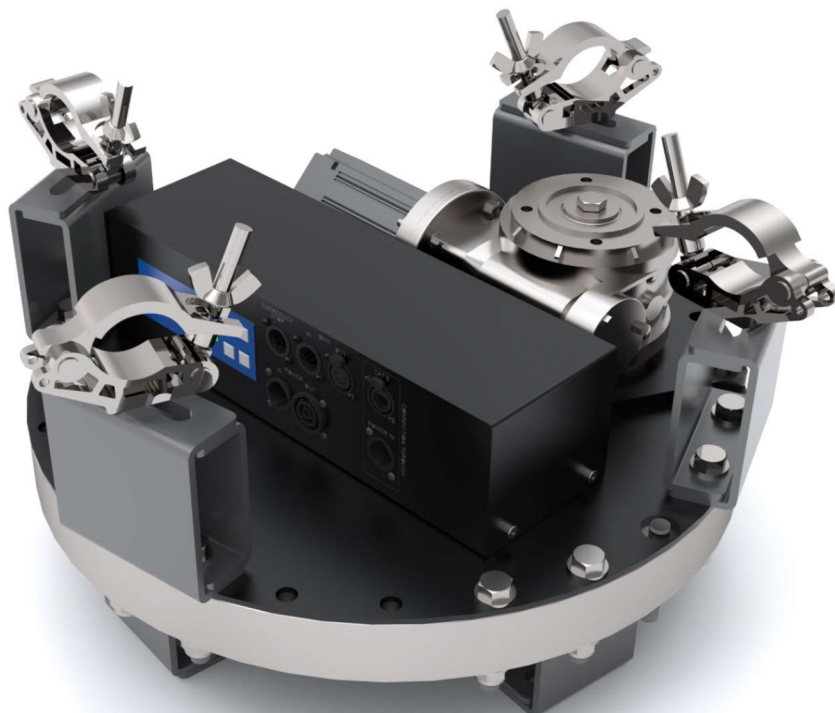


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**Télécharger  
la config. pour**



## USER MANUAL

**PROPRIÉTÉ DE SHINY PRODUCTION**

# Introduction

The Giga Rotator is for professional use, mainly for use on stage in theatres, shows, and concerts. It rotates large props, lamps, curtains, projector screens and similar on the stage sphere at maximum load of 1000 kg.

The spinning bearing can rotate 360° continuously from 0.02 RPM (7°/minute) to 3.2 RPM.

The positioning system is highly accurate and enables precise movements allowing the unit to stop at any desired angle with 0.1° precision.

The Giga Rotator is controlled through 7 DMX channels from a lighting desk, where the position and speed can be changed live or pre-programmed as wished.

Before using the product for the first time please read this manual carefully. Failure in handling can cause injury of persons and/or damage of equipment.

## Package content

- 1× Giga Rotator
- 8× Mounting clamps - Half coupler for 50mm tube.
- 8× Mounting bolt, nut, and washers (M12) for slim coupler mounting.
- 2× PowerCon TRUE1 TOP female plug (NAC3FX-W-TOP) for power and trough connection.
- 1 X PowerCon TRUE1 TOP male plug (NAC3MX-W-TOP) for trough connection.
- 1x User Manual
- 1x Cheat sheet

## Safety Information



**DANGER!**  
Safety hazard.  
Risk of severe injury or death.



**DANGER!**  
Hazardous voltage. Risk of lethal or severe electric shock.



**WARNING!**  
Fire hazard.



**WARNING!**  
Burn hazard. Hot surface. Do not touch.

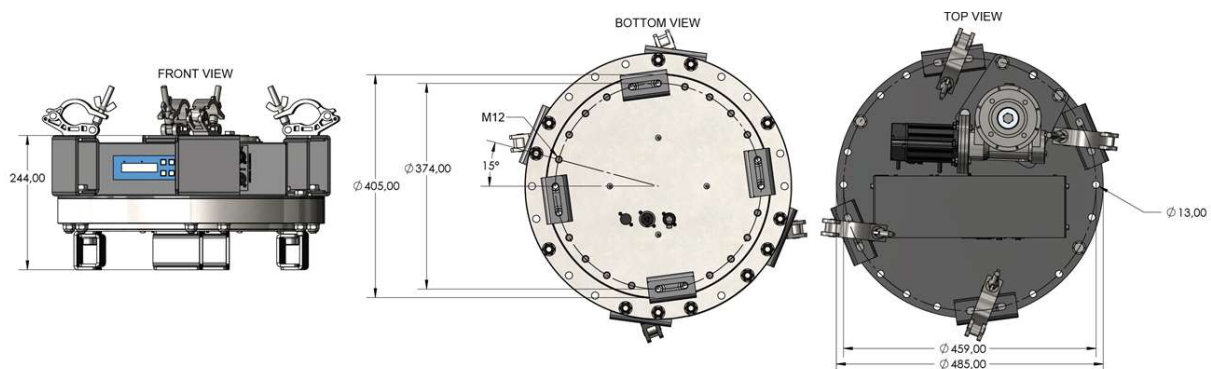


**WARNING!** Refer to user manual.

This product is for professional use only. Please, follow the guidelines of this manual and keep out of range of any non-professional. For further questions regarding installation or usage feel free to contact [sales@wahlberg.dk](mailto:sales@wahlberg.dk).

# Technical specifications

<b>MODEL:</b>	Giga Rotator
<b>ITEM NO.:</b>	282
<b>DIMENSIONS (LxWxH):</b>	485 x 485 x 192 mm (19.1 x 19.1 x 7.6 in)
<b>POWER SUPPLY:</b>	100-240 VAC 50 – 60 HZ
<b>POWER CONSUMPTION:</b>	350 W (3,5-1,5A)
<b>POWER INLET:</b>	Neutrik powerCON TRUE1 NAC3PX (F&M)
<b>DMX CONTROL SIGNAL:</b>	DMX 512 1990+DMX512A / 7 channels used
<b>DMX CONTROL CONNECTION:</b>	5 Pole XLR (F/M)
<b>THROUGH CONNECTIONS:</b>	
<b>INPUT:</b>	Neutrik powerCON TRUE1 M & EtherCON – RJ45
<b>OUTPUT:</b>	Neutrik powerCON TRUE1 (F) & EtherCON – RJ45
<b>POWER:</b>	10A through each slipring connection.
<b>SIGNAL:</b>	Ethernet 100Mbit or DMX (RJ45 converter)
<b>ROTATIONAL LIMIT:</b>	No limit / Continuous rotation
<b>WORKING LOAD:</b>	
DOWN	1000 kg (2204,6 lb)
UP	1000 kg (2204,6 lb)
SIDEWAYS	500 kg ( 1100 lb )
<b>ROTATION SPEED:</b>	0,02-3,2 RPM
<b>NOISE EMISSION:</b>	55 dB at 1m
<b>AMBIENT TEMPERATURE:</b>	5-40 °C (41-104 °F)
<b>WEIGHT:</b>	64,5 kg (142 lb)
<b>MOUNTING CLAMP:</b>	8x Half couplers 42-52mm (2 in)
<b>MOTOR:</b>	48V, 400W
<b>DUTY CYCLE:</b>	100%
<b>SAFETY FACTOR:</b>	10



# Installation guide

The Giga Rotator can easily be installed hanging from truss or other rigging, or mounted upside down on the floor.

Sideways installation is possible but depends on the scenario.

Please consult [sales@wahlberg.dk](mailto:sales@wahlberg.dk) for more information on your usage.

## Mounting vertically in truss

The Giga Rotator can be mounted to truss using the 4 clamps on the top (motor) side of the Giga Rotator. Note that the truss weight limit must not be exceeded. The 4 heavy duty half couplers can be shifted in their respective slots and the half coupler mounting block can be remounted to any hole.

## Mounting the load

The load can be mounted on the rotating part of the rotator. 4 mounts on the circular mounting plate, gives the freedom to adjust the Half couplers to fit the load mount.

## Connecting power

The manipulator takes input power through Neutrik powerCON TRUE1 NAC3PX (F/M).

Input voltage range is 100VAC to 240VAC drawing up to 300W of power.

## Connecting DMX

The manipulator uses DMX as a control signal. It uses the standard DMX 512 1990+DMX512A through the 5 pole XLR plug.

Pin 1 = shield, pin 2 = Data (-), and pin 3 = Data (+).

Pin 4 and 5 can be used as a DMX master for a live feedback of the current position.

## Power through the rotating part - connection

The through connection also takes input power through Neutrik powerCON TRUE1 NAC3PX (F/M). Input voltage range is up to 10A/240VAC.

## Ethernet or DMX through the rotating part - connection

The Giga Rotator has a RJ45 through connection that can transmit Ethernet CAT5.

Note that only conductor 1, 2, 3, and 6 are used.

To connect DMX through the rotating part, an XLR to RJ45 converter is needed. Note that standard converters use RJ45 pins 1, 2, 7/8 for data and ground. Therefore, a custom converter must be used.

# Usage

The Giga Rotator is simple to use.

Before first use please de-mount any load and secure the area for a test run.

## Start up guide

1. Place / Rig the Giga Rotator. Ensure that it has free space to move and no wires will be caught.
2. Connect the Giga Rotator to 230VAC – **It turns on and the display shows the start-up message.**
3. Set the DMX start address to 1 and apply DMX from a lighting desk, preferably with manual faders. Make sure that the 7 channels are patched from DMX channel 1 to 7. Pull all channels on to 0%.
4. Set DMX channel 5 to 50-55% - **The motor is now enabled**
5. Set DMX channel 3 (speed HI) to 30% and channel 6 (Go clockwise) to 100% - **The Giga Rotator will move at 30% speed forwards. Let it run for a minimum of one revolutions to find its zero point.**
6. Set DMX channel 6 to 0% (Go clockwise) - **The giga rotator will go to its 0% position.**
7. The giga rotator can now be controlled with channel 1-2 (position/angle) and with desired speed (channel 3-4)

Note that channel 5 should be kept within the enabled zone. If not the rotator will stop. When the rotator has been restarted channel 5 needs to be re-enabled.

For smooth synchronous movement fading of 16-bit position should be used.

## DMX Channel overview

Chan.	Function	Description
1	Position HI	Rough position. MSB of the 16-bit position.
2	Position LO	Fine position. LSB of the 16-bit position.
3	Speed HI	Rough maximum speed of the Giga Rotator. MSB of the 16-bit position.
4	Speed LO	Fine maximum speed of the Giga Rotator. LSB of the 16-bit position.
5	Motor enable	Security channel. 50-55% and 60-65% enables the Giga Rotator. Any other value will disable the motor.
6	Go clockwise	Rotate clockwise (when seen from the bottom) while greater than 2%. When set lower it will continue to its wanted position.
7	Go counter-clockwise	Rotate counter-clockwise (when seen from the bottom) while greater than 2%. When set lower it will continue to its wanted position.

## LED indicators

- DMX LED: ON means DMX is received.  
BLINKING means DMX I missing. Check your connection.
- ERROR LED: ON means an error has occurred or channel 5 is disabled.  
OFF means the Giga Rotator is in show mode and limits cannot be set.

## Info screen information

By holding the down or up arrow different information screens are available. The initial info screen only displays the current DMX start channel. Subsequent displays have more information.

Display 1: DMX start channel

Display 2: (P)osition, (D)istance to wanted position, (W)anted position, (S)peed

Display 3: DMX channel input 1-4 and 5-8

# Menu navigation

By holding both up and down you will enter and exit the menu. Change any menu value by pressing ENT and adjust the value accordingly. Save the value by holding ENT or cancel by pressing ESC.

## Adjustable menu parameters

Menu	Description	Range	Default
MAN SPEED	Speed for manually driving the device from menu.	0%-100%	100%
MAN UP/DWN	Run the motor manually from the menu.	MOTOR UP / MOTOR DOWN	
DMX ADDR	DMX start address.	1-505	1
RANGE	Tacho range. By default this is the entire track but can also be set by channel 5 and 6 when device is in setup mode.	0-60000	25013
ACCELERATION	Acceleration from 0 to max speed in deciseconds. Increase this for slower more fluid motion.	10	100
MAX SPEED	Maximum movement speed. Maximum speed is also set by channel 3.	0-5000 RPM	1000RPM
SP MIN UP	Minimum movement speed clockwise.	0-1000	5
SP MIN DWN	Minimum movement speed counter-clockwise.	0-1000	5
POS OUT	Output actually measured position.	ON/OFF	OFF
E STOP	Enable emergency stop.	ON/OFF	OFF
MAIN GAIN	Main gain of internal motor controller	0-127	50
SPEED GAIN	Speed gain of internal motor controller	0-127	30
INT GAIN	Integrator gain of internal motor controller	0-127	1
TORQUE FILT	Torque filter of internal motor controller	0-127	127
MAX ACC DMM	Maximum acceleration of internal motor controller	0-127	8

MAN SPEED and MAN UP/DWN are used for manual control of the motor.

Internal motor controller settings should only be adjusted with guidance from Wahlberg Motion Design.