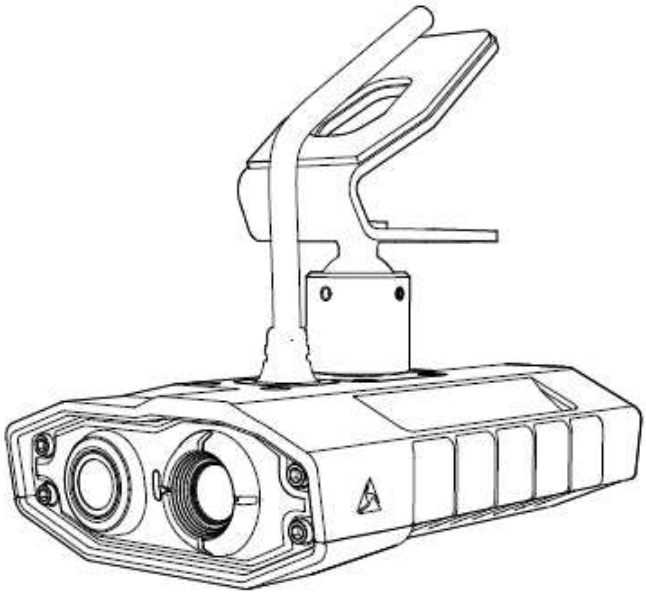
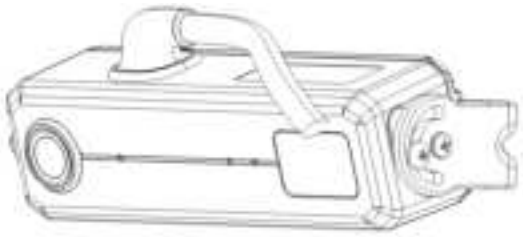
Axon Fleet 3 Camera System User Manual





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Introduction

IMPORTANT: This document was created for the Axon Fleet 3 BETA Deployment. The BETA documentation is presented as is and may not fully reflect the deployed hardware or software. This document is not the final product documentation. Contact your Axon representative for questions about the documentation and deployed hardware and software.

The Axon Fleet 3 solution is a purpose-built in-vehicle recording system capable of capturing audio and video, supplemented by artificial intelligence designed for use in critical environments encountered by law enforcement, corrections, military, emergency medical services (EMS), and security activities. The Axon Fleet 3 system records events for secure storage, retrieval, and analysis leveraging Axon's Evidence services. The recorded events are transferred securely to Axon Evidence using LTE or Wi-Fi operations.

The Axon Fleet 3 system usually consists of 2 cameras: one installed in the front of the vehicle in a windshield mount and the second pointed at the law enforcement vehicle's prisoner compartment, and the Fleet Hub. An Axon Signal Vehicle device can be added to automatically activate nearby Axon Body-Worn Cameras (BWC).

The Axon Fleet 3 system cameras have 2 operating modes designed to accommodate user needs. The default mode, or BUFFERING mode, which provides pre-event buffering to capture activities that occur prior to activating cameras, and EVENT mode, which records events.

The Axon Fleet 3 system automatically powers on upon detecting vehicle ignition being ON, and the shutdown delay of the system is programmable – this timer begins counting upon turning the ignition OFF.

Additional Reading

This manual explains how to operate the Axon Fleet 3 camera hardware. Other manuals cover additional aspects of the Axon Fleet 3 system. These documents and additional information are available at on the myAxon Product Guide page.

The *Axon Fleet Dashboard Guide* provides instructions for using your mobile data computer (MDC) with your Axon Fleet 3 system.

For information on managing users, managing vehicles, managing Fleet camera settings, and working with videos, see the *Axon Evidence User and Administrator Reference Guide*.

For information on the optional Axon Fleet 3 Wireless Microphone, see the *Axon Fleet 3 Wireless Microphone Installation and User Manual*.

Axon Academy provides training resources for Axon Fleet 3 and Axon Evidence. Visit academy.axon.com for information about the available training resources.

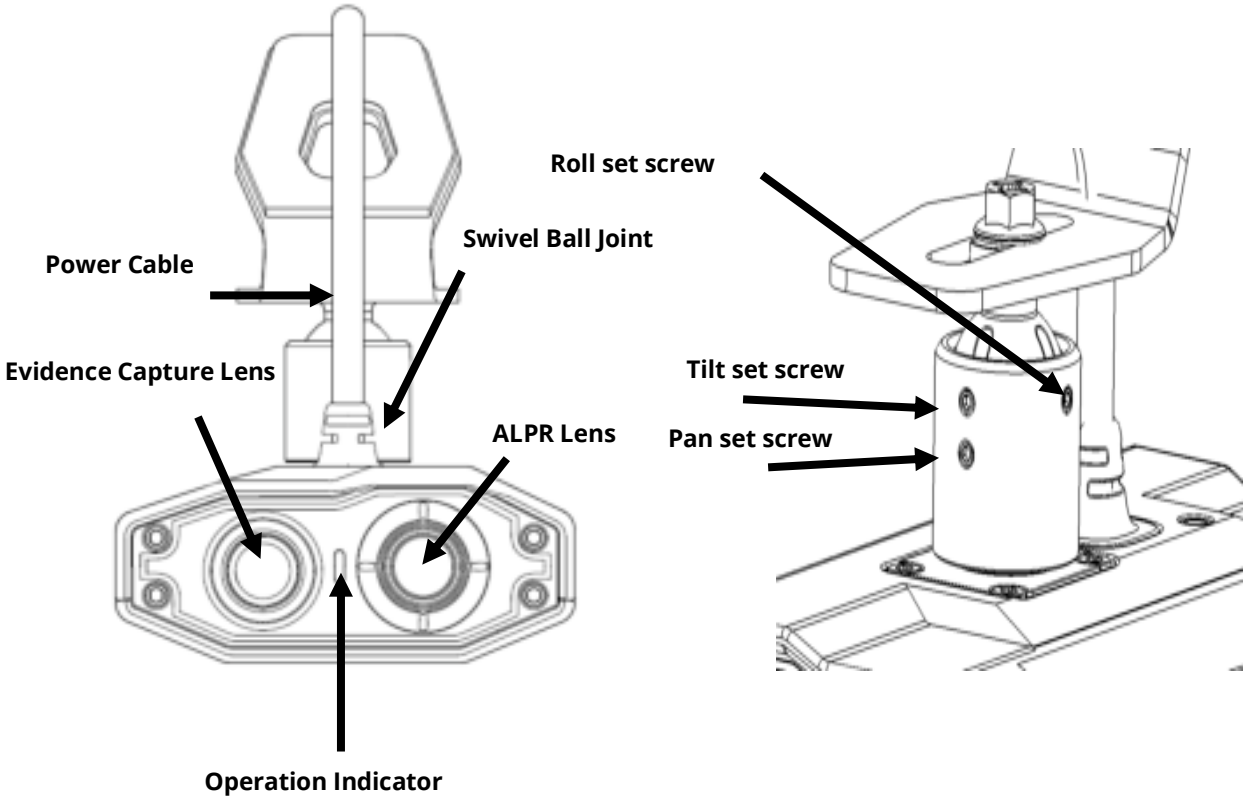
Getting to Know Your Axon Fleet 3 Camera System

Although your Axon Fleet 3 system can be configured for automated transfer from BUFFERING to EVENT mode under the right conditions, the Dual-View Camera still includes physical controls to enable recording. The Dual-View Camera will also provide visual and audible notification of the Axon Fleet 3 system's state of operation.

Note: Many of the features activated by the buttons below also can be activated with the Axon Fleet Dashboard application. See the *Axon Fleet Dashboard Manual* for more information.

Axon Fleet 3 Dual-View Camera Hardware

The following images show the different components on the Axon Fleet 3 Dual-View camera, Model AX1031.



Axon Fleet 3 Dual-View Camera front view and Swivel Ball Joint

Swivel ball joint – Attaches camera to camera mount. The camera supports pan, tilt, and roll. If you want to restrict any of those you can tighten the set screws to support this. For most installations Axon recommends tightening the roll and tilt screws and leaving the pan

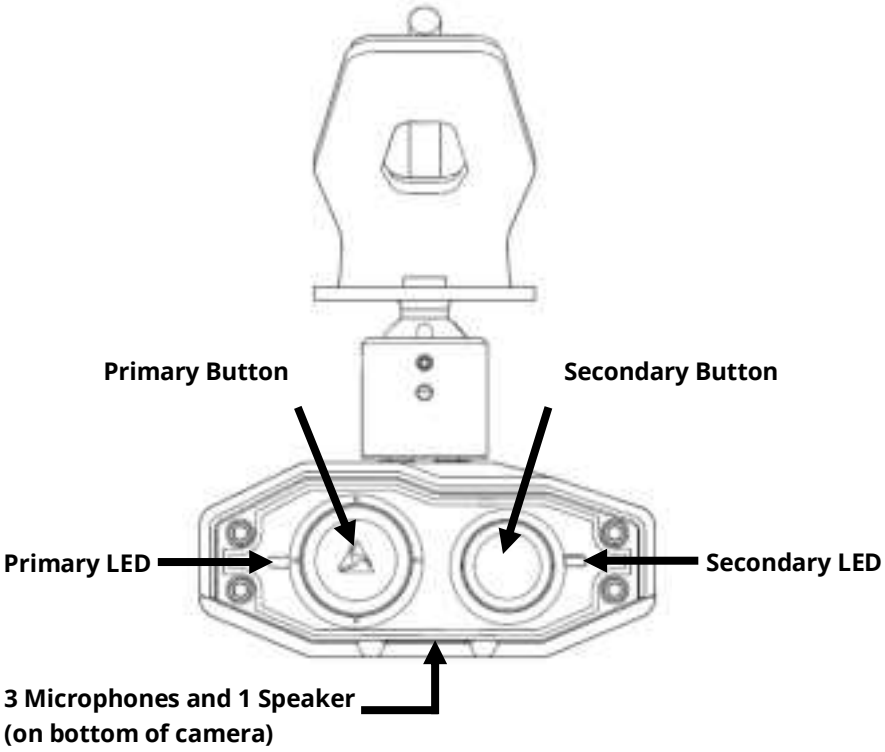
set screw vacant. To prevent panning of the camera, move one of the two roll set screws to the pan set position.

Power cable – Provides power from Fleet Hub.

Primary Evidence Capture Lens – Lens for recording evidence.

ALPR Lens – Lens for Automated License Plate Reader (ALPR) processing.

Operation indicator – Indicates Dual-View Camera recording status.



Axon Fleet 3 Dual-View Camera back

Primary Button – Used to start and stop recording for Dual-View Camera.

Secondary Button – Used to start and stop recording for Interior Camera.

Primary LED – Indicates the Dual-View Camera's current operating status.

Secondary LED – Indicates the Interior Camera's current operating status.

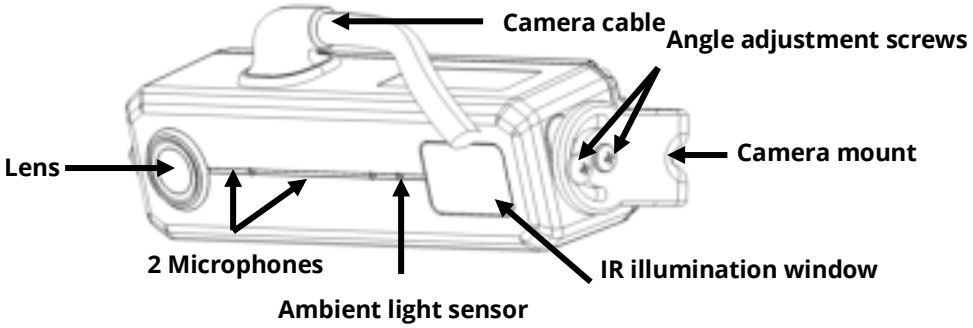
Primary LED – Dual-View Camera Status	LED Behavior
Powering on	Rapid blinking green
Buffering	Solid green
Recording	Blinking red
Camera updating	Blinking white

Primary LED – Dual-View Camera Status	LED Behavior
Live Streaming while buffering	Blinking purple
Live Streaming while recording	Blinking red and purple
Error Encountered	Blinking yellow

Secondary LED – Interior Camera Status	LED Behavior
Powering on	Rapid blinking green
Buffering	Solid green
Recording	Blinking red
Camera updating	Blinking white
Error Encountered	Blinking yellow

Axon Fleet Interior Camera Hardware

The following images show the different components on the Axon Fleet 3 Interior Camera, Model AX1032.



Axon Fleet 3 Interior Camera and mount

Lens – The camera lens.

Camera mount – Attaches camera to the vehicle.

Ambient light sensor – Engages infra-red (IR) illumination at low ambient light.

IR illumination window – Infra-red (IR) illumination source.

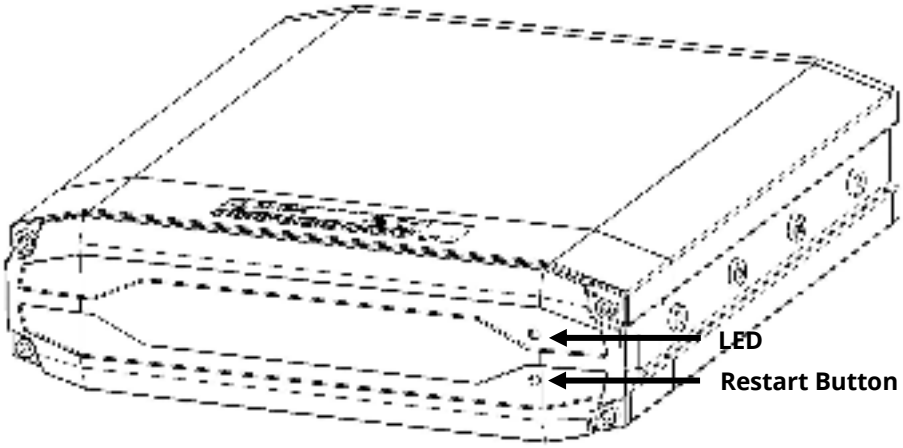
Camera cable – Connects the camera to the camera controller.

Angle adjustment screws – Allows tilting the camera and then fixing camera in place.

Microphones – For recording in-cabin audio. Located on the back of the Interior Camera.

Axon HUB Hardware

The following image shows the HUB, Model AX1033.



Restart Button – When needed as part of a troubleshooting procedure, use a paperclip to depress and hold the restart button for 5 seconds to restart the Hub and cameras.

LED – Indicates the Hub's current operating status.

Hub Status	LED Behavior
Powering on	Solid red
On	Solid green

The following image shows the 5-1 antenna from Airgain.

Recording with the Axon Fleet 3 System

The Axon Fleet 3 Dual-View and Interior cameras can operate independently of each other.

Operating Modes

The Axon Fleet 3 camera system has 2 operating modes:

1. BUFFERING (turning on the camera and starting pre-event buffering)
2. EVENT (event recording)

BUFFERING Mode (Turning on the Camera)

The cameras will always be powered on while the Fleet Hub senses IGNITION ON

With the camera turned on, the system is in the BUFFERING mode. When BUFFERING begins:

- The Primary and Secondary LED on the back of the Dual-View Camera will be solid green.
- The camera captures video but does not record to permanent memory while in BUFFERING mode. The exception is when an agency has the Video Recall feature enabled.

  Note: Video captured with the Video Recall feature is has a lower resolution and there is no audio.
- Buffered video duration is 30 seconds by default (00:00:30).

When EVENT mode is activated, the buffered video captured directly before the event is saved and attached to the event in permanent memory. This feature is intended to capture the video of an incident just before your activation of EVENT mode.

With default settings, the system does not capture audio in BUFFERING mode, so anything recorded in that mode will be video-only. BUFFERING mode starts only after the Axon Fleet system is turned on via power on of the Fleet Hub.

Notes:

- An agency can disable pre-event BUFFERING.
- An agency can configure the BUFFERING mode so it records audio as well as video.

EVENT Mode (Starting Recording)

To begin recording, do one of the following:

- Use the Fleet Dashboard application to start recording.
- Press the Primary or Secondary Button on the Dual-View Camera
- If your vehicle is configured to begin recording automatically, your camera will transition from BUFFERING to EVENT mode when the Fleet Hub detects a trigger.

When your camera starts recording, you will hear 2 beeps. The moment EVENT mode begins, both video and audio are recorded from the camera and GPS coordinates are recorded (Note: GPS coordinates are provided by the Fleet Hub). This will continue throughout the duration of the recording until the recording is stopped. Any "buffered" video directly preceding the event is saved and attached at the beginning of the event recording (Note: With default settings, the buffered video does not contain audio).

The camera provides you with indications that it is recording in EVENT mode:

- At the start of an event and every 2 minutes during an event, the system beeps twice.
- The Operation LED on the camera or controller will be blinking red

To stop recording and return to BUFFERING mode:

- Use the Fleet Dashboard application to stop recording, or
- Single press the PRIMARY button to end recording on the Dual-View Camera, or single press the SECONDARY button to end recording on the Interior Camera.

The system will beep once (with a long tone).

Recording Resolutions and Specifications

Both the Dual-View Camera and Interior Camera can be set to various aspect ratios and resolutions up to 1080p, as shown in the following table. Higher resolution videos are larger, take longer to upload and consume more storage on Axon Evidence. Your agency-wide camera recording resolutions can be selected by an agency administrator in Axon Evidence.

Note: Video is stored on the HUB, not either of the cameras.

Maximum Video Length

The maximum recording length for Axon Fleet 3 cameras is fifteen hours.

Camera	Format	Aspect Ratio	Pixels (x.y)	GB per Hour	Total Hours Available for Recording (1 camera only)
Dual-View Camera	High HD Panoramic	5:2	2240 x 900	4.9	37.0
	High HD (1080p)	16:9	1920 x 1080		
	HD Panoramic (***default***)	5:2	1344 x 540	2.4	74.1
	HD (720p)	16:9	1280 x 720		
	SD Panoramic	5:2	896 x 360	1.0	185.2
	SD (480p)	16:9	854 x 480		
Interior Camera	High HD (1080p)	4:3	1400 x 1050	3.9	46.3
	HD (720p) (***default***)	4:3	1024 x 768	1.9	92.6
	SD (480p)	4:3	640 x 480	0.7	246.9

Axon Fleet Dashboard

The Fleet Dashboard can be used to add a marker, start recording, stop recording, retrieve Recall Videos, mute audio recording (if your administrator has configured your Axon Fleet 3 system to do so), adjust LED and volume settings. The Fleet Dashboard allows you to playback evidence recorded by the Fleet 3 system or paired Axon Body-Worn Cameras. See the Axon Fleet Dashboard Manual for more information.

Dual-View Camera Pan and Tilt

The Axon Fleet 3 Dual-View Camera is mounted on a swivel-ball joint that allows the camera to be panned and tilted to ensure objects of interest are within the camera's field of view. An Internal spring provides a consistent feel during adjustment.

The swivel-ball joint has detents that click in every 22.5 degrees of horizontal rotation (pan) to hold the camera in that position.

For ALPR usages, Axon recommends the following positioning:

- In most situations, including typical roadway patrol, aim the camera directly forward. The ALPR lens will cover 3 lanes (the lane directly in-front and the immediate adjacent lanes on either side of the vehicle).
- When patrolling parking lots (with either perpendicular or diagonal parking), the user can pan the camera to one of the off-center detents to better capture plate information. Axon recommends either the 22.5 or 45 degree detents.
- When parked roadside, panning the camera to the first off-center detent (22.5 degrees) will cover an additional lane of traffic (the lane immediately in front + 2 lanes adjacent to the same side).

Axon Signal

Axon Signal technology is included with the Fleet 3 system. However, your agency's Axon Evidence administrator must configure the Axon Signal capability for it to work. When it is configured, Axon Signal technology can automatically move your Axon Fleet and body cameras from BUFFERING to EVENT mode.

When Axon Signal is triggered, such as by a light bar activation, the Fleet Hub alerts the ethernet connected Axon Fleet 3 cameras. Additionally, when using Axon Body-Worn Cameras (BWC) an Axon Signal Vehicle device, added during installation, alerts nearby Axon BWCs using Axon Signal technology. These alerts cause your Axon cameras transition from BUFFERING to EVENT mode. When an Axon camera starts recording, you will hear 2 tones or beeps.

The Axon Signal Vehicle device, used to activate Axon BWCs, has a range of approximately 30 feet (9.1 meters).

Axon Signal technology can only send a signal to tell the camera to start recording. Axon Signal technology does not end recording. For example, if a light bar is turned off, the camera will continue to record until the user stops the recording.

The Axon Signal technology cannot power an Axon system on. If an Axon BWC is powered off, the camera will not record even if an Axon Signal device sends a trigger signal.

Notification Reference Tables

Audio Prompts

The Axon Fleet system emits beeping sounds called “audio prompts” to notify you of the system status. These audio prompts usually occur after a camera action.

Operating Mode	Audio Notification
Powering on or off	One tone
Recording an event	Two tones (repeats every 2 minutes)
Enter or exit Mute mode	Two tones
The device is ending an event and returning to BUFFERING mode	One long tone
Respond Livestreaming started	Three rising pitch tones

LED Status

The Primary and Secondary LEDs on the back of the Axon Fleet 3 Dual-View camera provide information about camera operating status.

The Operation LED provides information about the recording status of the Dual-View Camera.

Primary LED

The Primary LED shows the Dual-View Camera’s current operating status.

Primary LED – Dual-View Camera Status	LED Behavior
Powering on	Rapid blinking green
Buffering	Solid green
Recording	Blinking red
Camera updating	Blinking white
Live Streaming while buffering	Blinking purple
Live Streaming while recording	Blinking red and purple
Error Encountered	Blinking yellow

Secondary LED

The Secondary LED shows the Interior Camera's current operating status.

Secondary LED – Interior Camera Status	LED Behavior
Powering on	Rapid blinking green
Buffering	Solid green
Recording	Blinking red
Camera updating	Blinking white
Error Encountered	Blinking yellow

Troubleshooting and Other Information

If you are experiencing problems with your Axon Fleet 3 system,

If the previous actions do not resolve the difficulties, contact Axon Customer Service for additional support.

Warranty Policy

Axon Enterprise warranty provisions are applicable on all Axon Fleet system products. See Axon Enterprise's website, www.axon.com, for detailed warranty information.

EU Declaration of Conformity

Hereby, Axon Enterprise, Inc. declares that the radio equipment type Fleet Hub is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following website: www.axon.com

Warnings

For a full list of the warning associated with this product, see www.axon.com.

Radio Waves

The frequency bands and the maximum transmitted power (EIRP) in EU for Axon Fleet Hub system are listed below:

2402 – 2480 MHz, 9.92 dBm (EIRP)

2412 – 2472 MHz, 18.48 dBm (EIRP)

2422 – 2462 MHz, 18.99 dBm (EIRP)

5470 – 5725, 28.63 dBm (EIRP)

5725 – 5850, 12.66 dBm (EIRP)

Exposure to Radio Frequency Radiation

This product complies with EU requirements regarding restriction of exposure of persons to radio-frequency energy (RF) emitted by telecommunication and radio devices as it is designed and manufactured in such a way as not to exceed the exposure limits indicated by the European Union Commission.

The equipment should not accept software and/or firmware which results in the equipment no longer being compliant with the DFS requirements, e.g.:

- Software and/or firmware provided by the manufacturer but intended for other regulatory regimes
- Modified software and/or firmware where the software and/or firmware is available as open source code
- Previous versions of the software and/or firmware (downgrade)

Federal Communications Commission (FCC) Statement

Changes or modifications to the equipment not expressly approved by the manufacturer could void the product warranty and the user's authority to operate the equipment.

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.
- Consult Axon Technical Support for help.

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 of the device.

FCC Radiation Exposure Statement

This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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

Innovation, Science and Economic Development Canada (ISED) statement

This Class B digital apparatus complies with Canadian ICES-003 and RSS-247.

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, and

(2) this device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil numérique de classe B est conforme à la norme NMB-003 et RSS-247

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage, et, and

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioelectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.

Caution: Exposure to Radio Frequency Radiation

To comply with the Canadian RF exposure compliance requirements, this device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

To comply with RSS 102 RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons.

Attention: exposition au rayonnement radiofréquence

Pour se conformer aux exigences de conformité RF canadienne l'exposition, cet appareil et son antenne ne doivent pas être co-localisés ou fonctionnant en conjonction avec une autre antenne ou transmetteur.

Pour se conformer aux exigences de conformité CNR 102 RF exposition, une distance de séparation d'au moins 20 cm doit être maintenue entre l'antenne de cet appareil et toutes les personnes.

Compliance Marks

ICES-3(B)/NMB-3(B)