

# AURA

**TDC Power Derby  
DMX LED light effect**



**User manual**

# Safety instructions



## WARNING!



Always keep this device away from moisture and rain! Hazardous electrical shocks may occur!



## WARNING!



Only connect this device to a matching power outlet. This device is intended to work on a specified AC currency. Connecting this device to power outlets with other voltages may result in permanent damage and possible hazardous situations, such as fire or electrical shocks!



## WARNING!



Be careful with every operation of this device. Touching live wires inside and outside the unit may cause hazardous electrical shocks!

This unit must be operated by, or under the supervision of an adult. This device is not suitable for children.

Every person involved with the installation, operation and maintenance of this device has to:

- Be qualified
- Follow the instructions of this manual
- Make sure there is no damage caused by transport. If the device seems damaged from the outside, do not use it and contact your dealer for more information and consultation.
- To make sure the device maintains in perfect condition and for safe operation, it is necessary for the user to follow the instructions and warning notes of this user manual.
- Damage caused by improper use or modifications to the device are not covered by warranty.
- This device does not have any user-serviceable parts inside. Servicing of this device needs to be done by qualified technicians.

### Important notes regarding safety and health:

- Never let the power cord come in contact with other cables. Handle the power cord and all connectors with the mains with caution.
- Never remove any warning or informative labels from the unit
- The ground contact always needs to be connected. Do not cover or remove the ground contact.
- Never leave cables lying around
- Do not open the device and do not modify any hard- or software of this unit.
- Do not insert this object into air vents.
- Do not connect this device to a dimmerpack.
- Do not switch the system on and off frequently as this will reduce the lifespan of the device.
- Do not drive the inputs of the fixture with a signal larger than required to work at full performance.
- Only use this device indoor, avoid contact with water, moist or other liquids. Do not place items filled with liquids on top of the unit.
- Avoid nearby flames or heat sources, do not place this device near flammable liquids, gas or flammable items.
- Always disconnect the device when it is not in use for a longer period or time, when servicing is needed or when the device needs cleaning.

- Only handle the power cord by its connectors. Never pull the cable to remove a connector from its socket, as this could lead to damage and electrical shocks.
- Always operate this device with a stable AC current.
- Always operate this device with the AC ground wire connected to the electrical system's ground.
- Never use other types of cables than specified in the manual, do not use defective or bad functioning cables. Contact your dealer when the included or required cables do not work properly with this device.
- When the device has been exposed to large temperature differences (for example, transport from outdoor to indoor), do not connect the device immediately. Do not activate the unit until it has reached room temperature, as moist might build up inside the unit, which may cause shortcuts and/or electrical shocks.

#### **Guidelines and types of use:**

- This device is intended to be used by professionals on stage, in theatres, clubs and other equal venues.
- This device is not suitable for children and always needs to be operated by an adult.
- Only use the device when the environment is suitable and will not cause any damage. Do not use the product in moist or dusty environments, or where long-term damage may occur such as:
  - indoor swimming pools where chlorine is used.
  - Beaches, where sand and salt are present.
  - Outdoor, without roof protection
  - Indoor areas where intense heat sources are present or where the temperature exceeds levels which are comfortable for humans.
- Only use the included power adapter and only connect the device to a suitable power outlet with the correct output voltage. Connecting the device to a power outlet with the wrong type of voltage or using the product with a wrong type of power supply may cause permanent damage to the device.
- Avoid shocks and collision during use and transport. Do not transport the device while in use. Avoid brute force during the installation and operation of this device.
- Familiarise yourself with the functions of the device before use. Do not allow operation of the device by unskilled or unqualified people.
- Use of the device in other ways than described in this user manual may cause damage and injury. Ayra does not take responsibility for any damage or injury caused by improper use.

#### **Storage and transport:**

- This device is intended for mobile use. When transported, use the original packaging of the product, or a fitting flightcase, preferably filled with foam.
- This device is not intended for permanent use. Operation breaks will ensure that the lifespan of the device remains unchanged.
- If the device is not used for a longer period of time, disconnect it from its power source and store it in its original packaging, or in a fitting flightcase.
- Store the device indoor, dry and do not expose the device to extreme temperature differences.

#### **Housing:**

- Inspect the housing of the device frequently. Severe dents, cracks and missing screws should be avoided at all costs. Do not use the device when the housing is not in optimal condition. Contact your dealer or a skilled technician when in doubt about the state of the device
- Check the fixture and screws for corrosion. Corrosion should not be present on the fixture. Contact your dealer or a skilled technician when corrosion is found on the fixture
- Every power or signal chassis/connector should be mounted tightly. Do not use the device when connectors are loose.
- Do not use the power cord when the cores are visible. Contact your dealer for a replacement if needed.
- Avoid the buildup of dust and dirt. Clean the exterior of the fixture every month with a dry or damp cloth. When using the device intensively, the cleaning frequency needs to be increased.

#### **Fuses:**

- The main fuse of this device is to be found on the rear of the device. In most cases, directly next to the power inlet.
- Only replace a fuse for a new one with the same type and rating! Do not use a fuse with a higher or lower rating.
- Do not bridge the fuse with electrical wires, aluminum foil, as the fuse is used for protection against electrical shocks and short circuit.
- Always mount the fuse cover back to the fuse compartment.

# Box contents

## **Box contents**

1x TDC Power Derby fixture  
1x power cable

## **Unit and accessory inspection**

- Always use the supplied power cable to connect the unit to a power supply. If the cable appears broken or has visible damage, do not use it.
- If the unit is not going to be used for a longer period of time, disconnect it from the power supply and store it in a dust-free environment.
- Always check the unit for possible damage before use. If you suspect that something is wrong with the unit, do not connect it to a power source! When you suspect that your unit is broken or damaged, contact your local dealer or a certified technician to inspect the unit.

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## Device overview



1. Beam output
2. Adjustable bracket
3. Built-in microphone
4. DMX input (3P XLR)
5. DMX output (3P XLR)
6. Menu display with buttons
7. Safety eye
8. IEC output (Power link)
9. IEC input with fuse

# Setting up the unit

To activate the unit, connect the included power supply to the unit and a suitable 230V, 50 Hz power outlet.

The fixture will start up and show the last chosen setting on the display. Usually, with a new product, this is the DMX mode with the value set on 001.

The display shows several settings, each with the possibility to set several values.

Use the display and the menu buttons to set preferences, change settings and scroll through the menu. "Enter" is used to save a certain setting or preset, press "Menu" for at least 2 seconds to discard the change and return to the main menu.

The table below shows an explanation for every feature and value.

display	Mode	Function
<b>ADDR</b>	DMX address setting	A001-A512
<b>CHND</b>	Channel mode	1CH/3CH/10CH
<b>SLND</b>	Master/slave mode	Master (default) Slave 1 - Slave 2
<b>SHND</b>	Show mode	SH0 – SH08 – Auto speed 1-9
<b>SOUN</b>	Sound controlled mode	Sound controlled mode on/off
<b>BLND</b>	Black out mode	LED mode, YES- NO
<b>Led</b>	LED mode	ON-OFF
<b>DISP</b>	Display inversion	Display Inversion, Idsp-dspl
<b>TEST</b>	Test mode	Self test
<b>FHRS</b>	Using time of light	Fixture hours,0 ~ 9999
<b>REST</b>	Reset function	Test functions and reset

**ADDR:** DMX address setting, used to determine the DMX starting channel. From this channel on, the fixture will respond to values, corresponding with the amount of channels that the fixture is occupying. (For example, when set the starting address to value 003, the fixture will respond from channels 3, 4, 5 etc..)

**CHND:** The channel mode of the fixture makes it possible to use the correct channel mode setting for every application. For simple and basic setups, users may prefer to use the 1- or 3-channel mode. For advanced setup, users may prefer to control each pixel in detail, by using the 15- or 18-channel mode.

**SLND:** When using the master/slave function, you need to connect 2 or more fixtures with XLR-XLR cable. The first fixture in line needs to be set as master, the others as Slave 1 or 2 (synchronized or mirrored performance). This way, the slaves will mimic the behavior of the master fixture for wonderful synchronized lighting shows.

**SHND:** Show mode uses the internal programs of the fixture to perform a self-performing light show. Select one of the internal programs and set the speed to the desired value.

**SOUN:** Activate or disable the built-in sound controlled mode. This way, the fixture will respond to the beat of the music.

**SENE:** The sensitivity of the built-in microphone is adjustable, to optimize the built-in sound controlled mode. For example, when your music source (speakers) are placed far away, you might want to increase the sensitivity to make sure that the fixture responds to the sound accurately.

**Led:** The LED display will shut off automatically after a few seconds when this function is activated. When pressing any button, the display will activate again. When deactivating the feature, the display will be lit permanently.

**DISP:** Display invert version – When using the fixture in a hanging setup, it is possible to flip the display, so the characters will be shown upside down. This makes reading the several statuses much easier.

**TEST:** Self test mode, to control all segments and LEDs

**Hour:** The fixture shows how much hours it has been active. This is very practical for rental companies which need to perform service intervals on all fixtures after several hours of performing, to maintain optimal shape.

**UERS:** Displays the software version which is installed on the main PCB.

The TDC Power Derby is equipped with several working modes, each with its own advantages. For simple events there are stand-alone modes, for advanced situations there are options to create synchronized lightshows, or controlled with a DMX-512 controller. A short description for each mode can be found below:

**Auto:**

Automatic lightshow with a pre-programmed internal show, on a pre-defined speed.

**Sound:**

Automatic lightshow with a pre-programmed internal show, on the beat of the music, thanks to an internal microphone which senses the beat of the music and will change a step every time a beat is detected.

**Slave:**

In master/slave mode, it is possible to link several TDC Power Derby fixtures together, to create synchronized lightshows in the Auto or Sound mode. The first fixture in the chain needs to be set in the Auto or Music mode. All the next fixtures need to be set to Slave and will mimic the behavior of the first fixture. The master/slave function requires XLR – XLR cables (not included).

**DMX:**

The TDC Power Derby can be connected to a DMX-controller with standard XLR – XLR cable. While doing so, a DMX-terminator must be connected to the last fixture, at the end of the DMX-chain. This prevents reflections in the DMX-signal, which could cause flickering and unwanted behavior from your intelligent fixtures.

A DMX terminator is a XLR connector with a resistor of 120 Ohm, placed between pin 2 and 3 as a bridge.

With the following channel assignment, it is possible to control the TDC Power Derby:

**1CH mode:**

Channel	Mode	Value	Function
CH1	<b>Chase effect</b>	000-029 030-255	Black out RGBW color mix and auto run, Motor run slowly when no sound.

**3CH Mode:**

Channel	Mode	Value	Function
<b>CH1</b>	Function	000 001-199 200-247 248-255	Black out Dimmer Strobe Full bright
<b>CH2</b>	Color	000-255	RGBW mix color and auto run
<b>CH3</b>	Motor	000-009 010-120  121-134 135-245  246-255	Motor Stop Motor turn left, speed from fast to slow Motor stop Motor turn right, speed from slow to fast Motor stop

**10CH mode:**

Channel	Mode	Value	Function
<b>CH1</b>	Function	000 001-199 200-247 248-255	Black out Dimmer Strobe Full bright
<b>CH2</b>	Color	000-255	The first red dimmer

<b>CH3</b>	Color	000-255	The first green dimmer
<b>CH4</b>	Color	000-255	The first blue dimmer
<b>CH5</b>	Color	000-255	The first white dimmer
<b>CH6</b>	Color	000-255	The second red dimmer
<b>CH7</b>	Color	000-255	The second green dimmer
<b>CH8</b>	Color	000-255	The second blue dimmer
<b>CH9</b>	Color	000-255	The second white dimmer
<b>CH10</b>	Motor	000-009 010-120  121-134 135-245  246-255	Motor Stop Motor turn left, speed from fast to slow Motor stop Motor turn right, speed from slow to fast  Motor stop

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# Technical specifications

- Powerful LED derby effect
- High output thanks to 2x 10W RGBW LED chip
- Dozens of narrow, colourful and moving beams fill the room with light
- Razorsharp optics for intense beam projections
- Individual LED chip control with colour mixing, for creative colour combinations.
- Working modes: Automatic, music-controlled, master/slave, DMX
- Exciting built-in programs or full control with a DMX controller
- DMX operation: 1, 3, 10 channels
- Adjustable microphone sensitivity for music-controlled mode
- Menu display and buttons for easy adjustment of settings
- Low power consumption – High output – Long lifespan

## Power:

- Voltage: AC100-240V 50/60Hz
- Power: 40W

## Physical:

- Dimensions: 350 x 340 x 240 mm
- Weight: 3 kg

## Connectors:

- DMX: 3p XLR male and female
- Power: IEC power input + Power link output

## Included accessories:

- Power cable with Schuko & IEC connectors

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## Connectors and wiring schematics:

### DMX-connections:

#### DMX-output

XLR mounting-socket:



- 1: Ground
- 2: Signal (-)
- 3: Signal (+)

#### DMX-input

XLR mounting-plug:



- 1: Ground
- 2: Signal (-)
- 3: Signal (+)

### Electrical wiring:

Cable	Pin	International
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	