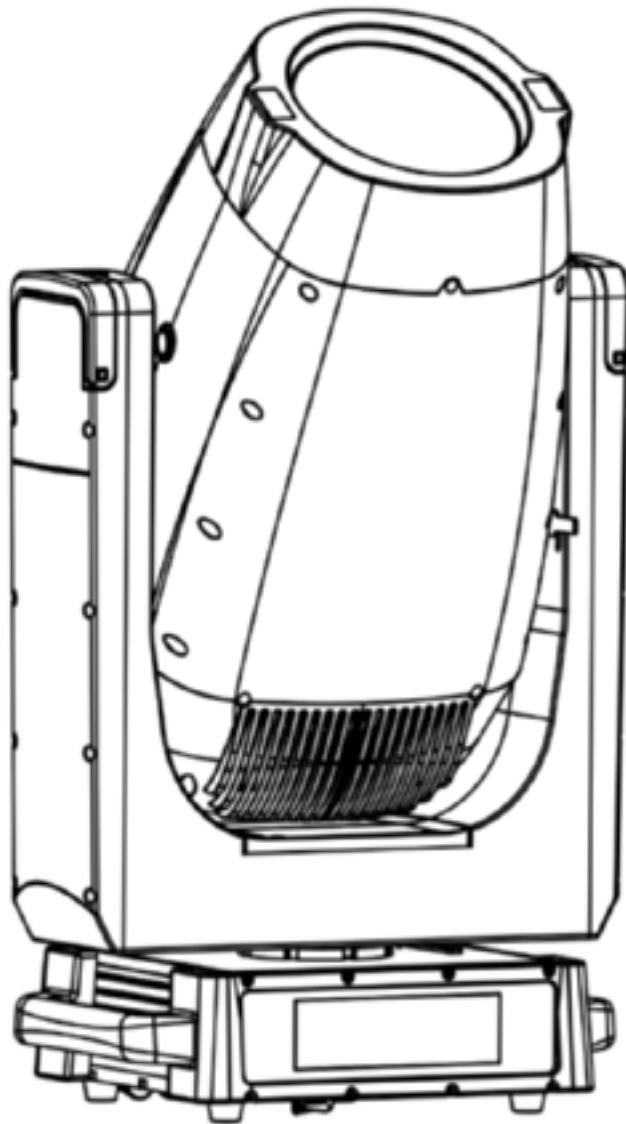




RISE 350

RISE 500

User Manual

Overview

1.	GETTING STARTED	3
2.	CONTENT OF DELIVERY	3
3.	INFORMATION ON WATERPROOF LUMINAIRE	3
4.	SAFETY INSTRUCTIONS - GENERAL SAFETY	3
5.	SAFETY LIMIT SETTING	5
6.	SAFETY INSTRUCTIONS - HANDLING THE FIXTURE	5
7.	TRANSPORTATION	6
8.	INSTALLATION	7
8.1.	RIGGING	7
8.2.	REPLACING THE FUSE	8
8.3.	POWER CONNECTION	8
9.	SETTINGS	9
9.1.	DISPLAY CONTROL	9
9.2.	MENU LAYOUT	10
10.	DMX-CHART - CONTROLS	14
11.	COLORS	19
11.1.	COLOR WHEEL	19
11.2.	CMY COLOR MIXTURE	20
12.	GOBOS	21
12.1.	STATIC GOBOS, WITH GOBO SHAKE	21
12.2.	ROTATING GOBOS, EFFECTS	22
13.	PRISMS AND FROST	23
13.1.	PRISM WHEEL 1 - THREE PRISMS, TWO FROST FILTERS	23
13.2.	PRISM WHEEL 2 - FOUR PRISMS, ONE FROST FILTER	23
14.	DIMENSIONS	24
15.	TECHNICAL DATASHEET	25
16.	GENERAL AND LEGAL INFORMATION	26

1. GETTING STARTED

Please make sure to carefully read and fully understand the instructions in this manual before operating this device. It includes essential information on safety and usage.

This device should only be operated by trained personnel and is not intended for private use.

2. CONTENT OF DELIVERY

1 x tarm RISE luminaire
1 x Power cable
2 x Omega brackets
1 x High density foam shell in cardboard box

3. INFORMATION ON WATERPROOF LUMINAIRE

The tarm RISE luminaire is an IP66 rated, waterproof device. It is protected against dust and water ingress. Thus any maintenance or service work that incorporates the opening of the device requires additional procedures to ensure the waterproofness after the maintenance or service work. Please see the maintenance procedures further down this manual.

Even though this device can endure ingress of dust (6) and powerful water jets from any direction (6) (-> IP66), it is not submersible and not suitable for underwater operation.

Maritime/Coastal Environment Installations:

Coastal environments, located near the sea, expose electronics to atomized saltwater and high humidity, posing a significant corrosive risk. Maritime settings include areas within a 5-mile radius of these coastal environments.

Due to these challenging conditions, maritime installations require additional precautions and more frequent servicing. It's important to note that IP ratings are initially based on fresh-water conditions, whereas maritime environments are generally more corrosive to IP fixtures, both internally and externally. During periods of high humidity and low temperatures, periodic operation may be necessary to expel accumulated moisture through the vent valve. Recommendations may vary depending on specific installation circumstances.

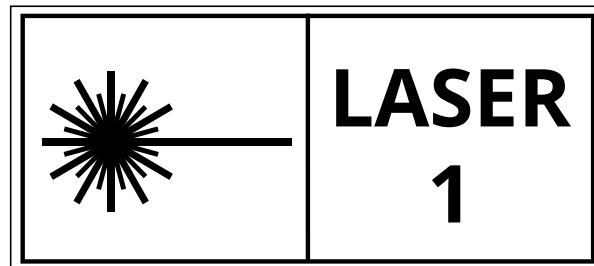
4. SAFETY INSTRUCTIONS - GENERAL SAFETY

This fixture is an advanced piece of electronic equipment. To ensure optimal performance, it's crucial to adhere to all instructions and guidelines provided in this manual.

The tarm AG cannot be held liable for any injuries or damages resulting from misuse or neglect of the information provided. Installation should only be carried out by **qualified or certified personnel**, using exclusively the **original rigging parts** (omega brackets) included

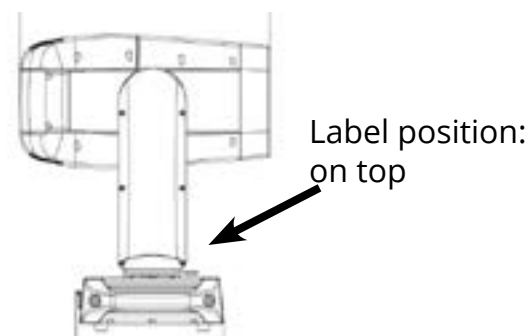
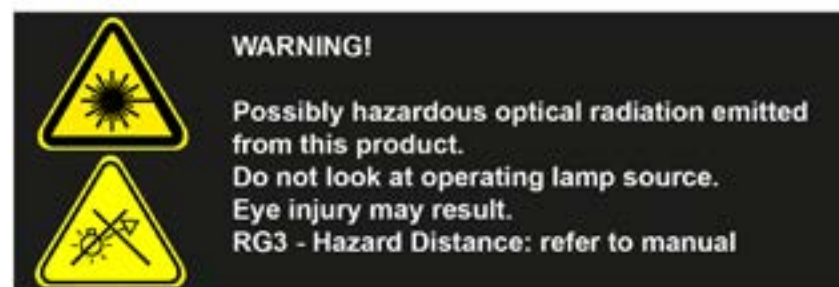
with the fixture. Any alterations to the fixture or its mounting hardware will void the manufacturer's warranty and **elevate the risk of damage or personal injury**. All local requirements for safe rigging and mounting of lighting fixtures must be observed.

This device contains a **laser-based light source** that is considered a substitution of a conventional light source according to IEC / EN 60825-1:2022 chapter 4.4. Therefore this luminaire is classified as **Laser Class 1**, and assigned to Risk Group 3 according to IEC / EN 62471:2006, modified.



- A **Class 1 Laser** is considered **safe** according to IEC / EN 60825-1:2022 chapter C.2.1.
- Risk Group 3 (high risk): This luminaire is classified as a Risk Group 3 product according to IEC / EN 62471:2006, modified. That means, that the high intensity of the output can potentially cause various hazards to people and objects. Certain minimum distances must be respected
 - to people: 34m for wide focus use, 60m for close focus use on the RISE 350, 70 m for close focus use on the RISE 500.
 - to objects: minimum 1m to heat insensitive / non flammable and non-reflective materials, 35m (RISE 350) and 40m (RISE 500) to easily flammable materials or reflective materials.
- Caution - use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

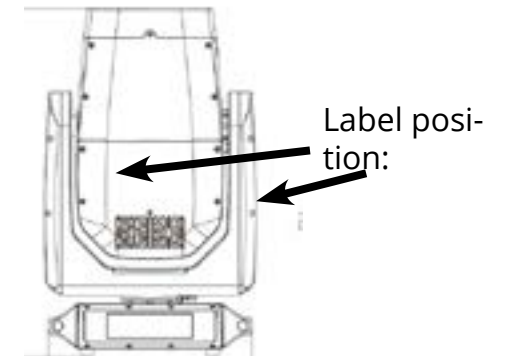
Risk Group 3 label:



Caution: If the luminaire is operated with the housing of the device opened, laser radiation of Laser Class 4 can be emitted. **Only qualified and trained personnel to open and service the device! Never open the device while in use!**

Non-interlocked housing label:

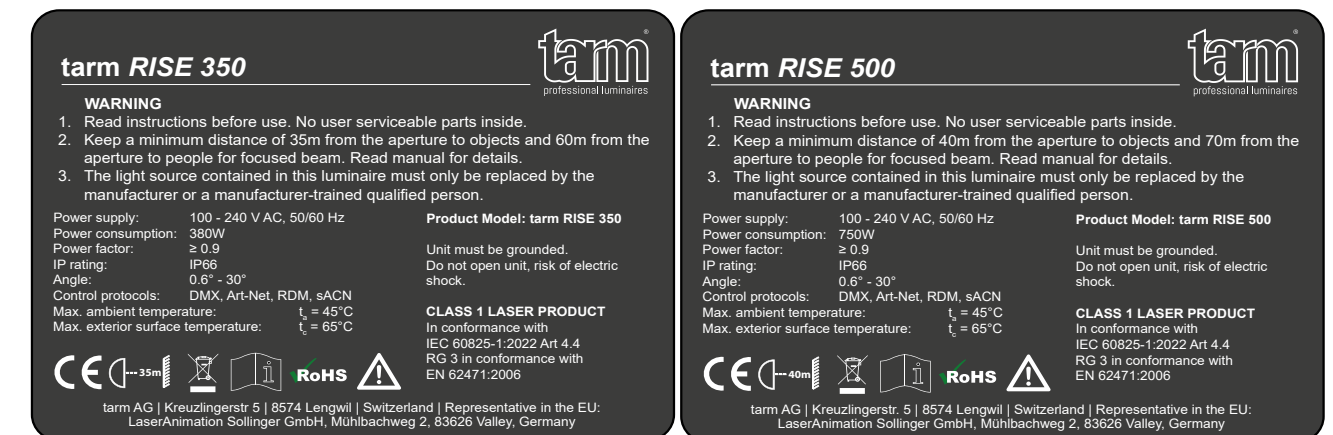
DANGER
CLASS 4 LASER LIGHT WHEN OPEN, AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED LIGHT

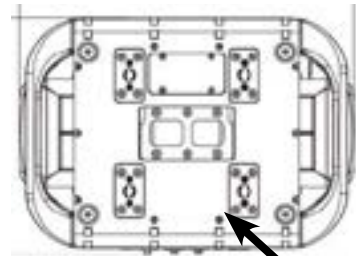


- **There are no user serviceable parts inside this luminaire.** Do not attempt any repairs yourself. Damages resulting from modification to this luminaire void the manufacturer's warranty. Disregarding safety instructions in this manual also void the manufacturer's warranty and are not subject to any warranty claims and / or repairs.
- **Do not plug device to a dimmer!**
- **Keep flammable materials away** from the fixture.
- **Never obstruct the ventilation** / cooling system of the device - it may cause damage or destruction and can cause additional hazards. Obstructing the ventilation of the device voids any warranty.
- **Never look directly into the light source** (see minimum distance to people specified above). Risk of retina injuries, temporary or even permanent blindness.
- Sensitive persons may suffer **epileptic shock!**

All unused connectors and caps must be sealed with appropriate dielectric grease to prevent corrosion of connectors.

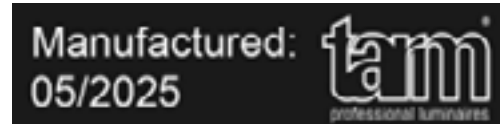
Product label:



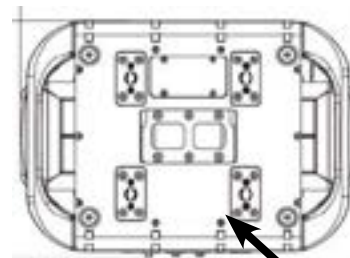


Label position:
bottom of device

Manufacturing date label (sample):



Serial number label (sample):



Label position:
bottom of device



This device has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

5. SAFETY LIMIT SETTING

The tarm RISE is equipped with a option that allows for limiting the PAN and TILT movement. This setting can be used to avoid the beam hitting certain areas. It is accessible through the menu at the device : OPTIONS -> PAN/TILT SETTING -> SAFETY LIMITS

6. SAFETY INSTRUCTIONS - HANDLING THE FIXTURE

- Handle the **power cord** by the **plug end only**; never pull the plug out by tugging on the wire.
- Do not touch the fixture housing during operation. Turn off the power and allow approximately 15 minutes for the **fixture to cool down before servicing**.
- Avoid shaking the fixture and **do not use brute force during installation** or operation.
- **Do not operate** the fixture if the **power cord is frayed, crimped, damaged**, or if any of the **connectors are compromised** and cannot be securely and easily inserted into the fixture.
- **Never force a power cord connector into the fixture**. If the power cord or any of its connectors are damaged, replace them immediately with a new cord of similar power rating.
- **Do not block any air ventilation slots**. Ensure that all fan and air inlets remain clean and unobstructed.
- Maintain approximately 25 cm of space between the fixture and other devices or walls for proper cooling, and a minimum of 50 cm around fans and air vents.
- When installing the fixture in a suspended environment, always use mounting hardware no less than M10x25mm, and **secure the fixture with an appropriately rated safety cable**.
- Consistent operational breaks will help ensure the fixture functions properly for many years.
- Use only the **original packaging and materials when transporting** the fixture for service.
- **Never exceed** the specified **minimum and maximum operating temperatures** specified in the technical data. This may lead to damage or total break of the device and can furthermore lead to secondary hazards (fire, short circuit, etc.). Operating the device beyond the specified operating temperature range voids the manufacturer's warranty.
- **Do not install a fuse** that has a **higher rating** than the one originally installed in the product.
- **Do not bypass fuses**.
- **Do not stick filters, masks or other materials** onto optical components.
- **Do not point** the front of the fixture **towards the sun** or other strong light sources. The front lens focuses and concentrates light just like a magnifying glass. Strong light can cause internal damage to the fixture, melting components or starting an internal fire within seconds.
- Avoid pointing other high powered beam lights directly at the fixture.
- **Do not focus** a light beam from **one lighting fixture directly towards another**.
- **For outdoor applications during daylight, make sure that the front face of any fixture is shielded** or points away from the sun, even when not in use.

- Do not expose the product to heat (from other lighting fixtures for example).

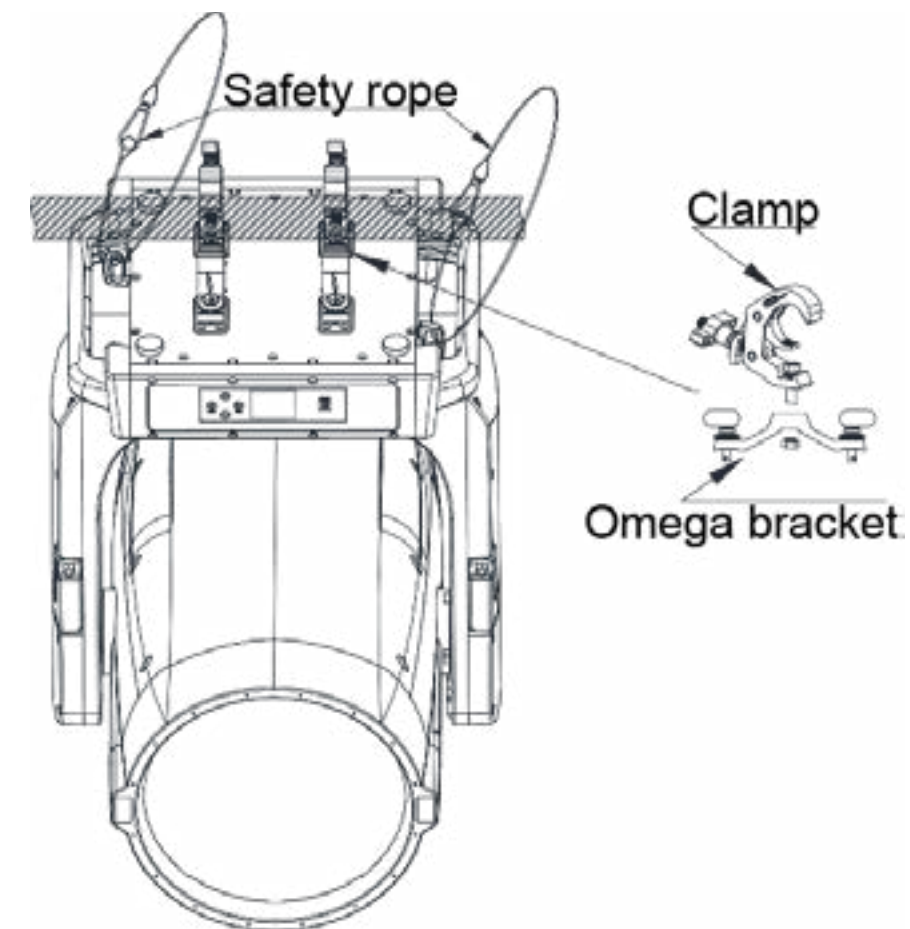
7. TRANSPORTATION

- Only transport the device **using the flightcase included** in delivery or comparable.
- Only transport it with the **locks for Pan and Tilt movement applied**.
- Only transport the device with the **base to the bottom as per the flightcase**.
- **Avoid upside-down transportation** to prevent shock damage.
- **Avoid tipping the flightcase** containing the device during transport and handling.

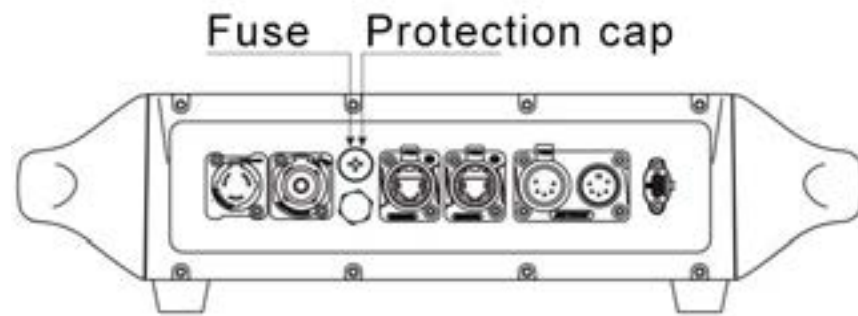
8. INSTALLATION

8.1. Rigging

- Always **install a safety rope** in case of overhead use of the device. Follow local requirements regarding durability, length and design of the rope / steel cable.
- Secure the fixture with a safety rope through the rear safety eye and truss as shown.
- Ensure that the structure (truss) to which you are attaching the fixture is secure and is dimensioned to handle dynamic fixtures.



8.2. Replacing the fuse



1. Remove the protection cap with a screwdriver.
2. Remove the old fuse from the cap
3. Install the new fuse.
4. Put the protection cap with the fuse back in place and make sure it is properly locked in place and tight. Do not overtighten.

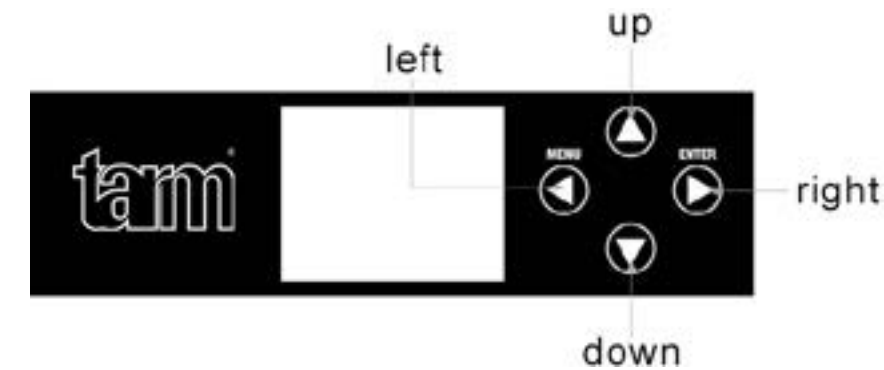
8.3. Power connection

This product has an auto-ranging power supply that can work with an input voltage range of 100V - 240V AC, 50/60 Hz.
Never connect this product to a dimmer!

You may use the PowerCon TRU1 outlet for power connection of further tarm RISE fixtures. Depending on mains voltage, the maximum quantity of connected fixtures shall not exceed 4 devices (for 230V AC operating) and max 2 devices (for 100V AC operating).
If other devices are connected to the PowerCon TRU1 outlet, make sure to not exceed the total power consumption rating of the main fuse, but maximum 16A. Make sure to take a higher startup current draw of some fixtures into consideration.

9. SETTINGS

9.1. Display Control



5. **LEFT** (Menu) - Use to access the menu or to return a previous menu option
6. **RIGHT** (Enter) - Use to select and store the current selection or confirm the current function value or option
7. **UP** - Navigates upwards through the menu list and increases the numeric value in certain submenu options
8. **DOWN** - Navigates downwards through the menu list and decreases the numeric value in certain submenu options

Note:

The tarm RISE Moving Head is equipped with an internal battery that allows menu operation (e.g. setting the DMX address) without mains power.

During battery operation, the display may show the message "LASER: error". This message is system-related and indicates a missing temperature signal, as the laser source is deactivated in this mode.

During normal operation, the display shows the temperature of the laser source.

If the display is locked, unlock as follows:

1. Press and hold Enter for about 5 seconds, until the display shows „password“.
2. Standard password:
up - down - up - down
then press enter to unlock

9.2. Menu Layout

ADDRESS	001 - 512		Set the DMX address of the fixture
PERSON	BASIC		26 DMX channel operation
	STANDARD		33 DMX channel operation
	EXTEND		38 DMX channel operation
RUNMODE	DMX512		Operation mode set to DMX 512
	ARTNET		Operation mode set to Art-Net
	ARTNET TO DMX		Operation mode set to Art-Net, but outputting DMX from the DMX port ("node" functionality)
	sACN		Operation mode set to streaming-ACN
	AUTO		Automatic operation mode
	CUSTOM1		Custom operation mode 1
	CUSTOM2		Custom operation mode 2
OPTION	PAN INVERT	NORMAL	Horizontal movement normal
		INVERT	Horizontal movement inverted
	TILT INVERT	NORMAL	Vertical movement normal
		INVERT	Vertical movement inverted
	PAN DEGREE	630°	Horizontal movement range
		540°	
	BLACKOUT	OFF	Blackout with delay
		ON	Blackout without delay
	PERFORM	STUDIO	Stealth mode: Slow head movement speed, about 30% of the maximum fan speed. The motors can be slowed down. The noise level is controlled to stay below 40 dB
		POWER	Fast head movement possible, maximum fan speed is used most of the time. Noise level around 55 dB
		LIVE	Automatic speed adjustment, intelligent adjustment of fan speed. Noise level usually around 50 dB
	SUN PROTECTION	ON	Enable automatic sun protection
		OFF	Disable automatic sund protection
	SAFETY CONTROL	STAGE MODE	Safety limits optimized for stage operation
		SKY MODE	Safety limits optimized for sky tracking operation
	DIMMER SPEED	HALOGEN	Dimmer response similar to halogen lamps
		LED	Fast LED dimmer response
	DIMMER CURVE	LINEAR	Linear dimmer curve
		SQUARE LAW	Square law dimmer curve
		INV. SQUARE LAW	Inverse square law dimmer curve
		S-CURVE	Smooth S-curve dimmer response
	PWM	1200Hz	default
		2400Hz	
		4000Hz	
		6000Hz	
		25000Hz	
	NO DMX MODE	FREEZE	Hold last control in case of DMX signal loss
		BLACKOUT	Blackout in case of DMX signal loss
	DISPLAY TIME	On	Display permanently on
		30s	Dark display after 30s (default)
		1min	Dark display after 1min
		2min	Dark display after 2min
	DISPLAY LOCK	OFF	No display lock
		ON	Lock display with password, button combination password required for unlocking
	LOAD PARA	OFF	No parameter upload
		ON	Upload parameters
	SETTING	RECOVERY	Restore factory settings, Enter the correct password
		CLEAN EDIT1	Clear edit scenario 1,Enter the correct password
		CLEAN EDIT2	Clear edit scenario 2 Enter the correct password
	NETWORK	NET SWITCH	2.xxx.xxx.xxx/10.xxx.xxx.xxx
		UNIVERS	0-255
		IP MODE	DEFAULT IP
			Default IP mode (assigned IP according to standard)
			CUSTOM IP
			Custom IP setting mode
			CUSTOM IP
			Custom IP setting
	PT ENCODER	OFF	
		ON	Switch XY encoder
			PAN
			TILT
			PT SPEED
			PAN ROTA
			CMY_C

EDIT	EDIT 1-2	STEP 1-30	CMY_M	0-255	Allows for editing the Custom 1 and Custom 2 settings (basic stand alone scene)
			CMY_Y	0-255	
			CTO	0-255	
			COLOR	0-255	
			ROTA.GOBO	0-255	
			GOBO.ROTA	0-255	
			FIXED GOBO	0-255	
			ANIMATION.D	0-255	
			ANIMATION.R	0-255	
			P/F 1 INDEX	0-255	
			P/F 1 ROTA	0-255	
			P/F 2 INDEX	0-255	
			P/F 2 ROTA	0-255	
			ZOOM	0-255	
			FOCUS	0-255	
DIMMER	0-255				
STROBE	0-25				
TIME	0-255				
USE	YES/NO				
MANUAL	AUTO TEST			Auto test	
	CHANNEL	PAN	0-255	Manual control, Channel test	
		TILT	0-255		
		PT SPEED	0-255		
		PAN ROTA	0-255		
		CMY_C	0-255		
		CMY_M	0-255		
		CMY_Y	0-255		
		CTO	0-255		
		COLOR	0-255		
		ROTA.GOBO	0-255		
		GOBO.ROTA	0-255		
		FIXED GOBO	0-255		
		ANIMATION.D	0-255		
		ANIMATION.R	0-255		
		P/F 1 INDEX	0-255		
		P/F 1 ROTA	0-255		
		P/F 2 INDEX	0-255		
		P/F 2 ROTA	0-255		
	ZOOM	0-255			
	FOCUS	0-255			
	DIMMER	0-255			
	STROBE	0-255			
	DEBUG HIDE	YES	Factory debugging mode		
		NO			
	RESET	ALL RESET	Reset all settings		
		PT RESET	Reset Pan/Tilt		
COLOR SYS		Reset all color system components: CMY and color wheel			
GOBO SYS		Reset all gobo system components: fixed gobo, rotating gobo			
	OTHER	Resets all other features			
INFO	FIXTURE HOURS		Operating hours		
	LED USE HOURS		Light engine operating hours		
	SENSOR		Light engine temperature		
	VERSION		Software version		
	NETWORK		Network parameters		
	RDM	UID	0x388Axxxxxxx	Fixture ID	
		LABEL		Fixture name	
	SYSTEM ERROR	MEMORY IC		Memory IC	
		ANGLESENSOR		Angle sensor	
		PAN SENSOR		X magnet	
		PAN ENCODER		X encoder	
		PAN DRIVEIC		X driver IC	
		TILT SENSOR		Y magnet	
		TILT ENCODER		Y encoder	
		TILT DRIVEIC		Y driver IC	
		TEMPERATURE		Temperature control IC	
		CMY_C RESET		Reset cyan color mixing system	
		CMY_M RESET		Reset magenta color mixing system	
		CMY_Y RESET		Reset yellow color mixing system	
		CTO RESET		Reset CTO system	
COLOR RESET		Reset color			
GOBO RESET		Reset gobo system			
R GOBO RESET		Reset rotating gobo			
F GOBO RESET		Reset fixed gobo			

		ANIMATION RESET		Reset animation system
		P/F 1 RESET		Reset prism/frost 1 system
		P/F 2 RESET		Reset prism/frost 2 system
		ZOOM RESET		Zoom reset
		FOCUS RESET		Focus reset
SERVICE	****	PAN	±127	Adjust pan calibration
		TILT	±127	Adjust tilt calibration
		CMY-C	±127	Adjust cyan calibration
		CMY-M	±127	Adjust magenta calibration
		CMY-Y	±127	Adjust yellow calibration
		CTO	±127	Adjust CTO calibration
		COLOR	±127	Adjust color wheel calibration
		ROTA. GOBO	±127	Adjust rotating gobo calibration
		GOBO.ROTA	±127	Adjust gobo rotation calibration
		FIXED GOBO	±127	Adjust fixed gobo calibration
		ANIMATION	±127	Adjust animation calibration
		P/F 1 INDEX	±127	Adjust p/f 1 index calibration
		P/F 1 ROTA	±127	Adjust p/f 1 rotation calibration
		P/F 1 ROTA 2	±127	Adjust p/f 1 secondary rotation calibration
		P/F 2 INDEX	±127	Adjust p/f 2 index calibration
		P/F 2 ROTA	±127	Adjust p/f 2 rotation calibration
		ZOOM	±127	Adjust zoom calibration
		FOCUS	±127	Adjust focus calibration
		FOCUS GOBOS	±127	Adjust gobo focus calibration
				FOCUS sGOBOS
UPDATE SOFTWARE				Allows for firmware updates. Instructions for firmware updates are provided together with the appropriate update files.

10. DMX-CHART - CONTROLS

This is the DMX chart, highlighting the different DMX modes (corresponding to the PERSON settings in the menu):

BASIC (26CH)	STANDARD (33CH)	EXTENDED (38CH)	Value	Function
1	1	1	0-255	Pan 0 - 540°
-	2	2	0-255	Pan fine
2	3	3	0-255	Tilt 0 - 270°
-	4	4	0-255	Tilt fine
3	5	5	0-255	Pan-Tilt speed
4	6	6	PAN Motor continuous rotation	
			0-063	
			64-127	
			128-189	
			190-193	
			194-255	
5	7	7	0-255	Cyan
-	-	8	0-255	Cyan fine
6	8	9	0-255	Magenta
-	-	10	0-255	Magenta fine
7	9	11	0-255	Yellow
-	-	12	0-255	Yellow fine
8	10	13	0-255	CTO
-	-	14	0-255	CTO fine
9	11	15	COLOR MACRO (CMY mixture)	
			0-19	Inactive / Open
			20-21	3000K
			22-23	3200K
			24-25	3500K
			26-27	4000K
			28-29	4500K
			30-31	5000K
			32-33	5400K
			34-35	5600K
			36-37	6000K
			38-39	6500K
			40-41	7000K
			42-43	L106
			44-45	L194
			46-47	L019
			48-49	R08
			50-51	L213
			52-53	R80
			54-55	L202
			56-57	L328
			58-59	R3314
			60-61	L101
			62-63	L768
			64-255	Macro effect R->G->B->R
10	12	16	0-255	CMY speed (Speed 100% -> 1%)
11	13	17	COLOR WHEEL 19+1	
			0-7	White / Open
			8-10	1. M Red
			11-13	2. R Blue
			14-16	3. Yellow
			17-19	4. Magenta
			20-22	5. L Blue
			23-25	6. L Lavender
			26-28	7. CTO 6500K
			29-31	8. CTO 5600K
			32-34	9. CTO 7800K
			35-37	10. M Green
			38-40	11. Pink
			41-43	12. D Orange
			44-46	13. L Orange
			47-49	14. L Green

BASIC (26CH)	STANDARD (33CH)	EXTENDED (38CH)	Value	Function
20	23	28	0-10	Open
			11-145	Prism insert and angle adjustment (0 -> 360°) clockwise
			146-150	Stop
			151-200	Prism insert and clockwise (speed 100% -> 1%)
			201-205	Stop rotation
			206-255	Prism insert and counter-clockwise rotation (speed 1% -> 100%)
21	24	29	0-255	Zoom
-	25	30	0-255	Zoom fine
22	26	31	0-255	Focus
-	27	32	0-255	Focus fine
23	28	33	AUTO FOCUS	
			0-12	Inactive / No strobe
			13-39	5 Meter
			40-66	7 Meter
			67-93	9 Meter
			94-255	Inactive
-	29	34	0-255	Auto focus fine
24	30	35	0-255	Dimmer
-	31	36	0-255	Dimmer fine
25	32	37	STROBE	
			0-9	Inactive / No strobe
			10-99	Strobe, increasing speed from slow to fast
			100-109	Inactive
			110-179	Lightning Strobe
			180-189	Inactive
			190-255	Random Strobe
26	33	38	CONTROL (commands effective after 3 seconds)	
			0-10	Inactive
			11-15	Pan/Tilt Black activated
			16-20	Pan/Tilt Black deactivated
			21-25	Pan invert
			26-30	Tilt invert
			31-35	Pan/Tilt invert off
			36-40	Pan degree 630
			41-45	Pan degree 540
			46-50	Sun protection on
			51-55	Sun protection off
			56-100	Reserved
			101-105	Studio mode
			106-110	Power mode
			111-115	Live mode
			116-130	Reserved
			131-135	Dimmer behavior: Halogen - executes after 3 seconds
			136-140	Dimmer behavior: LED - executes after 3 seconds
			141-145	Dimmer curve: Linear - executes after 3 seconds
			146-150	Dimmer curve: Square law - executes after 3 seconds
			151-155	Dimmer curve: Invert square law - executes after 3 seconds
			156-160	Dimmer curve: S-curve - executes after 3 seconds
			161-165	PWM 1200Hz
			166-170	PWM 2400Hz
			171-175	PWM 4000Hz
			176-180	PWM 6000Hz
			181-185	PWM 25000Hz

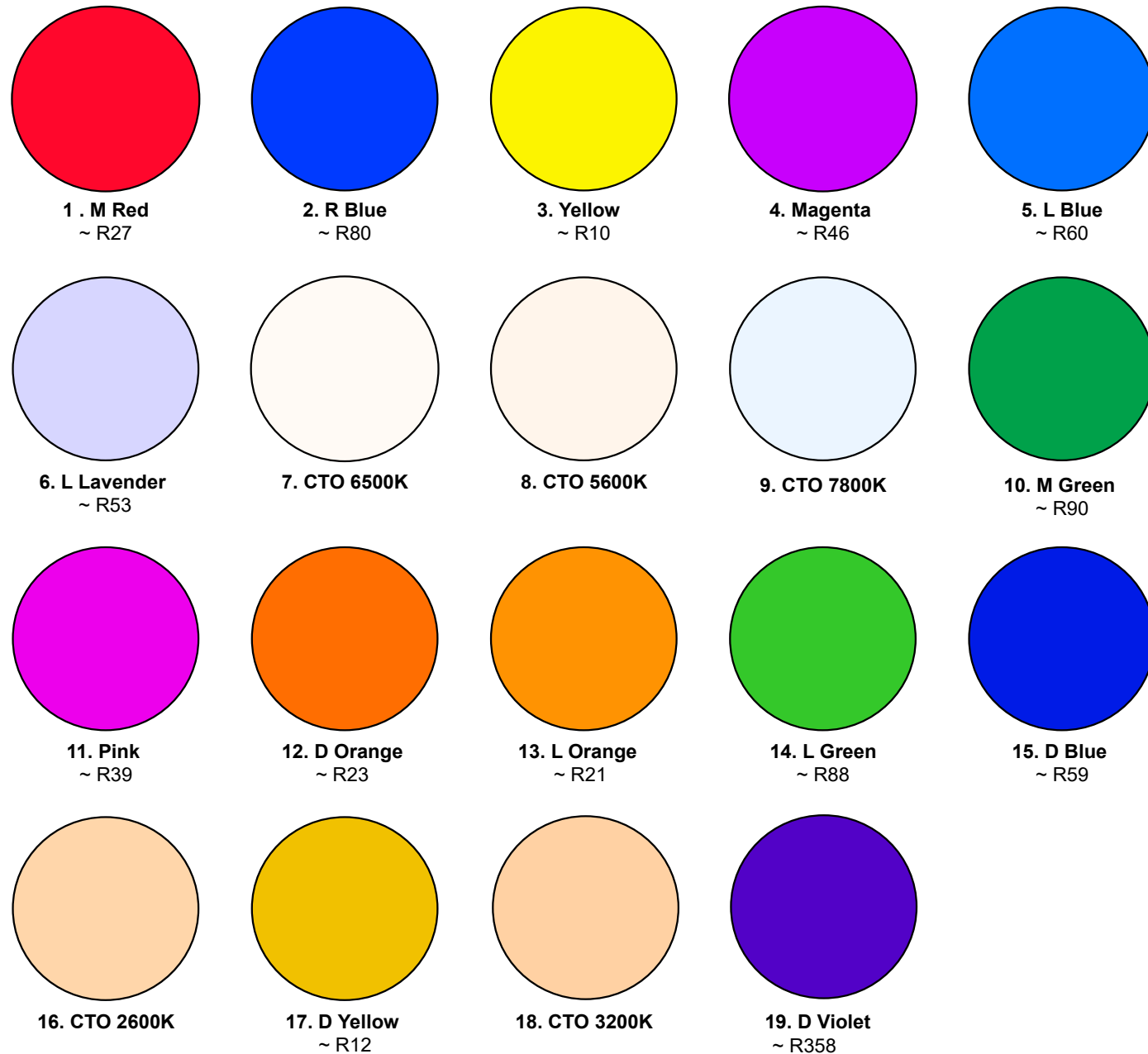
BASIC (26CH)	STANDARD (33CH)	EXTENDED (38CH)	Value	Function
12	14	19	50-52	15. D Blue
			53-55	16. CTO 2600K
			56-58	17. D Yellow
			59-61	18. CTO 3200K
			62-64	19. D Violet
			65-191	Color wheel rotation 0 - 360° (clockwise)
			192-222	Color wheel rainbow effect (speed 100% -> 1%) clockwise
			223-224	Stop
			225-255	Color wheel rainbow effect (speed 1% -> 100%) counter-clockwise
			0-255	Color wheel fine
			ROTATING GOBO 12+1	
			0-10	White / Open
13	15	20	11-14	Rotating GOBO 1 - Horizon
			15-18	Rotating GOBO 2 - Split
			19-22	Rotating GOBO 3 - Reactor
			23-26	Rotating GOBO 4 - Radial
			27-30	Rotating GOBO 5 - Spoke
			31-34	Rotating GOBO 6 - Cluster
			35-38	Rotating GOBO 7 - Stagger
			39-42	Rotating GOBO 8 - Delta
			43-46	Rotating GOBO 9 - Axis
			47-50	Rotating GOBO 10 - Pin
			51-54	Rotating GOBO 11 - Flow
			55-58	Rotating GOBO 12 - Quad
13	16	21	59-63	Rotating GOBO 1 shake (speed 1% -> 100%)
			64-68	Rotating GOBO 2 shake (speed 1% -> 100%)
			69-73	Rotating GOBO 3 shake (speed 1% -> 100%)
			74-78	Rotating GOBO 4 shake (speed 1% -> 100%)
			79-83	Rotating GOBO 5 shake (speed 1% -> 100%)
			84-88	Rotating GOBO 6 shake (speed 1% -> 100%)
			89-93	Rotating GOBO 7 shake (speed 1% -> 100%)
			94-98	Rotating GOBO 8 shake (speed 1% -> 100%)
			99-103	Rotating GOBO 9 shake (speed 1% -> 100%)
			104-108	Rotating GOBO 10 shake (speed 1% -> 100%)
			109-113	Rotating GOBO 11 shake (speed 1% -> 100%)
			114-118	Rotating GOBO 12 shake (speed 1% -> 100%)
13	16	21	119-127	White / Open
			128-190	Rotating GOBO flowing water effect (speed 100% -> 1%) clockwise
			191-192	Stop rotation
			193-255	Rotating GOBO flowing water effect (speed 1% -> 100%) counter-clockwise
			GOBO ROTATION	
			0-120	Rotating GOBO angle (0° -> 360°)
			121-125	Stop
			126-165	Rotating GOBO shake (speed 1% -> 100%)
			166-170	Stop
			171-210	Rotating GOBO clockwise rotation (speed 100% -> 1%)
			211-215	Stop
			216-255	Rotating GOBO counter-clockwise rotation (speed 1% -> 100%)
13	16	21	0-255	GOBO rotation fine
			FIXED GOBO WHEEL 19+1	
			0-10	White / Open
			11-13	Fixed GOBO 1 - Small
			14-16	Fixed GOBO 2 - Standard
			17-19	Fixed GOBO 3 - Medium
			20-22	Fixed GOBO 4 - Large
			23-25	Fixed GOBO 5 - Extra Large
			26-28	Fixed GOBO 6 - Wide
			29-31	Fixed GOBO 7 - Curved Triple
			32-34	Fixed GOBO 8 - C-Shape
			35-37	Fixed GOBO 9 - Twin Capsule
			38-40	Fixed GOBO 10 - Horizontal Line

BASIC (26CH)	STANDARD (33CH)	EXTENDED (38CH)	Value	Function
14	17	22	41-43	Fixed GOBO 11 - Cross
			44-46	Fixed GOBO 12 - Dot Square
			47-49	Fixed GOBO 13 - Dot Matrix
			50-52	Fixed GOBO 14 - Tri-Oval
			53-55	Fixed GOBO 15 - Quad Cell
			56-58	Fixed GOBO 16 - Tri-Polygon
			59-61	Fixed GOBO 17 - Tri-Blade
			62-64	Fixed GOBO 18 - Triple Dot
			65-67	Fixed GOBO 19 - Wave
			68-70	Fixed GOBO 1 shake (speed 1% -> 100%)
			71-73	Fixed GOBO 2 shake (speed 1% -> 100%)
			74-76	Fixed GOBO 3 shake (speed 1% -> 100%)
			77-79	Fixed GOBO 4 shake (speed 1% -> 100%)
			80-82	Fixed GOBO 5 shake (speed 1% -> 100%)
			83-85	Fixed GOBO 6 shake (speed 1% -> 100%)
			86-88	Fixed GOBO 7 shake (speed 1% -> 100%)
			89-91	Fixed GOBO 8 shake (speed 1% -> 100%)
			92-94	Fixed GOBO 9 shake (speed 1% -> 100%)
			95-97	Fixed GOBO 10 shake (speed 1% -> 100%)
			98-100	Fixed GOBO 11 shake (speed 1% -> 100%)
			101-103	Fixed GOBO 12 shake (speed 1% -> 100%)
			104-106	Fixed GOBO 13 shake (speed 1% -> 100%)
			107-109	Fixed GOBO 14 shake (speed 1% -> 100%)
			110-112	Fixed GOBO 15 shake (speed 1% -> 100%)
			113-115	Fixed GOBO 16 shake (speed 1% -> 100%)
			116-118	Fixed GOBO 17 shake (speed 1% -> 100%)
			119-121	Fixed GOBO 18 shake (speed 1% -> 100%)
			122-124	Fixed GOBO 19 shake (speed 1% -> 100%)
			125-127	White / Open
			128-190	Static GOBO positive water effect (Speed 100% —> 1%)
			191-192	Stop water effect
			193-255	Static GOBO reverse water effect (Speed 1% —> 100%)
15	18	23	0-255	Insert effect wheel
16	19	24	ANIMATION DISC ROTATION	
			0-10	Open
			11-145	Disc rotation insert clockwise (speed 1% —> 100%)
			146-150	Stop
			151-200	Disc rotation insert counter-clockwise (speed 100% —> 1%)
			201-205	Stop rotation
17	20	25	P/F INDEX 1	
			0-10	Open
			11-50	Prism 1
			51-100	Prism 2
			101-150	Prism 3
			151-200	Prism 4
18	21	26	201-255	Frost 1
			PRISM 1 ROTATION	
			0-10	Open
			11-145	Prism insert and angle adjustment (0 -> 360°) clockwise
			146-150	Stop
			151-200	Prism insert and clockwise (speed 100% -> 1%)
19	22	27	201-205	Stop rotation
			206-255	Prism insert and counter-clockwise rotation (speed 1% -> 100%)
			P/F INDEX 2	
			0-10	Open
			11-50	Prism 5
			51-100	Prism 6
			101-150	Prism 7
			151-200	Prism 8
			201-255	Frost 2
			PRISM 2 ROTATION	

Ready-made fixture profiles / personalities can either be found in the latest libraries of your DMX controller or on www.tarm.com

11. COLORS

11.1. Color Wheel

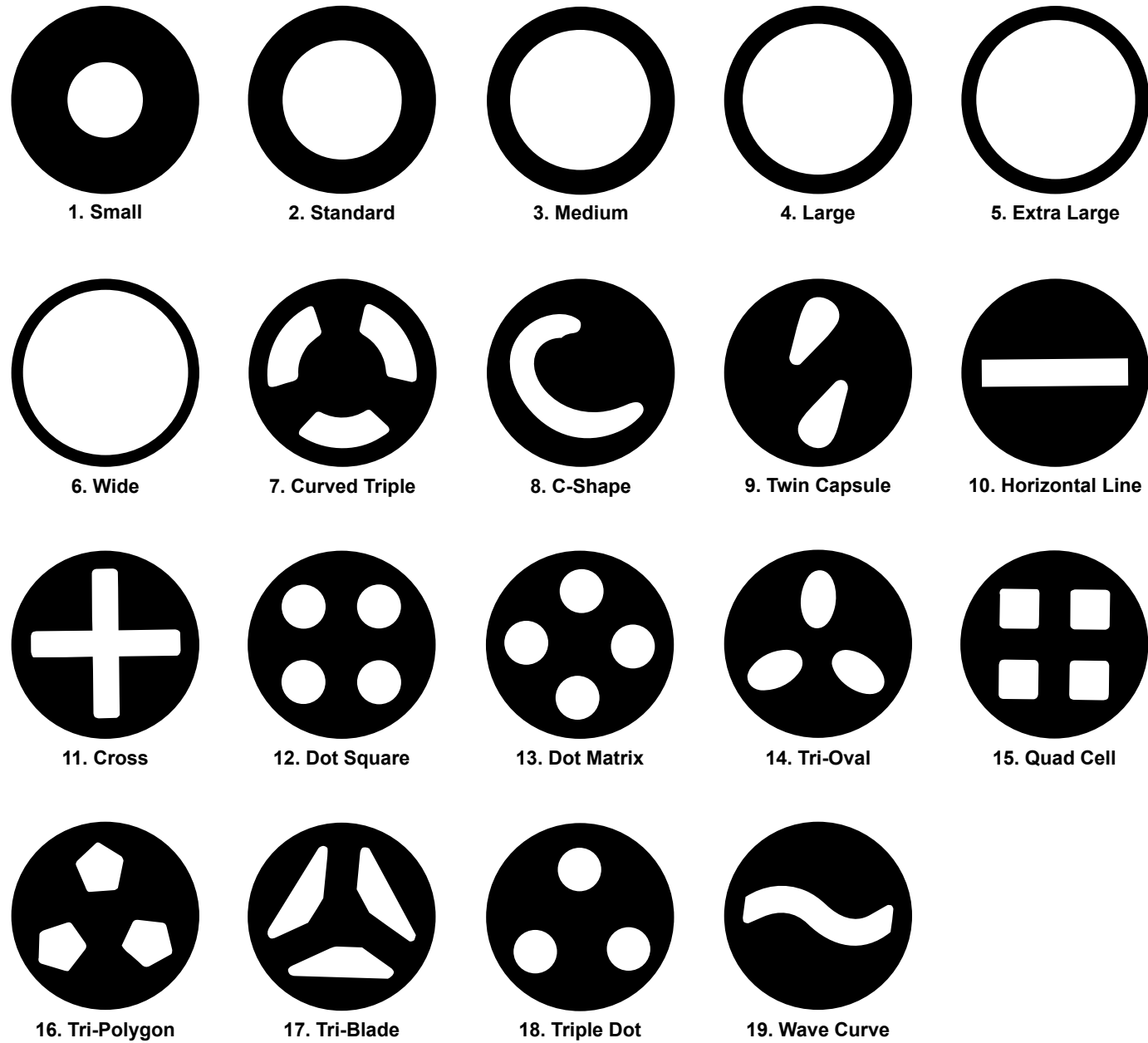


11.2. CMY Color Mixture

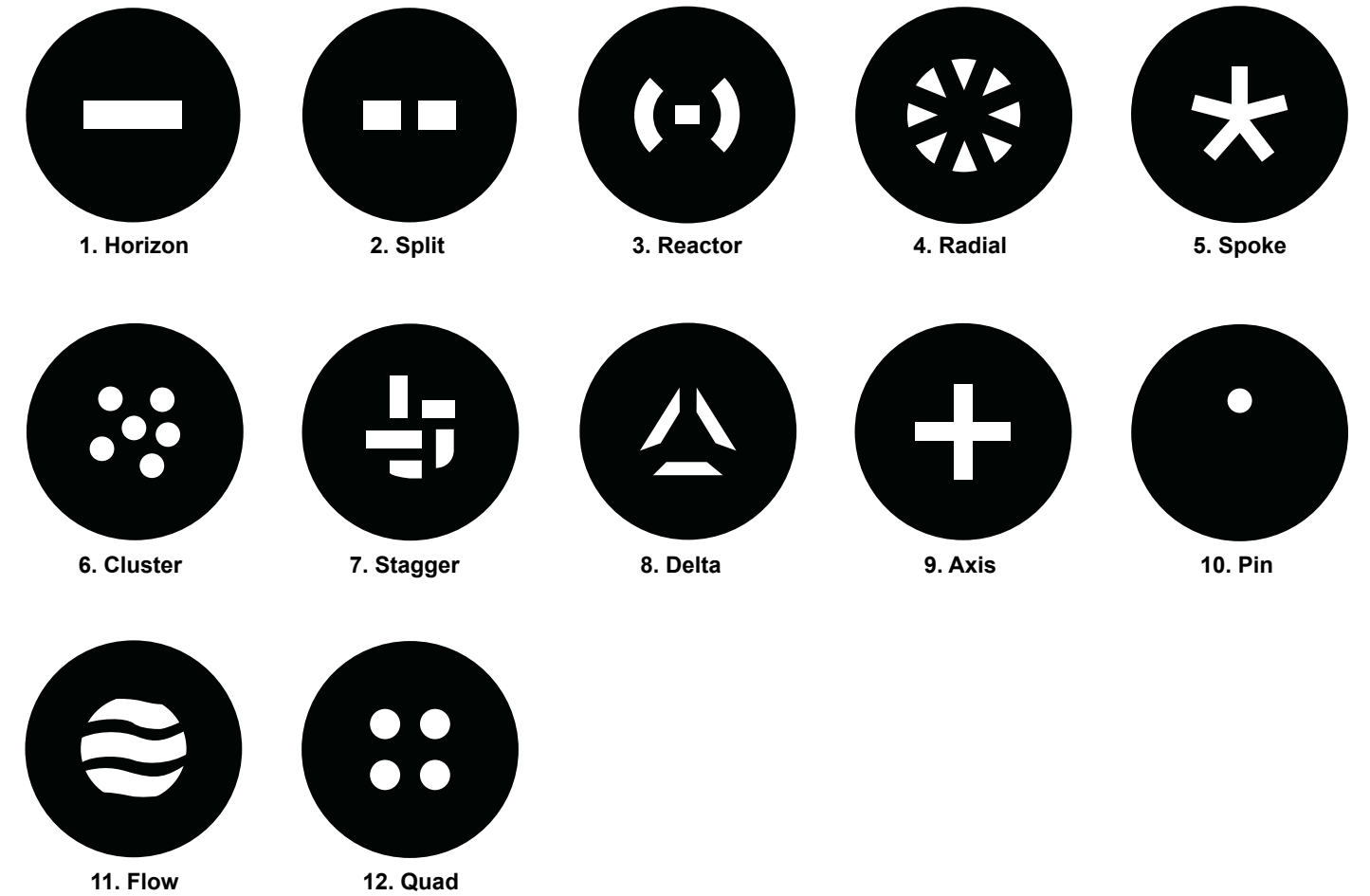
This product is equipped with a **CMY color mixture unit**. This type of color mixture allows for creating a multitude of different color tones. A **Cyan (C)**, a **Magenta (M)** and a **Yellow (Y)** wheel, each with a colored intensity gradient applied, can be used for mixing many different colors. This color mixture is available in addition to the color wheel (see above).

12. GOBOS

12.1. Static Gobos, with Gobo Shake



12.2. Rotating Gobos, Effects



13. PRISMS AND FROST

This product is equipped with **two combined prism-frost-wheels**, which are stackable, so they can be overlaid with each other.

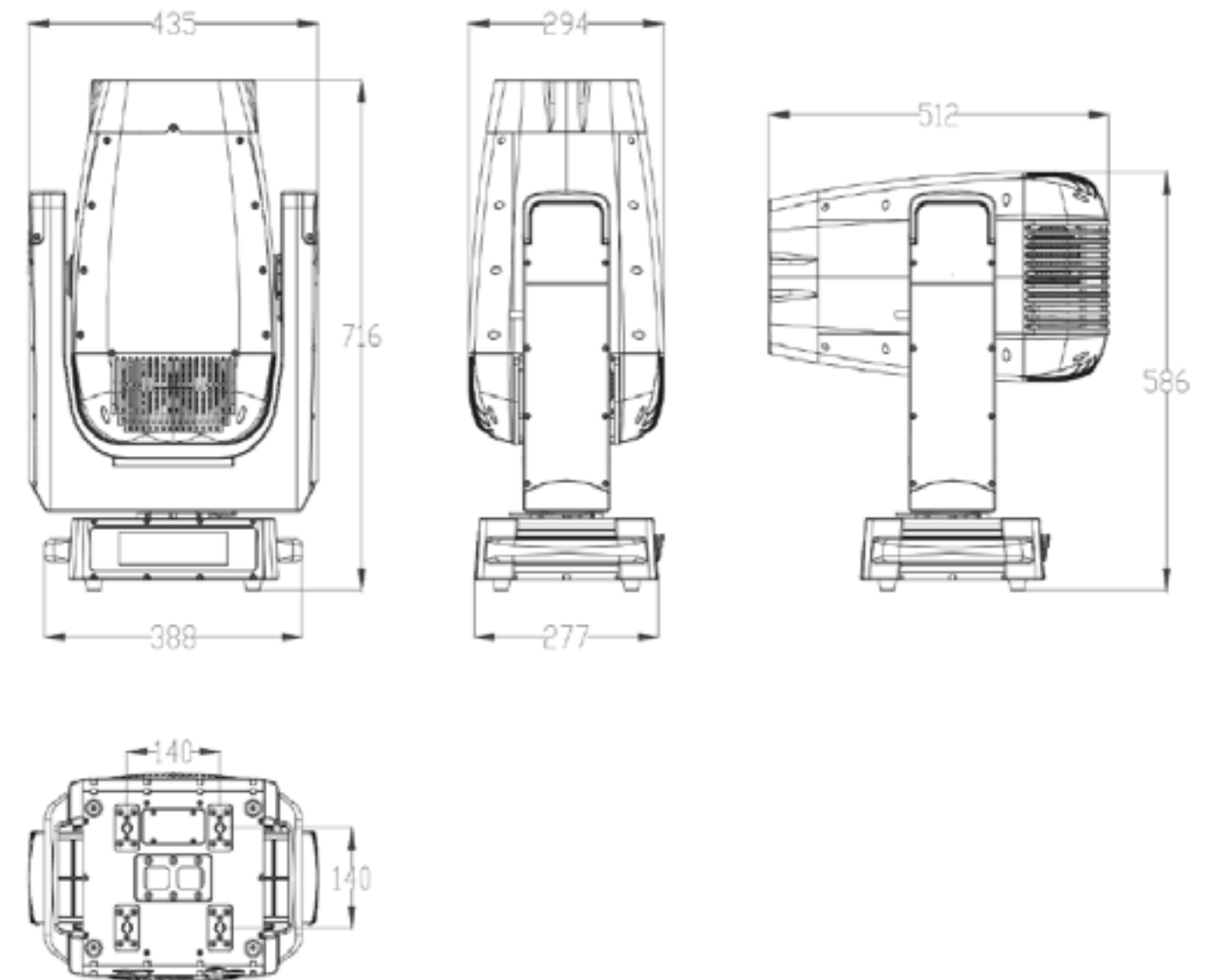
13.1. Prism wheel 1 - five prisms

- Prism 1: 5 facet radial prism
- Prism 2: 8 facet radial prism
- Prism 3: 2 facet lineal prism
- Prism 4: 4 facet lineal prism
- Prism 5: 6 facet lineal prism

13.2. Prism wheel 2 - 2 prisms, three frost filter

- Prism 6: elliptical prism
- Prism 7: quad facet prism
- Frost 3: very light frost
- Frost 2: medium frost
- Frost 3: heavy hat frost

14. DIMENSIONS



Dimensions given in millimeters.

15. TECHNICAL DATASHEET

Product: **tarm RISE 350 / RISE 500**

Optical System

Light source	350 W White Laser Engine / 500 W White Laser Engine
Lens diameter	180 mm
Angle	0.6° - 30° with wash and prism effects
CRI	69 / 70
Color temperature	9100 K
Rated life (LP70)	12'000 hrs

Feature Set

Pan / Tilt	Infinite (540° reference) / 270° (8-16 bit)
Dimmer	0 - 100%, 24bit
Static Gobo	19 gobos + open, gobo shake
Rotating Gobo	12 rotating glass gobos + effects gobos, gobo shake
Colors	Color wheel 19 colors, white, rainbow flow effect
Color mixture	CMY-mixture
Prism	two prism wheels with three radial prisms, three linear prisms, and one elliptical prism, bi-directional rotation, adjustable speed, stackable prism wheels
Frost	3 frost filter on prism wheels

Constructive Parameters

Cooling	Forced convection
Temperature range	-20°C up to +45°C
IP rating	IP66
Power supply	100 - 240 V AC 50/60Hz
Power consumption	380 W / 750 W
Connectivity	5-pin DMX in and out, 2 x RJ45 LAN, USB-C, True1-type in / through
Material	Magnalium and die-cast
Color	Black
Dimensions	435 x 294 x 716 mm
Weight	34 kg
Rigging	Power cable, 2x Omega brackets
Transportation	Delivered in high density foam shell (SIP) in cardboard box.

Control Modes

DMX512, Art-Net, RDM, sACN

16. GENERAL AND LEGAL INFORMATION

tarm AG

Kreuzlingerstrasse 5
8574 Lengwil
Switzerland

UID: CHE-422.406.186
CH-ID: CH-130-3019611-6
CEO: Martin Werner



Representative in the European Union:
LaserAnimation Sollinger GmbH
Mühlbachweg 2
83626 Valley
Germany

© tarm AG 2024 - All rights reserved. The images, specifications, information, charts, and instructions contained in this document are subject to change without notice. The tarm logo and any product names and numbers mentioned herein are trademarks of tarm AG or other companies of the Laserworld Group. Copyright protection is claimed for all forms of copyrightable material and information currently protected by statutory or judicial law, as well as any future provisions. Product names mentioned in this document may be trademarks or registered trademarks of their respective companies, which are hereby acknowledged. All brands and product names not affiliated with tarm are also acknowledged as trademarks or registered trademarks of their respective holders

The tarm AG and its affiliated companies expressly disclaim any liability for damages to property, equipment, buildings, and electrical systems, injuries to individuals, or direct or indirect economic losses that may arise from incorrect use of the product. This also includes losses or damages resulting from improper, unsafe, inadequate, or negligent assembly, installation, rigging, and operation of this product.

An updated version of this document may be available online due to product updates. Please visit www.tarm.com for the latest version.