Quick Install Guide

Model: SDG-9712o

Installation Requirements

Cat5/6 cable

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Cat5/6 cable

Torx security (size T8) screwdriver/bit

Flathead screwdriver

TERMS OF USE: Adtran Business Class WiFi devices MUST be professionally installed. The SDG-9712o MUST properly use earth grounding as a condition of the product warranty.

Package Contents

SDG-9712o WiFi 7 Outdoor Access Point

SDG-9712o Mounting Bracket

Grounding cable kit (Qty 3 Torx screws, grounding cable)

Metal straps (Qty. 2)

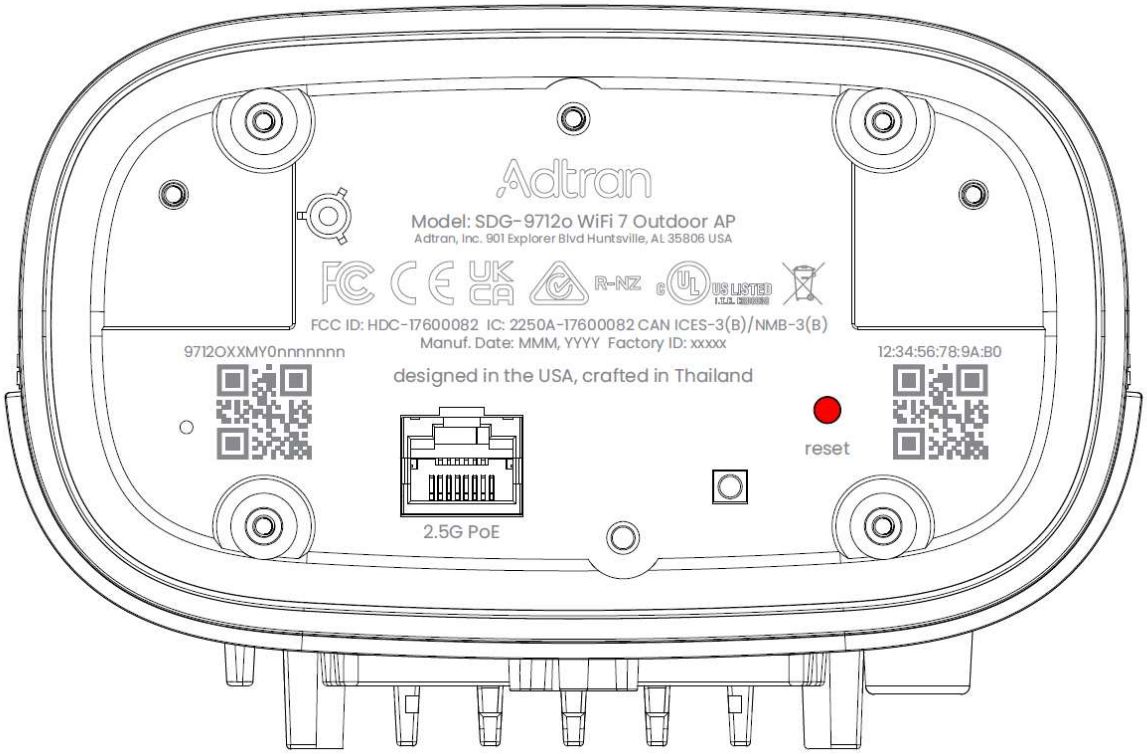
Self-tapping screws

Screw anchors

T8 Torx security bit

Anti-corrosion grease, 1oz container

Hardware Overview



Interfaces/Buttons

Remove the bottom cover using the included T8 Torx security driver bit to expose the 2.5G PoE port and the reset button

- **2.5G PoE**

  Used to connect to a Power over Ethernet (PoE) Power Sourcing Equipment (PSE) device

  PoE+ PSE devices can include:

  - PoE+ Ethernet switches/routers (e.g. SDG-9000)
  - PoE+ injector
  - The SDG-9712o is a Type 2 (PoE+) device, defined under IEEE 802.3at-2009. PoE+/Type 2 allows for up to 30W of output power from the PSE. Any PSE device used MUST support Type 2 (30W output power).

- **reset**

  Used to soft-reset (reboot) or hard-reset (reset to factory default settings)

Soft-reset: Press and hold for at least 1 second

Hard-reset: Press and hold for at least 10 seconds

LED definition

The SDG-9712o provides a single, RGBW LED, located on the underside of the device.

LED Color	**Status**
Solid Blue	Cold Boot
Hub WAN down, backup link active	Solid Green
Hub WAN down, no internet	Solid Red
Hub WAN up	Solid White
Linux booting up	Pulse Green
Quick Start	Green with Blue pulse
Reboot and sysupgrade	Pulse Red
Reverting (reconnecting with Hub)	Pulse White
Satellite setup	Solid Red
Satellite up, Strong signal	Solid White
Satellite up, Fair signal	Solid Amber
Satellite up, Poor signal	Solid Pink

Hardware Installation

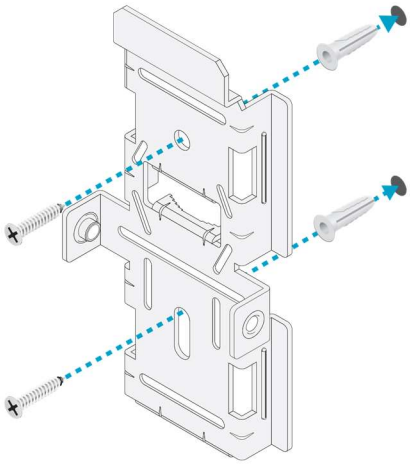
The SDG-9712o can be mounted to a wall or on a pole.

Wall Mount

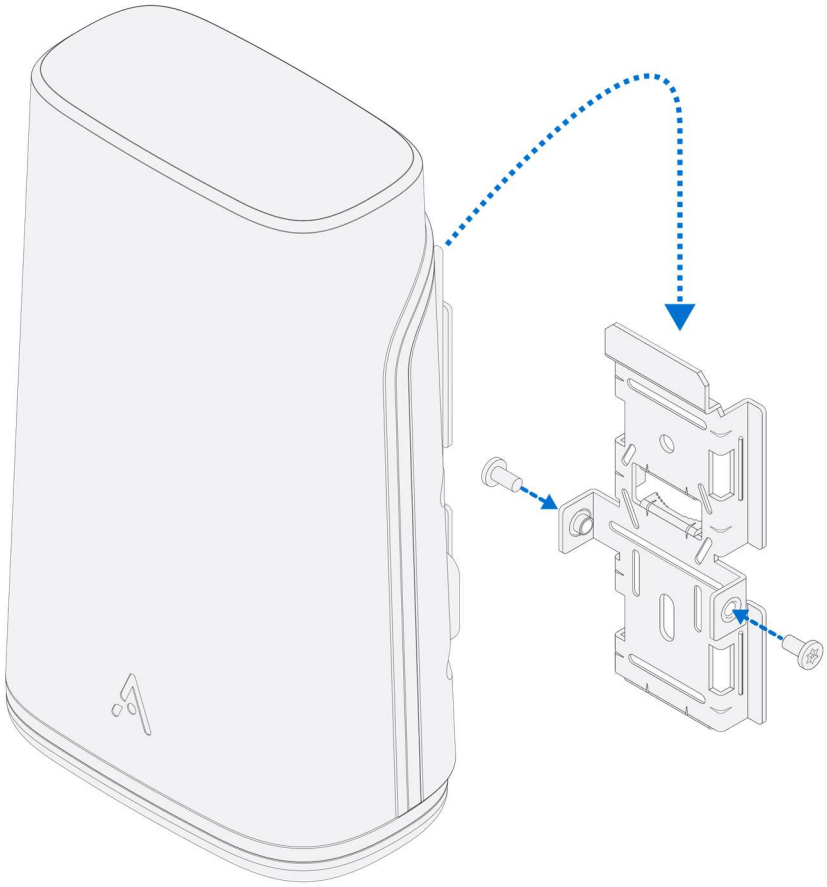
To mount the SDG-9712o on a wall, use the included *Mounting Bracket*, appropriate screws/fixtures (e.g. self-tapping screws with screw anchors).

1. Position the *Mounting Bracket* to the desired position on the wall
2. Use a pencil to mark the 4 holes on the wall
3. If necessary, pre-drill the holes and place screw anchors

4. Secure the *Mounting Bracket* to the wall with appropriate screws



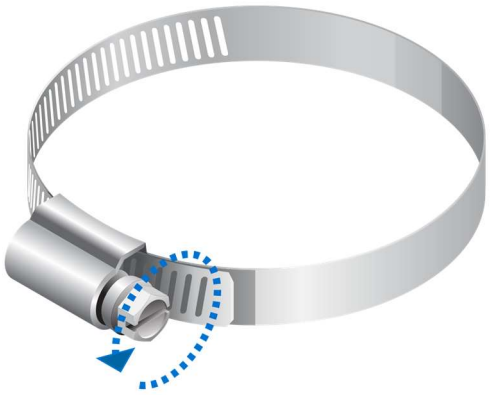
5. Align the SDG-9712o rear notches with the mounting tab on the top of the *Mounting Bracket*, swivel the device into position, and install the two (2) Torx T25 screws through the *Mounting Bracket* ears into the SDG-9712o.



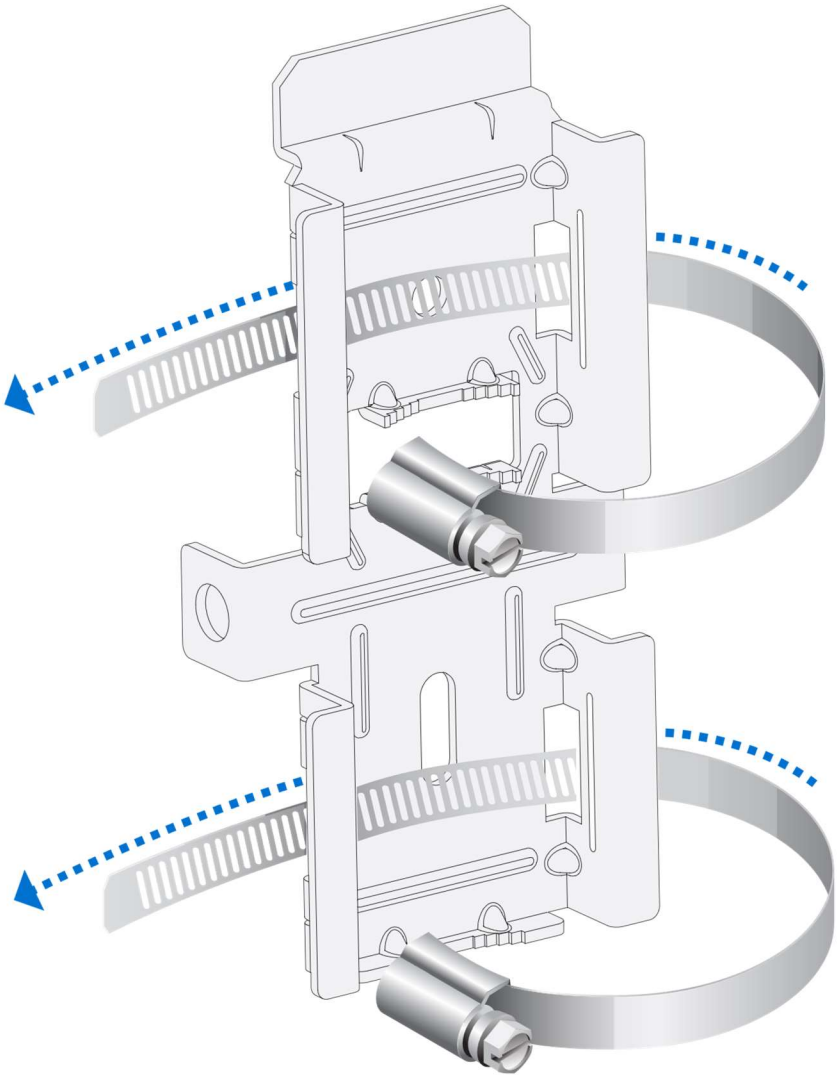
Pole Mount

To mount the SDG-9712o to a pole, use the included *Metal Strap* (2x):

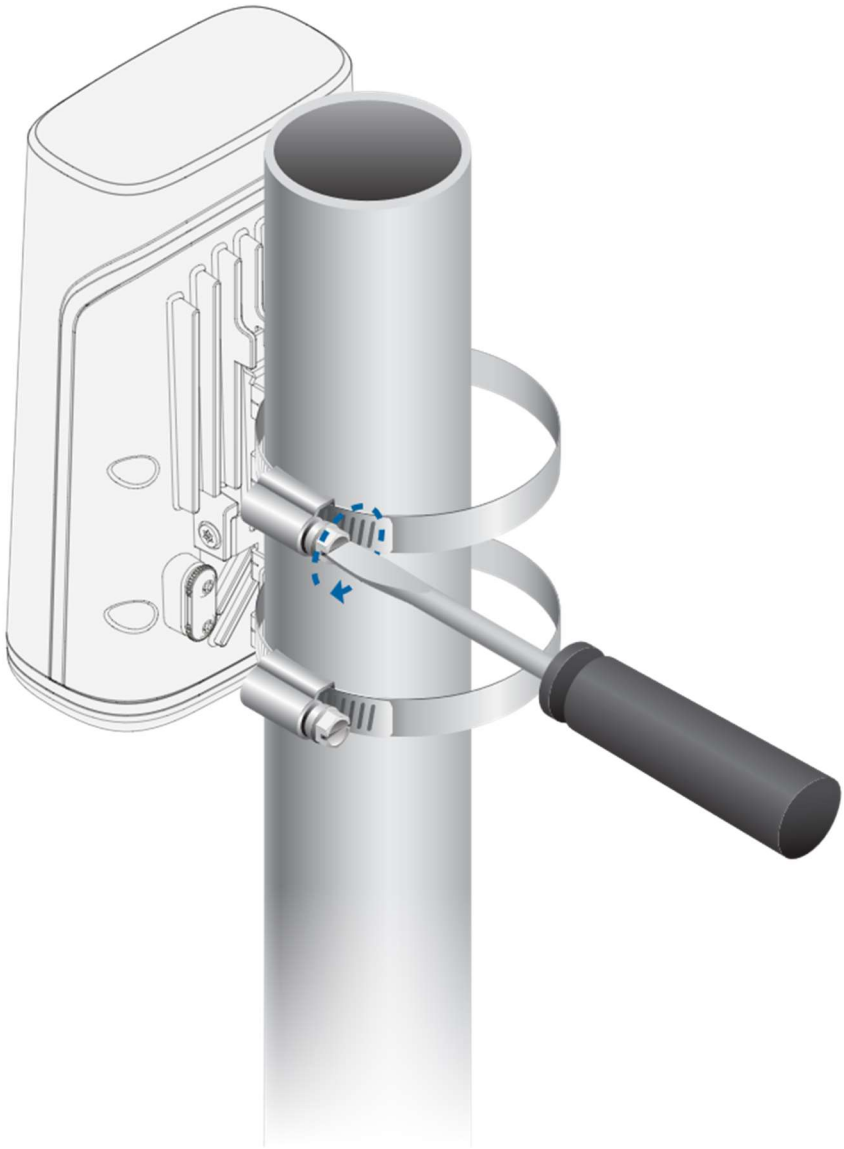
1. Open each *Metal Strap* by turning the screw counter-clockwise



2. Straighten the end of each *Metal Strap* and slide them through the slots in the *Mounting Bracket.*



3. Wrap the *Metal Strap* around the pole, re-insert the strap into the screw-tight mechanism, and tighten the strap by turning the screw clockwise



Grounding

Use the supplied grounding cable kit to ground the SDG-9712o by following these steps:

1. Remove the two (2) Torx screws from the ground lug along with the plastic ground lug cover

2. Apply anti-corrosion grease to the ground lug on the device as well as the connector on the ground cable. Take care to rub the grease onto the metal thoroughly, to absorb all moisture and insure coverage of all irregularities on the surface. Coating thickness depends on the extent to which areas are exposed to corrosive influence.
3. Place the ground lug of the supplied grounding cable on the shank of the Torx screws and secure the screws to the unit.
4. Attach the other end of the grounding cable to a reliable earth ground point

WARNING!

Adequate grounding must be provided to the unit. A clearly marked grounding location is provided on the front of the unit for this purpose. Consult a certified electrician to ensure that all grounding and cabling is installed in compliance with the local electrical code.

Powering the SDG-9712o

The SDG-9712o can be powered directly by a supported Adtran PoE switch/router or with an external PoE+ injector.

Connecting to the Ethernet port

1. Loosen the two (2) Torx security screws on the bottom cover and pull down on the cover to remove it
2. Feed an unterminated Cat5/6 cable through the bottom cover
3. Terminate an RJ45 connector to the Cat5/6 cable and connect to the 2.5G PoE port
4. Replace the *Bottom Cover* and tighten the two (2) Torx security screws securely
5. Connect the other end of the Ethernet cable to a PoE source port on the router/switch or PoE injector.

CAUTION!

In all cases, connect the SDG-9712o to Earth Ground.

In all cases, use 802.3at PoE injectors with GR-1089-Core Criteria B surge protection.

For outdoor applications, use only shielded or outdoor-rated Ethernet cable run inside conduit, to protect from damage in extreme weather conditions and temperatures.

Consult a certified electrician to ensure that all grounding and cabling is installed in compliance with local electrical code.

Any damage or malfunction resulting from exposure of this unit to lightning or transient voltage events will void the user's warranty.

Software Configuration

You can manage your wireless network via the Adtran Intellifi® app, the local WebUI of the supported Adtran router (e.g. SDG-9000), or via the cloud (Adtran MeshView). For more information on configuring and using Intellifi®, refer to the Intellifi® User Guide.

Specifications

Dimensions (device alone)	216 mm (H) * 74 mm (D) * 129 mm (W)
Weight	1.08 Kg (2.38 lbs)
Network interface	1x 100/1000/2500-BASE T Ethernet port
Buttons	Reset
Antennas	5 internal, dual-band, omni-directional **2.4GHz:** 4t4r @ 4ss **5GHz:** 5t5r @ 4ss
Power Method	48VDC Power over Ethernet
Max Tx Power (per chain)	**2.4GHz:** 802.11b 1Mbps = 21dBm +/-2, 802.11n HT20 MCS0 = 19dBm; **5GHz:** 802.11a 6Mbps = 21.5dBm, HT20 MCS0 = 20dBm
Certifications	FCC, ISED, CE, UKCA, RCM, UL
Operating Temperature	-30°C to 55°C
Operating Humidity	5-95% Condensing
Intrusion Protection	IP55
Wi-Fi Standards	802.11 b/g/n/ac/ax/be
Nominal Power Consumption	11.4 W

Safety Notices

1. Read, follow, and keep these instructions.
2. Heed all warnings.
3. Only use attachments/accessories specified by the manufacturer.

WARNING!

Do not use this product in a location where it can be submerged in water.

Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.

Electrical Safety Information

1. Compliance is required with respect to voltage, frequency, and current requirements indicated on the manufacturer's label. Connection to a different power source than those specified may result in improper operation, damage to the equipment or pose a fire hazard if the limitations are not followed.
2. There are no operator serviceable parts inside this equipment. Service should be provided only by a qualified service technician.
3. This equipment is provided with a detachable grounding cable intended for connection to an earth ground.
4. The equipment requires the use of the grounding cable as a part of the safety certification. Modification or misuse can provide a shock hazard that can result in serious injury or death.
5. Contact a qualified electrician or the manufacturer if there are questions about the installation, prior to connecting the equipment.
6. Protective grounding and bonding must be installed in accordance with local national wiring rules and regulations.

Compliance

This product meets the following compliance requirements:

UL /cUL Listed

FCC Part 15, Class B

FCC Part 1l, 2. 1091 (MPE)

ICES-003 (Class B)

ACMA/RCM

IEC 62368-1

EN 62368-1

AS/NZS 62368.1

ErP

RoHS Compliant

UKCA

NOTE: Changes or modifications not expressly approved by Adtran will void the warranty.

Safety and Regulatory

CAUTION!

Connect the DC power input to an approved Limited Power Source (LPS) power supply ONLY.

This product is intended to operate in ambient temperatures up to 55 °C.

NOTE

This product meets the following compliance requirements:

This equipment contains no parts that can be serviced by the user.

This product meets EU RoHS Directive. Refer to www.adtran.com/environmental for further information on RoHS/WEEE.

This product is NRTL Safety Listed to the applicable UL/CSA Standards.

This product has also been evaluated to applicable international standards as indicated by CE, UKCA, and RCM marking.

The AC branch circuit socket-outlet must be installed near the equipment and must be easily accessible.

The RJ-45 jack is not used for telephone line connection.

Regulatory Compliance

This section includes user requirements for operating this product in accordance with National laws for usage of radio spectrum and operation of radio devices. Failure of the end-user to comply with the applicable requirements may result in unlawful operation and adverse action against the end-user by the applicable National regulatory authority.

This product's firmware limits operation to only the channels allowed in a particular Region or Country. Therefore, all options described in this user's guide may not be available in your version of the product.

FCC Requirements for Operation in the United States

FCC Information to User

This product does not contain any user serviceable components and is to be used with approved antennas only. Any product changes or modifications will invalidate all applicable regulatory certifications and approvals.

1. Professional installation:

a. This product is designed for specific applications and needs to be installed by trained personnel. The general user shall not attempt to install or change the setting.

2. Installation location:

    a. The product shall be installed at a location where the internal, radiating antennas can be kept 46 cm from nearby persons, in normal operating condition, to meet regulatory RF exposure requirement. The installation applies to outdoor operation.

    b. Please carefully select the installation position. The installation angle of the device must be vertical to the ground to ensure proper antenna elevation. Violation of the rule could lead to serious federal penalty.

3. Antenna Elevation:

    a. The antenna must be installed completely perpendicular to the horizon.

4. Installation procedure

    a. Please refer to user's manual for details.

5. Warning:

    a. Please carefully select the installation position and make sure the product is installed in a level fashion, in order that the final output power will not exceed the limit set forth in relevant rules. Violation of the rule could lead to serious federal penalty.

FCC Guidelines for Human Exposure

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 46 cm between the radiator and your body.

This device must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with FCC multi-transmitter product procedures.

FCC Declaration of Conformity

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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

FCC Radio Frequency Interference Warnings & Instructions

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.

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

Canadian Department of Communications Radio Interference Regulations

This digital apparatus (Wi-Fi 7 Outdoor AP Model SDG-9712o) does not exceed the Class B limits for radio-noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

Industry Canada

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:

This device may not cause interference.

This device must accept any interference, including interference that may cause undesired operation of the device.

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;
2. L’appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.

ATTENTION!

Déclaration d'exposition aux radiations: Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 27 cm de distance entre la source de rayonnement et votre corps.

CAUTION!

Radiation Exposure Statement: This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 27 cm between the radiator & your body.