

AURA

TDC 444

DMX LED light effect with 4 scan mirrors



User manual

Safety precautions

WARNING: This unit may cause serious injury to the eyes when used incorrectly. It is therefore strongly advised to read this user manual carefully, to get familiar with the functions of this device.

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

WARNING: Do not look directly into the beam from a short distance. This may cause serious injury to the eyes. Ayra is not responsible for any injuries caused by incorrect use of this device.

Installation requirements:

- Always check the power supply to which you want to connect the device. If the voltage requirements do not meet, do not connect the device as this may cause serious damage.
- This device must be installed by a professional technician, in a standing or hanging position. Only use the included mounting bracket if you want to position the unit against a ceiling or truss system.
- When installed in a hanging position above your audience, this unit **MUST** be secured by using a safety cable, capable of holding 10x the weight of this device.
- The unit is designed to be installed with a halfcoupler or G-clamp, by using the included mounting bracket. Direct installation with proper bolts is also possible.
- Make sure there are no flammable objects in the direct environment of the device.
- Do not block the beam-exit and fan.
- Keep a minimum distance of 0.25 meter from any walls to provide sufficient cooling.
- Make sure the beam-exit and fan are not blocked by any objects in the near environment.
- Always use the included power supply. Contact your local dealer for a replacement unit if necessary.

Maintenance and protection

- Keep the unit away from dusty environments, as this may have negative effects on the fan-cooling system and optics. Clean the optics and fan with a small, soft brush and vacuum cleaner when needed. Clean the housing of the unit with a damp cloth. **WARNING:** Always disconnect the unit from the power supply when cleaning the unit. Reconnect the unit only when any moist on the fixture has evaporated completely.
- Do not switch the power on and off frequently, as this may cause serious damage to the unit.
- Avoid heavy shocks and collision during transport and use, as this may cause damage to the LED light source, electronic circuit, optics and housing.
- Keep the device away from moisture, rain, water or any liquids as this may cause a short circuit and/or electric shocks. If any liquid enters the unit, power supply or housing of the unit, disconnect the unit immediately and do not reconnect the power supply. Contact your local dealer or technician to inspect the unit for any damage.

Box contents

Box contents

1x TDC 444 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.
- When your device does not generate any light, do not look directly into the lens. When the fixture suddenly produces a beam, it may cause injury to your eyes.

The logo for AURA, featuring the word "AURA" in a bold, stylized, sans-serif font. The letters are light gray and have a modern, geometric design with thick strokes and rounded terminals.

Device overview



1. Moving mirror
2. Beam output
3. Adjustable bracket
4. Ventilation slots
5. Fan
6. IEC Power inlet with integrated fuse holder
7. Control panel display with MENU, UP and DOWN buttons
8. Sound sensitivity potentiometer
9. Safety eye, for optional safety cable
10. Built-in microphone for sound active mode
11. DMX input (3P XLR)
12. DMX output (3P XLR)

Setting up the unit

To activate the unit, connect the included power supply with the unit and a suitable 230V, 50 Hz power outlet. The unit will activate directly after it is plugged in to a wall outlet or other power source.

Give the scanner time to calibrate the stepping motors, which are used to determine the position of the mirror. You may hear and see some shaking, which is normal. The stepping motors use an end point to determine the beginning and end of their movement. The display shows a scrolling "RST" status. After calibration, the unit will start the previously used mode, but by default it is set to DMX mode.

The status of the fixture is shown on the display. Certain values determine the current status and will change when you push buttons on the control panel. The buttons each have their own function, for easy navigation in the control panel.

Press the 'MENU' button to switch modes, so you can easily select the built-in master/slave, music controlled or DMX mode.

Display codes:

DMX-Mode: Addr / 1 :

This value represents the DMX channel where the scanner is currently set to. 1 stands for channel 1, but can be changed with the UP and DOWN buttons to a value from 1 to 255.

When receiving DMX data, a small red dot on the display will blink continuously, regardless of what function is being used.

Music controlled mode: Soun:

When no DMX-signal is detected in DMX-mode, or when you select the master-mode, the unit will turn itself into music controlled mode, displaying 'Soun'. Use the microphone sensitivity potentiometer to adjust the sensitivity of the internal microphone for optimal light to sound functionality. When no music is detected, the scanner will play a slow automatic program until a beat or loud sound is detected. The Sound mode can be activated or de-activated.

Master/Slave mode: Nast / SL 1 / SL 2:

The 'Nast' value stands for the master-unit, which will use the internal microphone to perform music-controlled. This fixture will send out a signal for slave fixtures, which you may connect using standard XLR male to XLR female cables (not included).

The slave units show 'SL 1' or 'SL 2' on the display. This way you can select a synchronous or horizontal mirrored slave-function, for more dynamic effects.

LED display mode: Led:

The LED display of the unit can be turned off during use, which makes your light-show more attractive, especially if the display is visible for your audience. When using the menu-buttons the display will be lit, but after several seconds inactivity the display will be turned off. When pressing one of the menu buttons the display will activate itself again. The off value means display OFF, the on value means display ON. The DMX indicating dot will not turn off for convenience reasons.

DMX control mode:

This fixture can be controlled using a DMX-controller and standard XLR male to XLR female cable. When doing so, make sure your DMX-controller is capable of controlling your fixture. When in doubt, contact your local dealer for advice.

Set the correct address on the digital display, you are able to choose a value between 001 and 255. When a DMX-signal is received, a blinking red dot on the display is active.

Working time: hour:

It is possible to see the total working time of this fixture, by activating this feature.

Test mode: test:

The unit will test all its internal programs.

Channel mode: Chnd

This mode changes the DMX channel mode between 8, 12 and 17. Each mode has its own characteristics, which makes basic, medium or advanced control possible.

NOTE: At some point, mirror-motors and lenses will be identified by using the numbers 1, 2, 3 and 4. The numbers apply from left to right. The most left mirror is mirror 1, the most right mirror is mirror 4.

This unit has the following DMX-channels and DMX-values:

8 channel DMX mode

Channel 1: Dimmer intensity

Start value	End value	Function
0	128	No function
128	255	Dimmer 0-100%

Channel 2: Strobe slow/fast (only works when CH1 is set to 128-255)

Channel 3: Select gobo (channel 4 must be set to off)

Channel 4: Select rotating gobo (channel 3 must be set to off)

Channel 5: Gobo rotation

Start value	End value	Function
0	127	No function
128	255	Gobo rotation

Channel 6: Gobo rotation speed slow/fast

Channel 7: Scan effect (movement presets)

Channel 8: Scan effect movement speed slow/fast

12 channel DMX mode

Channel 1: Select gobo for Mirror 1

Start value	End value	Function
0	7	No function
8	28	Gobo 1
29	49	Gobo 2
50	69	Gobo 3
70	90	Gobo 4
91	111	Gobo 5
112	131	Gobo 6
132	152	Gobo 7
153	173	Gobo 8
174	193	Gobo 9

294	214	Gobo 0
215	235	Gobo 11
236	255	Gobo 12

Channel 2: Horizontal movement (Pan) for Mirror 1

Channel 3: Vertical movement (Tilt) for Mirror 1

Channel 4: Select gobo for Mirror 2

Start value	End value	Function
0	7	No function
8	28	Gobo 1
29	49	Gobo 2
50	69	Gobo 3
70	90	Gobo 4
91	111	Gobo 5
112	131	Gobo 6
132	152	Gobo 7
153	173	Gobo 8
174	193	Gobo 9
294	214	Gobo 0
215	235	Gobo 11
236	255	Gobo 12

Channel 5: Horizontal movement (Pan) for Mirror 2

Channel 6: Vertical movement (Tilt) for Mirror 2

Channel 7: Select gobo for Mirror 3

Start value	End value	Function
0	7	No function
8	28	Gobo 1
29	49	Gobo 2
50	69	Gobo 3
70	90	Gobo 4
91	111	Gobo 5
112	131	Gobo 6
132	152	Gobo 7
153	173	Gobo 8
174	193	Gobo 9
294	214	Gobo 0
215	235	Gobo 11
236	255	Gobo 12

Channel 8: Horizontal movement (Pan) for Mirror 3

Channel 9: Vertical movement (Tilt) for Mirror 3

Channel 10: Select gobo for Mirror 4

Start value	End value	Function
0	7	No function
8	28	Gobo 1
29	49	Gobo 2
50	69	Gobo 3
70	90	Gobo 4
91	111	Gobo 5
112	131	Gobo 6
132	152	Gobo 7
153	173	Gobo 8
174	193	Gobo 9

294	214	Gobo 0
215	235	Gobo 11
236	255	Gobo 12

Channel 11: Horizontal movement (Pan) for Mirror 4

Channel 12: Vertical movement (Tilt) for Mirror 4

17 channel DMX mode

Channel 1: Dimmer intensity

Start value	End value	Function
0	128	No function
128	255	Dimmer 0-100%

Channel 2: Strobe slow/fast (only works when CH1 is set to 128-255)

Channel 3: Select gobo (channel 4 must be set to off)

Channel 4: Select rotating gobo (channel 3 must be set to off)

Channel 5: Gobo rotation

Start value	End value	Function
0	127	No function
128	255	Gobo rotation

Channel 6: Gobo rotation speed slow/fast

Channel 7: Horizontal movement (Pan) for Mirror 1

Channel 8: Vertical movement (Tilt) for Mirror 1

Channel 9: Horizontal movement (Pan) for Mirror 2

Channel 10: Vertical movement (Tilt) for Mirror 2

Channel 11: Horizontal movement (Pan) for Mirror 3

Channel 12: Vertical movement (Tilt) for Mirror 3

Channel 13: Horizontal movement (Pan) for Mirror 4

Channel 14: Vertical movement (Tilt) for Mirror 4

Channel 15: Scan effect (movement presets)

Channel 16: Scan effect movement speed slow/fast

Channel 17: Music controlled on/off

Start value	End value	Function
0	127	Music Controlled off
128	255	Music Controlled on

Installation and maintenance

Mounting the bracket

A pre-mounted hanging bracket is provided, with screwknobs at both sides of the scanner. This bracket can be used to install the unit to a fixed structure, such as a T-bar or truss.

Installing the scanner in a hanging position

When you wish to hang the scanner against a wall, ceiling or beam, make sure to use proper installation tools and let a skilled technician install the scanner for you.

When you wish to install the scanner to a lighting stand or truss system, use a G-clamp or halfcoupler for optimal, safe and stable fixation. Check the technical specifications of your light stand or truss system to gather more information on maximal loads and other safety precautions.

Safety eye:

When installing this fixture in a hanging position, the unit **must** be secured using a safety cable. The safety eye on the bottom on the scanner is intended for this and is capable of carrying the weight of the scanner. The safety cable holds the scanner if the original mounting hardware breaks, preventing injury and damage. Every lighting fixture that is used hanging should be provided with a safety cable.

Transport

When using this fixture in mobile setups, provide sufficient protection during transport. Use the original packaging of this unit, or use a professional flightcase with proper foam inlay. This way the electronics, optics and housing are protected against severe shocks, exterior damage and failing electronics.

Make sure the moving parts of the scanner (pan and tilt motors) are secured during transport. Shocks and fierce movement of mirror and stepping motors may cause permanent damage.

After use, let the unit cool down for at least 10 minutes. When using DMX, use the 'black out' option on your DMX controller. This way the unit is positioned in a static stand-by mode and the internal fan is able to cool down the internal electronics, which decreases the chance of damage during transport.

Replacing the internal fuse

First check whether a failing power supply may be the cause of malfunction. When you suspect that the internal fuse is broken, the fuse can be replaced by removing the fuse cover, located directly below the power inlet.

WARNING: Before changing the fuse, always disconnect the fixture from your wall outlet or any other power supply to prevent electric shocks.

Always replace a broken fuse with a fuse that has the same type and rating. After the fuse has been replaced, always close the fuse-cover. Reconnect the fixture to your power supply and check whether the problem is solved. When this does not solve your problem, contact your local dealer for help.

Spare parts

This unit has no user serviceable parts inside. When any damage to internal components occur, contact your local dealer or a specialized technician in order to repair the fixture.

Cleaning:

Clean the housing of the fixture frequently with a damp cloth, to remove dust and/or dirt. **WARNING:** Always disconnect the fixture from your wall outlet or other power supply and let the fixture dry before reconnecting it. This prevents possible electrical shocks.

The mirror and lens can be cleaned with a non-aggressive glass cleaning solution, but is not recommended. Ayra recommends to clean the mirror and lens with a fine brush, while removing dust and/or dirt with a vacuum cleaner.

Do not touch the mirror and lens with your fingers, as this may cause fingerprints which are harder to remove.

Checkup

To prevent dangerous situations, make sure your fixture is in optimal condition before using it. Check your fixture frequently by using the following checklist:

- All screws must be mounted tightly.
- Check all screws and metal parts for corrosion. No visible corrosion may be present.
- The exterior of your fixture must be in optimal condition. Check your fixture for dents, cracks or missing parts.
- Your installation spot must be in optimal condition. Check your installation spot for corrosion, cracks, dents and strength.
- Electrical components (connectors and cables) must be in optimal condition. Any form of damage (cuts, exposed wire cores or any other visual deformities should not be present.

If any visual or mechanical damage is detected, contact your local dealer or a specialized technician. Do not use a damaged or failing fixture.

Connectors and wiring schematics:

DMX-connections:

DMX-output

XLR mounting-socket:




DMX-input

XLR mounting-plug:



Electrical wiring:

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

Technical specifications

- LED light effect with four moving mirrors
- Light source: 60x 5mm LEDs (16x red, 20x green, 20x blue, 4x amber)
- 8, 12 or 17 DMX-channels
- 3-pin XLR in- and output
- Music controlled mode with internal microphone
- Microphone sensitivity adjustable
- Working modes: music controlled, DMX, test, master/slave
- Power consumption: 132W continuous, 246W max.
- Fuse: 3A 250V 20mm glass fast blow
- Power supply: 230V AC, 50 Hz
- Measurements: 620 x 270 x 100mm (without bracket)
- Weight: 4 kg

Connectors:

- DMX: 3p XLR male and female
- Power: IEC power connector

Included accessories:

- Power cable with Shucko & IEC connectors

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