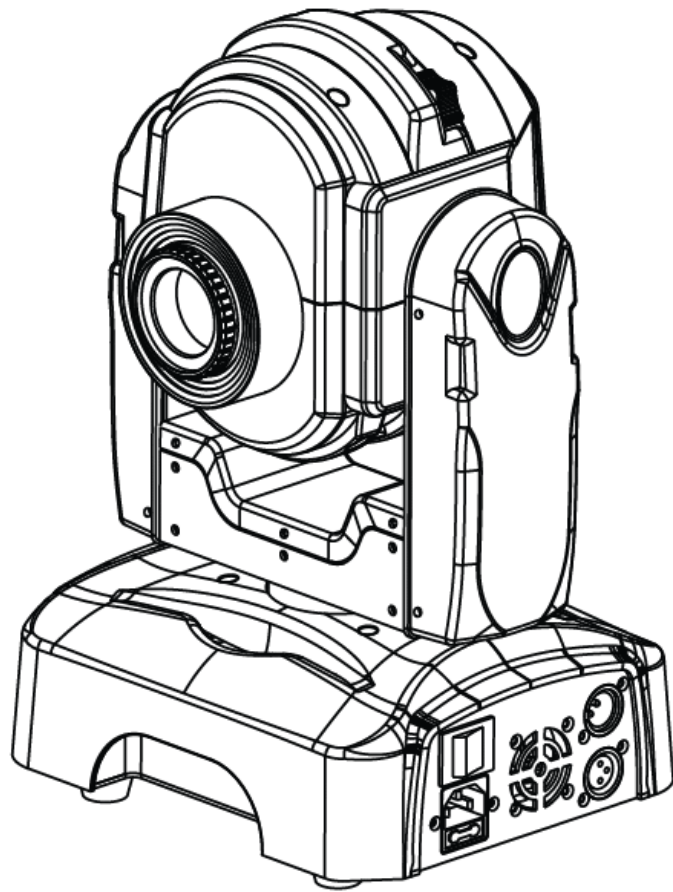


Q-SPOT 160-LED

User Manual




CHAUVET®

Edition Notes

The Q-Spot™ 160-LED User Manual Rev. 01b covers the description, safety precautions, installation, programming, operation, and maintenance of the Q-Spot™ 160-LED product. CHAUVET® released this edition of the Q-Spot™ 160-LED User Manual Rev. 01b in September 2010.

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For better results, print this document in color, on letter size paper (8.5 x 11 inches), double sided. If using A4 paper (210 x 297 mm), configure your printer to scale the content of this document to A4 paper.

Intended Audience

Any person in charge of installing, operating, and/or maintaining the Q-Spot™ 160-LED should read the Guide that shipped with it as well as this manual in their entirety before installing, operating, or maintaining this product.

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Document Revision

The Q-Spot™ 160-LED User Manual Rev. 01b supersedes all previous versions of this manual. Please discard any older versions of this manual you may have, whether in printed or electronic format, and replace them with this version.

Author	Editor	Manager	PD Manager
O. Desmonteix	D. Coupee	M. Graham	F. Sellers

Product at a Glance











Use on Dimmer		Auto Programs	
Outdoor Use		Auto-ranging Power Supply	
Sound Activated		Replaceable Fuse	
DMX		User Serviceable	
Master/Slave		Duty Cycle	

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1. Before You Begin

What is Included

- One Q-Spot™ 160-LED
- Two mounting brackets
- One power cord
- Three extra gobos
- Warranty Card
- Quick Start Guide

Unpacking Instructions




Immediately upon receiving this product, carefully unpack it and check the container in which you received it. Make sure that you have received all the parts indicated above and that they are all in good condition. If the material inside the container (this product and any other accessory included with it) appears damaged from shipping, or if the container shows signs of mishandling, notify the shipper immediately. In addition, retain the container and all the packing material for inspection.

See the *Claims* section in the *Technical Information* chapter.

Typographic Conventions

Convention	Meaning
1~512	A range of values in the text
50/60	A set of mutually exclusive values in the text
[10]	A DIP switch to be configured
<i>Claims</i>	A new term, or a section or chapter in this document
"COLORado™ UM"	The name of another publication or manual
<SET>	A button on the fixture's control panel
Settings	A fixture function or a menu option
MENU > Settings	A sequence of menu options
1~10	A range of menu values from which to choose in a menu
Yes/No	A set of two mutually exclusive menu options in a menu
ON	A unique value to entered or select in a menu

Icon Meaning

Icon	Meaning
	This icon indicates critical installation, configuration, or operation information. Failure to comply with this information may render the fixture partially or completely inoperative, damage third-party equipment, or cause harm to the user.
	This icon indicates important installation or configuration information. Failure to comply with this information may prevent the fixture from functioning correctly.
	This icon indicates useful, although non-critical information.



The term "DMX" used throughout this document refers to the USITT DMX512-A transmission protocol.

Safety Notes

Please read the following notes carefully because they include important safety information about the installation, usage, and maintenance of this product. It is important to read all these notes before starting to work with this product.



There are no user serviceable parts inside this product. Any reference to servicing it you may find from now on in this User Manual will only apply to properly CHAUVET® certified technicians. Do not open the housing or attempt any repairs unless you are one of them.



Please refer to all applicable local codes and regulations for the proper installation of this product.



Keep this manual for future consultation. If you sell this product to another user, make sure that they also receive this manual.

Personal Safety

- Avoid direct eye exposure to the light source while the fixture 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 when operating because it could be hot.

Mounting and Rigging

- This product is for indoor use only! To prevent risk of fire or shock, do not expose this product to rain or moisture.
- This product is for outdoor use (IP66). However, do not submerge it.
- This product is for outdoor use and it can be submerged (IP67). However, do not submerge it deeper than 1 m.
- This product weighs XX lbs (XX kg). Always ask for help when mounting this product to avoid personal injuries or damage to the unit.
- Make sure there are no flammable materials close to this product while operating.
- When hanging this product, always secure it to a fastening device using a safety cable (not provided).
- Do not carry this fixture from the head; carry it from the base instead.

Power and Wiring

- Always make sure that you are connecting this product to the proper voltage, as per the specifications in this manual or on the product's sticker.
- Never connect this product to a dimmer pack or rheostat.
- Make sure the product's housing or power cable are not cracked, crimped, or damaged.
- Never disconnect this product by pulling or tugging on the power cable.

Operation

- Do not operate this fixture if you see damage on the housing, lenses, ultraviolet filter, or cables; have the damaged parts replaced by an authorized technician at once.
- Do not cover the ventilation slots when the fixture is operating to avoid internal overheating.
- The maximum ambient temperature (Ta) is 104° F (40° 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 CHAUVET® product may require service, please contact CHAUVET® Technical Support.

Expected LED Lifespan

LEDs gradually decline in brightness over time, mostly because of heat. Packaged in clusters, LEDs exhibit higher operating temperatures than in ideal or singular optimum conditions. For this reason, using all color LEDs at their fullest intensity significantly reduces the LEDs' lifespan. Under normal conditions, this lifespan can be of 40,000 to 50,000 hours. If extending this lifespan expectancy is vital, lower the operational temperature by improving fixture ventilation and reducing the external temperature. In addition, limiting the overall projection intensity may also help to extend the LEDs life.

2. Introduction

Product Description

The Q-Spot™ 160 LED is a hard edge 9- or 12-channel DMX yoke with a nine-step color wheel plus white. It features a 7-position rotating slot-and-lock gobo wheel with an easy-to-open cover and a three-facet prism.

Features

- 9 or 12-channel DMX LED moving yoke
- Pan: 540°
- Tilt: 270°
- Color Wheel
 - Nine colors + white
 - Rainbow color spins at variable speeds
- Gobo wheel with gobo shake
 - Seven interchangeable, slot-n-lock, rotating gobos + open
 - Gobo wheel spins at variable speeds
- One high-powered, 20 W (1,000 mA) LED
- One 3-facet prism
- Variable electronic strobe
- Variable electronic dimmer (0~100%)
- Remote fixture reset & vector speed channel
- Up to 255 user-programmable steps without DMX controller
- Move-in-black for pan/tilt
- Built-in automated programs
- Built-in sound activated programs

Additional Features

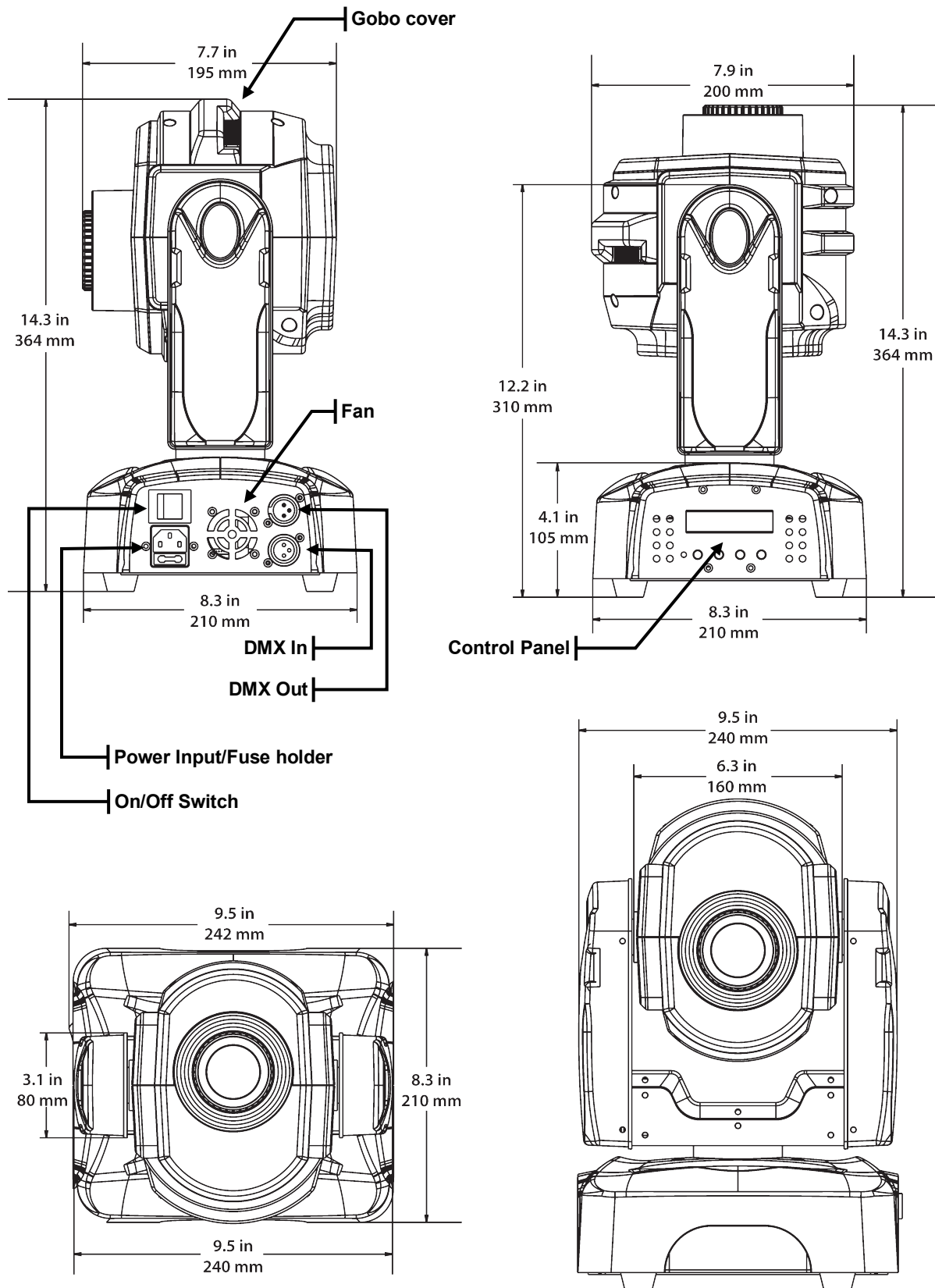
- Three extra gobos
- User-selectable pan/tilt ranges
- Automatic pan/tilt correction
- Reset to factory settings option
- User-selectable basic or advanced operating modes

DMX Channel Summary

The Q-Spot™ 160 LED has two DMX modes, Basic (9 channels) and Advanced (12 channels). The table below shows the functions assigned to each channel in these DMX modes.

Basic Mode		Advanced Mode	
DMX Channel	Function	DMX Channel	Function
1	Pan	1	Pan
2	Tilt	2	Pan fine
3	Color	3	Tilt
4	Gobo	4	Tilt fine
5	Gobo Rotation	5	Pan/tilt speed
6	Prism	6	Color
7	Dimmer	7	Gobo
8	Strobe	8	Gobo Rotation
9	Control	9	Prism
		10	Dimmer
		11	Strobe
		12	Control

Product Overview



NOTE: Dimension in inches rounded to the nearest decimal digit

3. Setup

AC Power

This product has an auto-ranging power supply that can work with an input voltage range of 100~240 VAC, 50/60 Hz.

Make sure that you are connecting the Q-Spot™ 160-LED to the proper voltage, as per the specifications in this guide, the product's manual or on the product's sticker.



Always connect the Q-Spot™ 160-LED to a protected circuit with an appropriate electrical ground to avoid the risk of electrocution or fire.

To determine the power requirements for the Q-Spot™ 160-LED see the label affixed to the side of the fixture. Alternatively, you may refer to the corresponding specifications chart in the *Technical Information* chapter of this manual.

The listed current rating indicates the maximum current draw during normal operation. For more information, you may download the "Sizing the Circuit Breakers" document from the CHAUVET® Web site.



Never connect the Q-Spot™ 160-LED to a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel serves only as a 0 to 100% switch.

AC Plug

The Q-Spot™ 160-LED comes with a power input cord terminated with an Edison plug (US market). If the power cord that came with your fixture has no plug or you need to change the Edison plug, use the table below to wire the new plug.

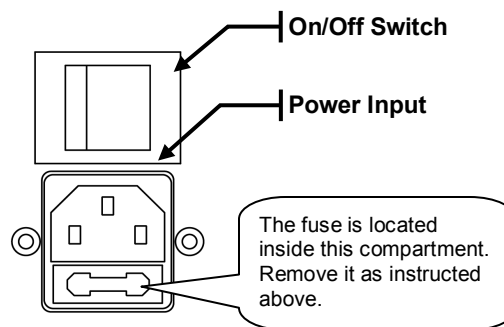
Connection	Wire (US)	Wire (Europe)	Screw Color
AC Live	Black	Brown	Yellow or Brass
AC Neutral	White	Blue	Silver
AC Ground	Green/Yellow	Green/Yellow	Green



Make sure to disconnect the fixture's power cord before replacing a blown fuse, and always replace it with a fuse of the same type and rating.

Fuse Replacement

- 1) With a flat head screwdriver, wedge the fuse holder out of its housing and remove the blown fuse from its holder.
- 2) Replace the blown fuse with a fuse of the exact same type and rating.
- 3) Insert the fuse holder back in its place, and reconnect power.



DMX Linking

You may link any Q-Spot™ 160-LED fixture to a DMX controller using a standard DMX serial connection. If using other DMX compatible fixtures with a Q-Spot™ 160-LED fixture, it is possible to control them individually with a single DMX controller.

If you are not familiar with the DMX standard, or if you need information about the DMX cables needed to link the Q-Spot™ 160-LED fixture to a DMX controller, you may download the “DMX Primer” document from the CHAUVET® Web site.

DMX Modes

The Q-Spot™ 160-LED uses the standard DMX data connection for its **DMX mode(s), <list of modes>**. You will find information about these DMX modes in the *Introduction* chapter (brief description), the *Operation Instructions* chapter (configuration details), and the *DMX Values* section (individual channel values).

Master/Slave Connectivity

The Master/Slave mode allows a Q-Spot™ 160-LED fixture to control one or more Q-Spot™ 160-LED fixtures without a DMX controller. The controlling fixture becomes the “master” when running an Auto program (AUTO 1 or 2), a sound activated program (SOUND 1 or 2), or the custom program (CUSTOM). The controlled fixtures are the “slaves” and you must set them to “Slave” mode from their respective control panels. During the Master/Slave operation, the slave fixtures will operate in unison with the master fixture.

The master and slave fixtures link to each other using the standard DMX serial connection. If you are not familiar with the Master/Slave connectivity, you may download the “DMX Primer” document from the CHAUVET® Web site.



DO NOT connect a DMX controller to the fixtures operating in Master/Slave mode. Otherwise, the signals from the DMX controller may interfere with the signals from the master unit.



The *Operation* chapter of this manual provides detailed instructions on how to configure the Master and Slave units.

Color Wheel

The Q-Spot™ 160-LED comes equipped with a Color wheel featuring nine colors and a white (open).

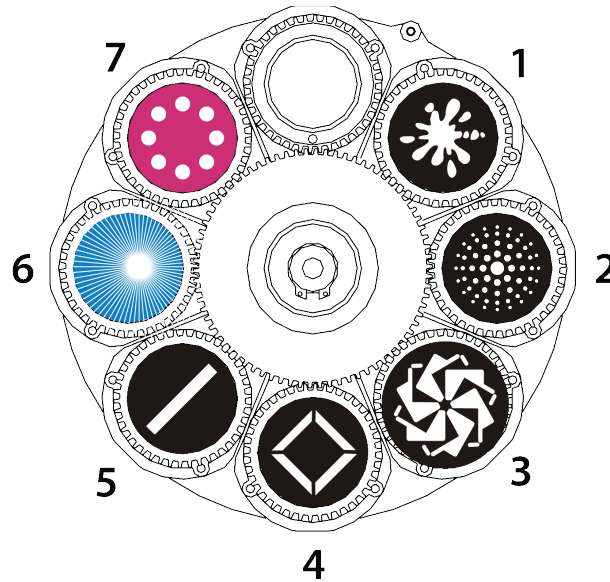
Color Wheel Diagram



Gobo Wheel

The Q-Spot™ 160-LED comes equipped with a gobo wheel featuring seven rotating and replaceable (slot-n-lock system) gobos. The gobo wheel has an eighth position with no gobo (open).

Gobo Wheel Diagram



Gobo Replacement



Procedure

The Q-Spot™ 160-LED features a gobo wheel that holds seven interchangeable, slot-n-lock gobos. These gobos can rotate at various speeds and in both directions. Follow the procedure below to change any of the gobos on the gobo wheel

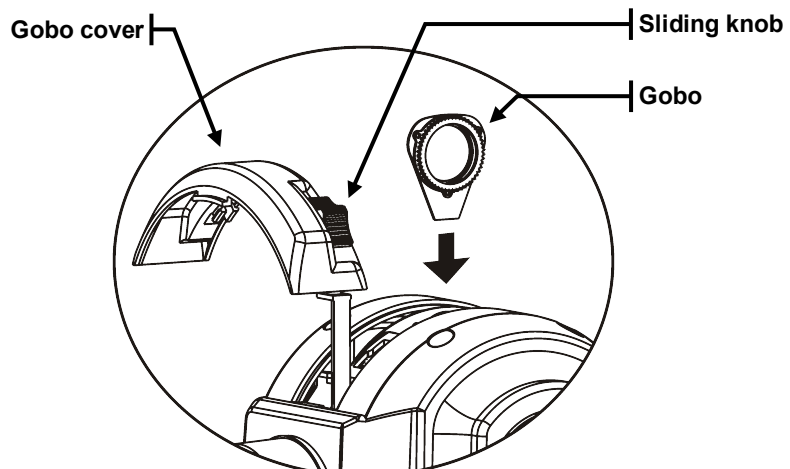
Always disconnect the fixture from the AC power before opening it.

- 1) Remove the gobo cover.
- 2) Remove the slot-n-lock gobo from the gobo wheel.
- 3) Using a small tool, pry the tension ring from the gobo holder.
- 4) Remove the old gobo.
- 5) Insert the new gobo, and replace in the reverse steps of removal.



If using coated glass gobos, make sure that the more reflective side of the gobo (glass base) faces the light source. This way, the glass base of the gobo will provide extra isolation to its coating from the heat of the light source, thus minimizing the risk of damaging the gobo's coating.

Gobo Replacement Diagram



Mounting

Before mounting this fixture, read and follow the safety recommendations indicated in the *Safety Notes* section (page 2 of this manual).

Orientation

Always mount this fixture in any safe position while making sure that there is adequate room around it for ventilation, configuration, and maintenance.

Rigging

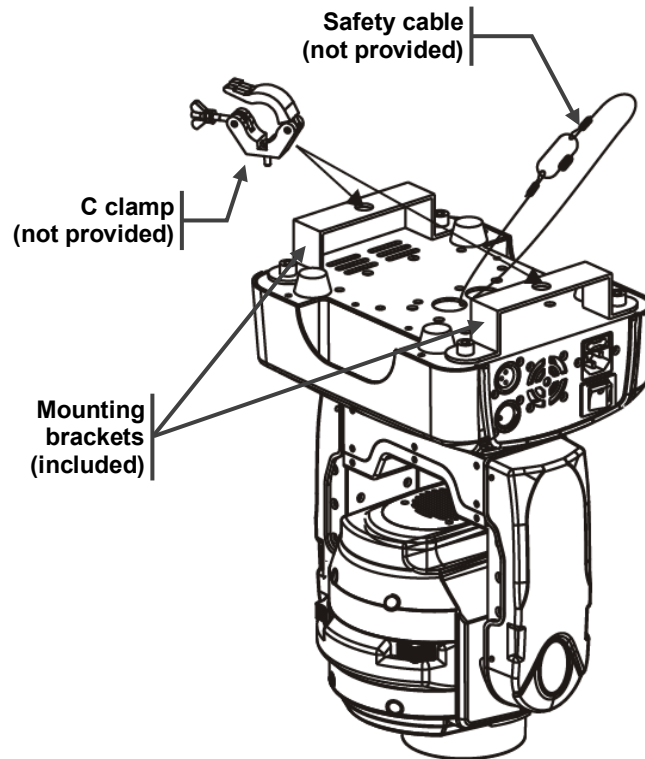
CHAUVET® recommends following the general guidelines below when mounting the Q-Spot™ 160-LED.

- When selecting an installation location, consider ease of access to the fixture for operation, programming adjustments, and routine maintenance.
- Make sure to mount this fixture away from any flammable material as indicated in the *Safety Notes* section.
- Never mount the fixture in places where rain, high humidity, extreme temperature changes, or restricted ventilation may affect it.
- If hanging this fixture, make sure that the location where you are mounting the fixture can support its weight. Please see the *Technical Specifications* section of this manual for the weight requirement of this fixture.

Procedure

You can mount the Q-Spot™ 160-LED on a flat, rigid surface or hang it from a truss. This fixture includes two mounting brackets for overhead mounting. You can attach a rigging clamp to . You must supply your own "C" or "O" clamps as well as your safety cable, making sure that they are capable of supporting the weight of this fixture. You need to use two clamps per fixture.

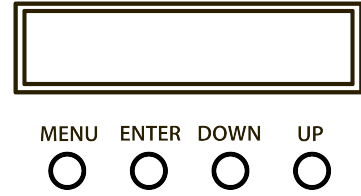
Product Mounting
Diagram



4. Operation

Control Panel Description

Button	Function
<MENU>	Exits from the current menu or function
<ENTER>	Enables the currently displayed menu or sets the currently selected value in to the current function
<DOWN>	Navigates downwards through the menu list and decreases the numeric value when in a function
<UP>	Navigates upwards through the menu list and increases the numeric value when in a function



Control Options

You can set the Q-Spot™ 160-LED start address in the 001~512 DMX range. This allows for the control of up to 42 fixtures in the 12-channel Advanced DMX mode.

Programming

Carry out all the programming procedures indicated below from the control panel. Refer to the *Menu Map* on page 13 to learn how the menu options relate to each other.

To go to an option, press <MENU> repeatedly until the option shows on the display.

To select an option value, press <UP> or <DOWN> until you see the desired value and press <ENTER> to accept it.

To exit to the previous menu level, press <MENU>.

DMX Operation

- 1) Go to **Intro > Run**.
 - a) Select **DMX-512**.
 - b) Activate the DMX operation mode or return to the previous level.
- 2) Go to **Intro > Address**.
 - a) Select the starting address (**001~512**).
 - b) Activate the new DMX address or return to the previous level.
- 3) Go to **Intro > Channels**.
 - a) Select either **Advanced** (12 channels) or **Basic** (9 channels).
 - b) Activate the selected DMX mode or return to the previous level.



When selecting the Advanced mode, you can accommodate up to 42 Q-Spot™ 160-LED fixtures on the same DMX universe.

Auto Programs

- 1) Go to **Intro > Run**.
- 2) Select **Auto 1** or **Auto 2**.
- 3) Activate the selected AUTO program or return to the previous level.

Sound Programs

- 1) Go to **Intro > Run**.
- 2) Select **Sound 1** or **Sound 2**.
- 3) Activate the selected SOUND program or return to the previous level.

Custom Program

- 1) Go to **Intro > Run**.
- 2) Select **Custom**.
- 3) Activate the CUSTOM program or return to the previous level.



See *Edit Custom* to learn how to configure the 255 steps of the CUSTOM program.

Continues on the next page

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Master/Slave

- 1) On the master unit, go to **Intro > Operation**.
 - a) Select any suitable **Auto** or **Sound** program.
 - b) Activate the selected AUTO or SOUND program.
- 2) On each of the slave units, go to **Intro > Operation**.
 - a) Select **Slave**.
 - b) Activate the SLAVE mode or return to the previous level.

Display Backlight

- 1) Go to **Intro > Display**.
- 2) Select **60 Close** (the backlight will turn off after 60 seconds of control panel inactivity) or **Bright** (the backlight will stay on permanently).
- 3) Activate the selected backlight operation or return to the previous level.

System Info

- 1) Go to **Intro > Info**.
- 2) Select **Edition** (the firmware version will show on the display).
- 3) Accept or return to the previous level.

Fixture Reset

- 1) Go to **Intro > Reset**.
- 2) Select **Yes** (all custom modifications will be lost) or **No** (all custom modifications will remain).
- 3) Accept or return to the previous level.

Reset Control

- 1) Go to **Special > Reset**.
- 2) Select **DMX** (the fixture will accept reset commands from the DMX controller) or **System** (the fixture will only reset from the control panel).
- 3) Accept or return to the previous level.

Move-in-Black

- 1) Go to **Special > Black**.
- 2) Select **No** (move-in-black will stay active for as long as the **Control** channel remains between **020~039**) or **Yes** (move-in-black will activate permanently if the **Control** channel remains between **020~039** for 3 seconds).
- 3) Accept or return to the previous level.



Once Move-in-Black is permanently active, it will deactivate if the Control channel remains between 040~059 for 3 seconds.

Continues on the next page

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Movement Ranges

- 1) Go to **Range**.
- 2) Set the start point of the PAN movement.
 - a) Select **P/Start**.
 - b) Select a value (**000~255**).
 - c) Activate the new value.
- 3) Set the end of the PAN movement.
 - a) Select **P/Finish**.
 - b) Select a value (**000~255**).
 - c) Activate the new value.
- 4) Set the start point of the TILT movement.
 - a) Select **T/Start**.
 - b) Select a value (**000~255**).
 - c) Activate the new value.
- 5) Set the end of the TILT movement.
 - a) Select **T/Finish**.
 - b) Select a value (**000~255**).
 - c) Activate the new value.
- 6) Activate/disable the movement ranges.
 - a) Select **Use**.
 - b) Select **No** (full range movement) or **Yes** (limited range movements).
 - c) Activate the new setting.

Movement Modifications

- 1) Go to **Invert**.
- 2) Reverse the direction of the PAN movement (540°~0°).
 - a) Select **Pan**.
 - b) Select **No** (0~540°) or **Yes** (540~0°).
 - c) Activate the new setting.
- 3) Reverse the direction of the TILT movement (270°~0°).
 - a) Select **Tilt**.
 - b) Select **No** (0~270°) or **Yes** (270~0°).
 - c) Activate the new setting.
- 4) Change the way the COLOR wheel rotates.
 - a) Select **Color**.
 - b) Select **Step** (the color wheel jumps from one color to the next) or **Linear** (the color wheel rotates smoothly from one color to the next to allow for rainbow effects).
 - c) Activate the new setting.
- 5) Activate/disable the movement modifications.
 - a) Select **Use**.
 - b) Select **No** (use normal settings) or **Yes** (use modified settings).
 - c) Press **<ENTER>** to activate the new setting.

Continues on the next page

Continued from previous page

Edit Custom

- 1) Go to **Edit**.
- 2) Select **Step**.
 - a) Select a step number (**000~255**).
 - b) Activate the new value.
- 3) Select **Pan**.
 - a) Select a pan position (**000~255**).
 - b) Activate the new value.
- 4) Select **Tilt**.
 - a) Select a tilt position (**000~255**).
 - b) Activate the new value.
- 5) Select **Speed**.
 - a) Select a movement (pan & tilt) speed (**000~255**).
 - b) Activate the new value.
- 6) Select **Color**.
 - a) Select a color from the color wheel (**000~255**).
 - b) Activate the new value.
- 7) Select **Gobo**.
 - a) Select a gobo from the gobo wheel (**000~255**).
 - b) Activate the new value.
- 8) Select **Gobo.rot**.
 - a) Select a rotation mode for the selected gobo (**000~255**).
 - b) Activate the new value.
- 9) Select **Prism**.
 - a) Select a prism operation mode (**000~255**).
 - b) Activate the new value.
- 10) Select **Dimmer**.
 - a) Select a dimmer value (**000~255**).
 - b) Activate the new value.
- 11) Select **Strobe**.
 - a) Select a strobe mode (**000~255**).
 - b) Activate the new value.
- 12) Select **Time**.
 - a) Select the duration of this step (**000~255**).
 - b) Activate the new value.
- 13) Select **Use**.
 - a) Enable this step (**Yes/No**).
 - b) Activate the new value.
- 14) Repeat for the other steps.



For smoother operation of the CUSTOM program, disable all the steps that are not part of the program (Use = No).



The fixture will execute all the steps in the CUSTOM program and it will stop. To make the fixture to start over add a last step whose duration is 0 seconds.

Example:

Step 1:	Time = 5	Use = Yes	
Step 2:	Time = 4	Use = Yes	
Step 3:	Time = 6	Use = Yes	
Step 4:	Time = 0	Use = Yes	(This step creates a loop)
Step 5:	Time = 0	Use = No	} (Unused steps)
▼	▼	▼	
Step 255	Time = 0	Use = No	

Menu Map

1 st Level	2 nd Level	3 rd Level	Description	
1-Intro	Address	001~512	Sets the DMX starting address	
	Reset	Yes/No	Resets the fixture to the "home" position	
	Run	DMX-512		Sets the fixture to DMX mode
		Auto 1		Starts the hanging auto mode (pointing down)
		Auto 2		Starts the floor standing auto mode (for placing on speaker)
		Sound 1		Starts the hanging sound mode (pointing down)
		Sound 2		Starts the floor standing sound mode (for placing on speaker)
		Custom		Runs the user's program
		Test		Runs a standard test program
	Slave		The fixture responds to a master unit	
	Channels	Advanced		16-bit pan/tilt operation
		Basic		8-bit pan/tilt operation
	Display	60 close		Turns the display backlight off after 60 seconds of being idle
Bright			Sets the display backlight to remain on indefinitely	
Info	Edition		Shows the software version	
2-Invert	Pan	Normal	Sets the Pan operation: 0~540°	
		Reverse	Reverses the Pan operation: 540~0°	
	Tilt	Normal	Sets the Pan operation: 0~270°	
		Reverse	Reverses the Pan operation: 270~0°	
	Color	Step	Sets the color wheel channel to locking colors	
		Linear	Allows split color operation on the color wheel channel	
Use	No/Yes	Enables / disables all Invert functions		
3-Range	P/start	000~255	Sets the Pan starting range	
	P/Finish	000~255	Sets the Pan end range	
	T/start	000~255	Sets the Tilt starting range	
	T/Finish	000~255	Sets the Tilt end range	
	Use	No/Yes	Enables / disables all Range functions	
4-Special	Black	No	Move-in-black is active only when Control channel = 020~039	
		Yes	Move-in-black activates permanently if Control channel = 020~039 for 3 seconds. (requires Control channel = 040~059 to deactivate it)	
	Reset	DMX	Allows the reception of a DMX remote reset command	
		System	Disables the reception of a DMX remote reset command	
5-Edit	Step	000~255	Selects which step to edit	
	Pan	000~255	Use the nine different attributes of the fixture to create a custom step (repeat for the other steps)	
	Tilt			
	X/Y_Speed			
	Color			
	Gobo			
	Gobo_Rot			
	Prism			
	Dimmer			
	Strobe			
	Time	000~255	Selects the duration of the step	
Use	No/Yes	Enables / disables the program step		
6-Default	Default	No/Yes	Defaults the fixture and erases the custom programs	

DMX Values

<i>Basic Mode</i>	Channel	Function	Value	Percent/Setting
	1	Pan	000 ⇔ 255	0~540°
	2	Tilt	000 ⇔ 255	0~270°
	3	Color	000 ⇔ 014 015 ⇔ 029 030 ⇔ 044 045 ⇔ 059 060 ⇔ 074 075 ⇔ 089 090 ⇔ 104 105 ⇔ 119 120 ⇔ 134 135 ⇔ 149 150 ⇔ 255	White (open) Red Yellow Green Pink Blue Orange Magenta Light blue Light green Rainbow and linear effect (slow~fast)
	4	Gobo	000 ⇔ 009 010 ⇔ 019 020 ⇔ 029 030 ⇔ 039 040 ⇔ 049 050 ⇔ 059 060 ⇔ 069 070 ⇔ 079 080 ⇔ 099 100 ⇔ 119 120 ⇔ 139 140 ⇔ 159 160 ⇔ 179 180 ⇔ 199 200 ⇔ 219 220 ⇔ 255	No gobo (open) Gobo 1 Gobo 2 Gobo 3 Gobo 4 Gobo 5 Gobo 6 Gobo 7 Gobo shake 7 Gobo shake 6 Gobo shake 5 Gobo shake 4 Gobo shake 3 Gobo shake 2 Gobo shake 1 Gobo scroll (slow~fast)
	5	Gobo Rotation	000 ⇔ 002 003 ⇔ 006 007 ⇔ 128 129 ⇔ 132 133 ⇔ 136 137 ⇔ 255	No function Clockwise (slowest) Clockwise (slow~fast) No function Counter-clockwise (slowest) Counter-clockwise (slow~fast)
	6	Prism	000 ⇔ 127 128 ⇔ 255	No function 3-facet prism
	7	Dimmer	000 ⇔ 255	Closed ⇔ Open
	8	Strobe	000 ⇔ 031 032 ⇔ 063 064 ⇔ 095 096 ⇔ 127 128 ⇔ 159 160 ⇔ 191 192 ⇔ 223 224 ⇔ 255	Closed Open Strobe (slow~fast) Open Pulse Strobe (slow~fast) Open Random Strobe (slow~fast) Open
	9	Control (hold each of these for 3 s to trigger function)	000 ⇔ 019 020 ⇔ 039 040 ⇔ 059 060 ⇔ 079 080 ⇔ 099 100 ⇔ 119 120 ⇔ 139 140 ⇔ 159 160 ⇔ 179 180 ⇔ 199 200 ⇔ 219 220 ⇔ 255	No function Pan/tilt move-in-black (activate) Pan/tilt move-in-black (deactivate) Auto 1 Auto 2 Sound 1 Sound 2 Custom Test No function Reset No function

<i>Advanced Mode</i>	Channel	Function	Value	Percent/Setting
	1	Pan	000 ⇔ 255	0~540°
	2	Pan fine	000 ⇔ 255	Fine pan adjustment
	3	Tilt	000 ⇔ 255	0~270°
	4	Tilt fine	000 ⇔ 255	Fine tilt adjustment
	5	Pan/tilt speed	000 ⇔ 255	Normal~slow
	6	Color	000 ⇔ 014	White (open)
			015 ⇔ 029	Red
			030 ⇔ 044	Yellow
			045 ⇔ 059	Green
			060 ⇔ 074	Pink
			075 ⇔ 089	Blue
			090 ⇔ 104	Orange
			105 ⇔ 119	Magenta
			120 ⇔ 134	Light blue
			135 ⇔ 149	Light green
			150 ⇔ 255	Rainbow and linear effect (slow~fast)
	7	Gobo	000 ⇔ 009	No gobo (open)
			010 ⇔ 019	Gobo 1
			020 ⇔ 029	Gobo 2
			030 ⇔ 039	Gobo 3
			040 ⇔ 049	Gobo 4
			050 ⇔ 059	Gobo 5
			060 ⇔ 069	Gobo 6
			070 ⇔ 079	Gobo 7
			080 ⇔ 099	Gobo shake 7
			100 ⇔ 119	Gobo shake 6
			120 ⇔ 139	Gobo shake 5
			140 ⇔ 159	Gobo shake 4
			160 ⇔ 179	Gobo shake 3
			180 ⇔ 199	Gobo shake 2
	200 ⇔ 219	Gobo shake 1		
		220 ⇔ 255	Flow effect	
	8	Gobo Rotation	000 ⇔ 002	No function
			003 ⇔ 006	Clockwise (slowest)
			007 ⇔ 128	Clockwise (slow~fast)
			129 ⇔ 132	No function
			133 ⇔ 136	Counter-clockwise (slowest)
			137 ⇔ 255	Counter-clockwise (slow~fast)
	9	Prism	000 ⇔ 127	No function
			128 ⇔ 255	3-facet prism
	10	Dimmer	000 ⇔ 255	0~100% (closed~open)
	11	Strobe	000 ⇔ 031	Closed
			032 ⇔ 063	Open
			064 ⇔ 095	Strobe (slow~fast)
			096 ⇔ 127	Open
			128 ⇔ 159	Pulse Strobe (slow~fast)
			160 ⇔ 191	Open
			192 ⇔ 223	Random Strobe (slow~fast)
			224 ⇔ 255	Open
	12	Control (Hold each of these for 3 s to trigger function)	000 ⇔ 019	No function
			020 ⇔ 039	Pan/tilt move-in-black activation
			040 ⇔ 059	Pan/tilt move-in-black deactivation
			060 ⇔ 079	Auto 1
			080 ⇔ 099	Auto 2
			100 ⇔ 119	Sound 1
			120 ⇔ 139	Sound 2
			140 ⇔ 159	Custom
			160 ⇔ 179	Test
			180 ⇔ 199	No function
	200 ⇔ 219	Reset		
		220 ⇔ 255	No function	

5. Technical Information

General Maintenance

To maintain optimum performance and minimize wear, the user should clean the light fixtures frequently. Usage and environment are contributing factors in determining the cleaning frequency. As a rule, the user should clean the fixtures at least twice a month. Dust build up reduces light output performance and can cause overheating. This can lead to reduced light source life and increased mechanical wear.

CHAUVET® recommends cleaning the fixture's external optics with a soft cloth using normal glass cleaning fluid.

To clean a fixture, follow the recommendations below:

- Unplug the fixture from power.
- Wait until the fixture is cold.
- Use a vacuum (or dry compressed air) and a soft brush to remove dust collected on the external vents and reachable internal components.
- Clean all external optics and glass surfaces with a mild solution of glass cleaner or isopropyl alcohol, and a soft, lint free cotton cloth or a lens cleaning tissue.
- Apply the solution directly to the cloth or tissue and drag any dirt and grime to the outside of the lens.
- Gently polish the external glass surfaces until they are free of haze and lint.
- When cleaning units with a movable mirror, you should keep the contact with the mirror surface to a minimum to avoid scratching or damaging it.

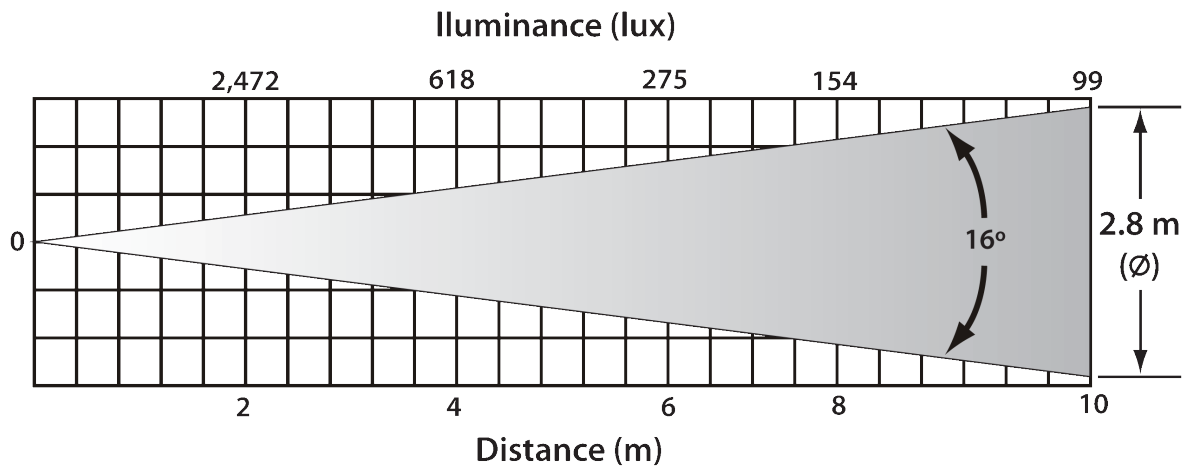


Always dry the external optics and glass surfaces carefully after cleaning them.



If the fixture has one or more fans, refrain from spinning them using compressed air.

Photometrics



Troubleshooting Guide

Symptom	Cause(s)	Action(s)
Low LED output	<ul style="list-style-type: none"> • Dirty optics • Dimmer active • Faulty LED • Faulty LED driver board • Faulty main board 	<ul style="list-style-type: none"> • Clean optic path • Check dimmer setting from control panel • Replace LED board • Replace LED driver board • Replace main board
No LED output	<ul style="list-style-type: none"> • Dimmer set to 0% • Faulty LED • Faulty LED driver board • Faulty main board 	<ul style="list-style-type: none"> • Check dimmer setting from control panel • Replace LED board • Replace LED driver board • Replace main board
Jumpy or no head movement	<ul style="list-style-type: none"> • Faulty sensor • Faulty wiring • Faulty synch belt • Faulty X/Y control board • Faulty main board • Faulty stepper motor 	<ul style="list-style-type: none"> • Replace sensor • Check and repair wiring • Replace synch belt • Replace X/Y control board • Replace main board • Replace stepper motor
Fixture does not power up	<ul style="list-style-type: none"> • No power • Loose or damaged power cord • Blown fuse • Faulty internal power supply 	<ul style="list-style-type: none"> • Check for power on power outlet • Check power cord • Replace fuse • Replace internal power supply
Circuit breaker/fuse keeps tripping/blowing	<ul style="list-style-type: none"> • Excessive circuit load • Short circuit along the power wires 	<ul style="list-style-type: none"> • Check total load placed on the electrical circuit • Check for a short in the electrical wiring
Fixture does not respond to DMX	<ul style="list-style-type: none"> • Wrong DMX addressing • Damaged DMX cables • Wrong polarity on the controller • Loose DMX cables • Faulty display board • Faulty main board 	<ul style="list-style-type: none"> • Check Control Panel and unit addressing • Check DMX cables • Check polarity switch settings on the controller • Check cable connections • Replace display board • Replace main board
DMX signal problems	<ul style="list-style-type: none"> • Non DMX cables • Bouncing signals • Long cable / low level signal • Too many fixtures • Interference from AC wires 	<ul style="list-style-type: none"> • Use only DMX compatible cables • Install terminator as suggested • Install an optically coupled DMX splitter right after the fixture with the strong signal • Install an optically coupled DMX splitter after unit #32 or before • Keep DMX cables separated from power cables or fluorescent/black lights



If you still experience technical problems after trying the above solutions, contact CHAUVET® Technical Support.

Returns Procedure



The user must send the merchandise prepaid, in the original box, and with its original packing and accessories. CHAUVET® will not issue call tags.

Call CHAUVET® and request a Return Merchandise Authorization Number (RMA #) before shipping the fixture. Be prepared to provide the model number, serial number, and a brief description of the cause for the return.

The user must clearly label the package with a Return Merchandise Authorization Number (RMA #). CHAUVET® will refuse any product returned without an RMA #.

DO NOT write the RMA # directly on the box. Instead, write it on a properly affixed label.

Once you receive the RMA #, please include the following information on a piece of paper inside the box:

- Your name
- Your address
- Your phone number
- The RMA #
- A brief description of the problem

Be sure to pack the fixture properly. Any shipping damage resulting from inadequate packaging will be the customer's responsibility. As a suggestion, proper UPS packing or double-boxing is always a safe method to use.



CHAUVET® reserves the right to use its own discretion to repair or replace returned product(s).

Claims

The carrier is responsible for any damage incurred during shipping to this product or any part that shipped with it. Therefore, if the received merchandise appears to have damages caused during shipping, the customer must submit the damage report and any related claims with the carrier, not CHAUVET®. The customer must submit the report upon reception of the damaged merchandise. Failure to do so in a timely manner may invalidate the customer's claim with the carrier.

For other issues such as missing components or parts, damage not related to shipping, or concealed damage, the customer must make claims to CHAUVET® within seven (7) days of receiving the merchandise.

Contact Us

World Headquarters

General Information

CHAUVET®
5200 NW 108th Avenue
Sunrise, FL 33351
Voice: (954) 929-1115
Fax: (954) 929-5560
Toll free: (800) 762-1084

Technical Support

Voice: (954) 929-1115 (Press 4)
Fax: (954) 756-8015

World Wide Web

www.chauvetlighting.com

Technical Specifications

Dimensions and Weight

Length	Width	Height	Weight
9.5 in (242 mm)	9.5 in (240 mm)	14.3 in (364 mm)	14.35 lbs (6.5 kg)

Note: Dimensions in inches rounded to the nearest decimal digit.

Power

Power Supply Type	Range	Voltage Selection
Switching (internal)	100~240 V, 50/60 Hz	Auto-ranging
Parameter	120 V, 60 Hz	230 V, 50 Hz
Consumption	50 W (0.8 A)	50 W (0.4 A)
Inrush current	0.3 A	0.4 A
Power I/O	Input	Output
Connectors	IEC	N/A
Cord plug	Edison	N/A

Light Source

Type	Power	Lifespan
LED	20 W	50,000 hours
Color	Quantity	Current
White	1	1,000 mA

Photo Optic

Parameter	Standard Optics
Illuminance @ 1 m	7,641 lx
Beam angle	16°

Head Movement

Pan Range	Tilt Range	Fine Adjustment Option
0~540°	0~270°	Yes (Advanced Mode)

Gobos

External Diameter	Image Diameter	Thickness
25.8 mm	18.2mm	1.2 mm max.

Thermal

Operating Temperature	Max. Operating Temp.	Cooling System
	104° F (40° C)	Fan

DMX

I/O Connectors	Connector Type	Channel Range
3-pin XLR	Sockets	9 and 12

Ordering

Q-Spot™ 160-LED
QSPOT160LED

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FAX (954) 929-5560
www.chauvetlighting.com

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It's Green Thinking