G251C

GRAND 251C

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CE ⒱ ⏚ **IP20** t$_a$ 40°C t$_c$ 100°C

User Manual
KEEP THIS MANUAL FOR FUTURE NEEDS

1 SAFETY INSTRUCTIONS

This device has left the factory in perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual.

If the device has been exposed to temperature changes due to environmental changes, do not switch it on immediately. The arising condensation could damage the device. Leave the device switched o ffuntil it has reached room temperature.

This device falls under protection-class I. Therefore it is essential that the device be earthed.

The electric connection must carry out by qualified person.

The device shall only be used with rate voltage and frequency.

Make sure that the available voltage is not higher than stated at the end of this manual.

Make sure the power cord is never crimped or damaged by sharp edges. If this would be the case, replacement of the cable must be done by an authorized dealer.

Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power cord by the plug. Never pull out the plug by tugging the power cord.

During initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective, it should decrease gradually.

Please don't project the beam onto combustible substances.

Fixtures cannot be installed on combustible substances, keep more than 50cm distance with wall for smooth air flow, so there should be no shelter for fans and ventilation for heat radiation.

If the external flexible cable or cord of this luminaire is damaged, it shall be exclusively replaced by the manufacturer or his service agent or a similar qualified person in order to avoid a hazard.

8 MAINTENANCE AND CLEANING

The following points have to be considered during the inspection:
1) All screws for installing the devices or parts of the device have to be tightly connected and must not be corroded.
2) There must not be any deformations on the housing, color lenses, fixations and installation spots (ceiling, suspension, trussing).
3) Mechanically moved parts must not show any traces of wearing and must not rotate with unbalances.
4) The electric power supply cables must not show any damage, material fatigue or sediments.

Further instructions depending on the installation spot and usage have to be adhered by a skilled installer and any safety problems have to be removed.

In order to make the lights in good condition and extend the life time, we suggest a regular cleaning to the lights.
1) Clean the inside and outside lens each week to avoid the weakneness of the lights due to accumulation of dust.
2) Clean the fan each week.
3) A detailed electric check by approved electrical engineer each three month, make sure that the circuit contacts are in good condition, prevent the poor contact of circuit from overheating.

We recommend a frequent cleaning of the device. Please use a moist, lint- free cloth. Never use alcohol or solvents.
There are no serviceable parts inside the device. Please refer to the instructions under "Installation instructions".
Should you need any spare parts, please order genuine parts from your local dealer.

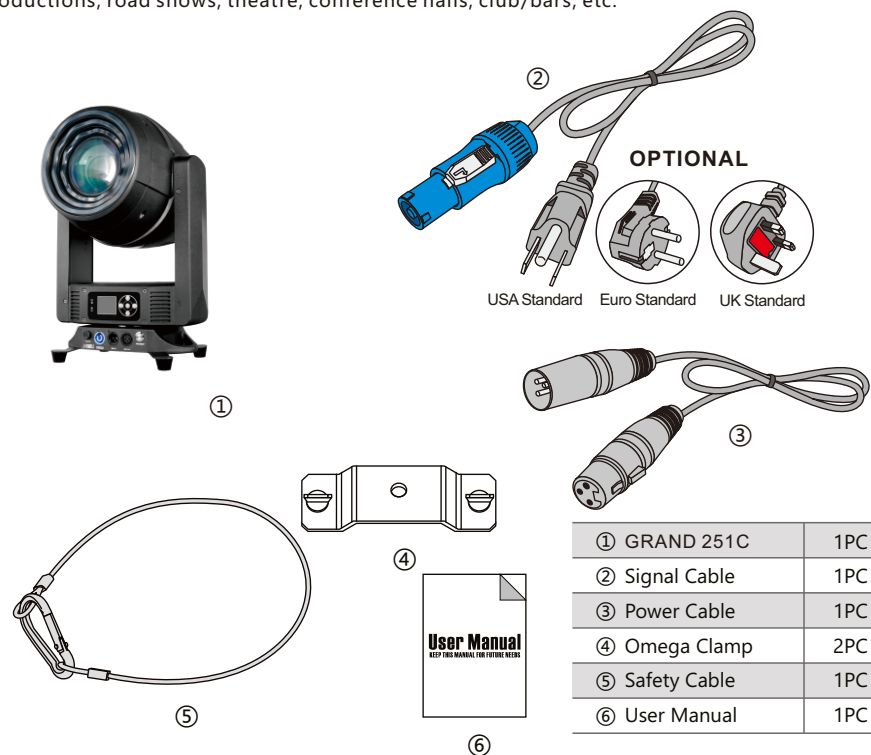| | | 150-199 | Inert prism1 |
		200-255	Inert prism1
		0-127	0-360(degree)
[CH18]	Prism1.R	128-190	Rotate forward (fast to slow)
		191-192	Stop
		193-255	Rotate reverse (slow to fast)
		0-49	None
		50-99	Insert prism2
[CH19]	Prism2	100-149	Insert prism2
		150-199	Insert prism2
		200-255	Insert prism2
		0-127	0-360(degree)
[CH20]	Prism2.R	128-190	Rotate forward (fast to slow)
		191-192	Stop
		193-255	Rotate reverse (slow to fast)
[CH21]	7Color		
		0-255	None
[CH22]	Zoom	0-255	Large to small
[CH23]	Focus	0-255	Far to near
		0-209	None
		210-215	Reset XY motor over 3 second
[CH24]	Reset	216-219	None
		220-235	Reset Effect motor over 3 second
		236-239	None
		240-255	Reset fxiture over 3 second
[CH25]	LED.Eft	0-255	
[CH26]	LED.Spd	0-255	

2 UNPACKING

SPOT+BEAM+WASH, 3-Ring Strip Effect, 2 Prism Wheels, Animation Wheel, Continuous PAN/TILT

The GRAND 251C is a new generation professional and intelligent compact LAMP BSW moving head light designed with linear zoom from 4°-32°. The SPOT features a new high intensity and efficiency OSRAM SIRIUS HRI 251W lamp delivering ultra high light output through a set of high resolution and precise optics that helps to provide extremely clear and even spot coverage. The 3-ring strip light in the front head delivers magic and vivid dynamic lighting effect created by 108*0.2W 3-IN-1 SMD RGB LEDs.

It offers a full complement of other professional characteristics, rotating gobo wheel, static gobo wheel, color wheel, 6-color effect wheel, animation wheel, 2 prism wheels, frost filter, motorized focus, linear dimmer, strobe, etc. It provides 360°continuous fast and smooth PAN/TILT movement with variable speed which delivers even more vivid visual effect to the show. The fixture supports DMX, RDM (Remote Device Management).

The fixture's exterior housing is beautifully balanced design with supremely harmonious interior structure for remarkable control. The sculpted body of the GRAND 251C achieves more than just a striking look.

It's fast and quiet operation BSW moving head. The fixture is tuned with proper refresh rate for flicker free operation for TV and FILM. It's a perfect option for live concerts, TV productions, road shows, theatre, conference halls, club/bars, etc.

OPTIONAL

USA Standard   Euro Standard   UK Standard

User Manual
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| ① GRAND 251C | 1PC |
② Signal Cable	1PC
③ Power Cable	1PC
④ Omega Clamp	2PC
⑤ Safety Cable	1PC
⑥ User Manual	1PC

3 FEATURES & SPECIFICATIONS

1*OSRAM SIRIUS HRI 251W lamp
(30+36+42)*0.2W 3-IN-1 SMD RGB LEDs
Color Temperature: 7800K
CRI: ≥83
Flicker free operation for broadcast TV and FILM
Life Span: 2500H
A set of high resolution and precise optics
Smooth and quiet linear motorized zoom
SPOT Mode: 4°-32°
Beam Mode:2.5°
Smooth and precise linear focus
PAN: 2 modes
1. 360°Continuous movement
2. 540°(8/16 bit)
TILT: 2 modes
1. 360°Continuous movement
2. 270°(8/16 bit)
Fast, quiet, smooth and precise 2-Phase motors
Smooth, fast and precise resolution for PAN/TILT movement with low noise operation
Scan position memory, auto reposition after unexpected movement
PAN/TILT reversible
1 Color wheels with 13 dichroic colors plus open (half color mode available)
Variable direction rainbow effect with speed adjustable
6-Color effect wheel
1 Rotating gobo wheel with 8 rotatable and interchangeable glass gobos plus open with speed adjustable, stream effect, dithering effect and rotatable clockwise or anticlockwise
1 Static gobo wheel with 12 gobos plus open
Gobo overlay (gobo morphing)
Special dynamic flame or water effect, etc
2 Prism wheel design
Prism 1: 4 different prisms, 5-Facet linear prism/3-Facet circular prism/8-Facet circular prism/4+8+16-facet circular prism with variable speed and direction
Prism 2: 4 different prisms, 6-Facet linear prism/12-facet circular prism/16-facet circular prism/8+16-facet circular prism with variable speed and direction
Prism indexing
Prism overlay (prism morphing)
16 Kinds of prism morphing effect
24 Kinds of prism effect in total
Linear frost filter (Hybrid effect for wash)
Even and soft coverage
26 DMX channels USITT DMX-512
DMX512, master-slave, or auto operation
DMX recorder and edit function integrated
RDM available (Remote Device Management)
Art-NET (Optional)
Wireless receiver system built-in (Optional)
Shielded input signal protection for stable signal without interference
RJ45 etherCON IN/OUT (Optional with Art-Net)
3-Pin and 5-pin XLR DMX connectors IN/OUT
Electronic ballast: PT-SIRIUS 420W
Electronic supply with active PFC
AC100-240V 50/60Hz
PowerCON IN/ OUT with fuse
380W Power consumption
-25℃ to 45℃ ambient temperature
IP20 protection rating

		216-220	Shake slow to fast Gobo6
		221-225	Shake slow to fast Gobo7
		226-230	Shake slow to fast Gobo8
		231-235	Shake slow to fast Gobo9
		236-240	Shake slow to fast Gobo10
		241-245	Shake slow to fast Gobo11
		246-250	Shake slow to fast Gobo12
		251-255	Shake slow to fast Gobo12
[CH13]	Rot Gobo	0-9	White
		10-19	Gobo1
		20-29	Gobo2
		30-39	Gobo3
		40-49	Gobo4
		50-59	Gobo5
		60-69	Gobo6
		70-79	Gobo7
		80-89	Gobo8
		90-94	Shake slow to fast Gobo1
		95-99	Shake slow to fast Gobo2
		100-104	Shake slow to fast Gobo3
		105-109	Shake slow to fast Gobo4
		110-114	Shake slow to fast Gobo5
		115-119	Shake slow to fast Gobo6
		120-124	Shake slow to fast Gobo7
		125-129	Shake slow to fast Gobo8
		130-199	Rotate forward (fast to slow)
		200-255	Rotate reverse (slow to fast)
[CH14]	Gobo.Rot	0-127	0-360(degree)
		128-190	Rotate reverse (fast to slow)
		191-192	Stop
		193-255	Rotate forward (slow to fast)
[CH15]	Eft Irt	0-255	
[CH16]	Eft Gobo	0-255	
[CH17]	Prism1	0-49	None
		50-99	Inert prism1
		100-149	Inert prism1

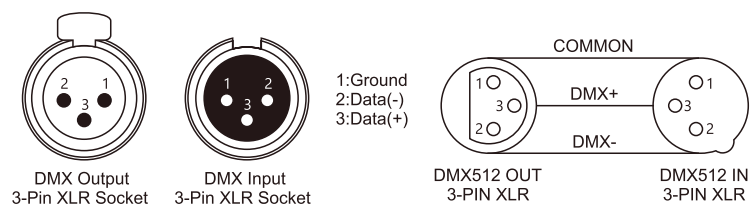|		70-74	Colour7
		75-79	Colour7+Colour8
		80-84	Colour8
		85-89	Colour8+Colour9
		90-94	Colour9
		95-99	Colour9+Colour10
		100-104	Colour10
		105-109	Colour10+Colour11
		110-114	Colour11
		115-119	Colour11+Colour12
		120-124	Colour12
		125-129	Colour12+Colour13
		130-134	Colour13
		135-139	Colour13+Colour14
		140-200	Rotate forward (fast to slow)
		201-255	Rotate reverse (slow to fast)
		0-4	White
		5-9	Gobo1
		10-14	Gobo2
		15-19	Gobo3
		20-24	Gobo4
		25-29	Gobo5
		30-34	Gobo6
		35-39	Gobo7
		40-44	Gobo8
		45-49	Gobo9
[CH12]	Gobo	50-54	Gobo10
		55-59	Gobo11
		60-64	Gobo12
		65-69	Gobo13
		70-129	Rotate reverse (fast to slow)
		130-134	White
		135-190	Rotate forward (slow to fast)
		191-195	Shake slow to fast Gobo1
		196-200	Shake slow to fast Gobo2
		201-205	Shake slow to fast Gobo3
		206-210	Shake slow to fast Gobo4
		211-215	Shake slow to fast Gobo5
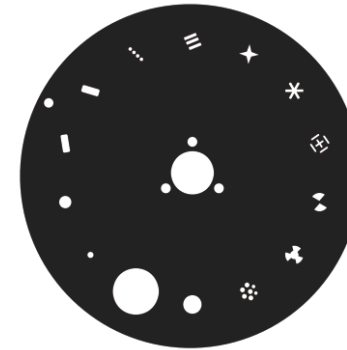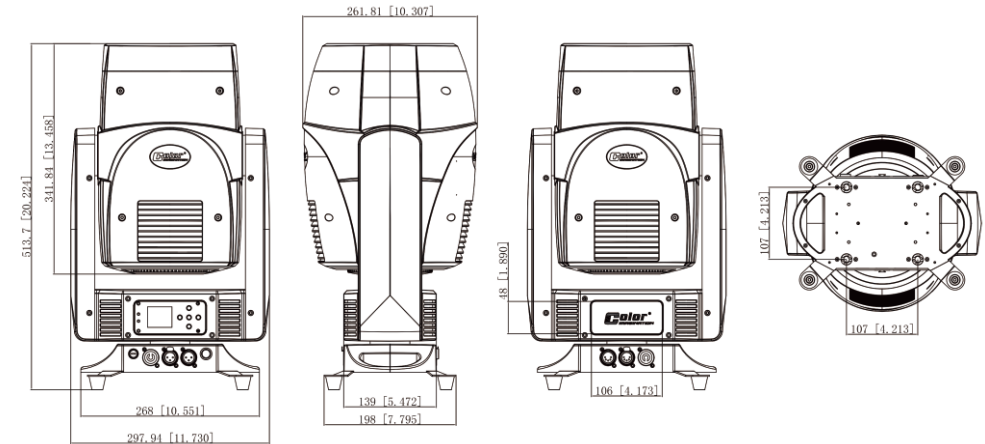
Static Gobo
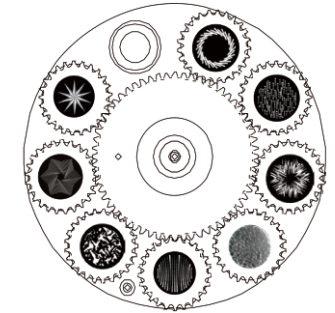
Rotating gobo
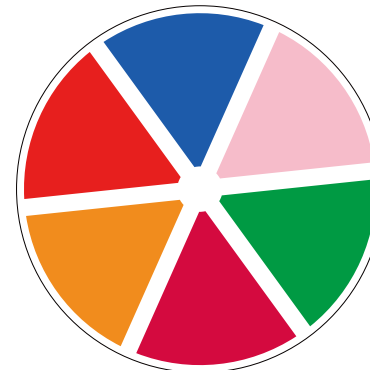
Color Wheel

5 DMX-512 CONTROL CONNECTIONS

Connect the provided XLR cable to the female 3-pin XLR output of your controller and the other side to the male 3-pin XLR input of the archite-ctural. You can chain multiple

Archite-ctural together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors. Please refer to the diagram below.

DMX-512 connection with DMX terminator.

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

DMX Output
3-Pin XLR Socket

DMX Input
3-Pin XLR Socket

COMMON

DMX+

DMX-

DMX512 OUT
3-PIN XLR

DMX512 IN
3-PIN XLR

For installations where the DMX cable has to run a long distance or is in an electrically noisy environment, such as in a discotheque, it is recommended to use a DMX terminator. This helps in preventing corruption of the digital control signal by electrical noise. The DMX terminator is simply an XLR plug with a 120 Ω resistor connected between pins 2 and 3,which is then plugged into the output XLR socket of the last fixture in the chain. Please see illustrations below.

120 Ω

PIN3
PIN2
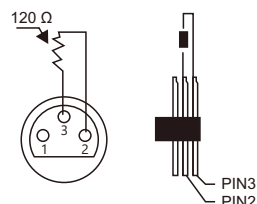
7 DMX CHANNELS

CH	NAME	VALUE	BRIEF
[CH1]	X-Free	0-255	
[CH2]	Y-Free	0-255	
[CH3]	Pan	0-255	0-540(degree)
[CH4]	Tilt	0-255	0-270(degree)
[CH5]	Pan Fine	0-255	0-2(degree)
[CH6]	Tilt Fine	0-255	0-1(degree)
[CH7]	PT Spd	0-255	Fast to slow
[CH8]	Frost		
		0-127	None
		128-255	Insert frost
[CH9]	Strobe		
		0-3	Dark
		4-127	Pluse strobe slow to fast
		128-191	Fade strobe slow to fast
		192-251	Rand strobe slow to fast
		252-255	Open
[CH10]	Dimmer	0-255	0-100% dimmer
[CH11]	Colour		
		0-4	White
		5-9	White+colour1
		10-14	Colour1
		15-19	Colour1+Colour2
		20-24	Colour2
		25-29	Colour2+Colour3
		30-34	Colour3
		35-39	Colour3+Colour4
		40-44	Colour4
		45-49	Colour4+Colour5
		50-54	Colour5
		55-59	Colour5+Colour6
		60-64	Colour6
		65-69	Colour6+Colour7

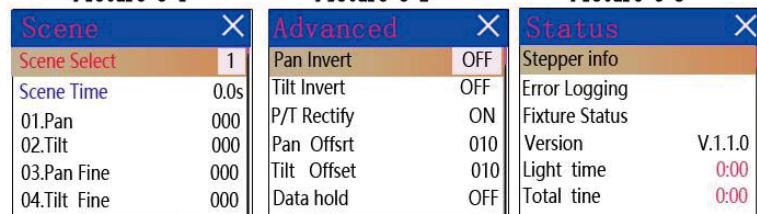|		
	PAN OP	Displays the PAN TILT optocoupler two signal level state, binary
Error Logging		Show the latest 8 error records when the fixture is reset and running. The error records are not saved after power failure. The current power cycle is valid.
	Error Logging	Total number of failures detected after power on
	12：:03	The time of power failure when the fault occurs is in minutes.
	Hall error	The effective hall signal is not detected when the motor is reset
	Hall short	When the motor is reset, the hall signal of the motor is always effective
	Opti error	No effective optocoupler signal is detected when the motor is reset.
	Lose stop	The corresponding motor is out of step during its operation.
	Hit	Striking the positioning rod when the motor is reset
	Lamp error	Lamp explosion accident
	NTC error	The temperature sensor signal is abnormal
	Fan error	The main fan is not working properly.
Fixture status		Displays the critical state data of the current fixture for reference.
	Communication prec	0~100%, Communication quality of internal data link of lamps and lanterns
	Error cnt	The number of erroneous frames was detected after power on, and the total number of erroneous frames was detected.
	Light Temperature	Show the temperature of the current light source, "---" means no detection.
	Panel Temperatrue	Displays the temperature of the current display panel or the ambient temperature.
	Sensor1 Temperatrue	Display the ambient temperature of the motherboard temperature or the motherboard installation position.
Version		Display the information and version of the current fixtrue, important reference for after sales maintenance.
	Device	The name of the fixture is the same as the equipment information of RDM.
	Model	The type of fixture is the same as the model information of RDM.
	Panel	Firmware version and serial number of display panel
	Main Board	Firmware version and serial number of mother board 1
Light time		Record the total cumulative time of light source opening, unit minute, user manual cleaning, as a reference for regular maintenance of light source time
Total time		The total accumulated time for recording the opening of fixture is not allowed to be removed.

6 MENU OPERATIONS

Sub Menu (Parameter)

Picture 6-1   Picture 6-2   Picture 6-3

Picture 6-4   Picture 6-5   Picture 6-6

Picture 6

Parameter menu

operating mode

DMX Ctrl		DMX mode, receive DMX signal, RDM signal
Auto Run		Fixture run automatically according to built-in programs
Sound Ctrl		When the fixture detects a strong sound, the fixture automatically runs a scene according to the built-in program, otherwise it will stay the last scene
Scene Mode 01		runs in a set scebe, which supports most of the custom editing of 10 scenes.
	1~10	outputs the specified scene
	Auto	Automatically loops the output scene in the set scene time (non-zero) order, and the scene with time 0 automatically ignore
M/S Choose		Master and slave selection, non-DMX mode takes effect, select the mode of data output, fixture detect DMX cable state automatic switch output, prevent data conflicts
	Master	fixture runs built-in program. If DMX has no signal, it outputs data (synchronization), otherwise it does not output data.
	Slave	ixture runs built-in program and do not output data
	Auto	If DMX has no signal, the fxiture will runs built-in program. Otherwise, the fixture will run in DMX Mode(follow DMX).
Lamp switch		(Lamp light source) pop-up confirmation dialog box, select "SURE" to confirm the current operation, turn on or off the lamp, switch time interval limited to 30 seconds
	Off	the current lamp output is off
	On	The current lamp output is turned on

Language	display language settings	
	English	English display
	Chinese	Chinese display
Screen saver	Set screen 30 seconds without operation, the screen's display content or method.	
	OFF	Keep the last operation page
	Mode1	Black
	Mode2	Black screen, showing the address code of the current fixture in the lower left corner.
	Mode3	Display trademark information, address code and operation mode.
Screen Rot	Set the display direction of the screen.	
	OFF	No reverse display
	ON	Reverse display
DMX Indicate	Set the indication mode of DMX signal indicator.	
	Mode1	When signal is bright, no signal is off.
	Mode2	When signal is off, no signal is bright.
	Mode3	When signal is flash, no signal is off.
Screen Lihgt	Set the screen backlight for 10 seconds without operation	
	1~10	10

SCENE MODE

Scene Select	Select the current operation scenario.	
	1~10	The 10 scenes sets the format
Scene Time	Sets the retention time of the current scene when it is automatic, unit in 0.1 seconds.	
	0	The current scene is not output in automatic scene output.
	1-255	0..1s-25.5s
1. PAN	0-255	Set up the data of each channel, and the contents and order of the display are one-to-one correspondence with the channel list of fixture.
......	0-255	
......	0-255	
N. Function	0-255	

Pan Invert	Set the rotation direction of PAN	
	OFF	
	ON	
Tilt Invert	Set the rotation direction of TILT	
	OFF	
	ON	
P/T Rectify	Setting up fixture to detect XY lost step and correct	
	OFF	Uncorrected position after out of step
	ON	After losing step, the position is automatically corrected and the out of step fault is recorded.
Pan Offset	Setting the zero point of the PAN of the fixture	
	4-150	
Tilt Offset	Setting the zero point of the TILT of the fixture	
	4-48	
Data hold	When the fixture is not equipped with DMX signal, the output state of the fixture	
	OFF	No signal, so the motor and light source return to the position and state when reset is completed.
	ON	No signal, keep the last frame DMX data output.
Lamp mode	(lamp light source) Set the way to first open the lamp after power up	
	Power on	Turn on the lamp at power up and reset the lamp after 30 seconds.
	After reset	Reset the fixture after 3 seconds when power-on, and turn on the lamp after reset.
	Manual	After reset, manually turn on the lamp through the menu or console.
Reset	Reset fixture	
Factory Setting	Pop up the confirmation box, select "SURE", and return the lamp parameters to the factory settings.	

STATUS INFORMATION

Stepper info	Display information status of all motors and signals in fixture.	
	Hall	No display, indicating that the motor has no Hall, 0 indicating that the motor leaves the correction position point, 1 indicating that the motor is in the correction position point
	Status	Display motor reset status
	PAN	Display real-time position value of PAN optocoupler feedback
	TILT	Display real-time position value of TILT optocoupler feedback