INVOLIGHT®

Join the bright side of life!

User manual

TRINITY150LED

Hybrid moving head 3 in1 Spot / Wash / Beam

Ver. 1.0

Table content

INVGROUP Germany GmbH
Senefelder-Ring 91
21465 Reinbek

Congratulation for choosing INVOLIGHT TRINITY150LED. With this device you become an owner of a professional hybrid moving head with our latest technology. In order to make your TRINITY150LED long lasting, please read these instructions carefully before operation. If you have any questions, please contact your local INVOLIGHT dealer.

Part 1: Warnings:

1.1 Meaning of the safety symbols and signal words

DANGER!
A combination of this signal word and a symbol indicates an imminently hazardous situation that leads to death or serious injury if not avoided.

WARNING!
A combination of this signal word and a symbol indicates an imminently hazardous situation that can lead to death or serious injury if not avoided.

CAUTION!
A combination of this signal word and a symbol indicates an imminently hazardous situation, which can lead to minor injuries if not avoided.

NOTE!
A combination of this signal word and a symbol indicates a directly dangerous situation, which can lead to material and environmental damage if not avoided.

Warning of a hazard.

Warning of dangerous voltage.

Earth before use.

General prohibition sign.

Disconnect the mains plug before opening.

1.2 Safety instructions:

This information sheet contains important information of safety operation of the device. Ensure that this information is available to all persons using this device.

The rating plate is located on the bottom of the product.

Please read all warnings and operating instructions carefully before using this unit. Keep this manual for future reference. Please follow all instructions in this manual.

DANGER!

Electric shock due to improper mains connection.
This product corresponds to the protection class I in its design and may only be operated at a socket with protective contact. Use only the supplied power cord to connect. Do not modify the power cord or plug, and check the insulation of the cable regularly for damage. Failure to do so may result in electric shock, fire or life. In case of uncertainties, contact an authorized electrician.

DANGER! ## Electric shock due to high voltages inside the device.

The device contains components that are subject to a high electrical voltage. Do not modify or disassemble the unit. There are no user-serviceable components inside the device. Failure to do so may result in electric shock, fire or life.

NOTE! ## Disconnection from the mains.

The mains plug is the main disconnect element. Unplug the power cord from the power source. Make sure that the power outlet is close to the unit and is easily accessible.

WARNING! ## Operating conditions.

To avoid damage, do not expose the unit to liquids or moisture. If there is a suspicion that liquid may have penetrated into the device, the device must be immediately disconnected from the mains. This also applies if the unit is exposed to high humidity. Even if the device still seems to work, it must be checked by an expert whether the liquid penetration may have been impaired. Reduced insulation can cause fatal electric shocks. Avoid direct sunlight, strong dirt and strong vibrations.

WARNING! ## Eye injuries due to high light intensity.

Never look directly into the light source. A direct view into the beam can lead to retinal burns and must be avoided at all circumstances.

WARNING! ## Risk of epileptic seizure

1.3 Intended use.

The INVOLIGHT "TRINITY150LED" is a light unit with colored light effects. It was developed and designed for professional use in the field of event technology - exclusively indoors. The device may only be used by persons with sufficient physical, sensory and mental abilities as well as the appropriate knowledge and experience. Other persons may only use the device if they are supervised or instructed by a person responsible for their safety.

The device is only approved for AC power, 100-240Volt and 50 / 60Hz power supply.

Light effect devices such as "TRINITY150LED" are sensitive and technically advanced devices that must be handled with care. Therefore, avoid shocks and violence during assembly / disassembly and the use of the device.

Install "TRINITY150LED" only in places that are protected from dust, moisture and excessive heat. The approved operating temperature must be in the range -5 ° to + 45 ° Celsius and the relative humidity must not exceed 50% (at + 45 °)! Direct sunlight should be avoided during use and during transport. In the interests of your own safety and those of others, make sure that there are no cables around.

During thunderstorms, the device must be disconnected from the power supply!

Moving heads are generally to be secured with an approved safety rope when suspended!

"TRINITY150LED" is designed only for professional use, if you are familiar with the functions and are familiar with the operation. Only allow other people to work with the device if you are sure they are familiar with the features as well. In most cases, malfunctions are a consequence of a previous maloperation.

Damage resulting from failure to comply with the intended use and instructions given in this manual will void the warranty and may result in consequences such as short-circuit, fire, electric shock, or dropping the device (s). Unauthorized changes to the device are prohibited for security reasons.

The manufacturer is not liable for damage caused by improper installation and insufficient security!

Part 2: Installation.

Unpack the device and carefully check for damages before using it. Place the unit in a suitable place or hang it on a suitable crossbar. For suspended installation, the device must be secured with an approved safety rope. In addition, the mounting bracket must be screwed with the enclosed screws and tightened! Then connect the device to the mains and, if necessary, connect a DMX cable and connect it to other devices or a DMX controller. More about DMX or Master / Slave operation also in part 3 and 4.

During installation, provisions of the BGV C1 (formerly VBG 70) and DIN 15560 must be observed! Authorized specialists may only carry out the installation!

IMPORTANT! Overhead mounting requires a lot of experience. This includes knowledge of the load bearing capacity, the installation material used and the safety inspections of the material and the projector used, but the required experience is not limited to this. If you do not have the appropriate qualification. Instead, commission a professional installer. Incorrect installation may result in personal injury and / or damage to property.

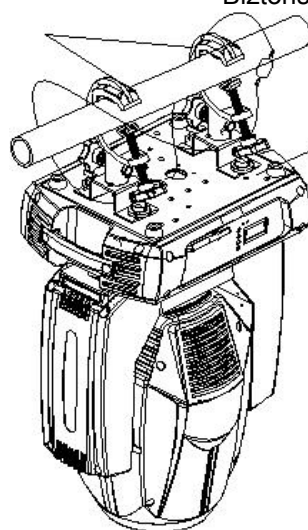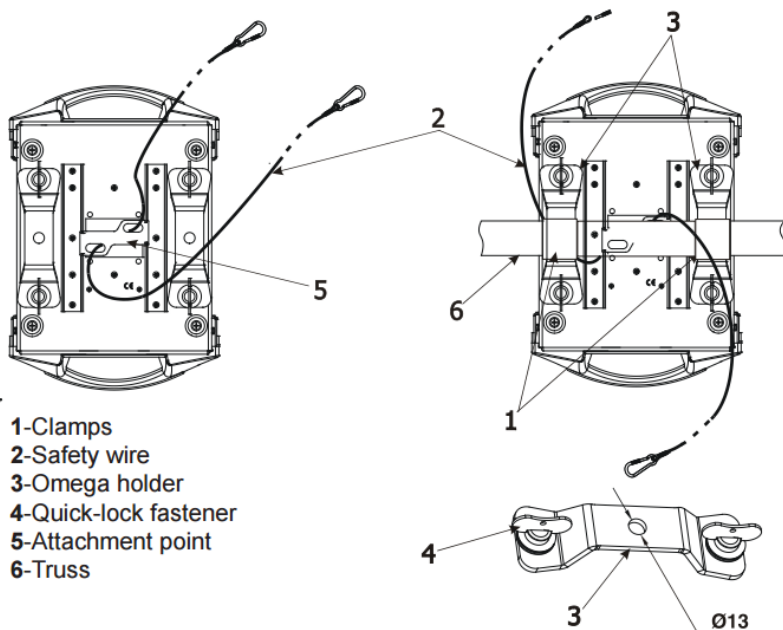| NOTE!	**Possible damage due to movement of the device.**
!	Make sure there is enough room around the device for the movement of the head (pan, tilt).
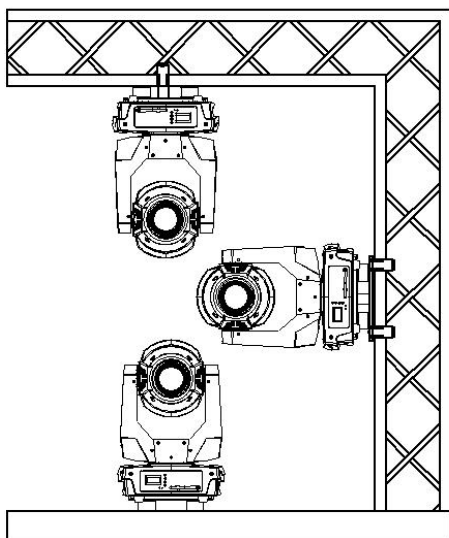
C-kampó / bilincs

Biztonsági drótkötél (safety)

Omega kampó és tartó-szerkezete

1-Clamps
2-Safety wire
3-Omega holder
4-Quick-lock fastener
5-Attachment point
6-Truss

Part 4. Functions and operations.

4.1 QVGA display:

Connect the "TRINITY150LED to the mains. The device performs the usual reset procedure. Wait until it's done. The LCD display with 4-button operation is the heart of the "TRINITY150LED". This can be used to set all functions and modes. Below, the individual functions and modes are listed in tabular form.

1. Switch DMX channel mode
2. Product information
3. Invert display
4. Menu
5. Instructions
6. DMX start address
7. DMX start address for subsequent device

4.2 Menu structure:

Mode	Menu	Description

Address	Address Setting		**DMX addressing.** a) Press the (Enter) key until "DMX Address" is displayed. b) Press the ▲ (Up) or ▼ (Down) button to select the desired address. c) As soon as the correct address is shown on the display, confirm with the (OK) key d) Press the (Return) key to exit the selection without saving.
Fixture	Channel Mode	Standard Mode	This allows you to select your desired DMX channel mode. a) Press the (Enter) key until "Channel Mode" is displayed. b) To select the desired DMX mode, press the ▲ (Up) or ▼ (Down) button. c) To confirm and exit the menu, press the (OK) key d) Press the (Return) key to exit the selection without saving.
		Extend Mode	
	Pan/Tilt Setting	Invert Pan	Pan-tilt inversion. a) Press the (Enter) key until "Pan Invert" or "Tilt Invert" is displayed. b) Press the ▲ (Up) or ▼ (Down) button until "Yes" or "No" is displayed. c) To confirm and exit the menu, press the (OK) key d) Press the (Return) key to exit the selection without saving.
		Invert Tilt	
		Swap Pan-Tilt	The PAN and Tilt channels can be swapped under PAN / TILT SWAP. a) Press the (Enter) key until "Swap Pan-Tilt" is displayed. b) Press the ▲ (Up) or ▼ (Down) button until "On" or "Off" is displayed. c) To confirm and exit the menu, press the (OK) key d) Press the (Return) key to exit the selection without saving.
	W-DMX		Activate W-DMX mode. a) Press the (Enter) key until "W-DMX" is displayed. b) Press the ▲ (Up) or ▼ (Down) button until "On" or "Off" is displayed. c) To confirm and exit the menu, press the (OK) key d) Press the (Return) key to exit the selection without saving.

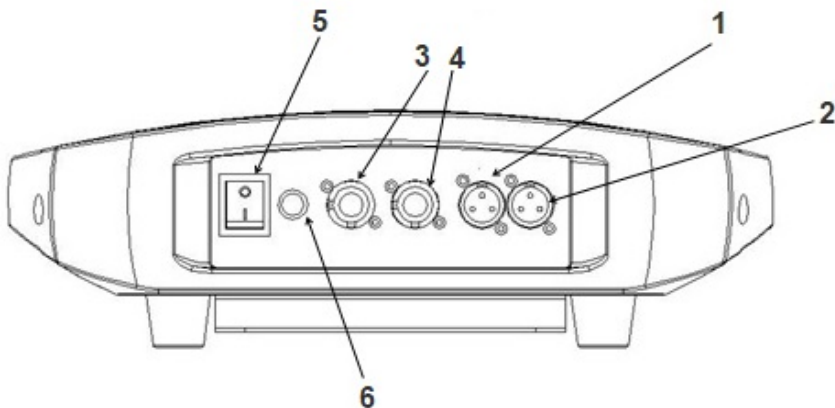| Manual				
	Reset	Head Reset	With this function you can reset the device.	
		Pan/Tilt Reset	a) Press the (Enter) key until "Reset" is displayed. b) To select the desired reset functions, press the ▲ (Up) or ▼ (Down) button. c) To confirm and exit the menu, press the (OK) key d) Press the (Return) key to exit the selection without saving.	
		All reset		
Scene	Mode		This allows you to select the scene mode. a) Press the (Enter) key until "Mode" is displayed. b) To select the desired mode function, press the ▲ (Up) or ▼ (Down) button. c) To confirm and exit the menu, press the (OK) key d) Press the (Return) key to exit the selection without saving.	
	Index		Index selection. a) Press the (Enter) key until "Index" is displayed. b) Press the ▲ (Up) or ▼ (Down) button to select the desired index. c) To confirm and exit the menu, press the (OK) key d) Press the (Return) key to exit the selection without saving.	
	Enable		With this function you can activate the device. a) Press the (Enter) key until "Enable" is displayed. b) Press the ▲ (Up) or ▼ (Down) button until "On" or "Off" is displayed. c) To confirm and exit the menu, press the (OK) key d) Press the (Return) key to exit the selection without saving.	

	Time			With this function you can set the time. a) Press the (Enter) key until "Time" is displayed. b) Press the ▲ (Up) or ▼ (Down) button to select the desired time. c) To confirm and exit the menu, press the (OK) key d) Press the (Return) key to exit the selection without saving.
	Save DMX			With this function you can save the DMX values. a) Press the (Enter) key until "Save DMX" is displayed. b) Press the ▲ (Up) or ▼ (Down) buttons to confirm or cancel the DMX storage. c) To confirm and exit the menu, press the (OK) key d) Press the (Return) key to exit the selection without saving.
	Channel	Pan	0-255	**"Channel control" operating mode** The "Manual control" mode can only be activated if the device is working alone or is the master in a master-slave combination. This setting is only relevant if the device is not controlled by DMX. a) Press the (Enter) key until "chanel control" is displayed. b) To select the desired parameter, press the ▲ (Up) or ▼ (Down) button. c) Press (OK) to edit the values. d) Press the ▲ (Up) or ▼ (Down) buttons to select the value between "0" and "255". e) Press the (OK) button to confirm and exit the menu. f) Press the (Return) key to exit the selection without saving.
		Tilt	0-255	
		Dimmer	0-255	
		Strobe	0-255	
		Color wheel	0-255	
		Fixed-Gobo	0-255	
		Rot-Gobo	0-255	
		Rot-Gobo Rot	0-255	
		Prism	0-255	
		Prism Rot	0-255	
		Frost	0-255	
		Focus	0-255	
		Zoom	0-255	
		System control	0-255	
System	Language			Language selection
	Display	Normal		Invert display (for example in flight operations). a) Press the (Enter) key until "Display" appears. b) To select the desired mode, press the ▲ (Up) or ▼ (Down) button. c) To confirm and exit the menu, press the (OK) key d) Press the (Return) key to exit the selection without saving.
		Invert		

		Display lighting (The display goes dark after 15 seconds without pressing a button or is always on.) a) Press the (Enter) key repeatedly until the display shows "Settings". b) Press the ▲ (Up) or ▼ (Down) button until "On" or "Off" is displayed. c) To confirm and exit the menu, press the (OK) key d) Press the (Return) key to exit the selection without saving.
Backlight Setting	Auto	
	Keep on	
Factory Reset		Reset to factory settings
Device TOU(Min)		Show device information
Fans Voltage		Fan voltage information
Error record		Error recording information
About		Displays the current software version

4.3 Connections:

1. **DMX OUT:** 3-pin XLR output socket for routing the DMX control signal.
2. **DMX IN:** -pin XLR input socket for connecting a DMX controller (such as DMX mixer).
3. **POWER IN:** Powercon compatible AC power input.
4. **POWER OUT:** Powercon compatible mains power output.
5. **ON/OFF SWITCH: ON**: power is ON. **OFF**: Power is OFF.
6. FUSE holder F8A 250V.

When changing the fuse, always disconnect the mains plug and only use the specified fuse types!

A POWERCON compatible wiring

Color	Pin	International
Brown	Phase	L
Blue	Zero	N
Yellow/green	Ground	⏚

Ground must be connected!

When changing the fuse, always disconnect the mains plug and only use the specified fuse types!

DMX connection in DMX mode:

An XLR connector as a DMX output, an XLR connector as a DMX input.

DMX output
3-Pin XLR Socket

DMX iutput
3-Pin XLR Socket

DMX output
5-Pin XLR Socket

DMX iutput
5-Pin XLR Socket

1: Ground
2: Signal (−)
3: Signal (+)

1: Ground
2: Signal (−)
3: Signal (+)
4: N. A.
5: N. A.

3-pin XLR- Connector:
Pin Function:
1. Ground
2. DMX-
3. DMX+
4. free, or 2. connection (2nd link, optional) DMX
5. free, or 2. connection (2nd link, optional) DMX+

5-pin XLR-Connector:
Pin Function:
1. Ground
2. DMX-
3. DMX+

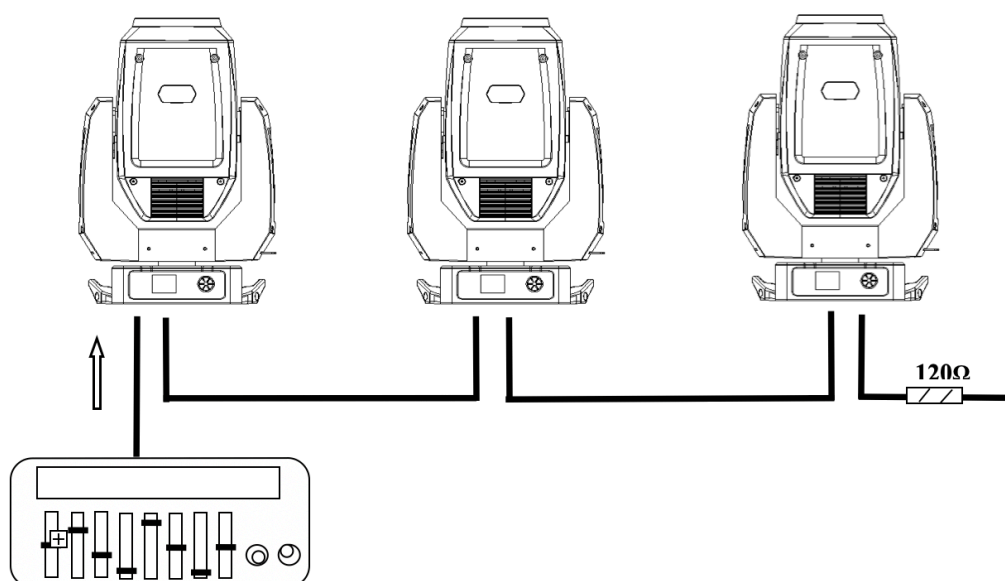## 4.4 Connections in DMX mode „DMX":

120Ω

From a cable length of 300m or to 32 connected DMX devices, the signal should be amplified by a DMX splitter / repeater (eg Involight DMXS4, DMXS6 or DMXS8) to ensure error-free data transmission.

IMPORTANT: The last device in a DMX chain should have a terminator connected to terminate the chain. DMX terminators are commercially available, but can also be built yourself. A 120 ohm resistor must be soldered in an XLR plug between the two poles (+ and -).

DMX connectors:
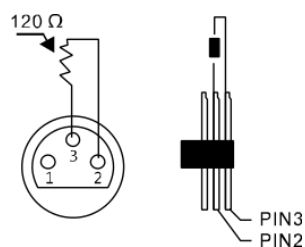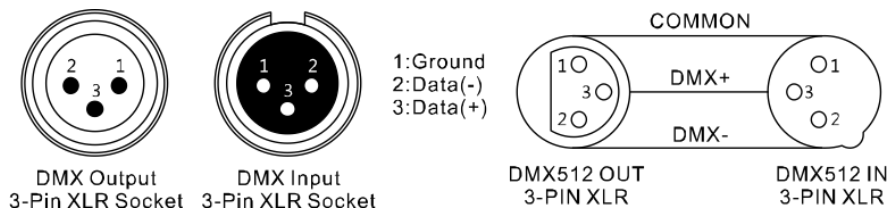
4.5 MASTER-SLAVE mode:

When you configure a group of devices in the "Master / Slave" mode, the first device controls the others and allows an automatic or music-controlled and synchronized show. This feature is especially useful for starting a show without great programming. Connect the DMX output of the master device to the DMX input of the first slave device. Then, connect the DMX output of the first slave device to the DMX input of the second slave device, and so on.

4.6 STAND-ALONE mode:

A TRINITY150LED can also be used in stand-alone mode without a DMX controller. Disconnect Trinity150LED from the controller and call the pre programmed program.

5. Part DMX-Assignment.

A TRINITY150LED has 15 és 20 channel modes.

NOTE: Basic knowledge of the DMX512 control standard is required so that the device can be operated and programmed correctly with a DMX controller

Mode/Channel		FunKCIÓ	ÉRTÉK	LEÍRÁS
DMX Mode 20CH	DMX Mode 15CH			
1	1	PAN	0-255	PAN movement
2		PAN Fine	0-255	PAN FINE movement

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3	2	TILT	0-255	TILT movement
4		TILT Fine	0-255	TILT FINE movement
5	3	Pan/Tilt Speed	0-255	PAN/TILT speed
6	4	Dimmer	0-255	Dimmer 0-100%
7		Dimmer Fine	0-255	Dimmer fine
8	5	Strobe	0-3	Shutter closed
			4-103	Strobe Effect, from slow to fast
			104-107	No Strobe Effect (Shutter open)
			108-207	Pulsing strobe, from slow to fast
			208-212	No Strobe Effect (Shutter open)
			213-251	Strobe effect in random mode, from slow to fast
			252-255	No Strobe effect (Shutter open)
9	6	Farbrad	0-127	Color position
			128-130	Color 1
			131-133	Color 2
			134-136	Color 3
			137-139	Color 4
			140-142	Color 5
			143-145	Color 6
			146-148	Color 7
			149-151	Color 8
			152-154	Color 9
			155-157	Color 10
			158-160	Color 11
			161-163	Color 12
			164-166	Color 13
			167-169	Open
			170-212	Rotation clockwise, from slow to fast
			213-255	Rotation anti-clockwise, from slow to fast
			0-2	Open
			3-5	Gobo1
			6-8	Gobo2

10	7	Statische Gobos	9-11	Gobo3
			12-14	Gobo4
			15-17	Gobo5
			18-20	Gobo6
			21-23	Gobo7
			24-26	Gobo8
			27-29	Gobo9
			30-32	Gobo10
			33-35	Gobo11
			36-38	Gobo12
			39-41	Gobo13
			42-44	Gobo14
			45-47	Gobo15
			48-50	Gobo16
			51-58	Gobo 1 Shake: From slow to fast
			59-66	Gobo 2 Shake: From slow to fast
			67-74	Gobo 3 Shake: From slow to fast
			75-82	Gobo 4 Shake: From slow to fast
			83-90	Gobo 5 Shake: From slow to fast
			91-98	Gobo 6 Shake: From slow to fast
			99-106	Gobo 7 Shake: From slow to fast
			107-114	Gobo 8 Shake: From slow to fast
			115-122	Gobo 9 Shake: From slow to fast
			123-130	Gobo 10 Shake: From slow to fast
			131-138	Gobo 11 Shake: From slow to fast
			139-146	Gobo 12 Shake: From slow to fast
			147-154	Gobo 13 Shake: From slow to fast
			155-162	Gobo 14 Shake: From slow to fast
			163-170	Gobo 15 Shake: From slow to fast
			171-178	Gobo 16 Shake: From slow to fast
			179-216	Rotation clockwise, from slow to fast
			217-255	Rotation anti-clockwise, from slow to fast

11	8	Rotierende Go-bos	0-5	Open
			6-11	Gobo1
			12-17	Gobo2
			18-23	Gobo3
			24-29	Gobo4
			30-35	Gobo5
			36-41	Gobo6
			42-47	Gobo7
			48-53	Gobo8
			54-63	Gobo 1 Shake: From slow to fast
			64-73	Gobo 2 Shake: From slow to fast
			74-83	Gobo 3 Shake: From slow to fast
			84-93	Gobo 4 Shake: From slow to fast
			94-103	Gobo 5 Shake: From slow to fast
			104-113	Gobo 6 Shake: From slow to fast
			114-123	Gobo 7 Shake: From slow to fast
			124-133	Gobo 8 Shake: From slow to fast
			134-194	Rotation clockwise, from slow to fast
			195-255	Rotation anti-clockwise, from slow to fast
12	9	Gobo rotation	0-127	Gobo indexing
			128-190	Rotation clockwise, from slow to fast
			191-192	Stop
			193-255	Rotation anti-clockwise, from slow to fast
13	10	Prisma	0-127	Prism effect OFF
			128-191	Prism 1 ON
			192-255	Prism 2 ON
14	11	Prisma rotation	0-127	Prism position
			128-189	Rotation clockwise, from slow to fast
			190-193	Stop
			194-255	Rotation anti-clockwise, from slow to fast
15	12	Frost Filter	0-255	Frost effect 0-100%
16	13	Focus	0-255	Focus 0-100%

17		Focus fine	0-255	Focus fine 0-100%
18	14	Zoom	0-255	Zoom 0-100%
19		Zoomv fine	0-255	Zoom fine 0-100%
20	15	Service	0-31	No function
			32-63	Head Reset
			64-95	Resset TILT/PAN
			96-127	Reset All
			128-159	Dimmer «Exp-Curve»
			160-191	Dimmer «Linear»
			192-223	Dimmer «Log-Curve»
			224-255	Dimmer «S-Curve»

Roto gobos:

Outer diameter: 12 mm +0/-0,2 mm
Max. motive diameter: 11.5 mm
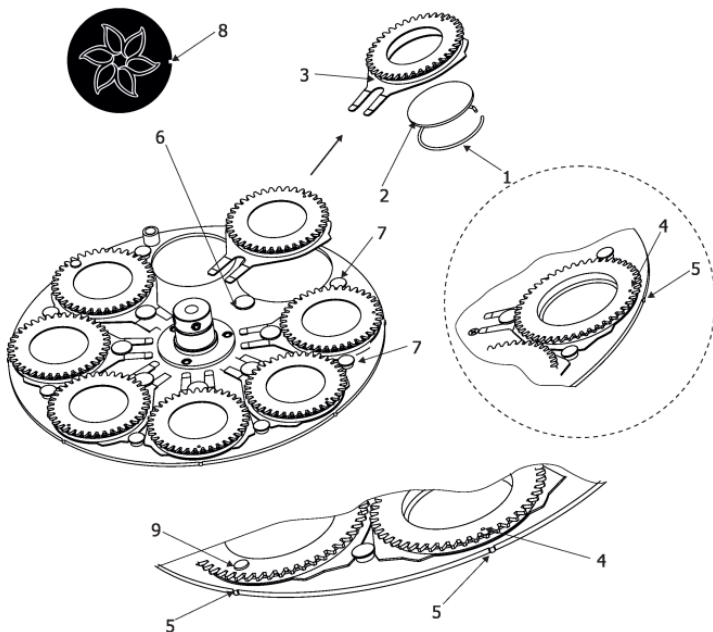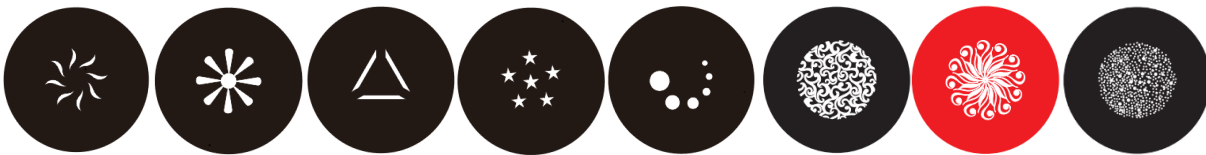
1. Unplug the device from all poles and let it cool down.
2. Remove both head covers. Position the head so that the front lens faces down.

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3. Turn the desired gobo wheel until the gobo to be replaced is at the top.
4. Grasp the gobo holder (3) by its teeth, lift it slightly off the gobo wheel and
   pull out the holder. ATTENTION: For glass gobos, do not touch the glass with your fingers!
5. Loosen the retaining spring (1) with a small screwdriver and release the gobo from the holder
   a soft pad will fall.
6. Place the new gobo in the holder. The gobo has at its edge a small position point (8), which must aim at the position point (4) on the gobo holder (5).
7. Replace the gobo holder (3) under the spacer grooves (6, 7) in the rotating gobo wheel so that
   Positioning point (4) is directed to a small tooth-like projection (5) on the edge of the rotating gobo wheel.

IMPORTANT! When the gobo holder is placed back on the rotating gobo wheel, one of the adjacent gobo holders must be aligned according to the same rule, i. its position point (4) must be directed to the tooth-like projection (5) on the edge.

NOTE. The index magnet (9) of the gobo holder has the same function as the position point (4) on the remaining gobo holders

8. Replace more gobos if necessary. Always proceed as described above.

9. If no further work is to be done, mount the head covers and release the gate lock before operating the device.
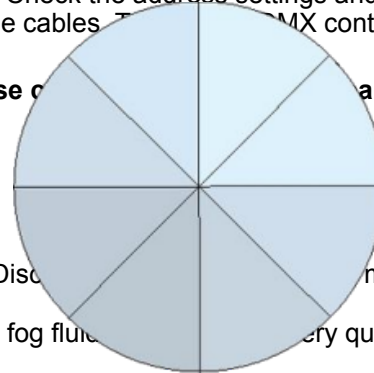
Fix gobo wheel, prisms:

Rotogobos:
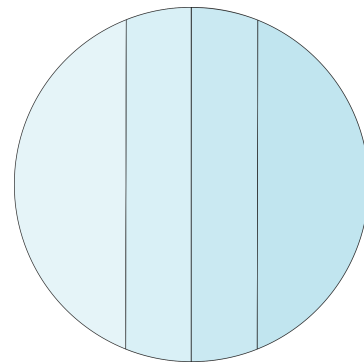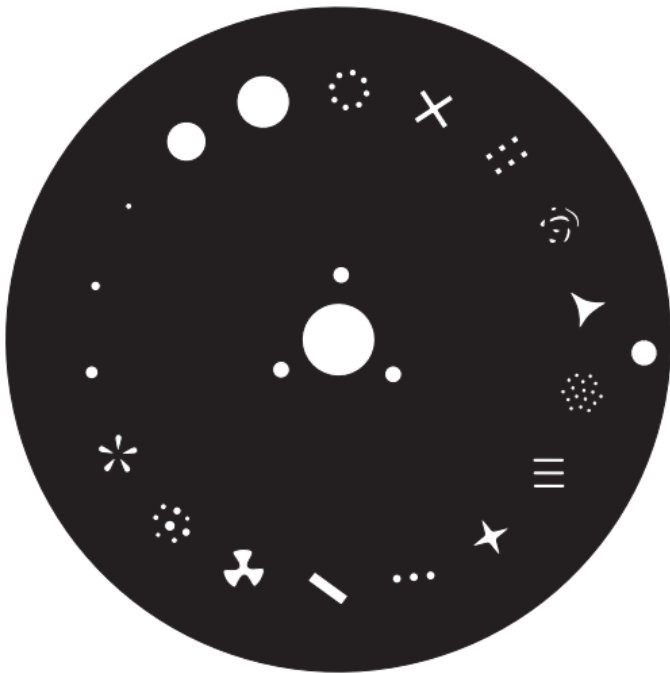
...tion. Check the address settings and the DMX polarity.
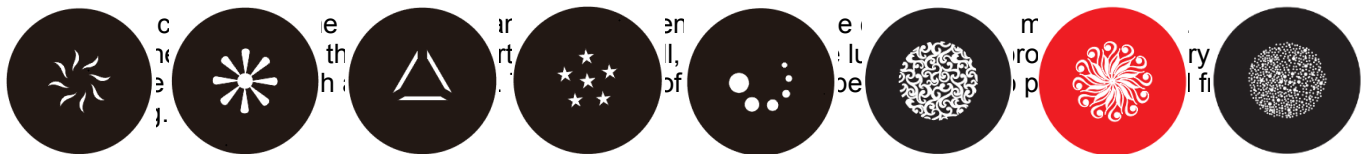...oltage cables. T... ...MX controller.

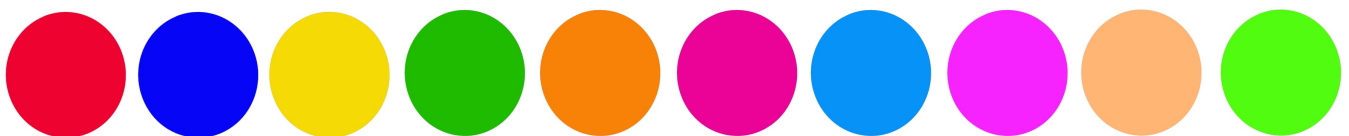**...please ...** **...aler.**

...als. Disc... ...mains before mainte-
nance work!
The objective lens should be cleaned on a weekly basis, since fog flui... ...ery quickly, which consid-
erably reduce the light output of the device.

**Clean the fan monthly**.

Maintenance and service work is reserved exclusively for authorized specialist personnel!

Part 8. Technical specifications

MODEL NAME:	TRINITY150LED
Product type:	LED moving head
Type:	Hybrid Spot / Wash / Beam
LED Number:	1 pc LED
LED Type:	Osram Led Chip, white
Beam angle:	2°-22°
Static Gobos:	16 + open
Rotation Gobos:	8 indexing + open
Colors pectrum:	10 Color + open
Prism	4-facet linear and 8-facet
Gobo size:	Outer diameter (OD): 12mm / Inner diameter (ID) 11.5mm
DMX input:	XLR 3-PIN male
DMX output:	XLR 3-PIN female
DMX Mode:	20 or 15 channels
PAN movements:	540° 16bit
TILT movements:	270° 16 bit
Strobe frequency:	> 20 Hz
Standalone Mode:	Auto Run, Sound Control
Display:	QVGA Touch screen
Power supply connection:	Powercon compatible INPUT and OUTPUT
Housing:	Metal, ABS
Housing color:	Black (white optional)
Cooling:	Liquid cooling with fan
Illuminance:	133300 Lux @ 3m 0.6°, 9490Lux @ 3m 12°; 2267 Lux @ 3m 22°
Power:	100-240V 50/60Hz
Power consumption:	297W
Dimensions:	382x581x237mm
Weight:	18kg
USB port	For software update
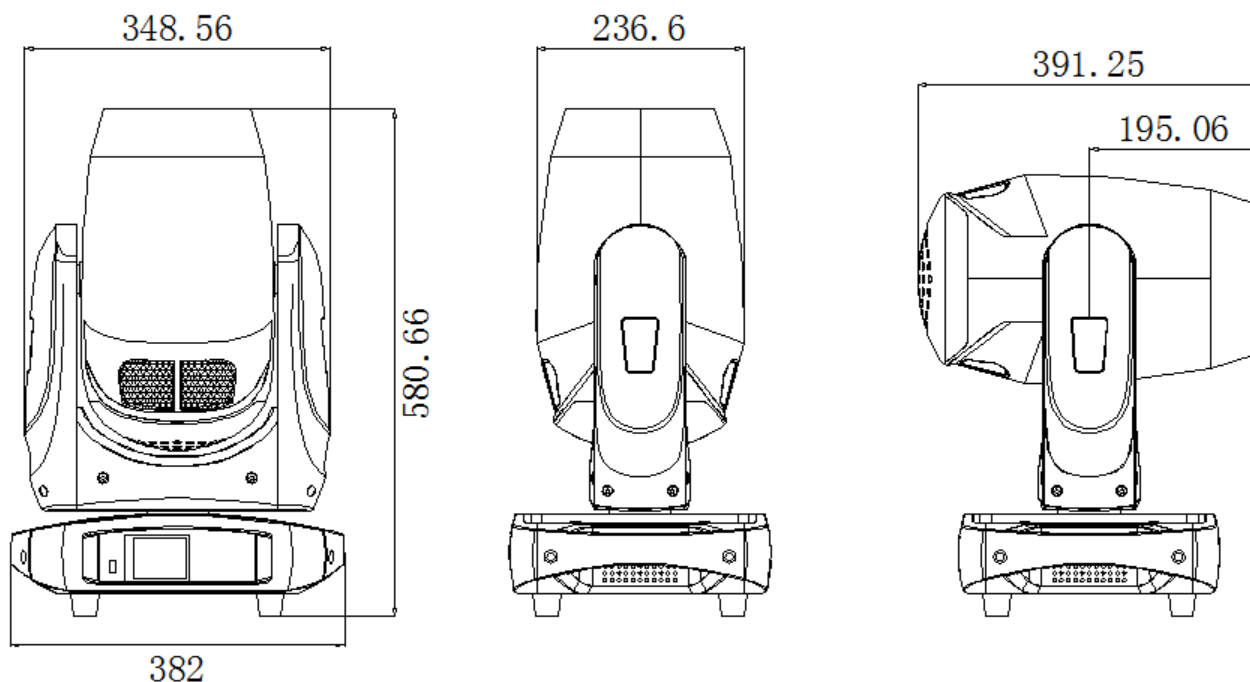
This symbol on the product or on the packaging indicates that disposal of this product can damage the environment after its life cycle. Do not dispose of the unit (or used batteries) as unsorted household waste. The unit or used batteries must be disposed of by a specialized company for recycling. This unit must be returned to the dealer or a local recycling company. Respect local environmental regulations.

If in doubt, contact your local authority for disposal instructions.

WEEE-Reg.-Nr. Deutschland: DE91898274

Part 10. WARRANTY:

INVOLIGHT devices are subject to the valid legal warranty provisions. Check with your dealer for the valid warranty conditions. The following conditions apply when purchasing an **INVOLIGHT** product:
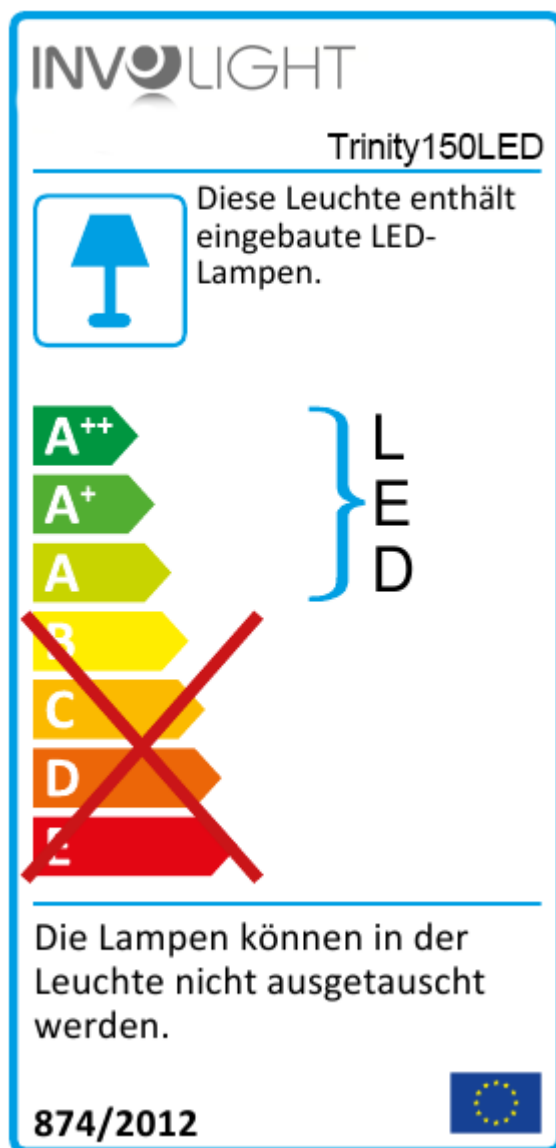Only authorized dealers determined by **INVOLIGHT** may carry out repairs to **INVOLIGHT** devices. The warranty claim expires if an unauthorized service, technician or a private person undertakes a repair attempt or opens the device. Equipment which has a defect within the warranty period may be returned to the authorized seller for the purpose of repair or replacement. In the case of a necessary repair or exchange, please clarify the exact sequence for the return shipment with the seller. If applicable, consult the seller's general terms and conditions for information on warranty procedures. Wear parts are only taken into consideration by the warranty, if these have a defect already when the device is delivered. The guarantee claim does not exist if the device has been destroyed by itself (eg camber or overvoltage). Mechanical defects such as broken switches or housing parts are also excluded from the warranty claim. For any service or repair, please contact the dealer where the device was purchased. He will help you as much as possible.

Stand: 04 / 2020 - Technical and optical changes within the framework of the product improvement are reserved - even without prior notice.

Part 11. Declaration of conformity.

The devices marketed by INVGroup Germany GmbH comply with the essential requirements and other relevant specifications of the directives EMC Directive 2014/30 / EU and LVD Directive 2014/35 / EU

INV⊙LIGHT

Trinity150LED

Diese Leuchte enthält eingebaute LED-Lampen.

A++
A+
A
B
C
D
E

L
E
D

Die Lampen können in der Leuchte nicht ausgetauscht werden.

874/2012

TRINITY150LED

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Bestellnummer: A-000000-06082

INVOLIGHT

www.involight.com