

# USER'S MANUAL

Version 2024-04



## LASER DISABLE BUTTON E-STOP



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This device is a show laser device for commercial use. This device is not a laser pointer and it must not be used for pointing purposes.

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## I Contents of Package

Please make sure that all components were delivered correctly. Please also compare the separately supplied packing list. If something is missing, please contact your sales contact.

Name	No.	Picture
Laser Disable Button	1	
Key	2	
Manual	1	

The unit is carefully packed before shipping. If you discover damages to the device or the packing material due to improper transportation, please inform the shipping company and return the device to the supplier preferably in its original packing.

## 2 Product Information

The Laser Disable is a special safety button which is used to disable the laser output via Ethernet.

### Function:

Each Laser Disable Button sends the state of the operating elements (mushroom button, key switch) and periodically a so-called „heartbeat“ signal. Laser projectors that listen to the Laser Disable Button always know its state: if no heartbeat is received, e.g. because the connection to the Laser Disable Button is missing or lost (power failure, network error etc), the laser projectors automatically switch off the laser output. The mushroom button works like a normal emergency stop switch except that the state is transmitted via network.

### 2.1 Advantages

- Simple cabling, as already existing network cables can be used
- Compatible with switches and hub (requires a PoE switch or a PoE injector)
- Increased safety: unlike directly wired emergency stop switches, the Laser Disable Button cannot simply be bypassed
- Power Consumption via POE (no separate network required)
- Small and robust housing (50 x 85 x 133mm)

### 2.2 Compatibility

The Laser Disable Button is compatible with following products:

- Lasergraph DSP
- PHAENON accurate
- AVB2ILDA converter
- PHAENON X with built-in AVB2ILDA
- PHAENON XD
- RTI PIKO with built-in PHAENON XD mainboard (starting from 2023)
- RTI NANO with built-in PHAENON XD mainboard (starting from 2023)

### 3 Connections and Cables

#### 3.1 Cables

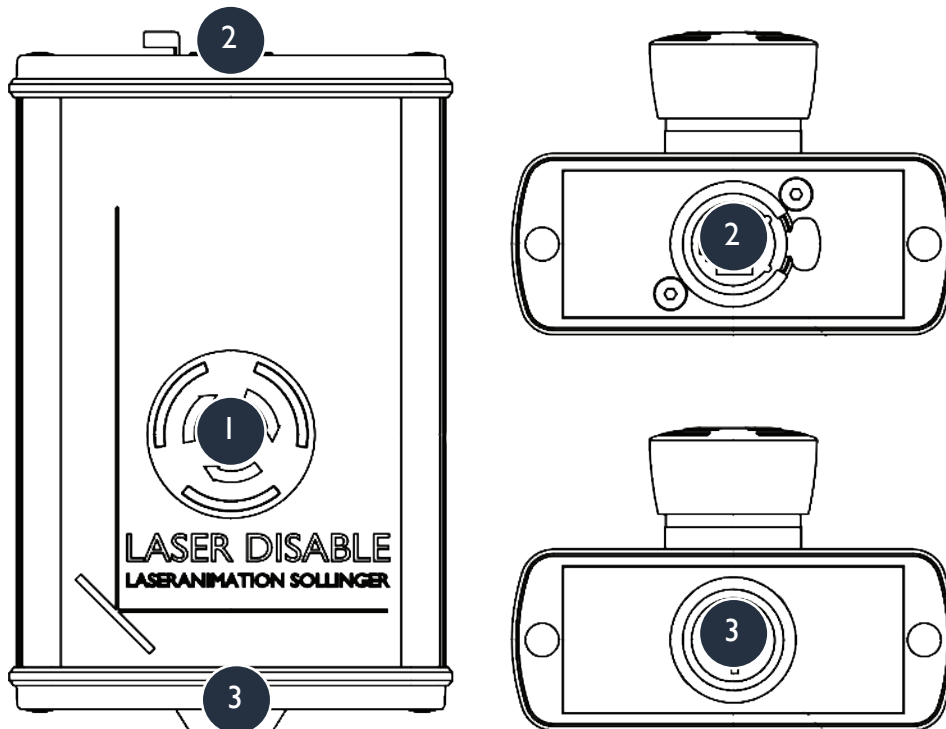


All included signal cables are shielded. In case you use other cables, it is essential to use shielded cables only.

The Laser Disable is connected with an Ethercon cable to the network. Please make sure to use a proper PoE switch or an external PoE injector.

**Do not connect the laser disable button directly to a laser projector as this will have no effect!**

#### 3.2 Connections



1. Emergency Stop: Turns each connected laser projector in the state: STANDBY
2. Ethercon Connection
3. Key Switch: Turns each connected and configured laser projector in the state: STANDBY/RUN

**Exception:** State of laser projector is SHUTDOWN, or laser projector was turned to state STANDBY by a user of LA.toolbox.



## 4 Configuration

The laser projector has to be told which Laser Disable Buttons it should respond to.

This is done by specifying the IP address of the respective Laser Disable Button in the configuration of the projector (this connects the Laser Disable Button and projector; no additional configuration of the Laser Disable Button is required)

In the Safety (AVB) tab, select the IP address of the Laser Disable Button in the drop-down menu (icon displayed to the right of the IP address).

Please make sure that you have enabled the respective Laser Disable Button by clicking “On” for the respective Laser Disable line.

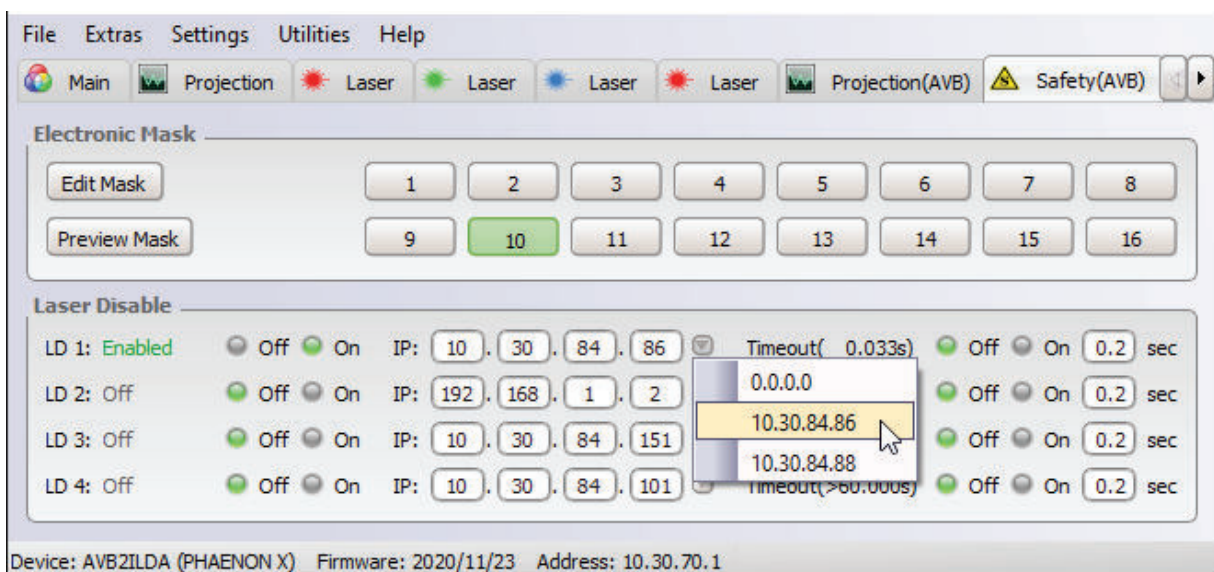
If you click Off, the action of the laser disable button will not affect the corresponding laser projector.

Enable Timeout to make sure that the laser emission will be deactivated if the Laser Disable Button is disconnected (Ethernet cable disconnection) or if a power failure occurs (e.g. at the PoE switch).

Up to 4 individual Laser Disable Buttons can be assigned per laser projector.

By using multiple Laser Disable Buttons, you can also create “groups” of projectors.

For example, Laser Disable 1 can be the same for ALL laser projectors (= will disable laser emission on ALL projectors), while Laser Disable 2 can only control the laser that is on stage.



## 5 Device State

Brightness	Meaning
Not illuminated	Device not connected or defective
Bright	Emission active / possible
Bright Pulsation	Button is pressed

## 6 Control

### 6.1 LA.toolbox

The Laser Disable Button can be controlled using the „LA.toolbox“ software. This intuitive software allows to monitor important functions of the laser unit and adjust operating parameters.

The LA.toolbox communicates with the Laser Disable Button via the LAN port. The software offers PC installation for Windows 7/8.1/10/11 operating systems. Mac version for installation on an Apple Macintosh running macOS 13 (Ventura) or newer.

Both PC and Mac versions of LA.toolbox are included on the USB memory stick, along with a detailed LA.toolbox manual. The software and manual are also available for download from our website: <https://laseranimation.com/en/downloads/>



To install LA.toolbox, simply follow the instructions in the manual. For additional information, please consult the LA.toolbox manual.



## 7 Technical Specifications

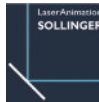
Laser Disable Button	
Operation Mode	Network broadcast
Power Consumption	15,4W PoE class 3
Ambient temperature	-10°C - +50°C
Dimensions	129.4 x 84.6 x 59 mm
Weight (net)	0.3 kg



ISO 9001:2015  
certified

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## Final statement

All our products and their packaging are individually checked and leave our facilities in a flawless and proper condition. If you notice any damage or defects when receiving the product, please contact your dealer immediately. Damages caused by improper handling are not subject to the manufacturer's or dealer's responsibility and no liability or warranty is assumed for it. The operator of the device must follow the local safety regulations and the warnings in the manual. If changes are made to this manual, we cannot inform you. Please contact your dealer for service and any other questions. Only use original spare parts.

Subject to change without notice. No warranty can be given for the correctness of the information.

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## Technical Drawing - Laser Disable Button

