



# PHX

## LED Ellipsoidal Spot



LED ELLIPSOIDAL SPOTLIGHT



Corporate Offices:  
57 Alexander Street  
Yonkers, NY 10701  
(914)-476-7987  
[www.altmanlighting.com](http://www.altmanlighting.com)

The material in this manual is for information purposes only and is subject to change without notice. Altman Lighting assumes no responsibility for any errors or omissions which may appear in this manual. For comments and suggestions regarding corrections and/or updates to this manual, please visit the Altman Lighting web site at [www.altmanlighting.com](http://www.altmanlighting.com) or contact your nearest Altman Lighting Regional Manager.

El contenido de este manual es solamente para información y está sujeto a cambios sin previo aviso. Altman Lighting con no asume responsabilidad por errores o omisiones que puedan aparecer. Cualquier comentario, sugerencia o corrección con respecto a este manual, favor de dirigirlo a la oficina de Altman Lighting más cercana.

Der Inhalt dieses Handbuches ist nur für Informationszwecke gedacht, Aenderungen sind vorbehalten. Altman Lighting uebernimmt keine Verantwortung für Fehler oder Irrtuemer, die in diesem Handbuch auftreten. FürBemerkungen und Verbesserungsvorschlaege oder Vorschlaege in Bezug auf Korrekturen und/oder Aktualisierungen in diesem Handbuch, moechten wir Sie bitten, Kontakt mit der naechsten Altman Lighting Niederlassung aufzunehmen.

Le matériel décrit dans ce manuel est pour information seulement et est sujet à changements sans préavis. La compagnie Altman Lighting n'assume aucune responsabilité sur toute erreur ou omission inscrite dans ce manuel. Pour tous commentaires ou suggestions concernant des corrections et/ou les mises à jour de ce manuel, veuillez s'il vous plait contacter le bureau de Altman Lighting le plus proche.

---

Note: Information contained in this document may not be duplicated in full or in part by any person without prior written approval of Altman Lighting its sole purpose is to provide the user with conceptual information on the equipment mentioned. The use of this document for all other purposes is specifically prohibited.

---

Document Number: 49-0220  
Version as of: 20160926



## IMPORTANT INFORMATION

---

When using electrical equipment, basic safety precautions should always be followed including the following:

- a.) READ AND FOLLOW ALL SAFETY INSTRUCTIONS.
- b.) Do not use outdoors.
- c.) Do not mount near gas or electric heaters.
- d.) Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- e.) The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- f.) Do not use this equipment for other than intended use.
- g.) Refer service to qualified personnel.

### **SAVE THESE INSTRUCTIONS.**

**WARNING:** You must have access to a main circuit breaker or other power disconnect device before installing any wiring. Be sure that power is disconnected by removing fuses or turning the main circuit breaker off before installation. Installing the device with power on may expose you to dangerous voltages and damage the device. A qualified electrician must perform this installation.

**WARNING:** Refer to National Electrical Code® and local codes for cable specifications. Failure to use proper cable can result in damage to equipment or danger to personnel.

**WARNING:** This equipment is intended for installation in accordance with the National Electric Code® and local regulations. It is also intended for installation in indoor applications only. Before any electrical work is performed, disconnect power at the circuit breaker or remove the fuse to avoid shock or damage to the control. It is recommended that a qualified electrician perform this installation.

**WARNING:** The PHX LED Ellipsoidal IS NOT for residential installation or use.

### **IMPORTANT!**

**THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED.**

**CE PRODUIT DOIT ÊTRE INSTALLÉ SELON LE CODE D'INSTALLATION PERTINENT, PAR UNE PERSONNE QUI CONNAÎT BIEN LE PRODUIT ET SON FONCTIONNEMENT AINSI QUE LES RISQUES INHÉRENTS.**

## FCC NOTICE

---

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

## DMX 512 ADDITIONAL RESOURCES

---

For more information on installing DMX512 control systems, the following publication is available for purchase from the United States Institute for Theatre Technology (USITT), "Recommended Practice for DMX512: A Guide for Users and Installers, 2nd edition" (ISBN: 9780955703522). USITT Contact Information:

USITT  
315 South Crouse Avenue, Suite 200  
Syracuse, NY 13210-1844  
Phone: 1.800.938.7488 or 1.315.463.6463  
[www.usitt.org](http://www.usitt.org)

## ALTMAN LIGHTING STANDARD WARRANTY

---

Altman Lighting, Inc., a subsidiary of Altman Stage Lighting Company, Inc., herein referred to as Altman, warrants each new product (except for spare parts or products Altman does not manufacture) for a period of TWO (2) years from date of shipment to correct by repair or replacement any part defect due to faulty material or workmanship. Under these same terms products with an LED light source shall be warranted for a period of THREE (3) years. The customer must receive a Return Material Authorization (RMA) number prior to return, return shipment must be visibly marked with the RMA number and the product must be returned (shipping prepaid) to the factory at:

Altman Lighting Inc.  
57 Alexander Street  
Yonkers, NY 10701  
[www.altmanlighting.com](http://www.altmanlighting.com)

The return must be within THIRTY (30) days of receiving the RMA from Altman. Altman warrants for NINETY (90) days any spare part it manufactures. On spare parts or products Altman does not manufacture, such as lamps, sockets, lenses, roundels, electronics, ignitors, ballasts, etc. Altman will grant the same warranty given Altman by its vendors.

Altman assumes no responsibility for damage or faulty performance caused by misuse, improper installation, careless handling or where repairs have been attempted by others.

This warranty is in lieu of all warranties or guarantees expressed or implied and no representative or person is authorized to assume Altman any other liability with the sale of Altman's products.

## TABLE OF CONTENTS

---

Important Information	1
FCC Notice , DMX Resources, Altman Standard Warranty	2
Table of Contents - this page	3
About this Manual	4
Product Descriptions - Part Number Ordering	4
Accessories	5
Product Overview and Installation	6-8
Yoke and Shutter Assembly	9-10
Accessory Instructions	10-11
Cleaning and Care	11-12
Fixed Focus Lens Positioning	12
Installation and Set Up	13
Operation Menu and Options	14-16
PHX150 RDM ANSI E1.20 Information	17
PHX250 RDM ANSI E1.20 Information	18
Master Channel - Fixture Resolution & Configuration	19-20
Technical Specifications	21
Trouble Shooting	21

## ABOUT THIS MANUAL

This document provides installation and operation instructions for the following products: PHX LED Ellipsoidals (refer to "Product Descriptions" for individual product models). Please read all instructions before installing or using this product. Retain this manual for future reference. Additional product information and descriptions may be downloaded at [www.altmanlighting.com](http://www.altmanlighting.com)

## PRODUCT DESCRIPTIONS

The 5°, 10°, 19°, 26°, 36° and 50° fixed focus and 15°-30° 30°-50° Zoom PHX LED Ellipsoidals are state of the art luminaires in function, style, and efficiency. These ellipsoidals have been designed and engineered with a number of innovative details and features enhancing versatility and efficiency without sacrificing performance.

A diverse line of LED choices are available in 150 and 250 watt RGBA, RGBW, 3000k, 5600k, and tunable white 3000k/5600k.

These new and innovative options are what makes the PHX LED ellipsoidals ideal for theatres, Special Events, television studios, or wherever superior, energy efficient lighting performance is required.

This Manual covers the following PHX LED Profile Spot Luminaire models:

Fixture	Wattage	-	LED Array	-	Lens Type	-	Finish Color
PHX	1(150)	-	RGBA	-	5°	-	B (Black)
	2(250)	-	RGBW	-	10°	-	W (White)
		-	3K	-	19°	-	
		-	5K	-	26°	-	
		-	3K5K	-	36°	-	
					50°		
					SCA		
					(15Z) = 15°-30°		
					(30Z) = 30°-55°		

\*\*\*SCA includes complete unit without lens tube.\*\*\*

Example: PHX1-RGBA-10-B

**INCLUDED ACCESSORIES - ZOOM FIXTURES**

6-CF*	Color Frame, 7½" x 7½"
510	Malleable Iron Pipe Clamp
SC-36-BK	36" Black Safety Cable with Spring Clamp
PHXZ-SFLGSB	PHX Soft Focus lens with B Size Pattern Holder
PCL-PBG-12-*	5' 20A powerCON with Parallel Blade U Ground (Edison)

**INCLUDED ACCESSORIES - FIXED FOCUS FIXTURES**

4.5-CF*	Color Frame, 6¼" x 6¼" (Included with 19°, 26°, 36°, 50°)
10-CFB	Black Color Frame, 12" x 12" (Included with 10°)
12-CFB	Black Color Frame, 14" x 14" (Included with 5°)
510	Malleable Iron Pipe Clamp
SC-36-BK	36" Black Safety Cable with Spring Clamp
PHX-SFLA	PHX Soft Focus lens with A Size Pattern Holder
PCL-PBG-12-*	5' 20A powerCON with Parallel Blade U Ground (Edison)

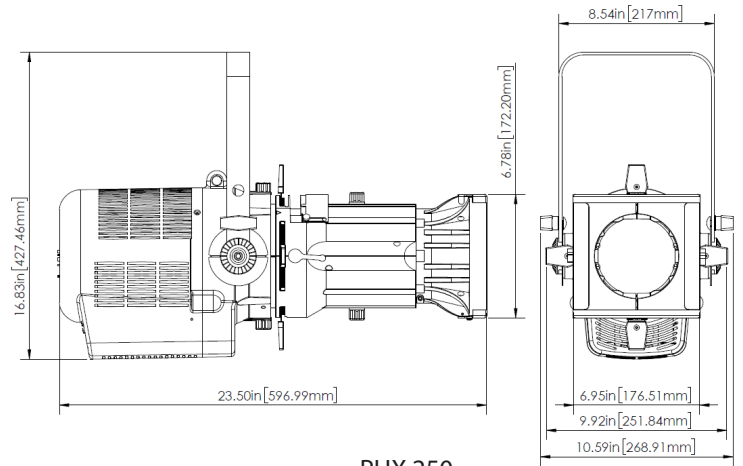
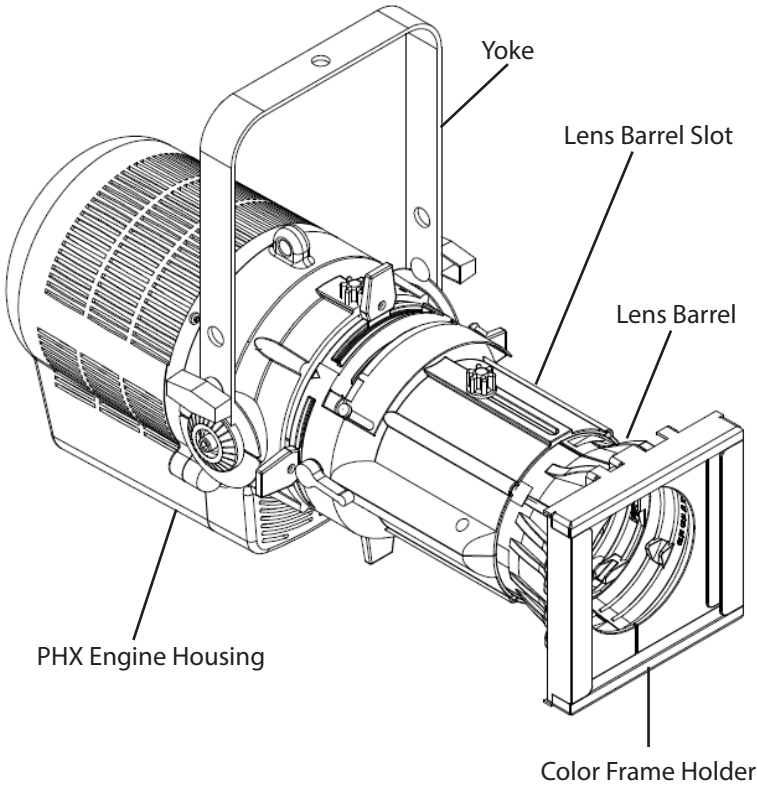
**ADDITIONAL ACCESSORIES**

Available Pattern Holders For Fixed Focus	
PHX-PHGSA	A Size Steel Pattern Holder (100mm OD/75mm IA)
PHX-PHGSB	B Size Steel Pattern Holder (86mm OD/64.5mm IA)
PHX-PHGSB-GLS	B Size Glass Pattern Holder (82mm OD/64.5mm IA)
PHX-PHGS86-GLS	B Size Glass Pattern Holder (86mm OD/ 64.5mm IA)
PHX-PHISB	B Size Steel Pattern Holder (86mm OD/64.5mm IA)
PHX-PHISA-GLS	A Size Glass Pattern Holder (100mm OD/75mm IA) for Iris Slot
PHX-PHISB-GLS	B Size Glass Pattern Holder (82mm OD/ 64.5mm IA) for Iris Slot
PHX-PHIS86-GLS	B Size Glass Pattern Holder (86mm OD/ 64.5mm IA) for Iris Slot

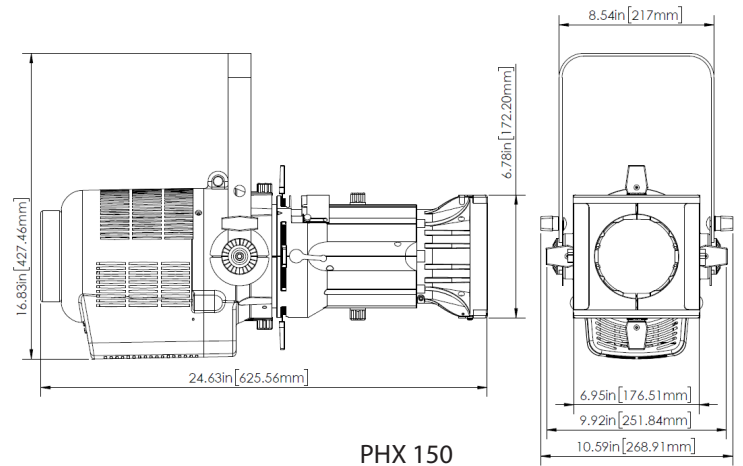
Available Pattern Holders For Zoomable Focus	
PHXZ-PHGSB	B Size Steel Pattern Holder (86mm OD/ 64.5mm IA)
PHXZ-PHGSB-3T	B Size Steel Pattern Holder (86mm OD/ 64.5mm IA) 3 Tab Style
PHX-PHISB	B Size Steel Pattern Holder (86mm OD/ 64.5mm IA) for Iris Slot
PHX-PHISA-GLS	A Size Glass Pattern Holder (100mm OD/75mm IA) for Iris Slot
PHX-PHISB-GLS	B Size Glass Pattern Holder (82mm OD/ 64.5mm IA) for Iris Slot
PHX-PHIS86-GLS	B Size Glass Pattern Holder (86mm OD/ 64.5mm IA) for Iris Slot

Other Available Accessories	
PCL-2P&G-12-5-*	5' 20A powerCON with 2P&G Stage Pin Connector, Male
PCL-TLG-12-5-*	5' 20A powerCON with L5-20P Twist Locking Ground Connector, Male
PCL-BARE-12-5-*	5' 20A powerCON with Bare End Lead
510-HD	Heavy Duty Malleable Iron Pipe Clamp
6-DN	7½" x 7½" w/ 3" Hole Donut, Black (For 19°, 26°, 36°, 50° and Zoom)

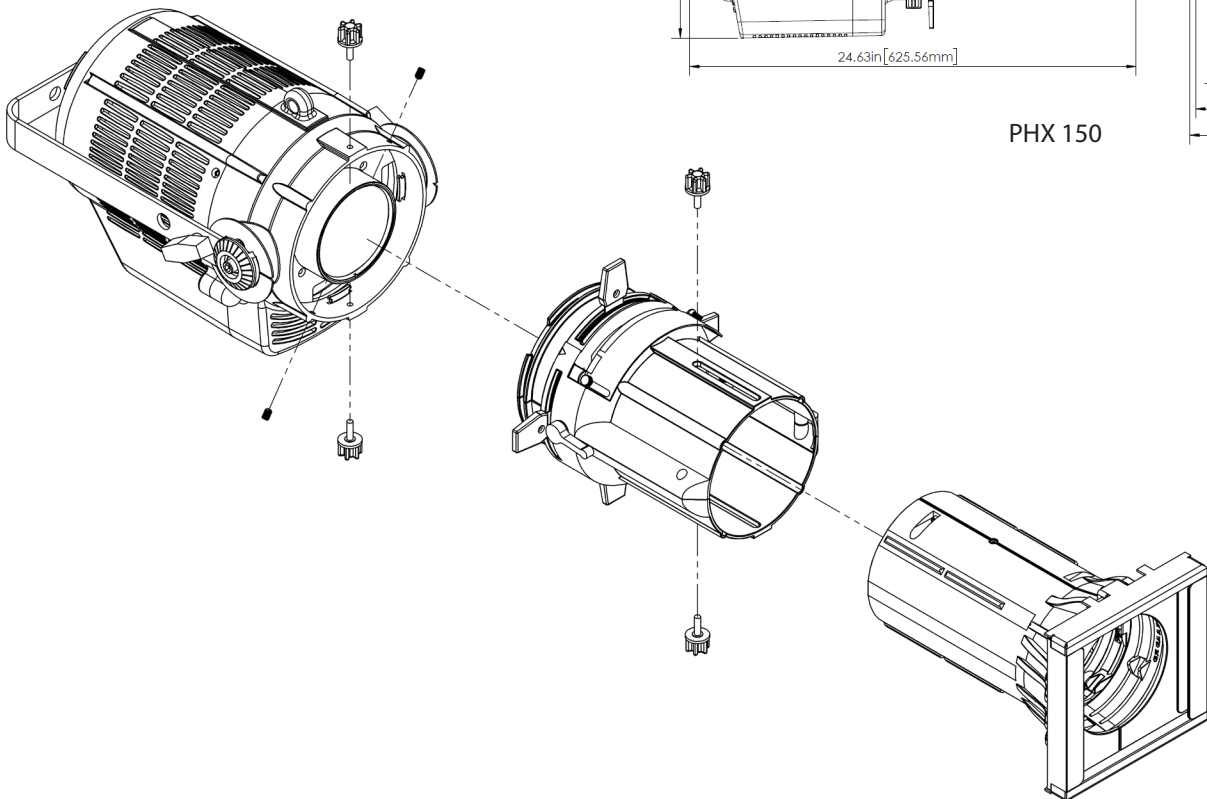
PRODUCT OVERVIEW - Fixed Focus



PHX 250

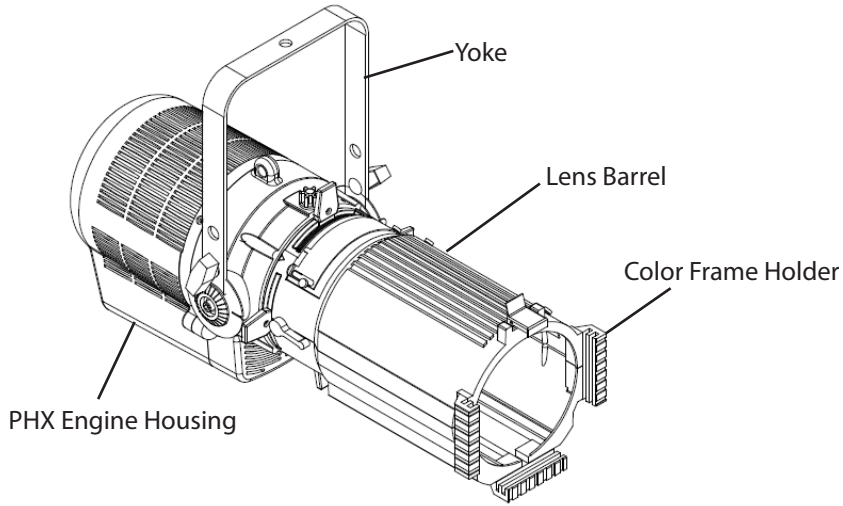


PHX 150

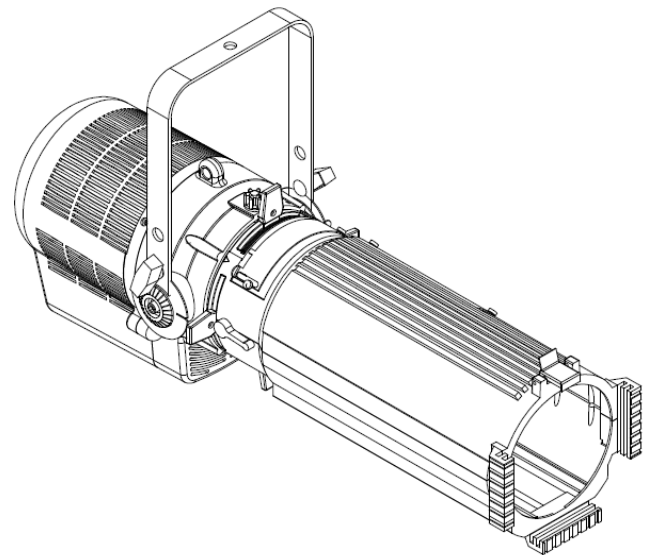




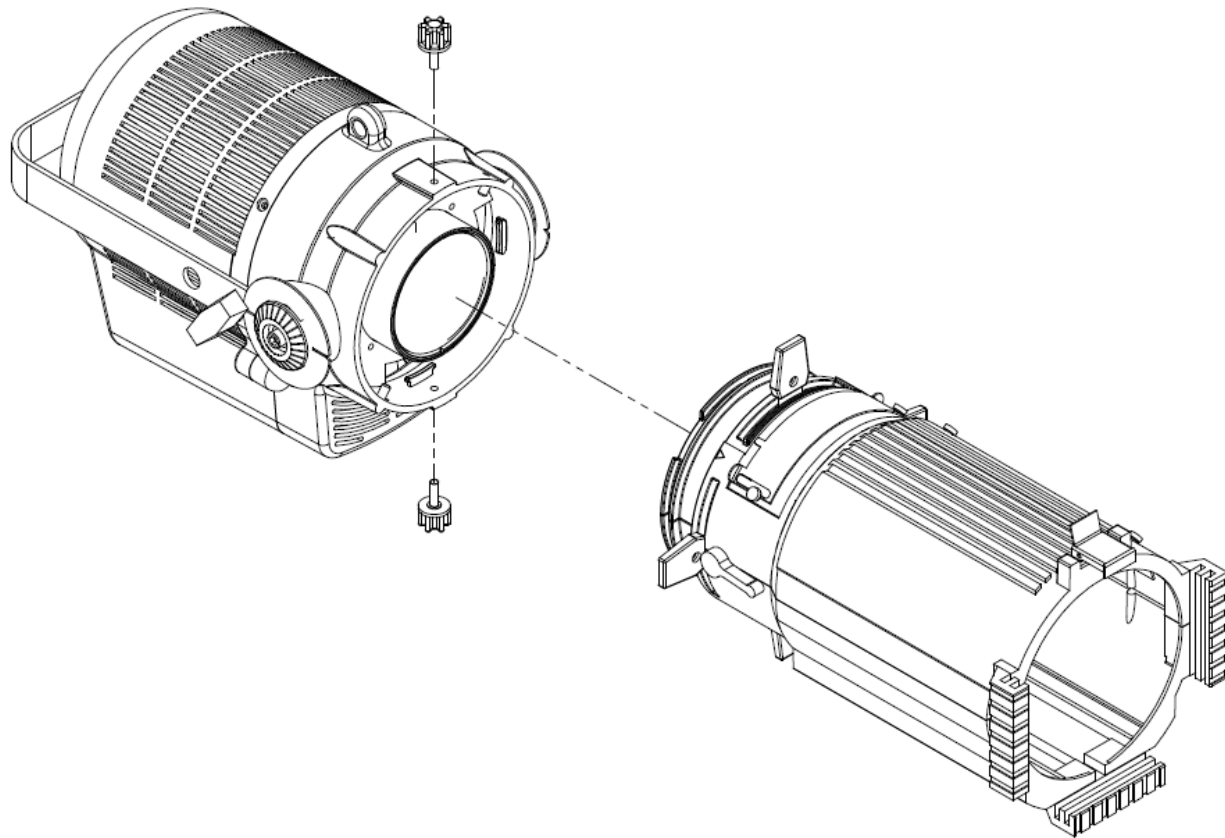
## PRODUCT OVERVIEW - Zoom Fixtures



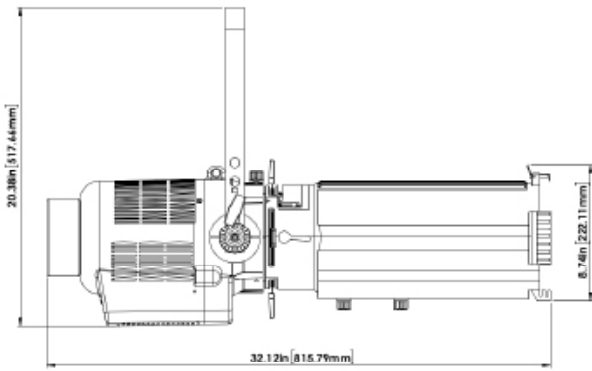
30-50 Degree Zoom



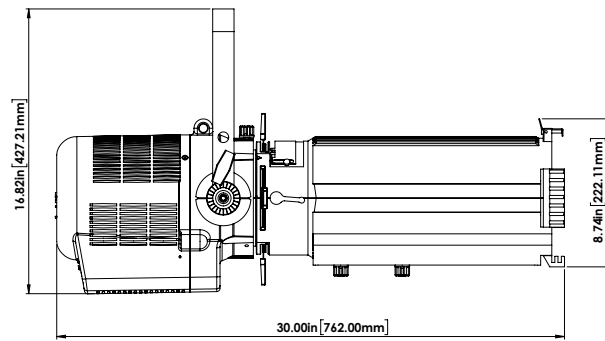
15-30 Degree Zoom



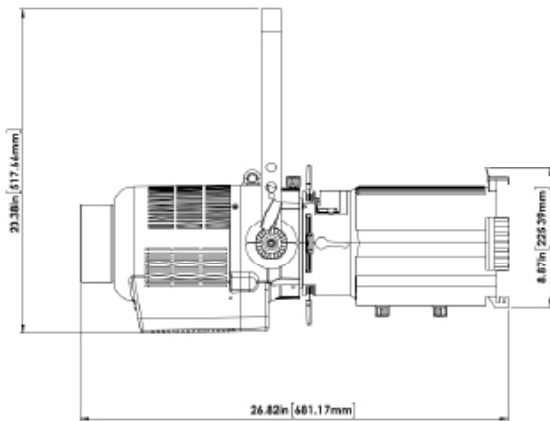
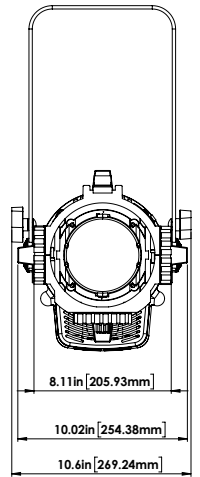
PRODUCT OVERVIEW - Zoom Focus Continued



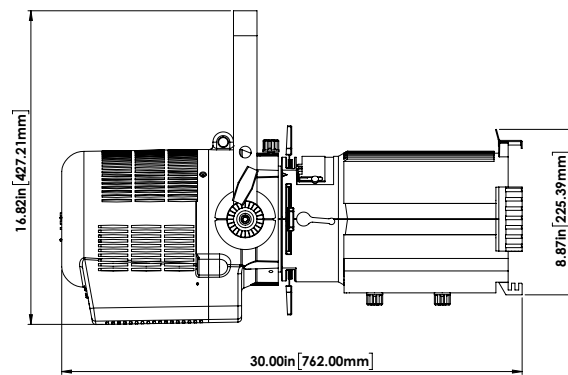
PHX 150 w/ 15-30 Degree Zoom



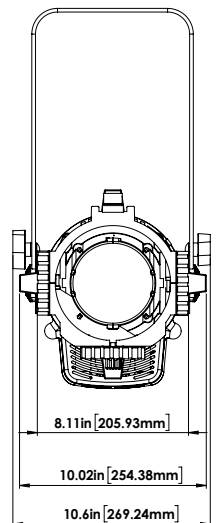
PHX 250 w/ 15-30 Degree Zoom



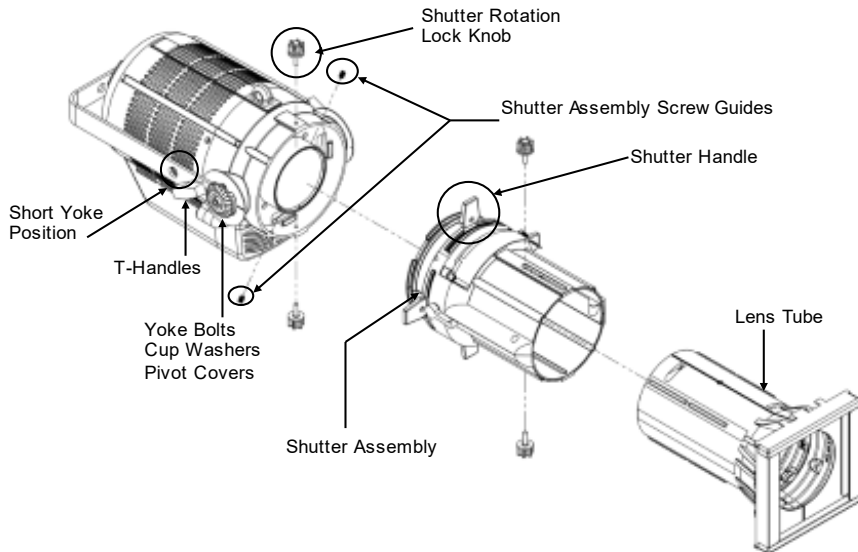
PHX 150 w/ 30-50 Degree Zoom



PHX 250 w/ 30-50 Degree Zoom



## YOKE AND SHUTTER ASSEMBLY



**WARNING:** Shutter Assembly Screw Guides prevent the shutter assembly from disjoining the light engine during rotation. To prevent injury only remove these screws when completely removing the shutter assembly from the light engine.

### Rotating Shutter Assembly:

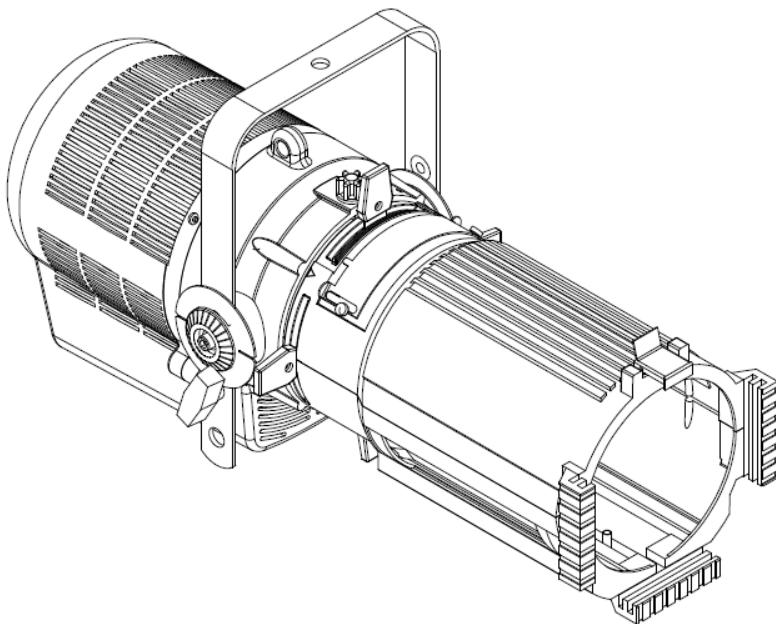
1. Loosen both Shutter Rotation Lock Knobs on the fixture.
2. Using both hands rotate the Shutter Assembly 360° in either direction.
3. Once in the desired position tighten the Shutter Rotation Lock Knobs
4. Lock the shutters in place by rotating the Shutter Lock Lever until proper tension is applied to shutters.

### ADJUSTING YOKE

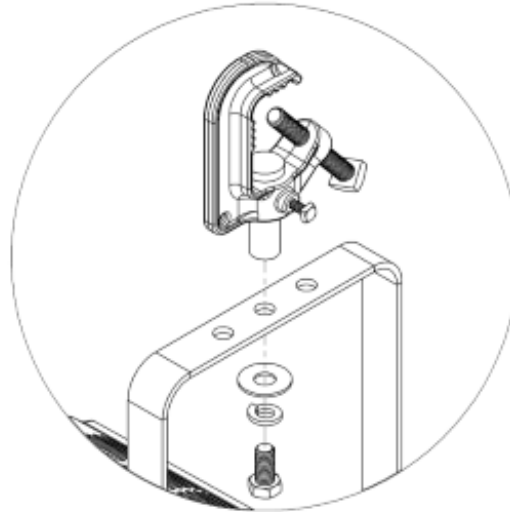
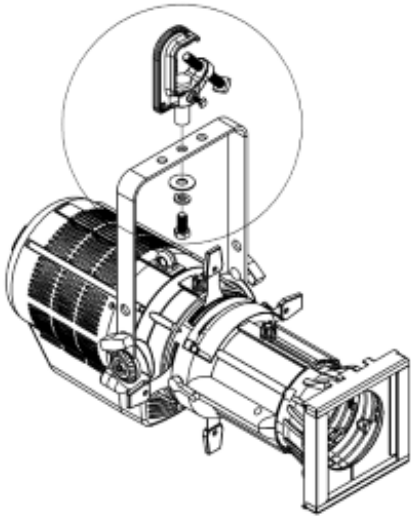
1. With one hand on ring handle to hold unit, loosen T-Handle.
2. Tilt unit to desired angle. (Note: Reference angles have been molded on the pivot cover to make adjustments easier and more precise.)
3. Tighten T-Handle to secure fixture in place.

### Using Short Yoke Position:

1. Remove T-Handle and its associated hardware.
2. Using a 1/4" hex head wrench remove yoke bolts, cup washers, and pivot covers.
3. Move the yoke to the short yoke position.
4. Replace the yoke bolts, cup washers, and pivot covers.
5. Place the T-Handles back into the square holes. (Keep the washer between the handle and yoke.)



## YOKE AND SHUTTER ASSEMBLY CONTINUED

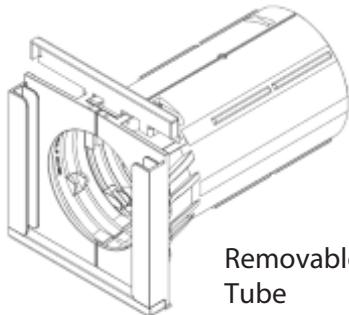
**Installing C-Clamp:**

1. Attach the C-Clamp to the top of the yoke via the provided 1/2" bolt.
2. Keep the washer between the bolt head and yoke.
3. Tighten the bolt using an adjustable wrench or Altman Super Tool

**Warning:** When mounting fixture a safety cable is necessary to prevent injury in-case the fixture becomes loose. Place the safety cable through the eyehole on the top of the fixture and secure it around the supporting structure.

**Warning:** Supporting mechanism and structure must be capable of supporting the weight of the PHX LED Ellipsoidal. For product technical information (including weight), refer to "TECHNICAL SPECIFICATIONS" on page 19. Check applicable codes in your area for specific requirements.

## ACCESSORY INSTRUCTIONS



Removable Lens Tube

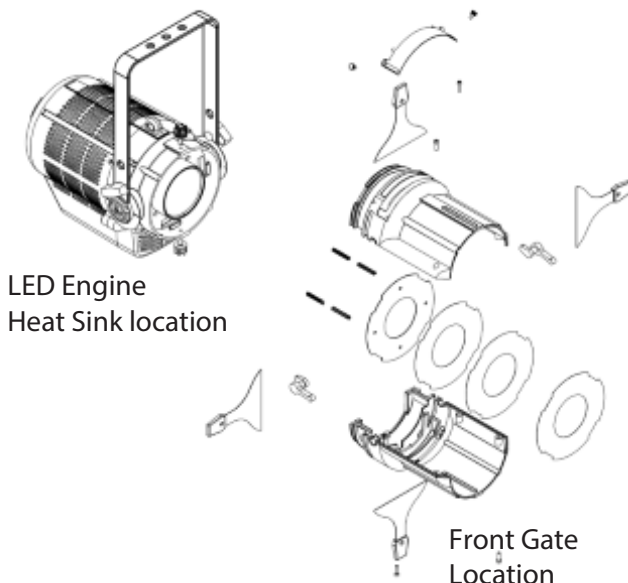
**Accessory Retaining Latch:**

This unique retaining hatch is designed for positive locking and manual return.

1. Following label on accessory cover, slide cover to side and lift up. *Note: Cover will be in LOCKED open position.*
2. Insert desired accessory.
3. To close cover, you must **(a)** first move cover to side to UNLOCK and **(b)** lower cover to original position.

**Drop In Iris Slot:** This larger slot can accept either a drop in iris or motorized pattern device (ie. gobo rotator). This slot has a retractable cover in order to prevent light leak when not in use. This cover should be closed as far as possible when the slot is in use. **To avoid damage when in use always place the flat side toward the shutters.**

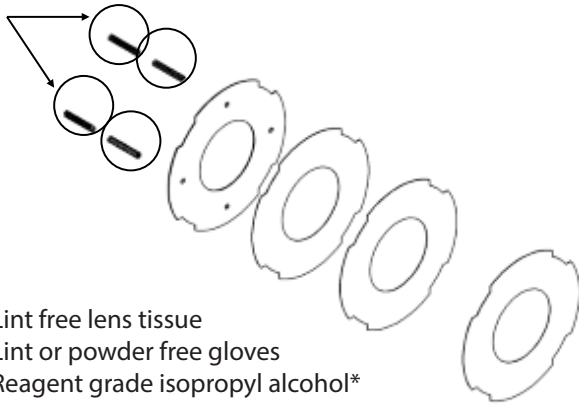
**Soft Focus Lens Adapter:** The soft focus lens adapter is a pattern holder with a special holographic lens material. This accessory allows the LED fixture to behave like a conventional ellipsoidal. When inserted into the gobo accessory slot the matte side of the material should face the light source and the shiny side should face the lens. **To avoid damage do not place metal gobos in the same pattern holder.**



LED Engine Heat Sink location

Front Gate Location

## ACCESSORY INSTRUCTIONS CONTINUED



- Lint free lens tissue
- Lint or powder free gloves
- Reagent grade isopropyl alcohol\*
- A mild soap solution.

## CLEANING AND CARE

**WARNING!** All cleaning should be performed with power completely removed from the luminaire. Never remove protective covers when luminaire is powered. Wear appropriate protective eye wear and gloves when cleaning the fixture. All service and maintenance, other than described herein, should be performed by a qualified technician or Authorized Service Center.

### 1. Special Cleaning and Care Instructions:

Unlike most fixtures, the PHX LED Ellipsoidal Luminaire requires very little routine maintenance by the user. This section covers portions of the luminaire that can be removed for cleaning. The PHX LED Ellipsoidal Luminaire special care when it comes to cleaning the lens assembly. Additional care needs to be taken with the plastic components because they are much easier to scratch or damage than glass. The following is a list of cleaning materials required to care for your PHX LED Ellipsoidal Luminaire:

### 2. Front Lens Cleaning (see following page for Lens layout information)

To clean the front lens and reflector:

1. Turn off luminaire and allow to cool completely.
2. Apply a small amount of reagent grade isopropyl alcohol to lint-free lens tissue.
3. Wipe all debris, dirt, fingerprints, etc. from lens and reflector.
4. Using a second lint-free lens tissue, wipe off any alcohol residue.

3. If the lens or body is still dirty after using isopropyl alcohol, for instance if fingerprints or oil is just redistributed and not cleaned off the optic, then a mild soap and water solution can be used to gently wash the lens. Repeat the cleaning with isopropyl alcohol to eliminate streaks and soap residue.

4. Service and Maintenance: Regular routine maintenance should be performed at least twice a year. Additional inspections and cleaning may be necessary and more often depending upon the the environment and hours of use of each luminaire. (see previous page for cooling fin location (Heat Sink Location)

1. Turn off luminaire and allow to cool completely.
2. Check for excessive dust or debris in the heat sink area of the luminaire
3. Wipe and remove all debris, dirt, dust from the cooling fins (a can of clean compressed air can be used to blow out from one side of the luminaire to the other: do not blow dust into the open cavity).

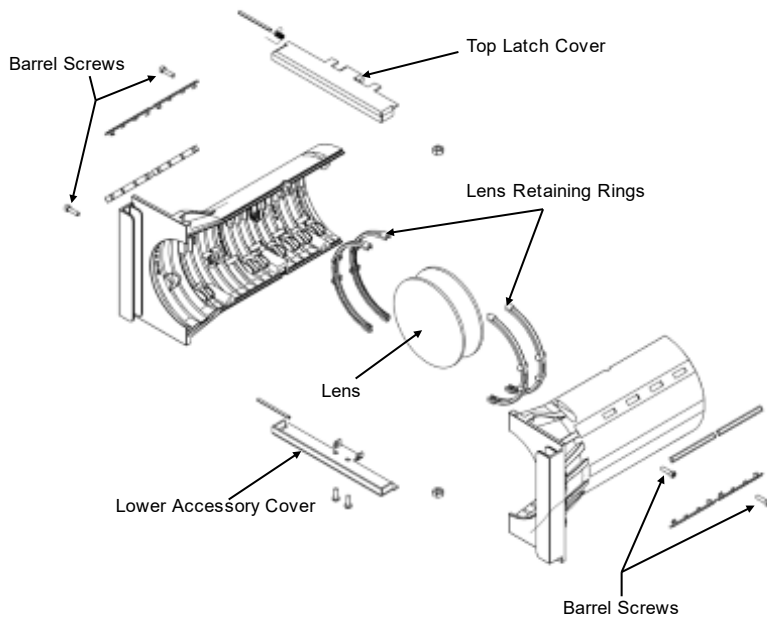
**NOTE: keeping these components clean will facilitate efficient cooling and extend LED life.**

4. Using a second lint-free lens tissue, wipe off any alcohol residue.

**For all other service and maintenance issues, please contact your local Altman Lighting offices or an Authorized Service Center.**

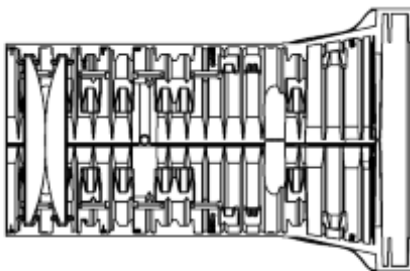
**WARNING!** Under no circumstances should ammonia-based cleaners, acetone, or other harsh solvents be used on or near the PHX LED Ellipsoidal Luminaire. These types of cleaners or solvents can permanently damage the optics or housings of the fixture. If you have any questions regarding the use or care of your PHX LED Ellipsoidal Luminaire, please contact Altman Lighting technical support or your local Authorized Dealer.

## CLEANING / REPLACING LENSES

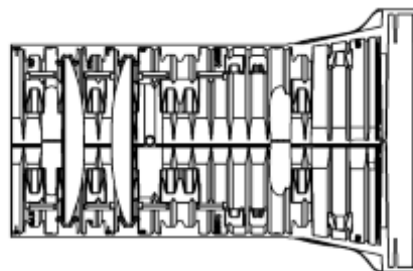


1. Remove focus lock knob, push in safety pin and slide the lens barrel out.
2. Place the barrel on the surface so that the two halves are oriented as the top and bottom.
3. Remove lower accessory cover with (2) screws.
4. Remove latch cover with (2) screws.
5. Remove (4) barrel screws, one on each side.
6. Carefully remove the top half of the barrel.
7. Replace or clean lenses using instructions on page 10 of this manual.
8. Replace top half of barrel, top latch cover, bottom cover and re-install screws.
9. Slide lens barrel back into unit and replace focus lock knobs.

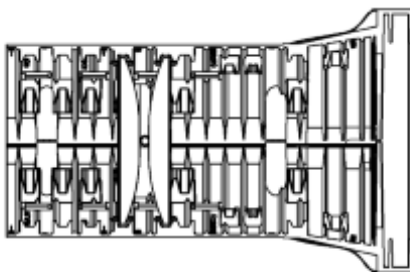
## FIXED FOCUS LENS POSITIONING



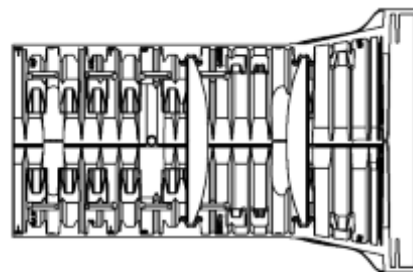
50° (4.5 X 6)



36° (6 x 9)



26° (6 x 12)



19° (6 x 16)

## INSTALLATION AND SET UP

**POWER CONNECTION - DMX CONTROL MODE:** The PHX LED Ellipsoidal Luminaire should be connected to either a constant circuit or relay device when in DMX mode. Note: Altman Lighting recommends that all Non-Dim circuits powering solid state luminaires are routinely powered down to both conserve energy and maximize luminaire performance.

### IMPORTANT AC POWER CONNECTION NOTES:

**WARNING!** The maximum allowable input current is 20 Amps (and the maximum power supply limit of 250 Watts for PHX2 and 150 Watts for PHX1). Do not overload circuits! Luminaires must be supplied by a branch circuit protected by a maximum 20 Amp circuit protector. Doit être alimenté par un circuit de dérivation protégé par un maximum de 20 ampères circuit protecteur. Ne surchargez pas les circuits !

- a. Must be supplied by a branch either dimming or constant circuit protected by a maximum 20 Amp circuit protector.  
Doit être alimenté par un circuit de dérivation protégé par un maximum de 20 ampères circuit protecteur.
- b. When using the daisy-chain connection method, **ONLY** connect your PHX LED Ellipsoidal to AC Output Connection of other PHX LED Ellipsoidals. **DO NOT CONNECT OTHER TYPES OF LUMINAIRES OR DEVICES!**
- c. Use only approved cable types.
- d. Do not overload circuits!
- f. The **MAXIMUM** allowable number of PHX LED Ellipsoidals which can be 'daisychained' on one power feed should not exceed ratings. **DO NOT EXCEED!**

## CONNECTING POWER

### Connecting Power

Units can be powered in one of two ways:

- Direct connection to a AC power source using a supplied AC input cable.
- Daisy chain connection using an interconnect AC cable.

Field wiring of PHX LED Ellipsoidals Luminaire is straight forward. A total of 3 wires/conductors need to be brought to the unit. The following wiring scheme is required: Please consult:

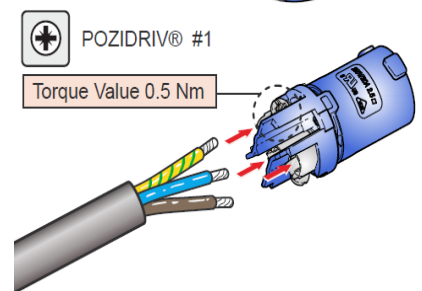
<http://www.neutrik.com/en/video/powercon/powercon-20-a/nac3fca>

For additional powerCON blue and grey wiring and assembly information.

Wire Color	Purpose
Brown (230V) Black (120V)	Main/(L)ine (120 to 230 VAC)
Blue (230V) White (120V)	(N)eutral
Green/Yellow (230V) Green (120V)	Ground / Earth

### WIRING

N  $\perp$  L



**WARNING!** To prevent injury or death, you must have access to a main circuit breaker or other power disconnect device before installing any wiring. Be sure that power is disconnected by removing fuses or turning the main circuit breaker off before installation. Installing the device with power on may expose you to dangerous voltages and damage the device. A qualified electrician must perform this installation.

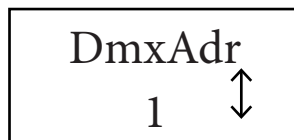
**Note:** The PHX LED Ellipsoidal Luminaire is intended for installation in accordance with the National Electric Code and local regulations. To assure full compliance with local codes and regulations, check with your local electrical inspector before installation. The PHX LED Ellipsoidal is not intended for residential use or installation.

OPERATION MENU AND OPTIONS

Button Control Explanation	
Button	Control / Function
MENU	Move to previous menu and cancel current action
ENTER	Select and accept current action
UP	Scroll up through options and selections
DOWN	Scroll down through options and selections

The table below demonstrates the DMX Control Options you can choose from. By following the steps to address your fixture you can choose any of the following options from below.

Menu Category	Control Type	Options	Factory Default
DMX Control	DMX Address	1 to 512	001
	Dmx Resoution	8 Bit	8 Bit
		16 Bit	
	Master Channel	Off	Off
		On	
	Smoothing	Off	On
		On	
	Action on DMX Loss	Off	Off
		Hold Last Look	
		Preset (Cue 1)	



**DMX Addressing:**

1. Power the fixture and wait for the startup to complete. (The screen will turn off.)
2. Press ENTER and you will see "DMX Control" Press ENTER again.
3. When the screen shows "DMXAdr 1" press ENTER again. (See image)
4. The up and down arrows should now be next to the number. By pressing the UP or Dwon buttons you can now scroll to your desired DMX address.
5. Press ENTER to confirm the address.
6. Press MENU to back out of the DMX address setting.

DMX 512 Connections	
DMX 512 Signal	XLR Pin
Common (Drain)	1
DMX 512 Minus (-)	2
DMX 512 Plus (+)	3
Note: Remaining pins on each connector are not used	



## OPERATION MENU AND OPTIONS CONTINUED

The table below demonstrates the Player Options you can choose from.

Menu Category	Control Type	Option 1	Option 2	Option 3	Factory Default
Player	Player On	Off	N/A		On
		On			
		Cue #1 through #5	Enable/Disable	Off/On	On
			Delay	1 sec to 99 min	2.0 Seconds
			Red	0 to 255	255
			Green	0 to 255	0
			Blue	0 to 255	0
		White	0 to 255	0	

The Player Options allow you to pre-program your fixture to play back up to 5 cues. The cues can run as short as 1 second or as long as 99 minutes. You can choose any of the colors you desire within your cues to create any look you want. You also have the option of putting a delay in between your cues. To program your cues follow the steps below.

1. Press ENTER to turn the screen on.
2. Press DOWN to scroll to the "player" option.
3. Press ENTER to enter the "player setting".
4. Press DOWN to turn the player on or off (In this case we will be turning the player on).
5. Press MENU once to move back to "on/off" selection.
6. Press UP or DOWN to scroll to "Edit Presets".
7. Press ENTER to go to "Edit Cue".
8. Press UP or DOWN to scroll to the cue # you would like to edit (In this case we will start with cue 1).
9. Press ENTER to select "Cue 1".
10. Press ENTER to select if you want to enable the Cue on or off. Select "on".
11. Press MENU to back out of selection.
12. Select the channel/color you desire for your first cue (For example select red press ENTER).
13. Press UP to scroll to desired intensity (0-255).
14. Press ENTER to confirm.
15. Press MENU to back out of red selection.

(Repeat these same steps to edit additional cues.)

OPERATION MENU AND OPTIONS CONTINUED

The tables below demonstrates the Fixture Settings, Options, and Fixture Information you can choose from. Using the same techniques shown on the two previous pages you can select, view, and edit these options.

Menu Category	Control Type	Option 1	Option 2	Factory Default
Settings	Factory Default	Yes	Sure? Y	No
		No	Sure? N	
	Fan Speed	Fan Auto	N/A	Auto
		Fan On		
	Display	Backlight	On	On
			5 seconds	
			10 seconds	
			30 seconds	
			60 seconds	
		Screen Correction	Normal/Upright	Normal/Upright
			Flipped	
			Auto	
	Dimming Curve	Linear	Square	
		Log		
		Square		

Menu Category	Control Type
Info	LED Temperature
	Run Time/Hours
	Fixture Serial #
	LED Serial #
	Software Version

PHX150 RDM ANSI E1.20 INFORMATION

PHX 150	Supported Parameters	PID	GET	Hex	SET
Manufacturer Specific PID	Smoothing	0xA104	ON-----01	4F 6E 20 20 20 20 20 20	1
			OFF-----00	4F 66 66 20 20 20 20 20	0
	Dmx Loss	0x9023	OFF-----00	4F 66 66 20 20 20 20 20	0
			HOLD-----01	4F 6F 6C 64 20 20 20 20	1
			PRESET-----02	50 72 65 73 65 74 20 20	2
	Dmx Resolution	0xA100	8 Bit-----00	38 2D 62 69 74 20 20 20	0
			16Bit-----01	31 36 2D 62 69 74 20 20	1
	Dim Curve	0xA450	LINEAR-----00	4C 69 6E 65 61 72 20 20	0
			SQUARE-----01	53 71 75 61 72 65 20 20	1
			LOG-----02	4C 6F 67 20 20 20 20 20	2
	Serial Number	0xA501	e.i. 78426155	37 38 34 32 36 31 35 38	XXXX
	LED SN	0xA502	e.i. w ww	57 20 20 57 57 00 00 96	XXXX
	Display Backlight	0xA430	ON-----00	4F 6E 20 20 20 20 20 20	0
			AUTO-5s-----01	41 75 74 6F 2D 35 73 20	1
			AUTO-10s-----02	41 75 74 6F 2D 31 30 73	2
AUTO-30s-----03			41 75 74 6F 2D 33 30 73	3	
AUTO-60s-----04			41 75 74 6F 2D 36 30 73	0	
ESTA Defined PID	Device Model Description	0x0080	Phoenix 150W		XXXX
	Manufacturer Label	0x0081	Altman Lighting		XXXX
	Software Version-Label	0x00C0	V 1.3		XXXX
	DMX Personality Description	0x00E1		Dmx Resolution Above	
	DMX_START_ADDRESS	0x00F0	0-512	0000-0200	0000-0512
	Sensor Definition	0x0200		00 00 01 00 00 00 00 64 00 0A 00 64 00 4C 45 44 20 20 20	XXXX
	Sensor Value	0x0201		00 00 18 00 00 00 00 00 00	XXXX
	IDENTIFY_DEVICE	0x1000	0-512		0-512
	Reset Device	0x1001	xxxx		XXXX
	Device Hours	0x0400		e.i. 00 00 00 D0	

PHX250 RDM ANSI E1.20 INFORMATION

PHX 250	Supported Parameters	PID	GET	Hex	SET
Manufacturer Specific PID	Smoothing	0xA104	ON-----01	4F 6E 20 20 20 20 20 20	1
			OFF-----00	4F 66 66 20 20 20 20 20	0
	Dmx Loss	0x9023	HOLD-----01	4F 6F 6C 64 20 20 20 20	1
			PRESET-----02	50 72 65 73 65 74 20 20	2
	Dmx Resolution	0xA100	8 Bit-----00	38 2D 62 69 74 20 20 20	0
			16Bit-----01	31 36 2D 62 69 74 20 20	1
	Dim Curve	0xA450	LINEAR-----00	4C 69 6E 65 61 72 20 20	0
			SQUARE-----01	53 71 75 61 72 65 20 20	1
			LOG-----02	4C 6F 67 20 20 20 20 20	2
	Serial Number	0xA501	e.i. 73265485	37 33 32 36 35 34 38 35	XXXX
	LED SN	0xA502	e.i. W TW	57 20 20 57 57 00 00 96	XXXX
	Display Backlight	0xA430	ON-----00	4F 6E 20 20 20 20 20 20	0
			AUTO-5s-----01	41 75 74 6F 2D 35 73 20	1
			AUTO-10s-----02	41 75 74 6F 2D 31 30 73	2
			AUTO-30s-----03	41 75 74 6F 2D 33 30 73	3
			AUTO-60s-----04	41 75 74 6F 2D 36 30 73	0
	Dim Mode	0x9021	NORMAL-----00	4E 6F 72 6D 61 6C 20 20	0
			FAST-----01	46 61 73 74 20 20 20 20	1
VIDEO-----02			56 69 64 65 6F 20 20 20	2	
Fan Speed Mode	0xA420	AUTO-----00	41 75 74 6F 20 20 20 20	0	
		ON-----01	4F 6E 20 20 20 20 20 20	1	
ESTA Defined PID	Device Model Description	0x0080	Phoenix 250W		XXXX
	Manufacturer Label	0x0081	Altman Lighting		XXXX
	Software Version-Label	0x00C0	V 2.5		XXXX
	DMX Personality Description	0x00E1		Dmx Resolution Above	
	DMX_START_ADDRESS	0x00F0	0-512	0000-0200	0000-0512
	Sensor Definition	0x0200		00 00 01 00 00 00 00 64 00 0A 00 64 00 4C 45 44 20 20 20	XXXX
	Sensor Value	0x0201		00 00 18 00 00 00 00 00 00	XXXX
	IDENTIFY_DEVICE	0x1000	0-512		0-512
	Reset Device	0x1001	xxxx		XXXX
	Device Hours	0x0400		e.i. 00 00 00 D0	

## MASTER CHANNEL - Fixture Resolution & Configuration

Master Channel is selectable as ON or OFF and provides a Master Fade channel that dims all 4 colors proportionally at the same time in order to maintain the color. This installs an intensity channel at the end of the DMX string.

### Fixture Type: 3000K & 5600K Fixed White DMX Map

Master Channel Off				
Bit Type	Channel 1	Channel 2	Channel 3	Channel 4
8 Bit	White	N/A	N/A	N/A
16 Bit	White Coarse	White Fine	N/A	N/A

Master Channel On				
Bit Type	Channel 1	Channel 2	Channel 3	Channel 4
8 Bit	White	Master	N/A	N/A
16 Bit	White Coarse	White Fine	Master Coarse	Master Fine

### Fixture Type: RGBW DMX Map

Master Channel Off								
Bit Type	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6	Channel 7	Channel 8
8 Bit	Red	Green	Blue	White	N/A	N/A	N/A	N/A
16 Bit	Red Coarse	Red Fine	Green Coarse	Green Fine	Blue Coarse	Blue Fine	White Coarse	White Fine

Master Channel On										
Bit Type	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6	Channel 7	Channel 8	Channel 9	Channel 10
8 Bit	Red	Green	Blue	White	Master	N/A	N/A	N/A	N/A	N/A
16 Bit	Red Coarse	Red Fine	Green Coarse	Green Fine	Blue Coarse	Blue Fine	White Coarse	White Fine	Master Coarse	Master Fine

**Smoothing is selectable as ON or OFF and provides a smooth transition ramp from one level to another in a similar way to how an incandescent lamp behaves. This helps to eliminate the “Digital Linear Dimming” associated with LED fixtures that is caused by the instantaneous response of LEDs. Turning smoothing off allows the LEDs to react instantly for strobe-like and lightning effects.**

## MASTER CHANNEL - Fixture Resolution & Configuration

### Fixture Type: RGBA DMX Map

Master Channel Off								
Bit Type	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6	Channel 7	Channel 8
8 Bit	Red	Green	Blue	White	N/A	N/A	N/A	N/A
16 Bit	Red Coarse	Red Fine	Green Coarse	Green Fine	Blue Coarse	Blue Fine	Amber Coarse	Amber Fine

Master Channel On										
Bit Type	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6	Channel 7	Channel 8	Channel 9	Channel 10
8 Bit	Red	Green	Blue	White	Master	N/A	N/A	N/A	N/A	N/A
16 Bit	Red Coarse	Red Fine	Green Coarse	Green Fine	Blue Coarse	Blue Fine	Amber Coarse	Amber Fine	Master Coarse	Master Fine

### Fixture Type: Tunable White DMX Map

Master Channel Off				
Bit Type	Channel 1	Channel 2	Channel 3	Channel 4
8 Bit	3000k	5600k	N/A	N/A
16 Bit	3000k Coarse	3000k Fine	5600k Coarse	5600k Fine

Master Channel On					
Bit Type	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5
8 Bit	3000k	5600k	Master	N/A	N/A
16 Bit	3000k Coarse	3000k Fine	5600k Coarse	5600k Fine	Master

## TECHNICAL SPECIFICATIONS

Source:	RGBA, RGBW, 3000k, 5600k, and tunable white 3000k/5600k versions. In 250W and 150W . Please refer to data sheets for photometric information.
Input Voltage:	100-240VAC, 50/60HZ Universal power input
Current:	Up to 8 fixtures (20A Max) daisy chained
Frequency:	50/60Hz
Ambient Temperature:	-10 to 40 degrees C (-14 to 104 degrees F)
Humidity:	5%-95% Non condensing
Cooling:	250W: Actively Cooled; 150W Convection Cooled
Weight:	27.15 lbs (12.31 kg) for Zoom Focus and 25.5 lbs (11.56 kg) for Fixed Focus
Compliance:	North American Models: ETL / cETL Listed (NON-IC Rated luminaire) International Models: CE Marked.

## TROUBLE SHOOTING

**WARNING!** Any service and maintenance (including troubleshooting), other than described herein should be performed by an Authorized Altman Lighting Dealer or Service Center.

Description	Symptom	Possible Cause and Action
No Light Output.	Fixture will not output light. (Fixture powered on.)	<b>Unit is set to "Player On" preset:</b> Ensure proper presets. (Shown on page 12) <b>DMX command intensity set to 0:</b> Adjust intensity to higher level.
No power to Fixture	Fixture does not power on.	<b>Power cable not plugged in:</b> Ensure PowerCon is connected to power source. <b>Power source not energized:</b> Verify circuit breaker is turned on. <b>PowerCon wired incorrectly:</b> Verify power cable and connector are wired correctly (Shown on page 10)
DMX Data Control	Fixture will not respnd to DMX commands.	<b>Not detecting DMX data:</b> Disconnect and reconnect DMX input cable. <b>Not responding to DMX control signal:</b> Ensure "Player" options are not turned on. (Shown on page 12) <b>DMX data cable not wired correctly or has broken conductor:</b> Check DMX cable for proper wiring. (Shown on page 11)
Imperfections In Beam	Imperfections/Distortion/Low Intensity from beam	Ensure Lens is clean and free of cracks/chips.



Corporate Offices:  
57 Alexander Street  
Yonkers, NY 10701  
(914)-476-7987  
[www.altmanlighting.com](http://www.altmanlighting.com)

Document Number: 49-0220  
Version as of: 20160926

PHX LED Ellipsoidal Spot Luminaire Installation & User's Manual  
©2016 Altman Stage Lighting Co. Inc., All rights reserved.