

S O U R C E F O U R<sup>®</sup> jr/jr Zoom

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## CE User Manual

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# Declaration of Conformity



We, Electronic Theatre Controls, Europe Ltd., declare under sole responsibility that the product:

Product name: Source Four fixed focus luminaires  
 Product type/model: S405, S410, S426, S450, S4jr26, S4jr36, Srjr50  
 Lot: n/a  
 Batch/Serial number: n/a  
 Item numbers: one of each model

to which this declaration relates in conformity with the following standards:

EN60598-1:2000	Luminaires, General requirements and tests
EN60598-2-17:1990	Specification for luminaires for stage lighting, television, film, and photographic studios (outside and indoor) - equiv. BS 4533-102.17:1990

following the provisions of EU LV Directive(s) 73/23/EEC

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Mr. Adam Bennette

(Name of authorised person)

Adam Bennette

(signature of authorised person)

Electronic Theatre Controls Europe, Ltd.  
 Unit 26-28, Victoria Industrial Estate,  
 Victoria Road, London W3 6UU U.K.  
 Telephone (+44) (0)20 896 1000  
 Fax (+44) (0)20 896 2000

Registered office:  
 Grant Thornton House  
 Melton St., London NW1 28W, England  
 Registered in England No. 3057796  
 VAT No. 6629487 90

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## Source Four jr / jr Zoom CE Guidelines

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The Source Four jr / jr Zoom CE is intended for professional use only. **Read the entire User Guide before using equipment.**

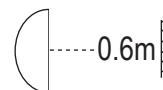
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**WARNING:** *Please note the following safety precautions.*

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- Do not mount the Source Four jr / jr Zoom CE on or near a flammable surface.
- Use the Source Four jr / jr Zoom CE in dry locations only, where humidity does not exceed 90 percent.
- The luminaire is for indoor use only and is not intended for outdoor use.
- For temporary installations, mount and support the Source Four jr / jr Zoom CE only by the primary suspension yoke holes. Suspend the luminaire from a hook clamp or a stand mount, using a securely tightened steel bolt (up to Ø 12 mm), flat washer and locking washer.
- In addition to primary suspension, attach a safety cable (ETC part #7060A1022) or chain to the secondary suspension point on the Source Four jr / jr Zoom CE.
- If the external cable is damaged, it shall be replaced by ETC or our service agents.
- Always hang the Source Four jr / jr Zoom CE with the colour frame held securely behind the retaining clip.
- Always replace the lamp if it becomes damaged or thermally deformed.
- Disconnect the unit from power before all cleaning and maintenance.
- The Source Four jr / jr Zoom CE is suitable for indoor use with a maximum ambient temperature:  $T_a=45^{\circ}\text{C}$
- Maximum exterior surface temperature:  $T_{\text{max}}=235^{\circ}\text{C}$
- A multilingual label sheet is included with this manual. Affix the label of the appropriate language over the existing warning label on the extension yoke. Do not cover ETC trademark or CE mark.
- The Source Four jr / jr Zoom CE contains a CE safety screen that covers the lens to prevent injury from broken glass due to lamp failure. Do not remove the safety screen.
- Keep the luminaire at least 0.6 meters away from any lit surface. Lighted objects at this distance or greater will not exceed 90°C temperature from projected light.



## Basic Assembly

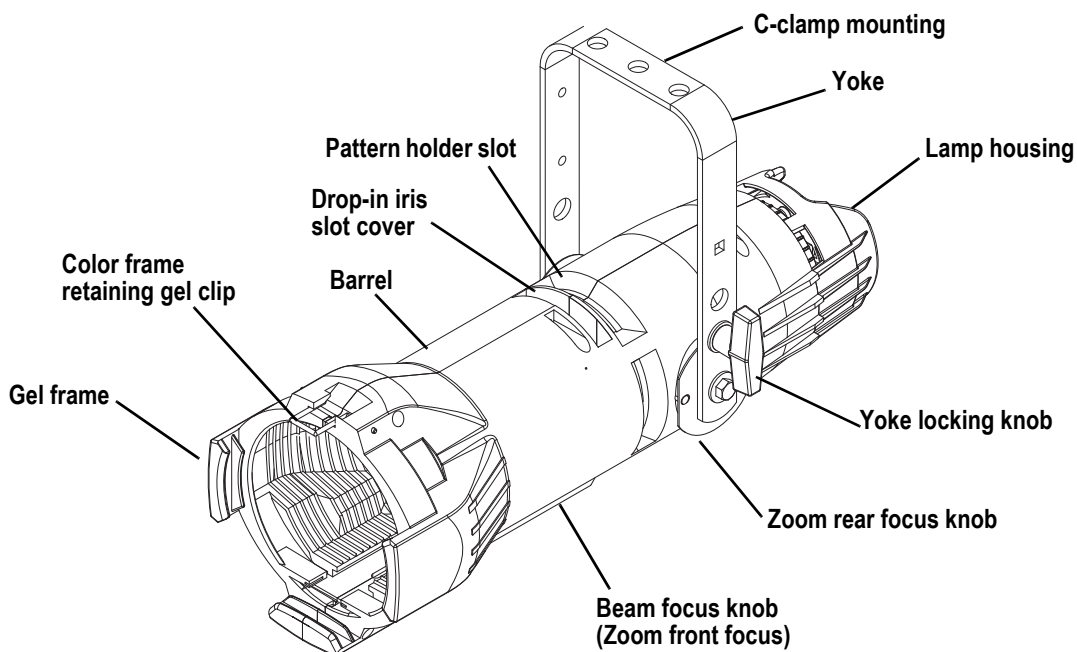


Figure 1



**WARNING:** *Please note the following safety warnings before use:  
Do not mount the luminaire on or near combustible surfaces.  
Do not operate the luminaire without a lens installed.  
Always hang the luminaire with the colour frame retaining clip in the locked position.*

### Luminaire information

#### Wiring and power information

A plug of at least 2.5 amp (220/240V) rating should be attached to the luminaire's mains lead. The wires in the mains lead are 1.55mm<sup>2</sup> each and coloured in accordance with the following code:

Green and Yellow:	Earth
Blue:	Neutral
Brown:	Live



**WARNING:** *This luminaire must be earthed.*

Current rating:	120V/5 amp maximum 240V/2.5 amp maximum
Operating frequency:	50/60 Hz

HPL lamp table



**CAUTION:** The Source Four jr is rated for 575w maximum lamp. Do not use lamps other than the HPL in Source Four fixtures. **Use of lamps other than HPL or greater than 575w will void your warranty.**

Lamp code	Watts	Volts	Initial Lumen	Colour temp.	Average rated life
HPL 575/230	575	230	14,900	3,200°K	400 hours
HPL 575/230X	575	230	11,780	3,050°K	1500 hours
HPL 375/230	375	230	7,250	3,000°K	1000 hours
HPL 575/240	575	240	14,900	3,050°K	400 hours
HPL 575/240X	575	240	11,780	3,050°K	1500 hours
HPL 375/240X	375	240	19,750	3,000°K	1000 hours

Colour frame holder

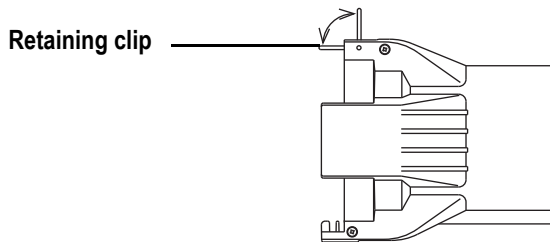


Figure 2

The colour frame holder is equipped with a spring-loaded retaining clip that prevents colour frames and accessories from falling out. See [Figure 2](#).



**WARNING:** **Make sure all colour frame accessories are locked in position with the retaining clip before hanging the Source Four jr / jr Zoom CE.**

- Step 1: Release the retaining clip by pushing it sideways while gently pulling backwards.
- Step 2: Insert the colour frame.
- Step 3: Lock the retaining clip by pushing sideways while gently pushing forward.



**Note:** *The performance of saturated colours may be less than desirable in any theatrical lighting luminaire. For best results, always use high-quality colour media rated for high-temperature use.*

*ETC's optional Conical Gel Extender, part # 7060A1048, will provide maximum colour media life. Gel Extenders are not recommended for 70° and 90° lens tubes due to the extremely wide-angle beam.*

*A variety of heat shield products is also available from many colour media manufacturers. Follow the manufacturer's instructions for the use of these products.*

## Replacing the HPL lamp

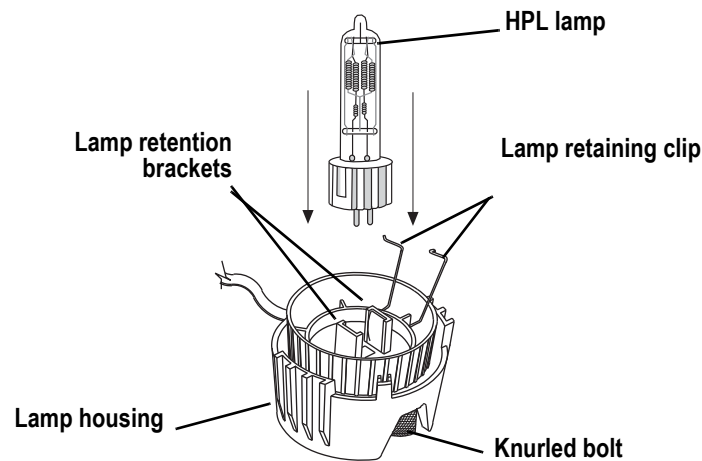


Figure 3

A lamp must be installed before you use the luminaire.



**Note:**

Verify that the HPL lamp you intend to install is suitable for your facility's voltage; 115-, 120-, 230-, and 240-volt HPL lamps are available. See [HPL lamp table, page 4](#). Operating HPL lamps above their rated voltage reduces lamp life and can cause premature lamp failure.



**WARNING:** *Let the lamp cool before replacing.*

Step 1: Disconnect power to the Source Four jr / jr Zoom CE before installing the lamp.

Step 2: Loosen the knurled bolt on the back of the lamp housing and pull the housing out.

Step 3: Holding by the base, remove the HPL lamp from its box.

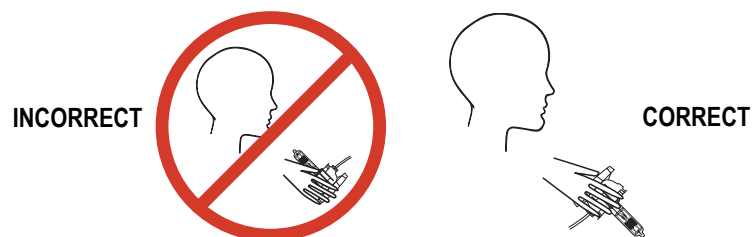


**CAUTION:**

*Use caution when installing or replacing any lamp.*

*When installing/replacing lamp, be sure to point the lamp away from your face and away from others before inserting it firmly into the assembly.*

*This may prevent injuries if the lamp should break.*



**Note:**

*To avoid premature lamp failure, do not touch the lamp glass. If you do, clean it carefully with isopropyl alcohol and a clean lint-free cloth. Allow to dry before operation.*

Step 4: Align the flat sides of the lamp base with the retention brackets on either side of the socket as shown in [Figure 3](#).

Step 5: Push down on the lamp base until the lamp seats firmly. When properly installed, the top of the lamp's base will be even with the top edges of the retention brackets.



**CAUTION:** *Improperly installed lamps cause premature lamp failure and socket problems.*

Step 6: Press lamp retaining clip across lamp base to secure.

Step 7: Reinstall the lamp housing by aligning the bolt hole and tightening the knurled bolt.

### Centering lamp and adjusting the field

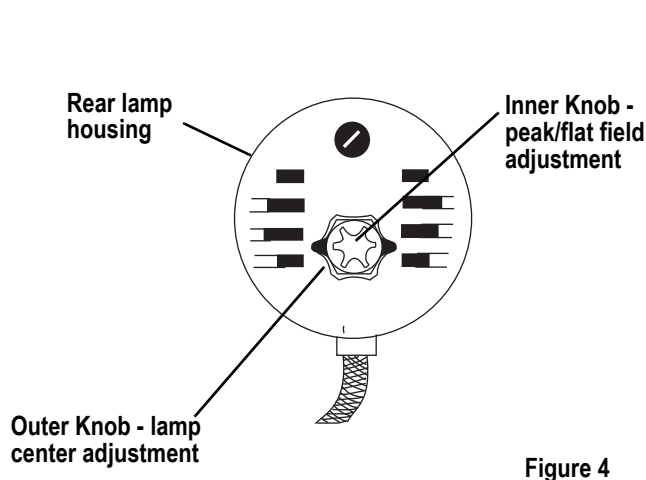


Figure 4

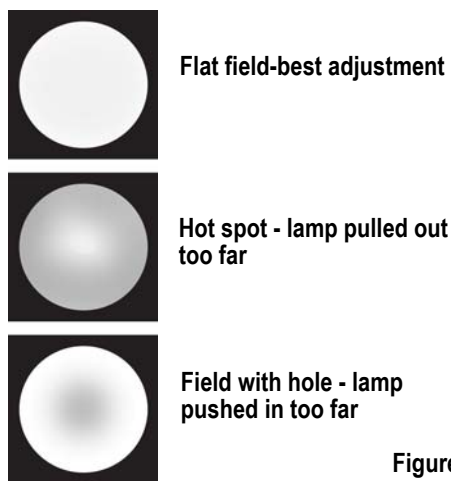


Figure 5

The two concentric knobs located on the lamp housing allow you to align the lamp and adjust its field. See [Figure 4](#). The outer knob centers the lamp within the reflector. The inner knob adjusts the lamp's field.

- Step 1: Turn on the Source Four jr / jr Zoom CE and aim it at a flat surface. Adjust the barrel to create a hard edge.
- Step 2: Unlock and loosen the outer knob by turning it counterclockwise.
- Step 3: Gently move the outer knob from side to side and up and down until the lamp is centered within the reflector.
- Step 4: Once the lamp is centered, turn the outer knob clockwise to lock it in place.
- Step 5: Finally, turn the inner knob either clockwise or counterclockwise to achieve an optimum flat field. See [Figure 5](#).

### Focusing the beam

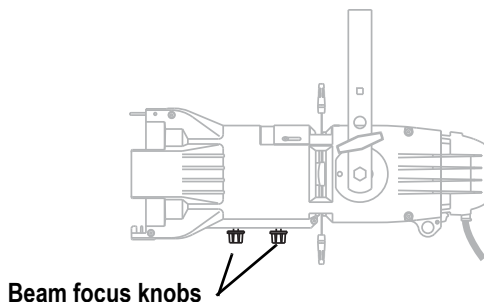


Figure 6

On a fixed field angle Source Four jr., with a 26°, 36° or 50° lens, adjust the lens single beam focus knob to focus the edge of the beam. On a Source Four jr Zoom, adjust the position of both lens



beam focus knobs to set the beam's spread and to focus the edge of the beam. The Zoom lens provide a range from 25° to 50°.

Step 1: Loosen the beam focus knob(s) on the underside of the barrel as shown in [Figure 6](#).

Step 2: Slide the lens(es) forward or backward to achieve the desired beam edge.

Step 3: Once the luminaire is focused, tighten the beam focus knob(s).

## Shaping the beam

The beam can be shaped using the shutters (see [Figure 8](#)), a pattern or an optional drop-in iris.

### Pattern Projection

The pattern holder slot is on the top side of the barrel and in front of the shutters. It accommodates an **M-size pattern holder** (see [Figure 7](#)). The pattern holder handle can be bent away from the shutter handle to keep it from interfering with the action of the shutter handle.

Use an optional donut in the accessory holder to enhance pattern projection. Donut diameter range should be 6.35 cm to 6.98 cm (2.5" to 2.75").

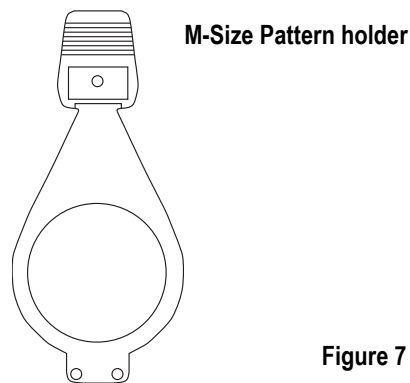


Figure 7

### Drop-In Iris Slot

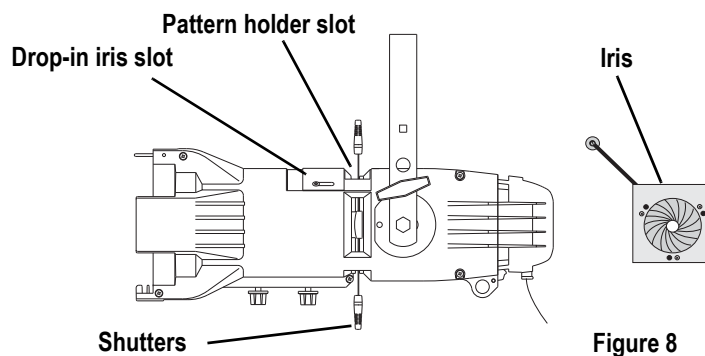


Figure 8

The drop-in iris slot is located on the top of the barrel and in front of the pattern holder slot. It accommodates either a drop-in iris or a motorized pattern device. When the slot is not in use, a small sheet metal cover secured with two Phillips screws prevents light leakage (see [Figure 8](#)).

Step 1: Use a Phillips screwdriver to loosen the screws on the drop-in iris slot cover. **Do not remove screws.**

Step 2: Slide the cover completely forward to expose the slot.

Step 3: Insert the iris with the flat side toward the shutters and make sure the iris handle extends from the slot.

- Step 4: Slide the slot cover back toward the shutters until it meets the iris handle. Leave enough space to move the iris handle.
- Step 5: Secure the drop-in iris slot cover by tightening the screws.

## Adjusting the yoke position

The Source Four jr / jr Zoom provides multi-positioning capabilities within its yoke for overall luminaire height and angle.

### Setting the luminaire height within the yoke

The luminaire is equipped with a two-position yoke for modifying the overall height in which the luminaire is mounted (see [Figure 9](#)). To change the height position, perform the following steps.

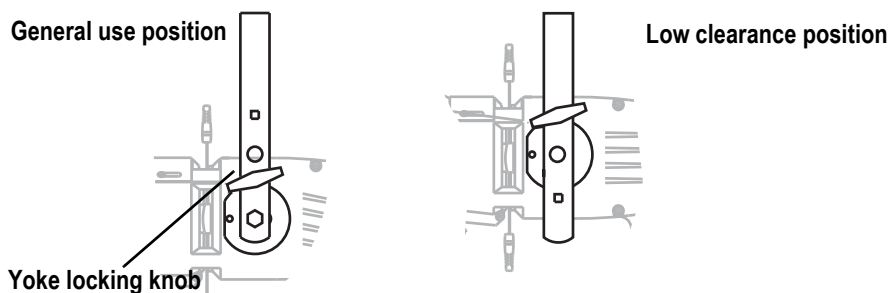


Figure 9

- Step 1: Remove the yoke locking knobs, washers, and hex bolts from either side of the luminaire.
- Step 2: Raise or lower the luminaire to the desired position within the yoke.
- Step 3: Reinstall the yoke's hex bolts, washers, and locking knobs.
- Step 4: Tighten the yoke knobs to secure in position.

### Setting the angle within the yoke

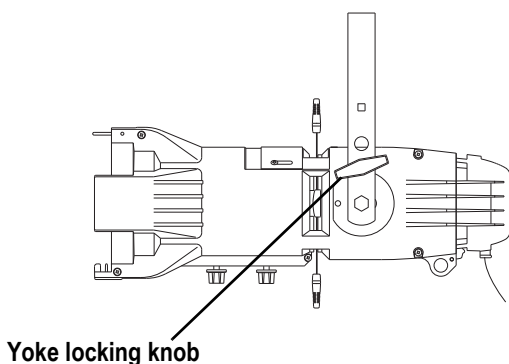


Figure 10

- Step 1: Loosen the yoke locking knobs (see [Figure 10](#)). **Do not** remove them.
- Step 2: Tilt the luminaire to the desired position.
- Step 3: Tighten the yoke locking knobs to secure in position.

## Switching lens assemblies

Follow these procedures to replace a fixed field lens with Zoom lens.

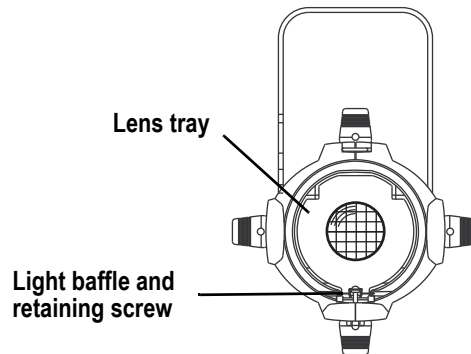


Figure 11

- Step 1: Loosen the screw at the front of the baffle. See [Figure 11](#).
- Step 2: Pull the light baffle out of the barrel.
- Step 3: Remove the beam focus knob from the bottom of the barrel and slide the lens assembly from the barrel.
- Step 4: Slide the Zoom lens rear assembly into the barrel and install its beam focus knob.
- Step 5: Slide the Zoom lens front assembly into the barrel and install its beam focus knob.
- Step 6: Reinstall the light baffle and secure it with the retaining screw.



**Note:** Reverse steps 1-6 to replace Zoom lens with a standard lens.

## Cleaning glass lens



**WARNING:** Do not use ammonia-based or other harsh commercial cleaners. Clean lens only as directed. Commercially available glass cleaning agents should be avoided as they may contain ammonia, other harsh chemical detergents or abrasive agents. These cleaners may damage the glass surface and the Anti-Reflective coatings. Do not immerse or soak the glass in any cleaning solution.

Replace lens if they contain visible damage (cracks or deep scratches) that may impair their effectiveness.

- Step 1: Remove the lens assembly. See Source Four jr /jr Zoom Assembly Guide for lens removal instructions.
- Step 2: Remove dust with a blast of oil-free air or wipe with a clean, lint-free cloth. Isopropyl alcohol, distilled water or a 50%-50% mixture of each can be used to clean the glass surface.
- Step 3: Reinstall the lens assembly.

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## Cleaning the reflector

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**WARNING:** *Unplug the fixture before attempting to clean the reflector.*

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**WARNING:** *Do not use ammonia-based or other harsh commercial cleaners. Clean reflector only as directed.*  
*Commercially available glass cleaning agents should be avoided as they may contain ammonia, other harsh chemical detergents or abrasive agents. These cleaners may damage the glass surface and the Anti-Reflective coatings. Do not immerse or soak the glass in any cleaning solution.*

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To quickly clean the reflector, and. You may also wipe the reflector with a clean lint-free cloth. If either method is not sufficient, follow these steps.

- Step 1: To protect the lamp housing during cleaning, remove the lamp housing by loosening the knurled bolt and pulling the housing straight out. See [Figure 3](#).
- Step 2: Remove the lens. See Source Four jr / jr Zoom Assembly Guide for full fixture disassembly/assembly instructions.
- Step 3: Remove dust with a blast of oil-free air or wipe with a clean, lint-free cloth. Isopropyl alcohol, distilled water or a 50%-50% mixture of each can be used to clean the glass surface.
- Step 4: Reinstall the lamp housing and tighten the knurled bolt.
- Step 5: Reinstall the lens.

## Portable appliance test (PAT)

The Portable Appliance Test is a set of tests that must be administered to electrical equipment in the UK and some locations in Europe to ensure safety. The tests are typically carried out using a small PAT device. The PAT device connects to a power source and then attaches to the product via an electrical outlet and test probes. The PAT provides a simple pass or fail result, allowing rapid testing of large inventories.

Source Four CE luminaires include a specific PAT point where the test clip is attached, as shown in [Figure 12](#). PAT tests should be performed by a qualified technician. Your local regulatory authority has guidelines on the testing frequency.

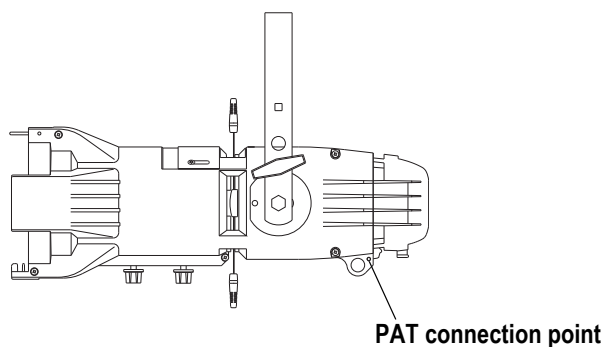


Figure 12

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**Corporate Headquarters** ■ 3031 Pleasant View Road, P.O. Box 620979, Middleton, Wisconsin 53562-0979 USA ■ Tel +608 831 4116 ■ Fax +608 836 1736  
**London, UK** ■ Unit 26-28, Victoria Industrial Estate, Victoria Road, London W3 6UU, UK ■ Tel +44 (0)20 8896 1000 ■ Fax +44 (0)20 8896 2000  
**Rome, IT** ■ Via Ennio Quirino Visconti, 11, 00193 Rome, Italy ■ Tel +39 (06) 32 111 683 ■ Fax +39 (06) 32 656 990  
**Holzkirchen, DE** ■ Ohmstrasse 3, 83607 Holzkirchen, Germany ■ Tel +49 (80 24) 47 00-0 ■ Fax +49 (80 24) 47 00-3 00  
**Hong Kong** ■ Rm 1801, 18/F, Tower 1 Phase 1, Enterprise Square, 9 Sheung Yuet Road, Kowloon Bay, Kowloon, Hong Kong ■ Tel +852 2799 1220 ■ Fax +852 2799 9325  
**Service:** (Americas) [service@etcconnect.com](mailto:service@etcconnect.com) ■ (UK) [service@etc europe.com](mailto:service@etc europe.com) ■ (DE) [techserv-hoki@etcconnect.com](mailto:techserv-hoki@etcconnect.com) ■ (Asia) [service@etcasia.com](mailto:service@etcasia.com)  
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