

# tarm Series Professional Laser Projectors User Manual

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# tarm Series Professional Laser Projectors



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# Legal notice

Thank you for purchasing this tarm laser technologies tlt GmbH & Co.KG product.

Due to continual product developments and technical improvements, tarm laser technologies tlt GmbH & Co.KG reserves the right to make modifications to its products.

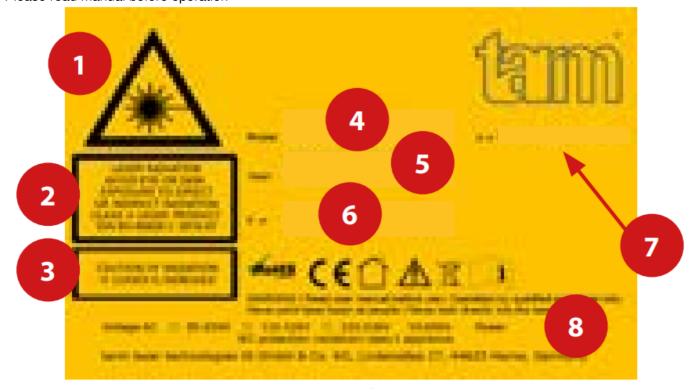
This manual and its content have been made with due care but neither Laserworld (Switzerland) AG nor its subsidiary tarm laser technologies tlt GmbH & Co.KG cannot, however, take any responsibility for any errors, omissions or any resulting damages forthwith.

The brands and product names mentioned in this manual are trade marks or registered trade marks of their respective owners.

**Attention**: This device is a show laser device for commercial use. This device is not a laser pointer, not suitable for pointing purposes and must not be used as a laser pointer.

# **Security Label**

Please read manual before operation



# Use in enclosed spaces only!

- 1. Laser radiation! Avoid exposure to beam!
- 2. Laser class 4
- 3. Caution of radiation if cover is removed
- 4. Model type
- 5. Production year
- 6. Output power
- 7. Wavelength
- 8. Power supply & consumption

# **Front Panel**



- A. Laser aperture
- B. Beam block
- C. Emission led

# **Back Panel**



- 1. DMX In
- 2. DMX Out
- 3. ShowNET / FB4 Interface
- 4. ILDA In 1
- 5. ILDA Out 1
- 6. Interlock Thru
- 7. Interlock In
- 8. LAN: Computer connection
- 9. LAN: Computer connection
- 10. Key switch
- 11. Power Out
- 12. Power In
- 13. Loop for safety cord
- 14. Scan Fail Button 2

In some models this connector may be found below the display For tarm 11 FB4 & tarm 22 FB4: access through FB4 menu

Find information on how to operate your laser here: <a href="https://www.laserworld.com/en/online-manual">https://www.laserworld.com/en/online-manual</a>



# Product and package contents

Please check if all listed parts are included and undamaged. Included in delivery: Laser system, power cable, key, interlock bridge plug, manual, technical datasheet

#### **Preliminary warning notices**

- 1. Please use this device only according to these operating instructions.
- 2. Do not use the device if there are any visible damages on housing, connector panels, power supplies or power cords.
- 3. This device must not be permanently connected to mains. Disconnect it from mains or use the power button to switch if off if not in use.
- 4. Never look directly into the light source of a laser projector. Danger of damage to the eyes or even blindness in extreme circumstances!
- 5. Do not operate the device at high humidity or in the rain or in dusty environments.
- 6. Protect device against dripping or splashing water. Do not place any liquid filled containers near to this device.

#### Any warranty claims are void if the warranty label is removed or tampered with in any way

## Initial operations, safety instructions

- 1. Make sure to use correct voltage; see information on device & in this manual.
- 2. Make sure that the device is not connected to mains during installation.
- 3. Installation has to be done by technical experienced and qualified persons according to safety regulations of the respective country.
- 4. Always ensure that maximum permissible exposure (MPE) is not exceeded in areas accessible to the public or

members of staff.

- 5. In some countries an additional inspection by technical control institutes could be necessary.
- 6. Connect an easily accessible interlock connector or circuit breaker to the projector.
- 7. The power supply should be easily accessible.
- 8. When installing the laser mount it with a minimum distance of 15 cm from walls and objects.
- 9. For safe setup e.g. on walls or ceilings please use a safety cord. The safety cord should be able to withstand tenfold the weight of the device. Please follow the accident prevention regulations of professional associations and/or comparable regulations for accident prevention.
- 10. If the device has been exposed to great temperature changes, do not switch it on immediately. Condensation (or any moisture/water formed) may damage this device.
- 11. Never use dimmer, RC or other electronically switched sockets. Whenever possible, do not use the laser projector together with large appliances (especially fog machines) on the same mains!
- 12. Ensure sufficient ventilation and do not place the device on any warm or heat radiating surface. Especially the ventilation openings must not be covered!
- 13. Ensure that device does not get overheated. Make sure that the device is not exposed to spotlights (especially moving heads). Heat of spotlights could overheat laser in a little while and leads to a degradation of performance.
- 14. This unit is intended for indoor use only

# Working on the device



- 1. This product has no user serviceable parts inside and should only be maintained and serviced by a qualified engineer.
- 2. Be sure that the mains plug is not connected to the power supply while installing the device.
- 3. Take off all reflecting things like rings, watches, etc. before starting to work with or at the projector.
- 4. Only use non-reflecting tools to work on device.
- 5. Wear protective clothing (like goggles, gloves etc.) according to laser power and wavelength of the laser.

## Service notes

- Moisture and heat can reduce lifetime of the laser system dramatically and expires any warranty claim.
- Quick on/off switching of this device will reduce durability of the laser diode dramatically.
- Avoid sharp knocks and shocks to this device an end sure sufficient protection during transportation. Look after your Laserworld product.
- To increase durability of your laser, protect device against overheating:
  - · Always ensure sufficient ventilation.
  - Do not face spotlights (especially moving heads) to the device.
  - Check temperature after approx. 30 minutes with each new installation. If necessary install the projector

at a place with different temperatures.

- Keep the device dry. Protect it from moisture, rain and damp.
- Switch off device when it is not needed. Diodes are switched on and can wear out even if there is no visible laser output.
- Please ensure the fans and heatsinks are clear from dust and debris otherwise the risk of overheating may
  occur. If the unit or air inlets appear to be blocked, please contact a qualified service engineer to maintain and
  service the product.
- Always place the laser behind fog machines and hazers
- · Avoid direct exposure of the laser to moisture
- · Clean the exit window with glass cleaner from time to time
- Removal of the warranty label as well as damages to the device caused by improper handling, neglect
  of the safety instructions and service notes will void the warranty

## **General Operation**

#### 1. Power

Connect the power cord to the device and to the mains. Make sure that your device is provided with the correct voltage. Wrong voltage could lead to irreparable damages. Please find the correct voltage data in the synoptical table at the end of this manual. Make sure that the device is not directed to people or inflammable objects during installation.

To start the device, connect the interlock bridge, insert the key and switch it on, and connect the device to mains. The "Emission – Laser on" LED at the front side of the device begins to light up when the device is ready for use.

#### 2. Key Switch

There is a key switch at the back of the laser system. Please plug the key to the switch and turn it on. The laser device only runs when the key is inserted and switched on. Prevent misuse! Unplug the key when the laser is unattended to prevent misuse of the system.

#### 3. Safety Presets

This device has an integrated Scan Safety (SFS). Is the Scan Safety active (on), single beams are prevented. If the Scan Safety is switched off, it is possible to create full power single beams – be careful!

Operating the laser system with disabled SFS may not be allowed in some countries.

Always ensure that maximum permissible exposure (MPE) is not exceeded in areas accessible to the public or members of staff.

## 4. Modes / Functions

The different operation modes can be selected by using the rotating selector next to the ShowNET-Display (or FB4) at the back of the device. Any change of the operation mode for ShowNET devices requires a restart of the device (disconnect power and reconnect it again). Do not change any ShowNET-Display settings during operation, as random and dangerous laser output can occur.

#### 5. Turn device off

To turn off the device, turn the key to ,OFF' and disconnect the power cable from the mains.

## **Operation Modes**

This laser system can be operated in many different operation modes.

Find information on how to operate your laser here: https://www.laserworld.com/en/online-manual



#### **Final statement**

tarm products are tested and product packaging is inspected before leaving our warehouse. Users must to follow the local safety regulations and warnings within this manual and adhere to any regulations within its place of use. Damages through inappropriate use will void any liability or warranty of our products. Due to continual product developments, please check for the latest update of this product manual at <a href="https://www.tarm.com">www.tarm.com</a>. If you do have any further questions, then please contact your dealer/place of purchase or use our contact section on our website.

For service issues, please contact your dealer/place of purchase and ensure only genuine Laserworld spare parts are used in any service repairs.

# Errors and Omissions excepted and products are subject to change.

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## **Documents / Resources**



<u>tarm tarm Series Professional Laser Projectors</u> [pdf] User Manual tarm Series Professional Laser Projectors, tarm Series, Professional Laser Projectors, Laser Projectors, Projectors

# References

- 42 tarm® professional show laser light systems and laser shows
- <u>Sedienungsanleitung</u>
- **O** Laser User Manual
- **O** Laser User Manual

Manuals+,