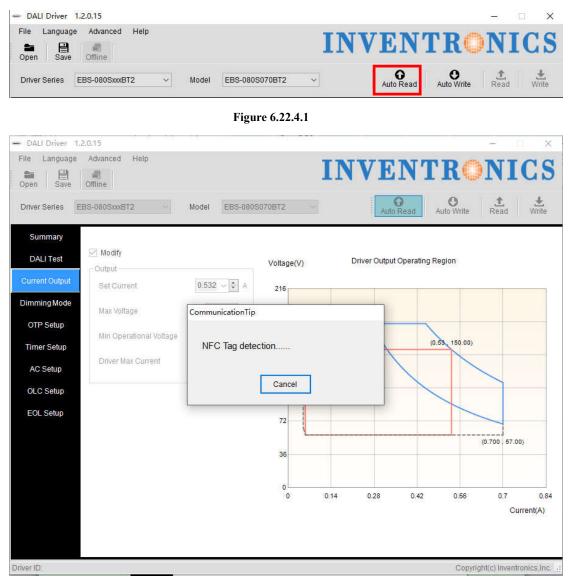


Figure 6.22.4.2

	Offline S-080SxxxBT2	Model EBS-080			NTR O Read Auto Wr		Write
Summary DALI Test Current Output	Modify Output Set Current	0.53 V 🗘 A	Voltage(V)	Driver Output	Operating Region		
Dimming Mode	Max Voltage	CommunicationTip	216				
OTP Setup Timer Setup	Min Operational Voltage Driver Max Current	Communicati	ing,please wait		(0.53, 150	.57)	
AC Setup OLC Setup		61%					
EOL Setup			72			(0.700 . 57.00	1)
			0 0.1	4 0.28	0.42 0.5		0.8 rrent(A)

Figure 6.22.4.3

6.23 Help

You could find the software manual instruction through Help, see in Figure 6.23.1. You could find the software modification recode file through History, see in Figure 6.23.1.

- DALI Driver	1.2.0.15								o x
File Langua		Help Help History			IN	VEN'	ГRC	NI	[CS
Driver Series	EBS-080SxxE	8T2 ~	Model	EBS-080S070BT2	~	Auto Read	Auto Write	1 Read	Write

Figure 6.23.1

6.24 DALI Testing Command

Choose DALI test interface which includes turn on/off, linear/logarithm curve, output power level and fade time. See Figure 6.24.1.

- 1. Turn on Light
- 2. Turn off Light
- 3. Enable curve setting. Please check 'Enable' to set the curve
- 4. Set linear curve

- 5. Set logarithm curve
- 6. Reduce 1 level of output power
- 7. Increase 1 level of output power
- 8. Set output power level
- 9. Set fade time. Please check 'Enable' to start setting.

m DALI Driver 1.1.1.11	
File Language Help	INVENTRONICS
Driver Series EBS-040SxxxBTE Model EBS-040S070BTE	Read Write Read Write
Summary DALI Test Current output	3 🕅 Enable
Dimming mode	4 Linear Curve Logari Curve 5
OTP Setup	
Timer Setup 6 Cown	7 💽 Up
AC Setup	
OLC Setup Output Power	254
9 Fade Time 0	Enable
Driver ID: NULL	Copyright(c) Inventronics,Inc. 💥

Figure 6.24.1 Test Command

6.25 Error Code

Add the Error Code of the programming result form for Reading or Writing Driver/Programmer with PRG/NFC Reader. See Figure 6.25.1.



Figure 6.25.1 Error Code

The detailed error code is explained in Table 6.25.1

	Rea	ding Driver
Error Code	Programming Result	Reason
R101	Response error (Programmer)	The programmer response error
R001	No Response(Programmer)	The programmer is not connected successfully
R002	No Response(Driver)	The driver is not connected successfully
R102	Response error (Driver)	The drive response error
R202	The series does not find!	The PC software does not include the series of the
		driver
R203	The Model does not find!	The current information is not written to the driver or
		the PC software does not include the model of the
		driver

	Table 6.25.1 The error o	ode of reading driver with PRG	
	Writing Driver		
Error Code	Programming Result	Reason	
W101	Response error (Programmer)	The programmer response error	
W001	No Response(Programmer)	The programmer is not connected successfully	
W002	No Response(Driver)	The driver is not connected successfully	
W102	Response error (Driver)	The drive response error	
W202	Series validation error!	The series information written by the PC software is	
		inconsistent with the driver	
W203	Model validation error!	The model information written by the PC software is	
		inconsistent with the driver	
W204	Response error (Series)	The information written by the PC software is	
		inconsistent with the reading driver or The driver does	
		not answer	
W205	Response error (Model)	The information written by the PC software is	
		inconsistent with the reading driver or The driver does	
		not answer	
W206	Response error (MaxCurrent)	The information written by the PC software is	
		inconsistent with the reading driver or The driver does	
		not answer	
W207	Response error (OTPSetting)	The information written by the PC software is	
		inconsistent with the reading driver or The driver does	
		not answer	
W208	Response error (WorkMode)	The information written by the PC software is	
		inconsistent with the reading driver or The driver does	
		not answer	
W209	Response error(ACSetting)	The information written by the PC software is	
		inconsistent with the reading driver or The driver does	
		not answer	
W210	Response error(TimerSetting)	The information written by the PC software is	
		inconsistent with the reading driver or The driver does	
		not answer	

W211	Response error(WorkingTime)	The information written by the PC software is
		inconsistent with the reading driver or The driver does
		not answer
W212	Response error (OLCSetting)	The information written by the PC software is
		inconsistent with the reading driver or The driver does
		not answer

Table 6.25.2 The error code of writing driver with PRG

Writing Driver		
Error Code	Programming Result	Reason
W101	Response error (Programmer)	The programmer response error
W001	No Response(Programmer)	The programmer is not connected successfully
W201	Data is error(Product)	The connected driver is not Constant Power driver
W002	No Response(Driver)	The driver is not connected successfully
W102	Data is error	The drive response error
W202	Series validation error!	The series information written by the PC software is
		inconsistent with the driver
W203	Model validation error!	The model information written by the PC software is
		inconsistent with the driver

Table 6.25.3 The error code of writing driver with NFC Reader

Reading Driver		
Error Code	Programming Result	Reason
R001	No Response(NFC Reader)	The NFC Reader is not connected successfully
R201	Data is error(Product)	The connected driver is not Constant Power driver
R002	No Response(Driver)	The driver is not connected successfully
R102	Data is error	The drive response error
R202	The series does not find!	The PC software does not include the series of the
		driver
R203	The Model does not find!	The current information is not written to the driver or
		the PC software does not include the model of the
		driver

Table 6.25.4 The error code of writing driver with NFC Reader

Г

Reading Programmer.		
Error Code	Programming Result	Reason
S101	Response error (Programmer)	The programmer response error
S001	No Response(Programmer)	The programmer is not connected successfully
S201	Pruducts matching failure!	The mode of programmer is not DALI
S202	The series does not find!	The PC software does not include the series of the
		programmer
S203	The Model does not find!	The current information is not written to the
		programmer or the PC software does not include the
		model of the programmer

Table 6.25.5 The error code of reading programmer

Writing Programmer.		
Error Code	Programming Result	Reason
X101	Response error (Programmer)	The programmer response error
X001	No Response(Programmer)	The programmer is not connected successfully

Table 6.25.6 The error code of writing programmer