SOLARIS

true color



TOUGH | 70

waterproof led par 7 X 10W

USER MANUAL

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SAFETY INFORMATION



WARNING!

Read the safety precautions in this manual before installing operating or servicing this product.

 **SAFETY NOTES**	Read all the following Safety Notes before working with this product. These notes include important information about the installation, usage, and maintenance of this product. This product contains no user-serviceable parts. Any reference to servicing in this User Manual will only apply to properly trained GLOW® Professional certified technicians. Do not open the housing or attempt any repairs. All applicable local codes and regulations apply to proper installation of this product.
PERSONAL SAFETY	· Avoid direct eye exposure to the light source while the product is on. · Always disconnect this product from its power source before servicing. · Always connect this product to a grounded circuit to avoid the risk of electrocution. · Do not touch this product's housing during operation because it may be very hot.
MOUNTING & RIGGING	· This product is for indoor and Outdoor use. To prevent risk of fire or shock, use this product with the original parts attached properly . (IP65) · Mount this product in a location with adequate ventilation, at least 20 in (50 cm) from adjacent surfaces. · Make sure there are no flammable materials close to this product while it is operating. · Always carry this product by the handles. Do not carry from the head. · When hanging this product, always secure to a fastening device using a safety cable.

POWER & WIRING	· Always make sure you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label. · Never connect this product to a dimmer pack or any rheostat. · Never disconnect this product
OPERATION	· Do not operate this product if you see damage to the housing, lenses, LED lights or cables. Have the damaged parts replaced by an authorized technician at once. · Do not cover the ventilation slots when operating to avoid internal overheating. · Do not aim this product toward the Sun. The lenses could concentrate the solar energy and cause internal overheating. · The maximum ambient temperature is 120 °F (49 °C). Do not operate this product at a higher temperature. · In case of a serious operating problem, stop using this product immediately

In the unlikely event that your GLOW® product may require service, contact GLOW® Technical Support.

INTRODUCTION

The SOLARIS® Professional TOUGH70™ is a high-performance 7 X 10W RGBW (Warm White) 4IN1 LED Par lighting fixture. Its compact design makes it ideal for Venue Installations and Outdoor Use.

The fixtures is deemed for its sturdy aluminum casting, IP65 Rated, designed to withstand climate abuse and provide a budget friendly solution for even the most complicated of outdoor installations.

A wide 45 degrees angel allows you to light objects from a near field which can be perfect for plantation and scenery lighting as well as architectural

The use of RGBW (Warm White) 4IN1 10W LED allows you to reach almost identical Color tones as those achieved by the use of Conventional lighting.

The Smooth Flicker Free operation makes this fixture it Ideal for TV use.

The fixture can be controlled using any DMX-compliant controller (4 Channel Mode | 8 Channel Mode) as well as automatic operation mode , sound to light mode and manual mode.

BEFORE USING THE PRODUCT FOR THE FIRST TIME

1. Read ’Safety information’ on page 3 before installing, operating or servicing the fixture.
2. Unpack and ensure that there is no transportation damage before using the fixture. Never attempt to operate a damaged fixture.
3. If the fixture is not going to be hard-wired to a mains supply, attach a local power plug to the end of the supplied power cable.
4. Before operating, ensure that the voltage and frequency of the power supply match the power requirements of the fixture.
5. Refer to the GLOW® website for the most recent user documentation and technical information about this fixture.

INSTALLATION

WARNING! READ SAFETY INFORMATION ON PAGE 3 BEFORE INSTALLING THE FIXTURE.

The fixture is designed for indoor use only and must be used in a dry location with adequate ventilation. Ensure that none of the fixture's ventilation slots are blocked and ensure that the fixture is fastened to a secure structure or surface. Do not use the fixture to illuminate surfaces less than 8 m (approx 26ft.) From the fixture.

FASTENING THE FIXTURE TO A FLAT SURFACE

The fixture can be fastened to a hard, fixed, flat surface that is oriented at any angle. Ensure that the surface and all fasteners used can support at least 10 times the weight of all fixtures and equipment they will support. Fasten the fixture Securely. Do not place it on a surface or leave it where it can be moved or fall over. If you install the fixture in a location where it may cause injury or damage if it falls, secure it as directed below with a securely anchored safety cable that will hold the fixture if the primary fastening method fails.

MOUNTING THE FIXTURE ON A TRUSS

The fixture can be clamped to a truss or similar rigging structure in any orientation. When installing the fixture hanging vertically down, you can use an open-type clamp such as a G-clamp. When installing in any other orientation, you must use a half-coupler clamp that completely encircles the truss or pipe circumference. To clamp the fixture to a truss:

1. Check that the rigging structure can support at least 10 times the weight of all fixtures and equipment to be installed on it.
2. Block access under the work area.
3. Working from a stable platform, hang the fixture on the truss and fasten the rigging clamps onto the truss.
4. Secure the fixture with a safety cable as directed below.
5. Check that the head will not collide with other fixtures or objects.



SECURING WITH A SAFETY CABLE

Secure the fixture with a safety cable (or other secondary attachment) that is approved for the weight of the fixture so that the safety cable will hold the fixture if a primary attachment fails. Loop the safety cable through and around a secure metal anchoring point.

AC POWER



WARNING! READ SAFETY INFORMATION ON PAGE 3 BEFORE INSTALLING THE FIXTURE.





For protection from electric shock, the fixture must be grounded (earthed). The power distribution circuit must be equipped with a fuse or circuit breaker and ground-fault (earth-fault) protection.

Socket outlets or external power switches used to supply the fixture with power must be located near the fixture and easily accessible so that the fixtures can easily be disconnect- ed from power.

Do not insert or remove power cable to apply or cut power, as this may cause arcing at the terminals that will damage the connectors.

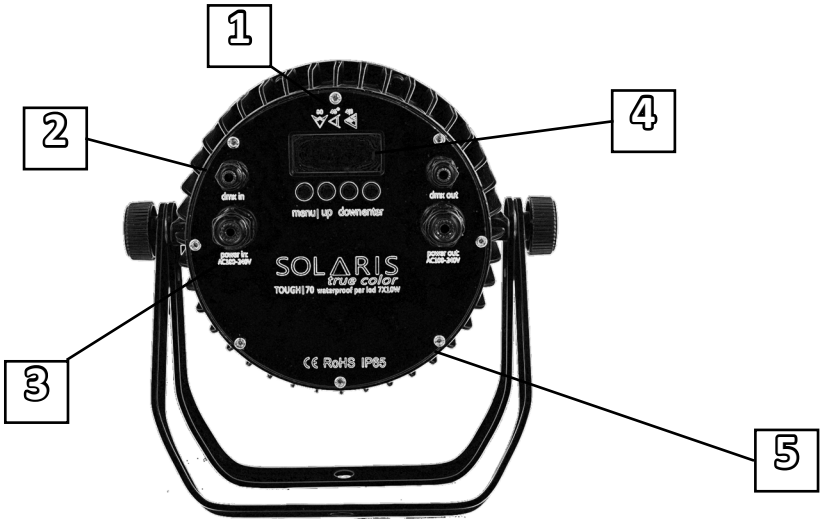
Do not use an external dimming system to supply power to the fixture, as this may cause damage to the fixture that is not covered by the product warranty.

The fixture can be hard-wired to a building electrical installation if you want to install it permanently, or a power plug (not supplied) that is suitable for the local power out- lets can be installed on the power cable.

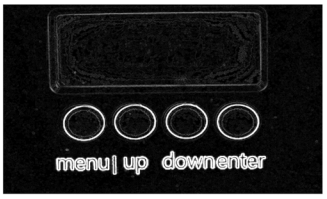
If you replace power plug on the power cable, install a grounding type (earthed) plug with integral cable grip that is rated minimum 250 V, 5 A.

The fixture has an auto-ranging power supply that accepts AC mains power at 100-240 V at 50/60 Hz. Do not apply AC mains power at any other voltage or frequency to the fixture.

FIXTURE OVERVIEW



1	Tokens® – symbol indicating the fixture DMX personality, Beam Angle, Weight and Power Supply
2	DMX data Link Input and Output XLR Connectors
3	Power Breakout cable with IP65 connectors input and output
4	Digital Screen for accessing menu with 4 buttons for navigation: Menu, Up, Down and Enter
5	Heat Sink



UP	Press UP to change current value
DOWN	Press DOWN to change current value
MENU	Press MENU to toggle between modes
ENTER	Use ENTER to save the parameter after you made the desired adjustments

DMX DATA LINK

A DMX 512 data link is required in order to control the fixture via DMX. The fixture has 3-pin XLR connectors for DMX data input and output. The number of daisy-chained fixtures is limited by the number of DMX channels required by the fixtures in relation to the maximum 512 channels available in one DMX universe. Note that if independent control of a fixture is required, it must have its own DMX channels.

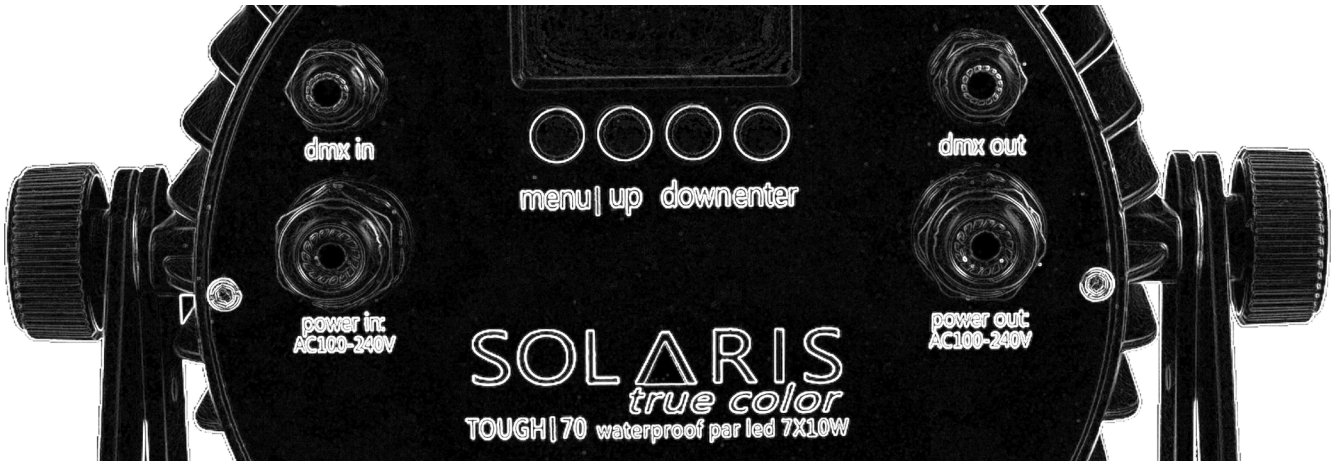
Fixtures that are required to behave identically can share the same DMX address and channels. To add more fixtures or groups of fixtures when the above limit is reached, add a DMX universe and another daisy-chained link.

CONNECTING AND USING DMX DATA LINK

To connect the fixture to data:

1. Connect the DMX data output from the controller to the first fixture's male XLR DMX input connector.

2. Connect the first fixture's DMX output to the DMX input of the next fixture and continue connecting fixtures output to input.



FIXTURE OPERATION

This section explains the fixture settings and utilities that the user has access to when using the control panel. Settings are retained when the fixture is powered off.
The SOLARIS® TOUGH70™ can function in different modes:

DMX 8 CHANNEL MODE. When operated in DMX 8 channel mode the fixture back screen will show A001 when first accessed. By setting a value different from 001 you can change the unit's DMX address according to your lighting setup. Optional DMX address values are 1 to 512. When you reach the desired value, press ENTER to save your changes.

DMX 4 CHANNEL MODE. When operated in DMX 4 channel mode the fixture back screen will show D001 when first accessed. By setting a value different from 001 you can change the unit's DMX address according to your lighting setup. Optional DMX address values are 1 to 512. When you reach the desired value, press ENTER to save your changes.

STANDALONE MODE which allows you to manually change the parameters of the fixture without using DMX data link. When operated in Standalone mode the fixture back screen will show either: R000 (Red), G000 (Green), B000 (Blue) or U000 (White) when first accessed. By setting a value between 000-255, using the UP & DOWN buttons below the screen, you can control the desired amount of every color (RGBW). When you reach the desired value, press ENTER to save your changes.

You can also manually **control strobe flashing** by changing the values when the back screen shows FH000 (strobe flash) When you reach the desired value, press ENTER to save your changes.

It is also possible to use **8 predefined factory colors**, when first accessing predefined colors back screen will show CL01 when first accessed. By setting a value different from 01 you can scroll between the 8 Predefined factory colors. When you reach the desired value, press ENTER to save your changes.

This fixture, when used in standalone mode offers **3 automatic color blending effects**

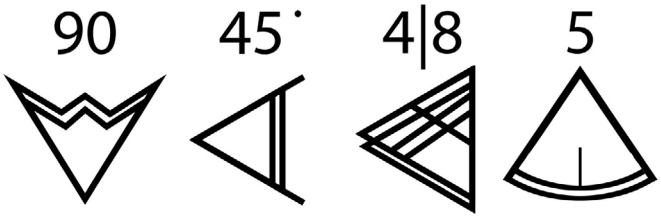
Color Jump Change (CC01 – CC99)
Color Fade Change (DE01 – DE99) and Color Pulse Change (CP01-CP99).
By setting a value between 00-99, using the UP & DOWN buttons below the screen, you can control the speed of the selected effect.

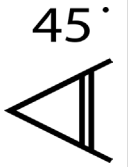
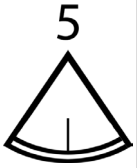
SOUND TO LIGHT MODE When operated in Sound to Light mode the fixture back screen will show SU01 when first accessed. By setting a value between 01-99, using the UP & DOWN buttons below the screen, you can control The Sensitivity of the built in microphone inside the fixture. When you reach the desired value, press ENTER to save your changes.

TOKENS®

The TOKENS® are symbols we use to mark the features of our fixtures. every fixture has its own unique set of TOKENS® according to the fixture's qualities. Those marks can be especially useful and informative for the technicians using Solaris fixtures.

The TOKENS® are located above the digital screen on the back panel of the fixture.



	This token indicates the maximum amount of **power consumption** (Displays in Watts)
	This token indicates the **angle of the fixture's beam** (Displayed in degrees)
	This token indicates the possible **DMX footprint** (DMX Personality) of the fixture (according to the different dmx modes of operation)
	This token indicates the **weight** of the fixture (Displayed in Kilograms)

FIXTURE MENU STRUCTURE CHART

NO.	DISPLAY	FUNCTION	INSTRUCTIONS
1	d001	DMX Address	DMX512 address, 4 channel mode (001-512)
2	A001	DMX Address	DMX512 address, 8 channel mode (001-512)
3	r255	Red	Up & Down Buttons change Red intensity (000-255)
4	G255	Green	Up & Down Buttons change Green intensity (000-255)
5	B255	Blue	Up & Down Buttons change Blue intensity (000-255)
6	U255	Warm White	Up & Down Buttons change Warm White intensity (000-255)
7	FH99	Strobe (Flash)	Up & Down Buttons change Speed (01-99)
8	CL01	Predefined Colors	Up & Down Buttons change colors (01-08)
9	CC99	Color Jump effect	Up & Down Buttons change speed (01-99)
10	DE99	Color Fade effect	Up & Down Buttons change speed (01-99)
11	CP99	Color Pulse effect	Up & Down Buttons change speed (01-99)
12	SU99	Sound to Light	Up & Down Buttons change built-in microphone sensitivity (01-99)

air. Remove stuck particles with an unscented tissue or cotton cloth moistened with glass cleaner or distilled water.
4. Check that the fixture is dry before reapplying power.

DMX MODES

CHANNEL	4 CHANNEL DMX MODE	8 CHANNEL DMX MODE	FUNCTION
1	R (RED) DIMMER	MASTER DIMMER	DARK TO BRIGHT
2	G (GREEN) DIMMER	R (RED) DIMMER	DARK TO BRIGHT
3	B (BLUE) DIMMER	G (GREEN) DIMMER	DARK TO BRIGHT
4	W (WARM WHITE) DIMMER	B (BLUE) DIMMER	DARK TO BRIGHT
5		W (WARM WHITE) DIMMER	DARK TO BRIGHT
6		STROBE	SLOW TO FAST
7		MODE CHANGE	0-50 DMX 8CH CONTROL 51-100 PREDEFINED COLORS 101-150 COLORS JUMP EFFECT 151-200 COLORS FADE EFFECT 201-250 COLORS PULSE EFFECT 251-255 – SOUND TO LIGHT MODE
8		MODE PARAMETER CHANGE	CHANGES A SPECIFIC PARAMETER ACCORDING TO THE MODE YOU SELECT IN CHANNEL 7

MAINTENANCE



WARNING! READ 'SAFETY INFORMATION' ON PAGE 3 BEFORE SERVICING THE FIXTURE.

Refer any service operation not described in this user manual to a qualified service technician.

Disconnect the fixture from mains power and allow to cool completely before cleaning or servicing. Service fixtures in an area where there is no risk of injury from failing parts, tools or other materials. Excessive dust, smoke fluid, and particle buildup degrades performance, causes overheating and will damage the fixture. Damage caused by inadequate cleaning or maintenance is not covered by the product warranty.

CLEANING

The cleaning of lenses must be carried out periodically to optimize light output. Cleaning schedules for lighting fixtures vary greatly depending on the operating environment. It is therefore impossible to specify precise cleaning intervals for the fixture. Environmental factors that may result in a need for frequent cleaning include:

- Use of smoke or fog machines.
- High airflow rates (near air conditioning vents, for example).
- Presence of cigarette smoke.
- Airborne dust (from stage effects, building structures and fittings or the natural environment at outdoor events, for example).

If one or more of these factors is present, inspect fixtures within their first 100 hours of operation to see whether cleaning is necessary. Check again at frequent intervals. This procedure will allow you to assess cleaning requirements in your particular situation.
Use gentle pressure only when cleaning, and work in a clean, well-lit area. Do not use any product that contains solvents or abrasives, as these can cause surface damage.

CLEANING THE FIXTURE

1. Disconnect the fixture from power and allow it to cool for at least 10 minutes.
2. Vacuum or gently blow away dust and loose particles from the outside of the fixture and air with low-pressure compressed air
3. Clean lenses by wiping gently with a soft, clean lint-free cloth moistened with a weak detergent solution. Do not rub the surface hard: lift particles off with a soft repeated press. Dry with a soft, clean, lint-free cloth or low pressure compressed

TOUGH 70 SPECIFICATIONS



FEATURES

Pre Programed Effects	3 color blending modes: Jump, Fade and Pulse
Strobe	Strobe Effect, Pulse Effect, Instant Open and Black-out
Dimmer	0 – 100% Full Linear Dimming

INSTALLATIONS

Location	Indoor and outdoor, Must be fastened to surface or structure
Mounting points	Two adjustable bracket with clamp insertion point
Orientation	Any

LAMP

Lamp type	7 X 10W 4IN1
Color system	RGBW Color
Temperature	Adjustable

THERMAL

Cooling	Heat Sink Cooling
Max ambient temperature	40° C (104° F)
Min Ambient temperature	-25°C (-13° F) Total
Heat Dissipation (calculated, +-10%)	1200BTU/hr.

PHYSICAL DIMENSIONS

Led Surface Diameter	210mm	8.26”
Body Width	120mm	4.72”

WEIGHT

5Kg	11.02 lbs.

CONTROL AND PROGRAMMING

Control System	DMX512
Settings & Addressing	USITT DMX512/1990

DMX MODES



Fixture Channel Mode	4Ch. Mode and 8Ch. Mode

ELECTRICAL

AC Power	110-230V 50\60Hz
Fuse	T5A
Power Supply	Auto Ranging Electronic Switch Mode

MAX POWER CONSUMPTION



Power consumption	90W

OPTICS



Beam Angle	45° Degrees

CONSTRUCTION

Color	Black
Body Material	Aluminum
IP Rating	IP65

CONNECTIONS

AC Power Input & Output	Power cable with IP65 3-pin Input & Output
DMX512 Data	3-pin Breakout Cable IP65 XLR, 1 Input, 1 Output

INCLUDED ITEMS

IP65 Breakout cable with 3-pin power connector
(German \ USA) standard
User Manual

Specifications are subject to change without notice.
For latest product specifications, see www.Glow-Lighting.com

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