Max spot 250



Starway

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I/ INTRODUCTION

Thank you for selecting the Max Spot 250. This automated luminary provides 8 dichroic color filters, high-speed mechanical shutter, 4-digit LED control Panel, 510° of pan by 260° of tilt, DMX, Stand-Alone, and Master/Slave control Options; and switch-selectable power supply settings. The Max Spot 250 provides a 17° hard-focused beam, manually adjustable focus, and 7 Gobos.

SAFETY INFORMATION

Warning! This product is for professional use only. It is not for household Use.

This product presents risks of lethal or severe injury due to fire and heat, electric shock, ultraviolet radiation, lamp explosion, and falls. **Read this manual** before powering or installing the fixture, follow the safety precautions listed below and observe all warnings in this manual and on the fixture.

To protect yourself and others from electric shock

- Disconnect the fixture from AC power before removing or installing the lamp, fuses, or any part, and when not in use.
- Always ground (earth) the fixture electrically.
- Use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault protection.
- Do not expose the fixture to rain or moisture.

To protect yourself and others from UV radiation and lamp Explosion.

- Never operate the fixture with missing or damaged lenses and/or covers.
- When replacing the lamp, allow the fixture to cool for at least 5 minutes before opening the fixture or removing the lamp. Protect your hands and eyes with gloves and safety glasses.
- Do not stare directly into the light. Never look at an exposed lamp while it is lit.
- Replace the lamp if it becomes defective or worn out.

To protect yourself and others from burns and fire

- Never attempt to bypass the thermostatic switch or fuses. Always replace defective fuses with ones of the specified type and rating.
- Keep all combustible materials (for example fabric, wood, paper) at least 0.3 meters (12 inches) away from the fixture. Keep flammable materials well away from the fixture.
- Do not illuminate surfaces within 0.3 meters (12 inches) of the fixture.
- Provide a minimum clearance of 0.1 meters (4 inches) around fans and air vents.
- Never place filters or other materials over the lens.
- The exterior of the fixture can reach temperatures up to 60° C (140° F). Allow the fixture to cool before handling.
- Do not modify the fixture or install other than genuine parts.
- Do not operate the fixture if the ambient temperature (Ta) exceeds 40° C (104° F).

To protect yourself and others from injury due to falls

- When suspending the fixture above ground level, verify that the structure can hold at least 10 times the weight of all installed devices.
- Verify that all external covers and rigging hardware are securely fastened and use an approved means of secondary attachment such as a safety cable.
- Block access below the work area whenever installing or removing the fixture.

UNPACKING

The packing material is carefully designed to protect the fixture during shipment - always use it to transport the fixture.

The Max Spot 250 comes with:

- ELC 24V 250W lamp
- 3 m, 3-pin IEC mains cable
- Attachment bracket for mounting clamp
- User manual

II/ AC POWER

The Max Spot 250 has switch-selectable settings to configure the power supply for local conditions. Always use the setting that is closest to the local AC supply.

Warning! For protection from electric shock, the fixture must be grounded (earthed). The power supply shall have overload and ground-fault protection.
Important! Install fuse and verify that power supply settings match local AC supply before use.

To change the voltage setting

1. Disconnect the fixture from power.
2. Remove the 4 base cover bolts with a 4 mm Allen wrench. Move the cover out of the way of the switches without disconnecting wires.
3. Set the 5-position switch (A) to the setting closest to the AC voltage. Use the higher setting if the voltage is halfway between 2 settings. For example, use the 230 V setting instead of the 210 V setting for operation with 220 V power.
4. Set the 2-position switch (B) to the AC frequency (50 / 60 Hz).
5. Replace the cover and apply a new power setting label to the serial number label.

To install the main fuse

Fuses are provided for 100 - 130 V and 200 - 250 V operation.
Use only the fuse specified for the operating voltage.

1. Locate the bag containing the fuse for your AC voltage. Insert the fuse in the fuse holder. The holder may be packed with the other fuse.
2. Remove the label covering the mains input socket.
3. Insert the fuse holder in the empty slot in the mains input socket (C).

To install a plug on the power cable

The power cable must be fitted with a grounding-type cord cap that fits your power distribution system. Consult an electrician if you have any doubts about proper installation.
Following the cord cap manufacturer's instructions, connect the yellow and green wire to ground (earth), the brown wire to live, and the blue wire to neutral. The table below shows some pin identification schemes.

Table 1: Cord cap connections

Wire	Pin	Marking	Screw color
brown	live	"L"	yellow or brass
blue	neutral	"N"	silver
yellow/green	ground	⏚	green

To apply power

Warning! The power cables must be undamaged and rated for the electrical requirements of all connected devices. Important! Powering through a dimmer system can damage the fixture.

- Connect the prepared cable to the mains input socket and the AC mains distribution system. Do not connect the fixture to a dimmer system.

III/ INSTALLATION

LOCATION AND ORIENTATION

For safe operation, install the Max Spot 250 in a location where: -

- It is at least 0.3 meters (12 inches) away from illuminated surfaces and combustible materials.
- It is not easily touched or bumped.
- It is protected from rain and moisture.
- There is at least 0.1 meters (4 inches) clearance around the fans and air vents.
- There are no flammable materials nearby. The Max Spot 250 may be installed in any orientation as described below or placed directly on a stage or floor. The intense light can burn or melt parts within a distance of 0.3 meters (12 inches).

When installing fixtures side-by-side, avoid illuminating one fixture with another.

Clamp

The Max Spot 250 includes a bracket for attaching a rigging clamp with 12 mm (1/2 in.) hardware.

TO RIG THE FIXTURE WITH A CLAMP

WARNING! Ensure a safety Cable is secured to the safety anchor point at the base of the fixture.

1. Verify that the clamp is undamaged and can bear at least 10 times the weight of the fixture. Verify that the structure can bear at least 10 times the weight of all installed fixtures, clamps, cables, auxiliary equipment, etc.
2. Bolt a clamp to the included bracket with a grade 8.8 (minimum) M12 bolt and locknut, or as recommended by the clamp manufacturer, through the 13 mm hole in the bracket.
3. Align the bracket with the keyholes in the base. Insert both locking pins into the holes and turn both levers a full 1/4 turn clockwise to lock. *The fasteners are locked only when turned fully clockwise.*

4. Attached the safety cable that can bare at least 10 times its weight, through the safety cable anchor point at the base.
5. Block access below the work area.
6. Working from a stable platform, clamp the fixture to the structure.



IV/ CONTROL PANEL

The control panel is used to set control modes, address, and personalities; to display information readouts, to run tests, and to control the fixture manually.



USER INTERFACE PICTURE / DIAGRAM

TO NAVIGATE THE CONTROL MENU

Error messages, if any and mode information are displayed at the top of the menu tree. If the fixture is in (1) DMX mode, the address is displayed; (2) Automatic Stand-alone mode, SA is displayed. The top of the menu can be reached by pressing [menu] repeatedly.

1. From the top of the control menu, press [menu] to enter the main menu.
2. Press [up] or [down] to scroll through menus and press [enter] to view submenus.
3. To activate a setting or function, press [enter].
4. To return to the previous menu or to escape without making a selection, press [menu].

PERSONALITIES

The following settings are available to modify fixture behavior.

Pan/tilt swap: Map pan to the tilt channel and tilt to the pan channel to provide more intuitive control of fixtures mounted sideways.

Inverse pan: Flip pan movement to right-to-left instead of left-to-right.

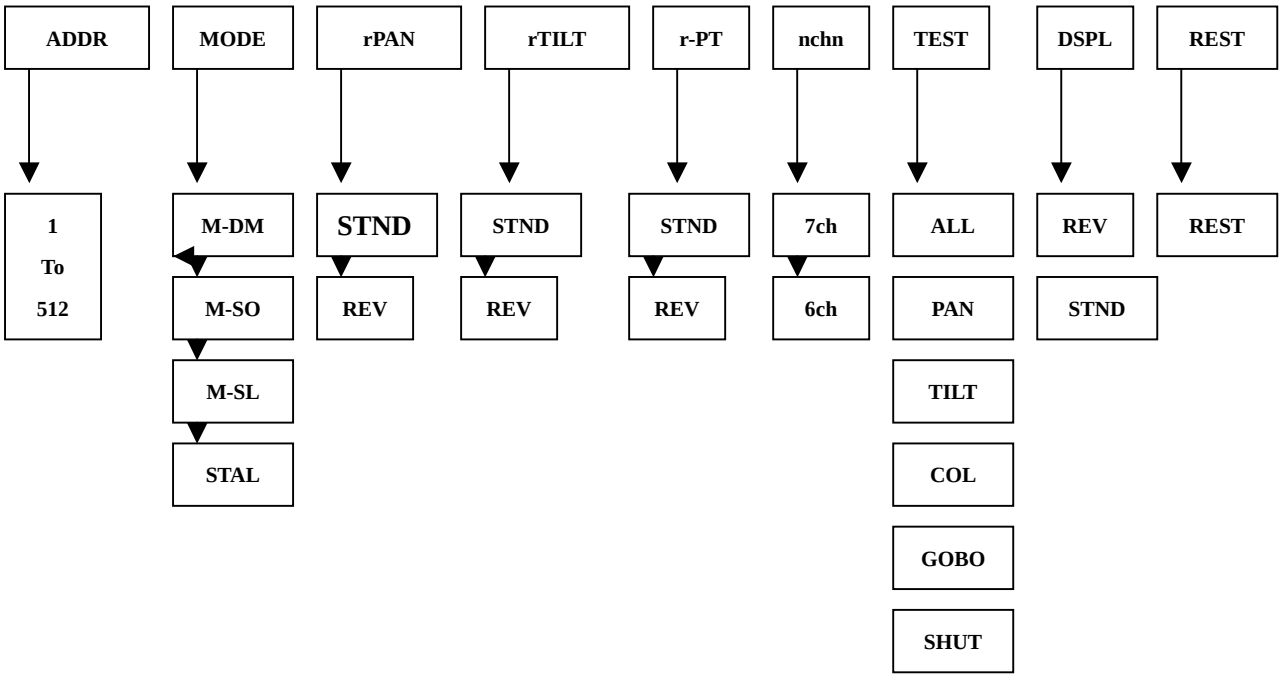
Inverse tilt: Flip tilt movement to down-to-up instead of up-to-down.

DMX lamp-off: By switching the fixture between 6 and 7 channels, you are able to strike the lamp via DMX.

Display: Flip the display for truss mounting.

MENU FUNCTIONS AND DISTRIBUTION

The Max Spot 250 has 9 menu functions. Bellow is a Menu tree, which will help you to read understand the menu codes.



MENU CODE MEANINGS

ADDR This allows you to change the start address one to 512.

MODE This allows you to change the control mode: -

- **M-DM** DMX MODE
- **M-SO** SOUND ACTIVE MASTER
- **M-SL** SOUND ACTIVE SLAVE
- **STAL** STAND ALONE

rPAN This allows you to change the pan direction: -

- **REV**REVERSE
- **STND** STANDARD

rTILT This allows you to change the tilt direction: -

- **REV**REVERSE
- **STND** STANDARD

r-PT This allows you to change the pan and tilt direction simultaneously: -

- **REV**REVERSE
- **STND** STANDARD

nchn This allows you to control the ELC lamp via DMX: -

- **7ch** lamp controlled via DMX
- **6ch** lamp controlled via fixture

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TEST This function allows the user to test the fixtures features from the fixture without DMX signal: -

- **PAN** Tests the pan movement
- **TILT** Tests the tilt movement
- **COL** Tests the color wheel
- **GOBO** Tests the gobo wheel
- **SHUT** Tests the shutter

DSPL This allows you to change the display orientation for upside down truss mounting: -

- **REV**REVERSE
- **STND** STANDARD

REST This allows you to reset the fixture: -

- **REST** RESET

DMX VALUE TABLE

CHANNEL 1 – PAN (510°)

NO.	DMX VALUE	EFFECT
1	0	PAN LEFT
2	127	PAN CENTER
3	255	PAN RIGHT

CHANNEL 2 – TILT (260°)

NO.	DMX VALUE	EFFECT
1	0	TILT LEFT
2	127	TILT CENTER
3	255	TILT RIGHT

CHANNEL 3 – SPEED

The speed of the pan and tilt from left to right, up and down. DMX value 0-255.

CHANNEL 4 – COLOR

NO.	DMX VALUE	EFFECT
1	0 -15	*OPEN*
2	16 -31	*COLOR 1*
3	32 - 43	*COLOR 2*
4	44 - 55	*COLOR 3*
5	56 - 67	*COLOR 4*
6	68 - 79	*COLOR 5*
7	80 - 91	*COLOR 6*
8	92 - 107	*COLOR 7*
9	108 -119	*COLOR 8*
10	120 -135	*1 COMBINED COLOR*
11	136 -151	*2 COMBINED COLOR*
12	152 -167	*3 COMBINED COLOR*
13	168 -183	*4 COMBINED COLOR*
14	184 -199	*5 COMBINED COLOR*
15	200 -215	*6 COMBINED COLOR*
16	216 -227	*7 COMBINED COLOR*
17	228 -239	*8 COMBINED COLOR*
18	240 -255	*CONTINUOUSLY CYCLING*

CHANNEL 5 – GOBOS

NO.	DMX VALUE	EFFECT
1	0 - 23	*OPEN*
2	24 - 47	*GOBO 1*
3	48 - 71	*GOBO 2*
4	72 - 95	*GOBO 3*
5	96 - 119	*GOBO 4*
6	120 - 143	*GOBO 5*
7	144 - 167	*GOBO 6*
8	168 – 191	*GOBO 7*
9	192 - 255	*CONTINUOUSLY CYCLING*

CHANNEL 6 – SHUTTER / DIMMER

NO.	DMX VALUE	EFFECT
1	0 - 15	*SHUTTER*
2	10 - 127	*DIMMING*
3	128 - 239	*STROBE (FAST TO SLOW)*
4	240 - 255	*OPEN*

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CHANNEL 7 – RESET & LAMP CONTROL

NO.	DMX VALUE	EFFECT
1	0 – 127	*STRIKE LAMP*
2	128 – 191	*REPOSITION AFTER 5 SECS*
3	192 – 250	*TURN OFF LAMP*
4	251 – 255	*TURN LAMP OFF AFTER 10 SECS*

ADDRESS SELECTION

The control address, also known as the start channel, is the first channel used to receive instructions from the controller. The total number of channels used depends on the control mode.

Be sure to allow adequate channels when setting the control address.

If control channels for one fixture overlap control channels for another fixture, then one of the fixtures will receive the wrong commands. To find the highest usable address channel, subtract the number of channels required from the last controller channel and add 1. Two Max Spot 250's of the same type, and operating in the same control mode, may share the same address if they are to respond identically. They will receive the same commands and individual control will be impossible.

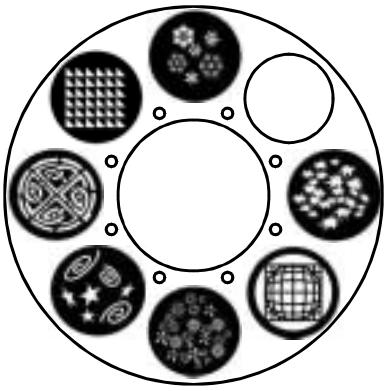
To set the control address

1. Scroll to Addr in the main menu and press [enter]. The current address is displayed.
2. Scroll to the address that is assigned to the fixture on the controller. Press [enter] to activate the address setting.

V/ Optical Path Configuration

GOBO WHEEL

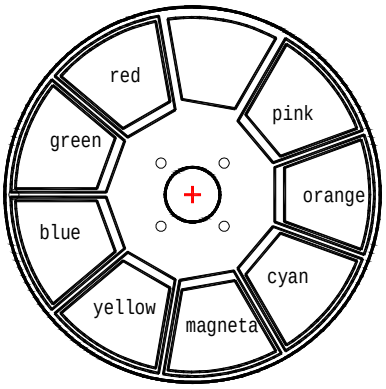
This fixture has 7 static indexing metal gobos plus one open. The gobos can be chosen prior to manufacture. Wheels can be interchanged with replacement wheels to vary the gobo effects.



GOBO WHEEL DIAGRAM

COLOR WHEEL

This fixture has 8 Dichroic filters on one single color wheel. They are Red, Green, Blue, Yellow, Rose, Light Blue, Orange Red, Pink plus Open.



COLOR WHEEL DIAGRAM

FOCUS LENS

This fixture has a manual focus lens. By turning it clock-wise and counter clock-wise you are able to adjust the focal length according to your requirements.



FOCUS LENS DIAGRAM

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VI/ Trouble Shooting

PROBLEM	REASON	TROUBLE SHOOTING
	No Power	Turn on the power at mains
One or More fixtures do not respond	DMX ADDRESS	Ensure you are sending signal to the fixture
	Fuse	Check that the fuse is in tact and serviceable
Fixture repositions But undesired or no reponse	DMX CABLE	Check to see that a proper connection between control and the fixture a is constant
		Individually check each cable for continuity on all three pins
		Check polarity of DMX cable
	Poor signal from Control	Check DMX cables, Check control DMX selection switch if one is present
	DMX ADDRESS OFFSET	Reassign DMX address and ensure all fixtures use the same profile
Lamp Does not Strike	No Power	Check to see if fixture has power
	Lamp is blown	Replace lamp with same
	Lamp is loose	Ensure Lamp is properly inserted into ceramic base

VII/ Technology Specifications

DMX Channels:	6 or 7 Channel selectable
Lamp:	ELC 24V 250W
User Display Interface:	Four LED bar Display with four soft touch keys and English menu
Color Wheel:	One Color Wheel with 8 dichroic filters, 9 split colors and open
Gobo Wheel:	One Gobo Wheel with 7 indexing metal gobos plus open
Pan:	510° of pan
Tilt:	260°
Volts:	220VAC 50Hz
Current:	5Amps
Size:	220 x 220 x 350mm
Weight:	6kg

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