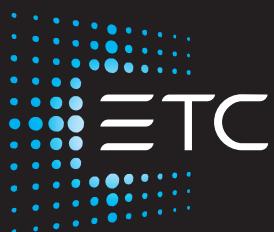


**PRELIMINARY**



# **High End Systems**

## **Talen**

### **Automated Luminaire User Manual**

**Version 1.0.x**

Part Number: 2592M1200-1.0.x Rev: DRAFT

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# Table of Contents

<b>Introduction</b> .....	1
Important Safety Information .....	1
Help from Technical Services .....	2
Unpacking Instructions .....	3
<b>Safety Considerations</b> .....	4
General Operation and Use Guidelines .....	6
<b>Fixture Overview</b> .....	6
<b>Install the Fixture</b> .....	7
<b>Power</b> .....	10
Electrical Specifications .....	10
Input and Power Factor .....	10
Inrush .....	10
Fixtures per Circuit (20 A) .....	10
<b>DMX Control</b> .....	11
DMX Connector Pinout .....	11
Connect DMX Cables to Fixture .....	11
Terminate DMX .....	12
Set the DMX Start Address .....	12
DMX Channels .....	12

Configure the Fixture .....	12
Update Firmware .....	12
Maintenance .....	13
Clean the Fixture .....	13
Replace the Fuse .....	13
Compliance .....	14
FCC - Part 15 Class A .....	14
Declaration of Conformity .....	15

# Introduction

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Congratulations on your purchase of the Talen automated fixture. This manual provides important information for the safe installation, configuration, and maintenance of your Talen fixture.

## Important Safety Information

Please read all instructions prior to assembling, mounting, and operating this equipment. Continued and safe operation of this fixture is the responsibility of the operator. This manual will give tips for that continued safe operation. At any time please contact Technical Services for any safety concerns.

The following international note, caution, and warning symbols appear in margins throughout this manual to highlight important messages.

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**Note:** *Notes are helpful hints and information that is supplemental to the main text.*

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**CAUTION:** *Hot Surfaces. This statement indicates that while operating, equipment surfaces may reach very high temperatures. Allow the fixture to cool before handling or servicing.*

---



**CAUTION:** *A Caution statement indicates situations where there may be undefined or unwanted consequences of an action, potential for data loss or an equipment problem.*

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**WARNING:** *A Warning statement indicates situations where damage may occur, people may be harmed, or there are serious or dangerous consequences of an action*

---



**WARNING: RISK OF ELECTRIC SHOCK!** *This warning statement indicates situations where there is a risk of electric shock.*

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All ETC High End Systems documents are available for free download from our website: [etcconnect.com/Products/Live-Events](http://etcconnect.com/Products/Live-Events).

Please email comments about this manual to: [TechComm@etcconnect.com](mailto:TechComm@etcconnect.com).

## Help from Technical Services

If you are having difficulties and your problem is not addressed by this document, try the ETC support website at [support.etcconnect.com](http://support.etcconnect.com) or the High End Systems product website at [etcconnect.com/Products/Live-Events](http://etcconnect.com/Products/Live-Events). If none of these resources are sufficient, contact ETC Technical Services directly at one of the offices identified below. Emergency service is available from all offices outside of normal business hours.

When calling for help, take these steps first:

- Prepare a detailed description of the problem
- Go near the equipment for troubleshooting
- Find your notification number if you have called in previously

### ETC, Inc.

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[techserv-asia@etcconnect.com](mailto:techserv-asia@etcconnect.com)

## **Unpacking Instructions**

The Talen shipping carton includes:

- one (1) Talen
- one (1) power cord
- one (1) mounting bracket (attached to the bottom of the Talen enclosure)
- one (1) stainless steel safety cable

Visually inspect the shipping carton for damage that may have occurred during transit. If the shipping carton shows signs of damage, document the damage fully before unpacking the contents. Documentation of any damage is helpful when reporting a claim with the carrier.

Do not discard the shipping carton and packaging materials. The carton and packing materials are specifically designed to protect the hazer during transport and will be useful if you need to ship the hazer, including transporting the hazer for service.

# Safety Considerations

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To ensure safe operation, follow the safety instructions and warning notes in this user manual.

- The Talen is intended for professional use only. Not for residential use. Read the entire manual before using this equipment.
- Contact your ETC authorized dealer or Technical Services before performing any service in order to maintain warranty coverage.

	The luminaire must be installed at least 1 m (3.28 ft) away from all lighted objects.	Le luminaire doit être installé à au moins 1 m (3,3 pi.) de tout objet éclairé.
	Do not stare at the operating light source.	Ne pas regarder la source de lumière lorsqu'elle fonctionne.
	This product should not be discarded as unsorted waste but must be sent to separate collection facilities for recovery and recycling.	Ce produit ne doit pas être jeté avec les déchets ménagers mais doit être déposé dans une collecte de déchets électroniques ou dans un point de collecte.
	Operate indoors only, not where this product would be exposed to the weather.	Ne fonctionne qu'à l'intérieur, pas là où ce produit serait exposé aux intempéries.



## WARNING: Note the following safety warnings before use:

- This equipment is designed for operation by qualified personnel only.
- Replace fuses with the specified type and rating only. See [page 13](#).
- Make sure that the available voltage is within the stated range. See [page 10](#).
- Do not use this fixture with a damaged power lead (cord set). If the lead is damaged, it must be replaced by a qualified technician with an equivalent type before use. Contact your local authorized dealer for spare power leads.
- Do not use this fixture if the lens is damaged. Damaged lenses must be replaced before use. Contact your local authorized dealer for a replacement.
- Do not mount the fixture on or near flammable surfaces.
- Minimum distance from fixture head to combustible materials: 0.1 m (4.0 in).
- Minimum distance to lighted objects: 1.0 m (3.28 ft).



### AVERTISSEMENT : Pour votre sécurité, lisez les mises en garde et les avis suivants avant toute utilisation :

- Cet équipement est conçu pour être utilisé par un personnel qualifié uniquement.
- Remplacez les fusibles uniquement par le type et le calibre indiqués. Voir [page 13](#).
- Veillez à ce que la tension disponible soit dans la plage indiquée. Voir [page 10](#).
- N'utilisez pas ce projecteur avec un cordon d'alimentation endommagé (fils électriques). Si le cordon est endommagé, un technicien qualifié doit le remplacer par un cordon de type équivalent avant que l'appareil ne puisse être utilisé. Contactez votre distributeur agréé local pour obtenir des cordons d'alimentation de rechange.
- N'utilisez pas cet appareil si la lentille est endommagée. Les lentilles endommagées doivent être remplacées avant l'utilisation. Contactez votre revendeur agréé local pour un remplacement.
- Ne pas installer le projecteur sur ou à côté d'une surface inflammable.
- Distance minimum entre la tête du luminaire et les matériaux combustibles : 0.1 m (4.0 in).
- Distance minimale avec les objets éclairés : 1.0 m (3.28 ft).



### WARNING: RISK OF ELECTRIC SHOCK!

- Do not operate this device with the cover open.
- Disconnect the fixture from power and DMX and allow it to cool before performing any cleaning and maintenance.



### AVERTISSEMENT : RISQUE DE CHOC ÉLÉCTRIQUE!

- N'utilisez pas cet appareil avec le couvercle ouvert.
- Débrancher la lampe de son alimentation et du DMX et la laisser refroidir avant d'effectuer un nettoyage ou un entretien.



**CAUTION:** *Hot Surfaces. Allow the device to cool completely before handling and servicing.*



**ATTENTION :** *Surfaces chaudes. Laissez le luminaire refroidir complètement avant de le manipuler et de procéder à son entretien.*

**Note:** *The light source in this luminaire is not user-replaceable, and must be replaced only by a qualified technician. Contact ETC Customer Support for assistance.*

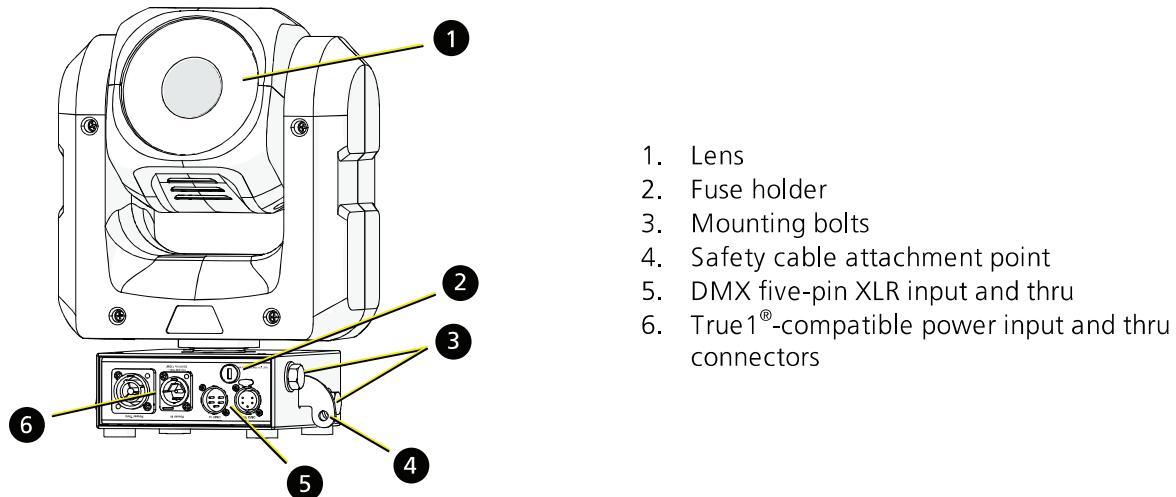
## General Operation and Use Guidelines

- This fixture is only allowed to be operated with the maximum alternating current that is stated in the technical specifications label provided on the fixture.
- Lighting effects are not designed for permanent operation. Consistent operation breaks may ensure that the fixture will function for a long time without defects.
- When choosing the installation location, make sure that the fixture is not exposed to extreme heat, moisture, or dust.
- If using the supplied Omega brackets with quick-locking thumb screws for fixture hanging, ensure that the thumb screws have engaged a complete 90-degree positive latch.
- Operate the fixture only after having familiarized yourself with its functions. Do not permit persons who are not qualified and familiar with its functions to operate the fixture.
- Do not modify the fixture. Any modifications will void the warranty.
- This manual describes the proper installation and operation of this fixture. Using this fixture in any way other than the intended use may cause damage and void the warranty.
- When the fixture has been stored or transported in cold temperatures, allow it to warm to room temperature for a minimum of one hour before applying power. Applying power to a cold fixture may cause damage to the fixture and void the manufacturer warranty.
- Please use the original packaging if the fixture is to be transported. ETC will not be responsible for the fixture if packaging other than manufacturer provided packaging is used.

## Fixture Overview

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For technical specifications of the Talen fixture, see the technical data sheet at  
[Need URL](#)



# Install the Fixture

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## WARNING:

- NEMA Type 1 enclosure, indoor use, dry locations only. Do not use outdoors. This fixture is intended for use where humidity does not exceed 90% (non-condensing).
- The installation location must support a minimum point load of 10 times the weight of the fixture.
- The installation must always be secured with a secondary safety attachment. An appropriate safety cable is supplied.
- Safety cable attachment must be rated by a safety factor of 10.
- Use of third party clamps are permitted, but they should comply with, and be approved by, the Authority Having Jurisdiction (AHJ).
- A supportive and stable surface must be used when the fixtures are placed on the feet.
- The operating temperature range for this fixture is -10°C–45°C (14°F–113°F). Do not operate the fixture outside of this range.
- Never stand directly below the installed fixture when mounting, removing, or servicing the fixture.
- All safety and technical aspects of fixture installation must be approved by a qualified personnel before operation.
- The installation must be regularly inspected by qualified personnel.
- Overhead rigging must be performed by qualified personnel.



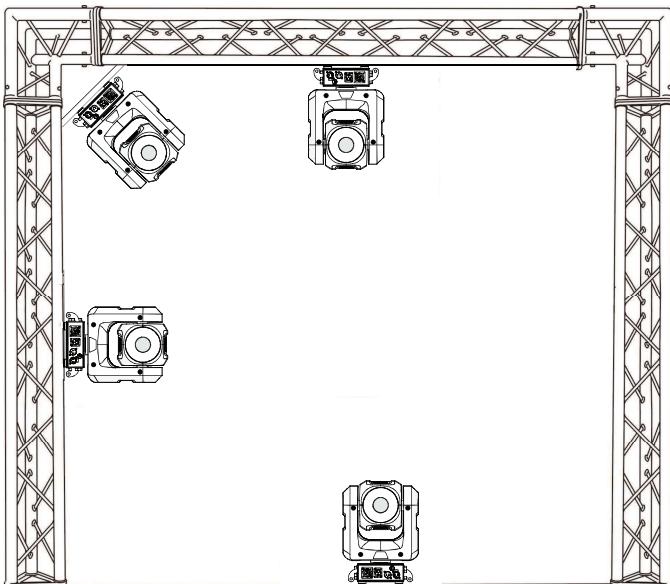
## AVERTISSEMENT :

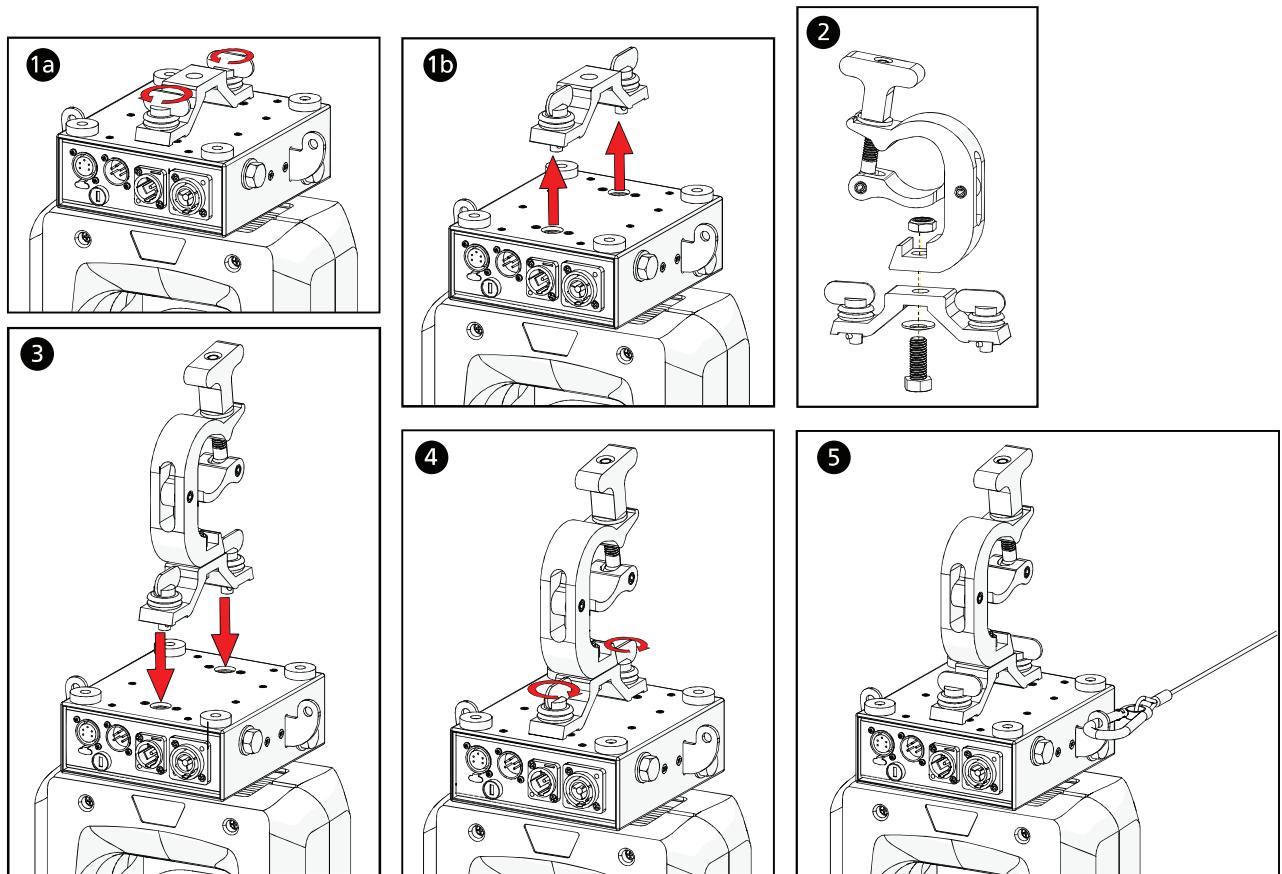
- Boîtier NEMA de type 1, utilisation en intérieur, emplacements secs uniquement. Ne l'utilisez pas en extérieur. Ce projecteur est conçu pour être utilisé dans des environnements où l'humidité ne dépasse pas 90 % (sans condensation).
- L'emplacement d'installation doit supporter une charge concentrée minimale de 10 fois le poids de l'appareil.
- L'installation doit toujours être sécurisée par une fixation de sécurité auxiliaire. Un câble de sécurité approprié est fourni.
- La fixation du câble de sécurité doit être classée avec un facteur de sécurité de 10.
- Il est permis d'utiliser des pinces provenant de tiers, mais elles doivent être conformes et approuvées par l'Autorité compétente (AC).
- Une surface d'appui stable doit être utilisée quand les projecteurs sont placés sur pieds.
- La plage de température de fonctionnement de ce projecteur est de -10°C–45°C (14°F–113°F). Ne faites pas fonctionner le projecteur audelà de cette plage.
- Ne vous placez jamais directement sous le projecteur lors du montage, du démontage ou de son entretien.
- Tous les aspects techniques et de sécurité de l'installation du projecteur doivent être approuvés par un personnel qualifié avant qu'il ne soit utilisé.
- L'installation doit être régulièrement inspectée par du personnel qualifié.
- La fixation en hauteur doit être effectuée par du personnel qualifié.



**CAUTION:** *Follow all local codes and recommended practices by the Authority Having Jurisdiction. The installation must only be carried out by qualified personnel.*

You can install the fixture in any of the orientations shown below.





1. Remove the mounting bracket from the bottom of the fixture enclosure.
  - a. Loosen the quick-lock fasteners.
  - b. Lift the bracket from the fixture.
2. Assemble the clamp (provided by others) to the mounting bracket and secure together using appropriately sized hardware (not provided).
3. Align the assembled bracket and quick-lock fasteners into the respective holes on the bottom of the fixture enclosure.
4. Tighten each of the quick-lock fasteners fully, turning clockwise. You will hear and feel a click when the fastener is fully secured.
5. Attach the provided safety cable to the attachment point on either side of the fixture enclosure, and secure the safety cable to the trussing system or other safe installation point. Follow local codes and recommended safety standards for securing the fixture to the installation location.
6. Attach the fixture to the installation location using the installed clamps, using the clamp manufacturer's instructions for a secure fit. When using an Omega™ clamp, close the safety and fully tighten the clamp wing nut until secure.
7. Inspect the installation prior to lifting the fixture overhead.

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**Note:** If you are using the hinge accessory to install the Talen, refer to the Talen Hinge Installation Guide for installation instructions. The guide is available for free download from the ETC website: <URL TBD>

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# Power

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## Electrical Specifications

- 100–240 VAC at 50/60 Hz
- Maximum power consumption: 111 W

## Input and Power Factor

The values listed below were measured with LEDs at full and all motors functioning.

VAC	Amps	Hz	Watts	VA	PF
100	1.099	50	109	110	0.99
120	0.910	60	108	108	0.99
200	0.544	50	106	107	0.97
208	0.529	60	106	107	0.96
220	0.494	50	105	108	0.96
230	0.474	50	105	108	0.96
240	0.462	60	105	111	0.94

## Inrush

VAC	Frequency (Hz)	Maximum Inrush (A)
120	60	34
240	60	64

## Fixtures per Circuit (20 A)

The values listed below assume the use of an R20 breaker. Consult the upstream breaker trip curves when using other equipment. The fixture requires power from a non-dimmable source.

- 100–120 V: Up to 9 fixtures can be linked via power thru connectors (10 fixtures total per circuit).
- 240 V: Up to 19 fixtures can be linked via power thru connectors (20 fixtures total per circuit).

# DMX Control

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The Talen fixture operates on standard DMX-512 control bus, controlled by a DMX console. The fixture requires 13 channels of DMX-512.

The fixture includes two 5-pin XLR connectors, one for DMX In and one for DMX Thru (for use when daisy-chaining fixtures on the DMX control bus). (See [Fixture Overview on page 1](#).)

## DMX Connector Pinout

Use the following standard pinout when preparing DMX cable with 5-pin XLR connectors. ETC recommends using Belden 9729 or equivalent cable. (See the ETC cable cross database for equivalent alternatives: [etcconnect.com/Support/Cable-Cross-Database.aspx](http://etcconnect.com/Support/Cable-Cross-Database.aspx).) The second data pair in the recommended cable type is not used, but is reserved future service.

DMX-512 Pinout for five-pin XLR	Pin	Use
	1	Common (shield)
	2	Data -
	3	Data +
	4	not connected
	5	not connected

## Connect DMX Cables to Fixture

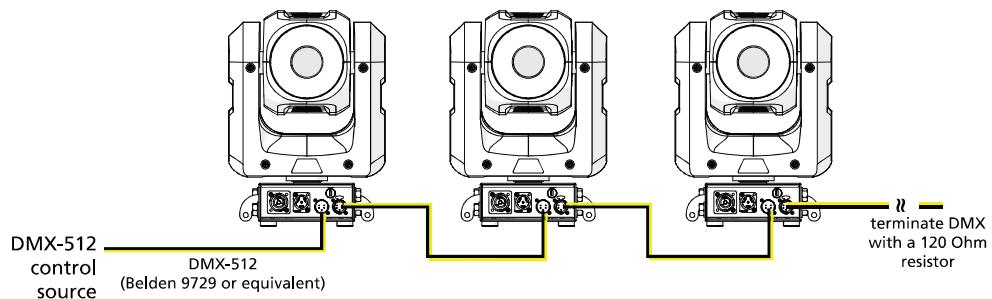
The following instructions are guidelines for connecting DMX to your fixture. Your installation may vary.

1. Connect a DMX data cable to the DMX control source and the DMX In XLR receptacle on the first fixture in the DMX data run.
2. Link the remaining fixtures in the data run by connecting a DMX data cable from the DMX Thru connector on a fixture to the DMX In connector on the next fixture in the data run.

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**Note:** A maximum of 32 DMX devices may be connected in any one DMX data run when installed in a daisy-chain fashion.

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## Terminate DMX

Use a DMX terminator or install a resistor on the last fixture of the DMX control run to prevent corruption (data reflection) of the digital control signal by electrical noise.

A DMX terminator is an XLR plug with a  $120\ \Omega$  resistor connected between pins 2 and 3 that can be installed into the DMX output receptacle of the last fixture in the DMX control run. This plug is available and sold separately. Contact your authorized dealer or ETC for ordering information ([etcconnect.com/contactETC/](http://etcconnect.com/contactETC/)).

## Set the DMX Start Address

Give each fixture a unique DMX starting address so that the correct fixture responds to the control signals. This DMX start address is the channel number from which the fixture starts to "listen" to the digital control information sent out from the control source.

Modify the fixture DMX start address using the ETC Set Light app. See [Configure the Fixture on page 1](#).



**Example:** The Talen requires 13 channels of control. If you set the DMX starting address of the first fixture to 1, you could set the second fixture to 14 (13+1), the third to 27 (14+13), and so on.

## DMX Channels

The most current DMX Map data for the Talen can be found on the ETC website:

[Need Talen URL.](#)

## Configure the Fixture

The Talen uses Bluetooth® technology for wireless communication. Use the ETC Set Light app to configure your Talen fixtures. Download the app from the ETC website [etcconnect.com/Apps/](http://etcconnect.com/Apps/) or scan the QR code. The app includes a help system to assist you in configuring fixtures.



## Update Firmware

When Talen fixtures are connected to data, you can update firmware directly using UpdaterAtor. For information on UpdaterAtor, see the *UpdaterAtor Software QuickGuide* and the *UpdaterAtor Software Release Note*, which you can download from [etcconnect.com](http://etcconnect.com).

# Maintenance

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**CAUTION: RISK OF ELECTRIC SHOCK! Disconnect power before servicing.**

**ATTENTION : RISQUE DE CHOC ÉLECTRIQUE! Couper l'alimentation avant l'entretien.**

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Keep the following in mind during regular service and inspection:

- All screws for installing the fixture or parts of the fixture must be tightly connected and must not be corroded.
- There must not be any deformations to the housing, lenses, rigging, and installation points (ceiling, suspension, trussing).
- Moving parts must not show any signs of wear and must move smoothly without issue.
- The power supply cables must not show any damage, material fatigue, or sediment.
- If spare parts are required, order only genuine parts from your local authorized dealer.

To ensure that the fixture remains in good working condition and does not fail prematurely, regular maintenance is recommended.

## Clean the Fixture

1. Clean the lens only when necessary, and only use a Silky Microfiber Optical Cloth with purified water or an ammonia-free glass cleaner such as Miller Stevenson MS-260 Glass Cleaner.
2. Clean the fans regularly to ensure maximum airflow and efficient cooling. This will ensure that the light source operates in the best possible condition.

## Replace the Fuse



**WARNING: Replace fuses with the specified type and rating only.**

**AVERTISSEMENT : Remplacez les fusibles uniquement par le type et le calibre indiqués.**

---



**CAUTION: RISK OF ELECTRIC SHOCK! Disconnect power before servicing.**

**ATTENTION : RISQUE DE CHOC ÉLECTRIQUE! Couper l'alimentation avant l'entretien.**

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Supplies needed:

- Flatblade screwdriver
- One replacement fuse: 2 A 250 V 5x20 mm VDE slow-blow

A replaceable AC line fuse is provided in the fixture to prevent overload.

1. Disconnect power to the fixture.
2. Using a flatblade screwdriver, push the fuse holder in and twist it to remove it from the fixture. (See [Fixture Overview on page 6](#) for the location of the fuse holder.)
3. Remove the blown fuse from the holder and replace it only with another 2 A 250 V 5x20 mm VDE slow-blow fuse.
4. Reinstall the fuse holder. Using a flatblade screwdriver, push the holder in and twist it until it is secure in the fixture.

# Compliance

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For current and complete compliance information, view the Talen datasheet:

[Need URL](#)

## FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

•Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### RF Exposure Information

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

## **ISED Statement**

English: This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device. The digital apparatus complies with Canadian CAN ICES-3 (B)/NMB-3(B).

French: Cet appareil contient des émetteurs/récepteurs exempts de licence qui sont conformes aux RSS exemptés de licence d'Innovation, Sciences et Développement économique Canada. L'exploitation est soumise aux deux conditions suivantes :

(1) Cet appareil ne doit pas provoquer d'interférences.

(2) Cet appareil doit accepter toute interférence, y compris les interférences susceptibles de provoquer un fonctionnement indésirable de l'appareil.

l'appareil numérique du ciem conforme canadien peut - 3 (b) / nmb - 3 (b).

This device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS 102 RF exposure, users can obtain Canadian information on RF exposure and compliance.

cet appareil est conforme à l'exemption des limites d'évaluation courante dans la section 2.5 du cnr - 102 et conformité avec rss 102 de l'exposition aux rf, les utilisateurs peuvent obtenir des données canadiennes sur l'exposition aux champs rf et la conformité.

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment.

Cet équipement est conforme aux limites d'exposition aux rayonnements du Canada établies pour un environnement non contrôlé.

RF Exposure Statement

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Cet équipement doit être installé et utilisé à une distance minimale de 20 cm entre le radiateur et votre corps.



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