#### **1** Prerequisites

- PC or laptop with Windows 8.1 or 10 (untested on win11)
- Dimlux Flasher installation file (v0.9.15 or newer as of this writing)

DimluxFlasher\_windows-x64\_0\_9\_15.exe

• File with the actual firmware (depending on the device), like

Ballast\_1000W\_swB1.0.0\_hw1.0.8.upd Dimlux-Xtreme-LED\_1\_8\_1.upd Dimlux-Xtreme-LED-Addon\_1\_0\_0.upd Smartbox\_3\_0.upd

etc. (always ends in . upd)

- Dimlux Programmer<sup>1</sup> with:
  - USB cable
  - 2x short internet cable (assorted colors)



<sup>1</sup> Unless the device to update is a SmartBox, in which case only the USB cable is needed.

#### **2** Installation

Run the installer DimluxFlasher\_windows-x64\_0\_9\_17.exe

^	Name ^	Date modified	Туре
	MK-II_firmware_X025	10/21/2021 8:02 PM	File folder
	MK-II_firmware_X100_030822	8/9/2022 5:45 PM	File folder
	OLD	11/25/2021 11:58 AM	File folder
	🔋 CP210x_Universal_Windows_Driver.zip	9/30/2021 9:17 AM	Compressed (zip
	DimluxFlasher_windows-x64_0_9_15.exe	8/17/2022 2:07 PM	Application
	🔢 flash_download_tool_v3.8.5.zip	9/28/2021 2:09 PM	Compressed (zip
	frontend_flashing_externally.pdf	11/16/2021 3:56 PM	Adobe Acrobat [
	彭 IMG_2248.MOV	10/12/2021 12:23 PM	QuickTime Movi
	MK-II_firmware_X025_111121.zip	11/16/2021 3:57 PM	Compressed (zip
	MK II firmwara V100 020022 rin	0/2/2022 2.52 DM	Compressed (rin



Setup has finished installing Dimlux Flasher on your computer.
The application may be launched by selecting the installed icons

## **3** Connecting



The cable colors don't matter, the connections do. Connect like in the photos. Do not mix up (i.e. cross) the cables.

(don't forget the connection to the PC)

# 4 Preparing the update

- Start Dimuxflasher
  - Search for **dim**luxflasher by typing it in the start menu, if necessary

Easyl	All Apps Documents	Web More 🔻		×
	Best match			
Moto	<b>Dimluxflasher</b> App		b	
	Apps		Dimluyflasher	
	Dimlux Datalogger	>	App	
Fi	Search the web			
		>	📑 Open	
	9 dimensions	>	Run as administrator	
MPLAB	Q dimehouse	>	Den file location	
	O dimension data		- Pin to Start	
		-	- Pin to taskbar	
Adobe	Documents (6+)		📋 Uninstall	
	Settings (3)			
Ě	Viabritas (1)			
MPLAB	websites (1)			
	,∕⊂ dim			
4	🔒 👜 🚑 🕅	👩 🔬 Task Manage	r	
🖒 Flas	sher Other	Dimlux	lasher v0.9.15	- 🗆 ×
E Flas		Dimlux	lasher v0.9.15	- 🗆 X
E Flas	iher Other	Dimlux flasher v0.9.1	lasher v0.9.15 5	- 🗆 X
Flas	Inter Other	Dimlux flasher v0.9.1	lasher v0.9.15 5	×
B Flas	iher Other	Dimlux flasher v0.9.1	lasher v0.9.15 5	- 🗆 X
Selected d Name: Device Models Hardware:	Inter Other	Dimlux flasher v0.9.1	lasher v0.9.15	- 🗆 X
Selected d Name: Device Models Hardware: SW Versio	iher Other	Dimlux flasher v0.9.19 Build: -	lasher v0.9.15	- 🗆 X
E Flas Selected d Name: Device Models Hardwares SW Versio Kind:	her Other	Dimlux flasher v0.9.1 Build: - Size: - Build: -	lasher v0.9.15 5 Mode: - Freq:	- 🗆 X
Selected d Name: Device Models Hardware: SW Versio Kind: Before:	her Other	Dimlux flasher v0.9.15 Build: - Size: - Baudrate: -	lasher v0.9.15 5 Mode: - Freq: -	– 🗆 X
Flass Selected d Name: Device Models Hardware: SW Versio Kind: Before:	her Other	Dimlux flasher v0.9.15 Build: - Size: - Baudrate: -	lasher v0.9.15 5 Mode: - Freq: -	- C X
Flas	ther Other	Dimlux flasher v0.9.1 Dimlux flasher v0.9.1 Build: - Size: - Baudrate: - mblage\Airsupplies\Dimluxf1 'flash data'	lasherv0.9.15 5 Mode - Freq - asher\bin	- I X
Flas	her Other	Dimlux flasher v0.9.15 Build: - Size: - Baudrate: - *mblage\Airsupplies\Dimluxf1 'flash data'	lasherv0.9.15 5 Mode: - Freq: -	- 🗆 X
Selected d Name: Device Models Hardware: SW Versio Before: Windows Running ESPTOOL Please : Detected	her Other	Dimlux flasher v0.9.15 Build: - Size: - Baudrate: - * sublage\Airsupplies\Dimluxfl 'flash data'	lasherv0.9.15 5 Mode: - Freq: - asher\bin	- D X
Selected d Name: Device Models Hardware: SW Versio Kind: Before: Windows Running ESPTOOL Please : Detected	her Other	Dimlux flasher v0.9.19 Build: - Size: - Baudrate: - *mblage\Airsupplies\Dimluxfl 'flash data'	lasherv0.9.15 5 Mode: - Freq: - asher\bin	- I X
Selected d Name: Device Models Hardware: SW Versio Kind: Before: Before: SPTOOL Please : Detected	her Other  Atalocation: -  Atalocation: -  Chip: -  Chip: -  Chip: -  After: -  detected on java: 11  installed and ready: C:\Users\asse select data by clicking the button i comm port: COM3	Dimlux flasher v0.9.15 Build: - Size: - Baudrate: -	lasherv0.9.15	- 🗆 X
Flas	her Other	Dimlux flasher v0.9.15 Build: - Size: - Baudrate: - *mblage\Airsupplies\Dimluxf1 *flash data'	lasherv0.9.15 5 Mode: - Freq: - asher\bin	- 🗆 X
Selected d Name: Device Models Hardware: SW Versio Kind: Before: Windows Running ESPTOOL Detected	her Other  Atalocation: -	Dimlux flasher v0.9.15 Build: - Size: - Baudrate: - *mblage\Airsupplies\Dimluxfl 'flash data'	lasherv0.9.15 5 Mode - Freq - asher\bin	- I X
Selected d Name: Device Models Hardware: SW Versio Kind: Before: Detected Detected	her Other	Dimlux flasher v0.9.1 Build: - Size: - Baudrate: - emblage\Airsupplies\Dimluxfl 'flash data'	lasherv0.9.15 5 Mode: - Freq: - asher\bin	- D X
Selected d Name: Device Models Hardware: SW Version Kind: Before: - Windows Running ESPTOOL Please: Detected	her Other	Dimlux flasher v0.9.15 Build: - Size: - Baudrate: - *mblage\Airsupplies\Dimluxfl *flash data'	lasherv0.9.15 5 Mode: - Freq: - ashervbin	- I X

#### 4.1 Find the correct COM port

- Open the Comm port box. If there is only one entry, skip this page.
  - In this case, the programmer is COM3.
- Disconnect the programmer





сомз

....

Comm port: COM3

- Press the button with ...
- Look at the Comm ports list again and make a mental note of which one(s) it is NOT.
  - In this case, there is a COM3 which is not the programmer.
- Connect the programmer
- Press the button with ...



• The Comm port box should have automatically selected the new COM port, in this case COM8.

It doesn't hurt to double-check.



## 4.2 Select the correct update file

• Press the button Select flash data

Flasher	Other		Dimlux flash	r v0.9.15		-		<
		Dim	nlux flasher v0.9.15					
Selected datalo	cation: -							
Name:	-							
Device	-							
Models	-							
Hardware:	-							
SW Version:	-	Build:	-					
Kind: -		Chip: -		Mode: -	Freq: -		override	٦
Before: -		Aftern						_
Windows det Running on ESPTOOL ins Please sele Detected co	ected java: 11 talled and rea ct data by Cli mm port: COM8	dy: C:\Users\assemblage	Baudrate: - ∖Airsupplies∖Dimluxflashe data'	r\bin				
Windows det Running on ESFTOOL ins Please sele Detected co	ected java: 11 talled and rea tt data by cli mm port: COM8	when -	Baudrafe -	nid/x				
Windows det Running on ESFTOOL ins Please sele Detected co Status: Please	ected java: 11 talled and ree ct data by c11 mm port: COM0	vite: - dy: C:\Usera\assemblage cking the button 'flash y clicking the button 'flas	Baudrate - \\lirsupplies\Dimluxflashd data'	ribin				

• Browse to the location where you have the . UPD file and select it

Flasher	Other		Dimlux flasher	v0.9.15		-		×
		Dimlux	flasher v0.9.15					
Selected datalo	cation: Ballas	t_1000W_swB1.0.0_hw1.0	.8.upd					
Name:	Ballast							
Device	ballast							
Models	1000W							
Hardware:	1.0.8							
SW Version:	1.0.0	Build: 2022	0802_102315					
Kind: Plain	, not encrypted	Chip: esp32	Size: detect	Mode: dio	Freq: 80m		overrid	c
Before: defau	ılt_reset	After: no_reset	Baudrate: 1500000					
Selected fla File detecta Created work								
Data success Trying to re	ful extracted ead the config	file: C:\Users\ASSEMB-1\App	Data\Local\Temp\flash	data17982554309023727010	\data\flashconfig.json			
detafile: 1: bootloader.bin § 0x1000 data present, CK hash equal datafile: 2: partition-table.bin § 0x5000 data present, CK hash equal datafile: 3: data_minital.bin § 0x2000 data present, CK hash equal datafile: 4: Ballast.bin § 0x2000 data present, CK hash equal datafile: 5: Ballast.bin § 0x24000 data present, CK hash equal								
Data succes:	ful interprete	d, please click the button '	flash' to upload the	data to the device				
Status: Data s	uccesful interp	reted, please click the button	'flash' to upload the d	ata to the device				
Exit	Select flash	data Flash Comm	port: COM8 🗸	Timer: - Clear	console -			

# **5 Enable programming mode**

(Skip this for SmartBoxes)

• Slide the power switch to the OFF position, if not already



- Press and hold the button on the device
  - $\circ$   $\:$  In case of multiple buttons, the ESC /  $\Box$



• Slide the power switch to the ON position



• Release the button on the device

## 6 Programming

• Press the Flash button



# 7 Troubleshooting

The <mark>TX</mark> LED (2 <sup>nd</sup> LED)	The connections are	Theck the order of the two internet cables
blinks but programming fails	wrong or the device was not in program-	Check that the two internet cables are connected between the A—IN and B—OUT1 ports.
	ming mode.	Try step 5 few times. You can do this <i>while</i> the dots and lines are appearing to save time.
The TX LED on the programmer doesn't blink while it is trying (when the dots and lines are appearing)	Software is not talking to the programmer	Try redoing step 4.1.
In 4.1, new com port doesn't show up	Windows doesn't see the programmer	Check the USB cable. If nothing helps, the internal fuse may be blown.
The <mark>Main Pwr</mark> LED on the programmer is off	Programmer doesn't have power	

## 8 Final thoughts

• Many programmers are distributed without a top legend. Use the this detailed photo for reference:



- The Ext 3V3 LED on the programmer is supposed to stay off. No worries.
- The two push buttons and the 10-pin connector on the programmer are not used.
- The following terminologies may be used interchangably in written or spoken communication, and should be considered equal:
  - 'update' and 'firmware'
  - 'updating,' 'downloading,' and 'flashing'
  - 'internet cable,' 'network cable,' and 'RJ45 cable'
  - 'pushing,' 'pressing,' 'clicking,' and 'tapping' (in regards to buttons on the screen)