

High End Systems Talen

Automated Luminaire User Manual

Version 1.0

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Introduction

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.



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



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.



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.

All ETC High End Systems documents are available for free download from our website: etcconnect.com/Products/High-End-Systems.

Please email comments about this manual to: TechComm@etcconnect.com.

Introduction 1

Help from Technical Services

If you have questions that are not answered by this document, try the ETC support website at support.etcconnect.com or the High End Systems product website at etcconnect.com/Products/High-End-Systems. 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.

Americas

Technical Services Department 3031 Pleasant View Road Middleton, WI 53562 800-775-4382 (USA, toll-free) +1-608 831-4116 service@etcconnect.com

ETC Austin

High End Systems Products

Technical Services Department 2105 Gracy Farms Lane Austin, TX 78758 USA 800-890-8989 (USA, toll-free) +1-512 836-2242 hesservice@etcconnect.com

ETC Ltd

Europe, Middle East, and Africa

Technical Services Department 26-28 Victoria Industrial Estate Victoria Road, London W3 6UU England +44 (0)20 8896 1000 techservltd@etcconnect.com

ETC GmbH

Germany, Austria, Switzerland, Eastern Europe, and Russia

Technical Services Department Ohmstrasse 3 83607 Holzkirchen, Germany +49 (80 24) 47 00-0 techserv-germany@etcconnect.com

ETC France

France

Zone Urbaparc Bâtiment E
6 Boulevard de la Libération
Saint-Denis, 93200
+33 1 4243 3535
techservfrance@etcconnect.com

ETC Asia

Asia

Technical Services Department Room 1801, 18/F Tower 1, Phase 1 Enterprise Square 9 Sheung Yuet Road Kowloon Bay, Kowloon, Hong Kong +852 2799 1220 techsery-asia@etcconnect.com

Safety Considerations

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

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

Symbols used on the product label are defined below:

1 m −	The luminaire must be installed at least 1.0 m (3 ft 4 in) away from all lighted objects.	Le luminaire doit être installé à au moins 1,0 m (3 pi. 4 po.) de tout objet éclairé.
<u></u>	General warning	Avertissement général
	Do not stare at the operating light source.	Ne pas regarder la source de lumière lorsqu'elle fonctionne.
X	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.
t _a or T _a	Rated maximum ambient temperature	Température ambiante maximale recommandée
	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.
- Do not stare at the operating lamp. May be harmful to the eyes.
- Replace fuses with the specified type and rating only. See page 15.
- Make sure that the available voltage is within the stated range. See page 7.
- 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.
- The fixture should be positioned so that prolonged staring into the fixture at a distance closer than 6.4 m (21 ft) is not expected.
- Minimum distance from fixture head to combustible materials: 0.1 m (4 in).
- Minimum distance to lighted objects: 1.0 m (3 ft 4 in).

Safety Considerations 3



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.
- Ne regardez pas la lampe en fonctionnement. Peut être nocif pour les yeux.
- Remplacez les fusibles uniquement par le type et le calibre indiqués. Voir page 15.
- Veillez à ce que la tension disponible soit dans la plage indiquée. Voir page 7.
- 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.
- L'appareil doit être positionné de manière à ce qu'un regard prolongé dans l'appareil à une distance inférieure à 6,4 m (21 pi) soit peu probable.
- Distance minimum entre la tête du luminaire et les matériaux combustibles : 0.1 m (4 in).
- Distance minimum avec les objets éclairés : 1.0 m (3 ft 4 in).



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 extend the life of the fixture.
- When choosing the installation location, make sure the fixture will not be exposed to extreme heat, moisture, or dust.
- Do not point the lens toward the sun or other bright light source. Doing so could damage the fixture.
- 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.

Safety Considerations 5

Unpacking the Fixture

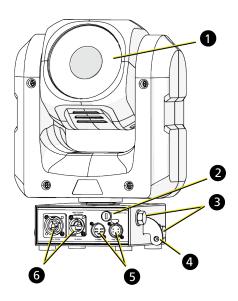
The Talen shipping carton includes:

- one (1) Talen automated luminaire
- one (1) power cord with a TRUE1®-compatible locking connector
- one (1) Omega mounting bracket (attached to the bottom of the Talen enclosure)
- one (1) stainless steel safety cable with locking carabiner

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.

Fixture Overview



- 1. Lens
- 2. Fuse holder
- 3. Hinge mounting bolts
- 4. Safety cable attachment point
- 5. DMX five-pin XLR input and thru
- 6. Locking power input and thru connectors

Specifications

For complete technical specifications, see the technical datasheet: etcconnect.com/Products/High-End-Systems/Lighting-Fixtures/Talen/Documentation.aspx

Environment

- Ambient operating temperature range: -10°C to 40°C (14°F to 104°F).
- Relative humidity: 0%–90%, non-condensing.
- Storage temperature: -20°C to 60°C (0°F to 140°F).
- · Indoor use only.
- Dry locations only, IP20 rated.

Power



WARNING: Connect the fixture to a non-dimmable power source in order to avoid damage to the fixture's internal power supply and other electrical components. Using a dimmable power source can damage the fixture and will void the warranty.

Electrical

- 100-240 VAC at 50/60 Hz
- Maximum power consumption: 118 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	1.20	50	118	119	0.99
120	0.97	60	116	117	0.99
200	0.57	50	111	116	0.97
208	0.57	60	114	118	0.97
220	0.54	50	114	117	0.96
230	0.51	50	113	117	0.96
240	0.50	60	113	118	0.95

Fixtures per Circuit

Up to 11 fixtures can be linked via power thru connectors (12 fixtures total per circuit).

The fixtures per circuit information assumes the use of an ETC R20 breaker module. Consult the upstream breaker trip curves when using other equipment.

Connector Specification

A power input cable with a TRUE1-compatible locking connector is provided with the fixture. The locking connector is rated for maximum 15 A at 120 VAC and 240 VAC.

Specifications 7

Install the Fixture

A truss clamp and the related installation hardware is not supplied with the fixture.

Follow all local and national codes and recommended practices when installing the fixture.



WARNING:

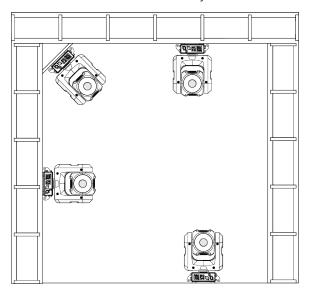
- Overhead rigging must be performed by qualified personnel. ETC and its partners are not liable for injury or product failure due to incorrect installations.
- All safety and technical aspects of fixture installation must be approved by qualified personnel before operation.
- The installation must be regularly inspected by qualified personnel.
- The installation location must support a minimum point load of six (6) times the combined weight of the fixture and all mounting hardware and cables required for installation. Fixture weight is 6 kg (13.2 lb).
- The installation must always be secured with a secondary safety attachment. An appropriate safety cable is supplied.
- The safety cable attachment must be rated by a safety factor of six (6).
- Always use a locking carabiner to attach the safety cable to the fixture.
- A supportive and stable surface must be used when the fixtures are placed on the feet.
- Never stand directly below the installed fixture when mounting, removing, or servicing the fixture.



AVERTISSEMENT:

- Le gréement aérien doit être effectué par du personnel qualifié. ETC et ses partenaires ne sont pas responsables des blessures ou des pannes du produit dues à des installations incorrectes.
- 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.
- L'emplacement d'installation doit supporter une charge ponctuelle minimale de six (6) fois le poids de luminaire et de tout le matériel de montage et des câbles requis pour l'installation. Le poids du luminaire est de 6 kg (13,2 lb).
- 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 six (6).
- Utilisez toujours un mousqueton à verrouillage pour attacher le câble de sécurité au luminaire.
- Une surface d'appui stable doit être utilisée quand les projecteurs sont placés sur pieds.
- Ne vous placez jamais directement sous le projecteur lors du montage, du démontage ou de son entretien.

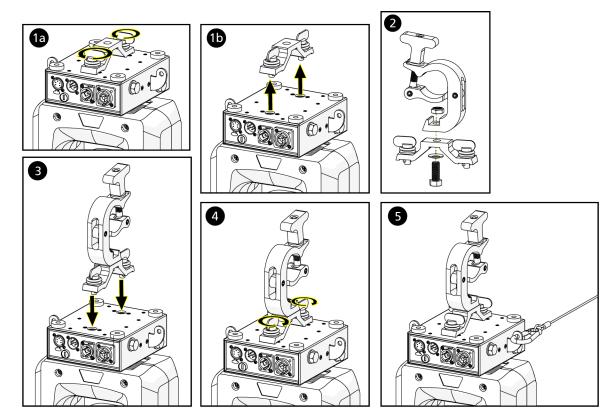
You can install the fixture in any of the orientations shown below.





Note: If you are using the array 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: etcconnect.com/Products/High-End-Systems/Lighting-Fixtures/Talen/Documentation.aspx.

Install the Fixture 9



- 1. Remove the Omega bracket from the bottom of the fixture upper enclosure.
 - a. Loosen the quick-lock fasteners.
 - b. Lift the Omega bracket from the enclosure.
- 2. Assemble the truss clamp (not provided) to the Omega bracket and secure together using appropriately sized hardware (not provided).
- 3. Align the assembled Omega bracket and quick-lock fasteners into the respective holes on the bottom of the fixture upper 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 one of the safety cable attachment points located on either side of the fixture upper enclosure, and secure the safety cable to the trussing system or other safe installation point making sure the locking carabiner is locked. 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 installation hardware 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.

DMX Control

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

Attach the fixture to the control bus using a two-core, shielded cable with a 5-pin XLR connector (Belden 9729 is preferred).

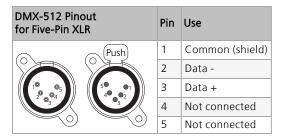
The fixture includes two 5-pin XLR connectors, one for DMX Input and one for DMX Thru (for use when daisy-chaining fixtures on the DMX control bus).



Note: When the Talen fixture is connected to DMX, its Bluetooth[®] connection is disabled.

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.) The second data pair in the recommended cable type is not used, but is reserved future service.



Connect DMX Cables to Fixture

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

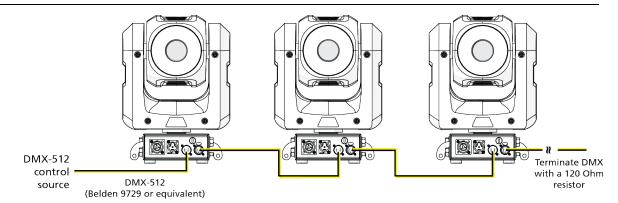
1. Connect a DMX data cable to the DMX control source and the DMX In XLR receptacle on the first fixture in the DMX data run.

DMX Control 11

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.



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



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 Ω 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. Contact your authorized dealer or ETC for ordering information (etcconnect.com/contactETC), or purchase an XLR DMX terminator from the ETC Online Shop (shop.etcconnect.com).

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 *Fixture Overview on page 6*.



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 (13+14), and so on.

DMX Channels

The current DMX channel map for the Talen can be found on the ETC website: etcconnect.com/Products/High-End-Systems/Lighting-Fixtures/Talen/Documentation.aspx

Configure the Fixture

You can configure the Talen fixture via DMX/RDM or wirelessly using the Set Light app from FTC

- DMX/RDM: Configure the fixture using an RDM-enabled controller. Download the Talen DMX channel map from the ETC website: etcconnect.com/Products/High-End-Systems/Lighting-Fixtures/Talen/Documentation.aspx.
- Set Light app: See Set Light App below.

Set Light App

Talen uses Bluetooth technology for wireless communication. Use the ETC Set Light app to wirelessly set the name and DMX address for your Talen fixture. Download the app to a smartphone or tablet from the Apple App store or Google Play store, the ETC website etcconnect.com/Apps/, or scan the QR code. Visit etcconnect.com/Apps/ for more information about the Set Light app.





Note: The Talen does not support Near Field Communication (NFC).

Overview

Use the following icons to navigate in the app:

Icon	Name	Description
맘	Connections	Tap to connect to a Bluetooth bridge or an individual fixture.
<u>?</u>	Issues	Tap to show problems with the configuration settings. Note: This icon is only active when there are problems with a setting.
=	Options	 Tap to access the app Options, which include: Mode: Standard app mode or Identify mode Display options The help system Library options
€	Configure	Tap to change the name and the DMX start address of the selected fixture.
+	Device Library	Tap to configure fixtures offline.

The **Devices** page shows all of the fixtures that are currently connected to the app, have been previously configured for the app, or have been manually added to the app. A status indicator shows the status of each fixture:

- Green: Connected to the app
- Red: Not connected to the app
- None: Fixture configuration was manually added using the Device Library and has not yet been paired with a fixture

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Configure the Fixture

1. Connect to the fixture via a Bluetooth bridge, or connect directly to the fixture.



Note: To configure a bridge or fixture to automatically connect to the app, tap the name of the bridge or fixture on the **Connections** page and enable the **Auto-Connect** option.

- 2. As necessary, change the name and DMX start address for the fixture.
- 3. Other useful features in the app include:
 - Organize fixtures into groups Tap **Add Group** on the **Devices** page to add the selected fixtures into a group.
 - Configure fixtures offline Use the Device Library to preconfigure fixtures offline. You can then pair these configurations with your fixtures when the fixtures are connected to the app.

Update Firmware

Contact ETC Technical Services for assistance with updating Talen firmware. See *Help from Technical Services on page 2* for contact information.

Maintenance



CAUTION: RISK OF ELECTRIC SHOCK! Disconnect power before servicing.
ATTENTION: RISQUE DE CHOC ÉLECTRIQUE! Couper l'alimentation avant l'entretien.

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 ETC or your authorized ETC 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.



Note: If you use compressed air to clean the fans, hold the fan blades in place while cleaning them. Letting the fans spin while using compressed air could damage the fans.

Replace the Fuse



 $\label{eq:warning} \textbf{WARNING:} \ \textbf{Replace fuses with the specified type and rating only}.$

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

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

Supplies needed:

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

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Compliance

For current and complete compliance information, view the product datasheet at etcconnect.com/Products/High-End-Systems. For complete product documentation, including compliance documentation, visit etcconnect.com/products.

FCC Compliance

Talen

(For any FCC matters):

Electronic Theatre Controls, Inc. 3031 Pleasant View Road Middleton, WI 53562 +1 (608) 831-4116 etcconnect.com

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. Visit etcconnect.com/products for current and complete compliance information including FCC compliance.



Note: 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 instructions, may cause harmful interference to radio communications. Any modifications or changes to this product not expressly approved by Electronic Theatre Controls, Inc. could void the user's authority to operate the product. 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 their own expense.

This device contains a wireless module with the following identification number:

FCC ID: 2A2H4-0001

ISED Compliance

This device contains a license-exempt transmitter/receiver that complies with Innovation, Science, and Economic Development Canada's license-exempt RSSs. 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.

Contains IC ID: 27683-0001

CAN ICES-005 (A)

Conformité ISDE

Cet appareil contient un émetteur/récepteur conforme aux CNR d'Innovation, Sciences et Développement économique Canada (ISDE) applicables aux appareils radio exempt de licence. Son fonctionnement est soumis aux deux conditions suivantes:

- 1. L'appareil ne doit pas produire d'interférences.
- 2. L'utilisateur de l'appareil doit accepter toute interférence, même si l'interférence est susceptible d'en compromettre le fonctionnement.

Contient ID IC: 27683-0001

CAN NMB-005 (A)

Compliance 17

