



CASTLES TECHNOLOGY

SATURN1000 S1F2 MOB POS Terminal

Book 2

User Manual

S1F2

Version 1.2

Mar. 2022

CRT-S1-04-02-V1.2-CB-FCC-IC-UL-cUL

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Revision History

Version	Date	Descriptions	Author
1.0	2021.12.23	Initial creation.	John
1.1	2021.12.21	<ol style="list-style-type: none">1. Update cover from S1F2 to S1F2 MOB2. Add 5G caution for FCC3. Add 5G caution for IC4. Update UL Adapter caution	John

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1. Introduction

This document provides a guideline for operating and configuring Castles SATURN1000 terminal.

The scope of this document includes setting up the terminal, basic operation, application lifecycle, and some advanced features.

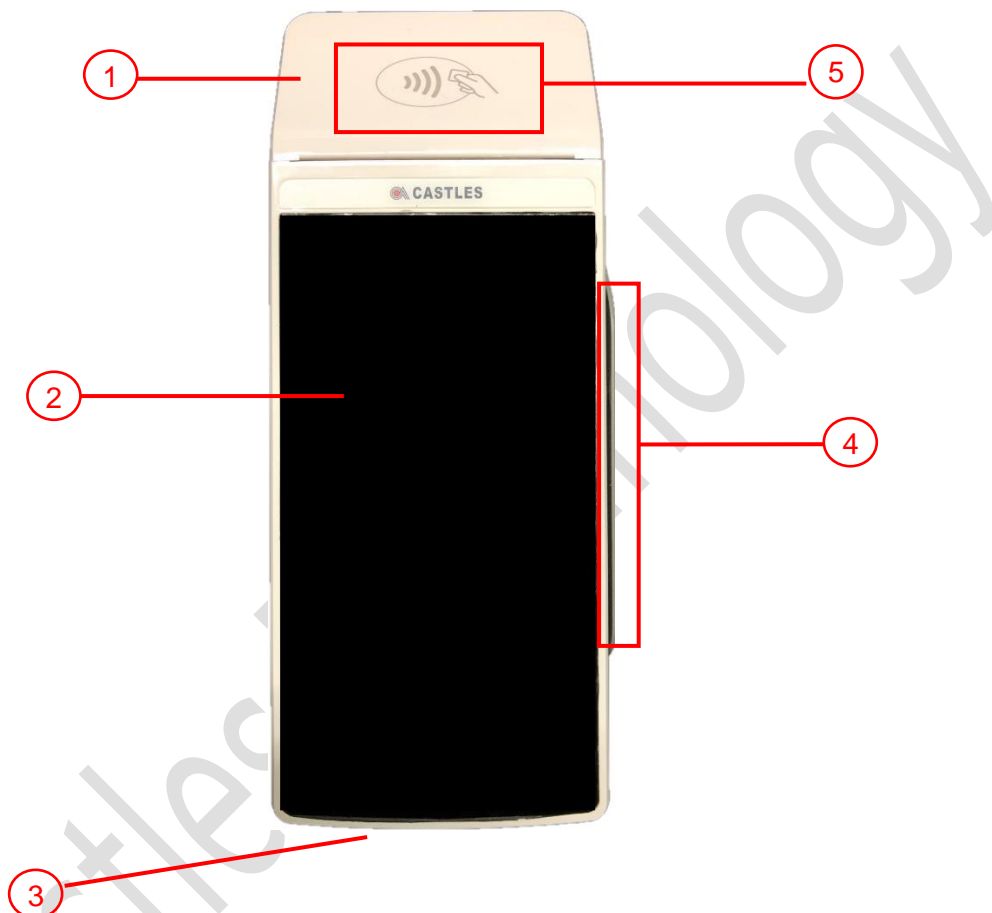
Regulatory instruction of usage

- Before using the terminal, please check has it been disassembled, modified, or showed abnormal situation. If yes, please do not use.
- Please stay away from strong electromagnetic waves.
(Example) Microwave ovens, magnets, shoplifting prevention devices, high-voltage wires, automatic doors, communication antennas, etc.
- Condensation can occur when moving from a cold place to a warm place. If condensation occurs, do not use the unit until the connected water droplets evaporate.
- Static electricity may occur in some places (such as where you use a carpet).
- Please do not leave it in the sun for a long time.
- Please operate the unit carefully as it is a precision instrument. Do not apply impact, drop or heavy objects on top of the unit.
- Do not attach dust, oil, etc. to a part of the power terminal. Also, please do not scratch.

2. Hardware Setup

2.1. Parts of the Terminal

Front



1. Paper Roll Box
2. LCD Display (5.5")
3. Smart Card Reader

4. Magnetic Stripe Reader
5. Contactless Card Landing Zone

Rear

Without Barcode Scanner



With Barcode Scanner



- 6. Rechargeable battery cover
- 7. The Connector of charger
- 8. Product label
- 9. Speaker



SATURN1000
Rechargeable Battery

Rear

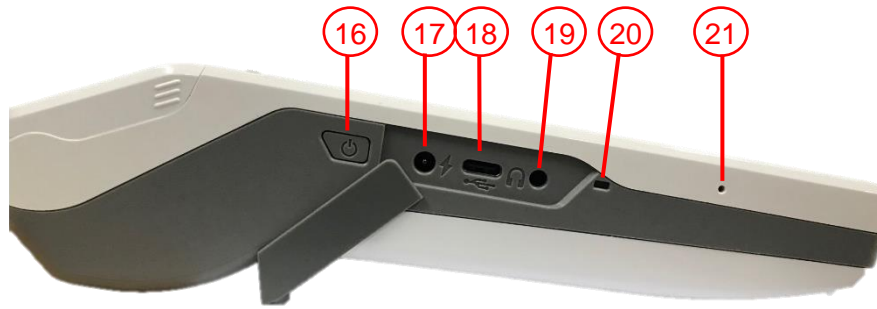
Without Barcode Scanner

With Barcode Scanner



- 10. Micro SD Card Slot
- 11. SAM slots 1-2
- 12. GSM SIM card slots 1-2
- 13. Barcode Scanner
- 14. Camera
- 15. Photo-flash

Left side



16. Power Button

17. DC Jack

18. USB Type C slot

19. Headphone Jack

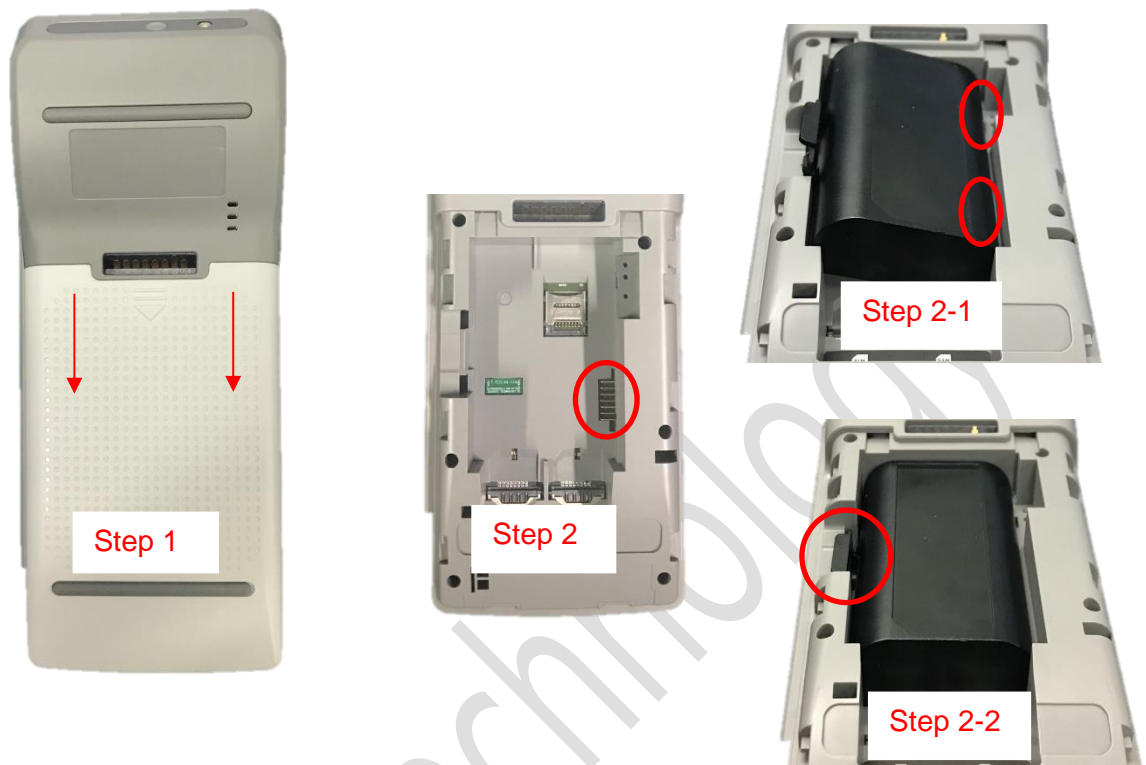
20. LED indicator

Green light : Battery fully charged

Orange light: Battery charging function activated

21. Microphone

2.2. Insert Battery



Step 1: Slide down and remove the battery cover.

Step 2: Insert the battery into the compartment.

Step 2-1: Install the battery to the contact point(Make sure pin is inside the slot.)

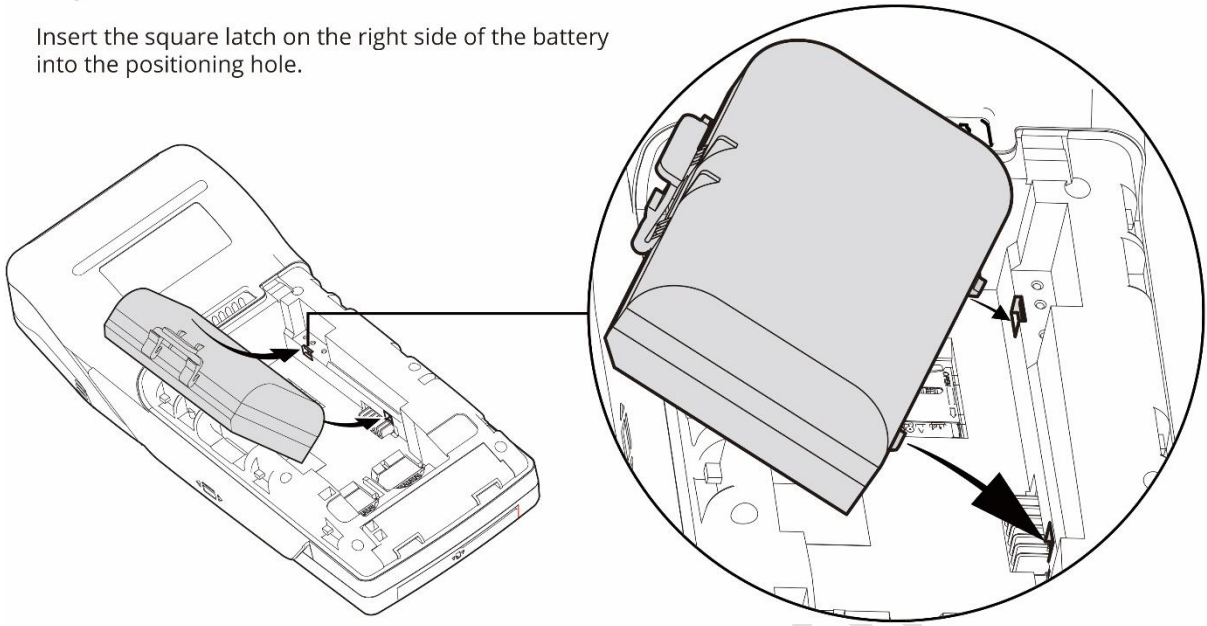
Step 2-2: Press down the battery.

Step 3: Reverse the operation of step 1 to install the battery cover.

Note: Please confirm the battery is installed before power on the terminal.

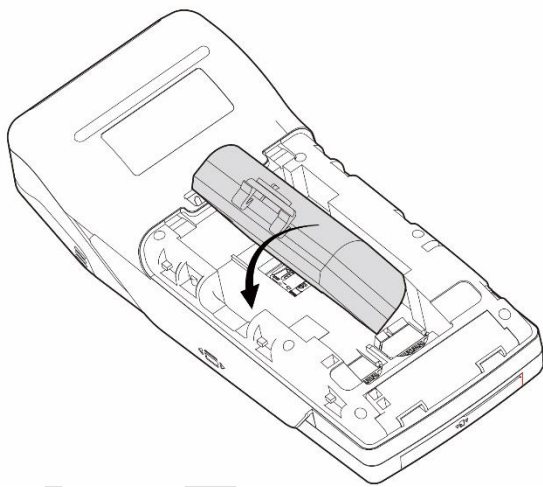
Step 1

Insert the square latch on the right side of the battery into the positioning hole.



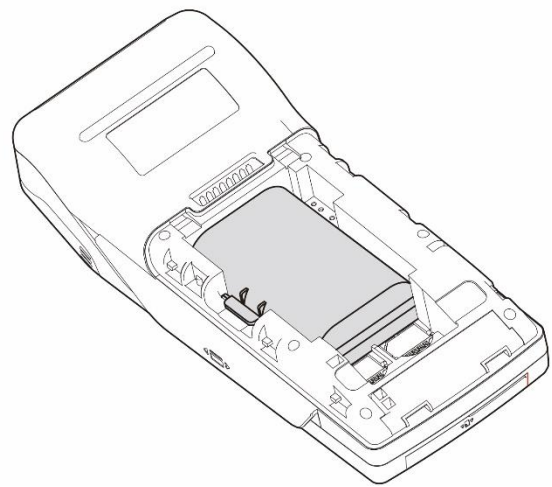
Step 2

Rotate the battery to position.

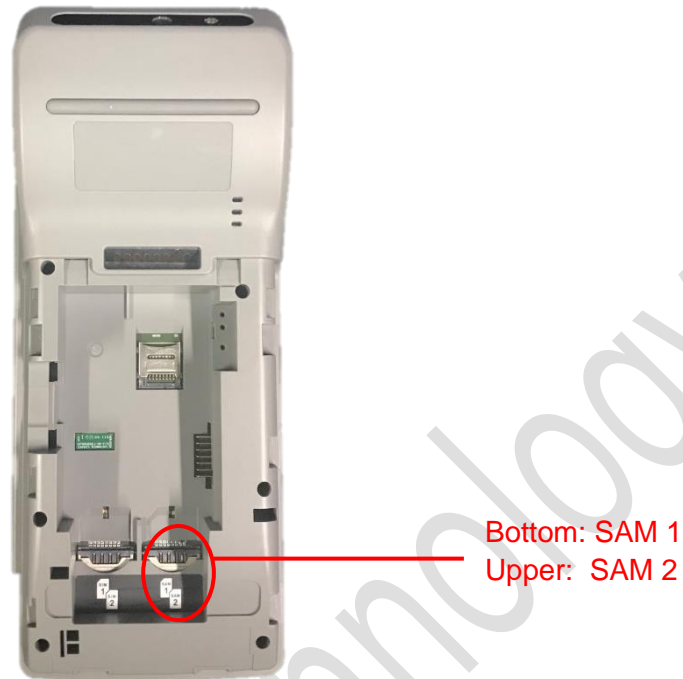


Step 3

Complete the battery installation.



2.3. Insert SAM Card



Step 1: Remove battery cover and battery

Step 2: Insert SAM card into the desired slot.

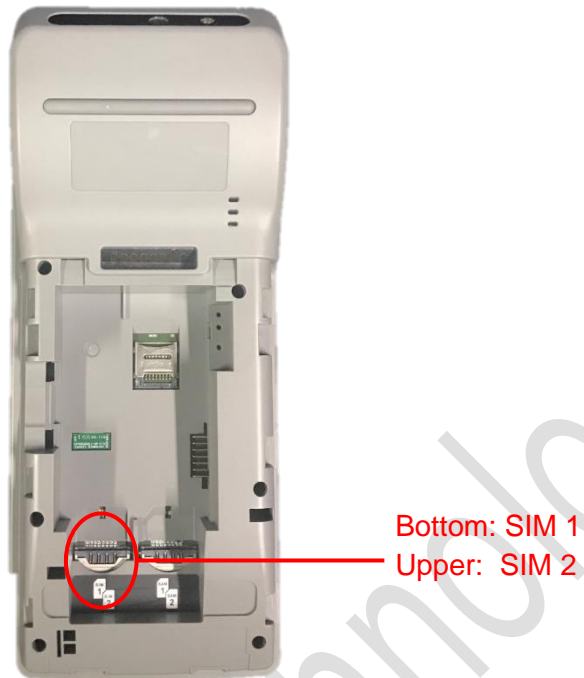


SAM 1 & 2:

Gold contact is on the lower side of the card and facing down.

Step 3: Reverse the operation of step 1 to install the battery cover.

2.4. Insert GSM SIM Card



Step 1: Slide down to remove battery cover/back cover.

Step 2: Open SIM socket and insert GSM SIM card into the desired slot.

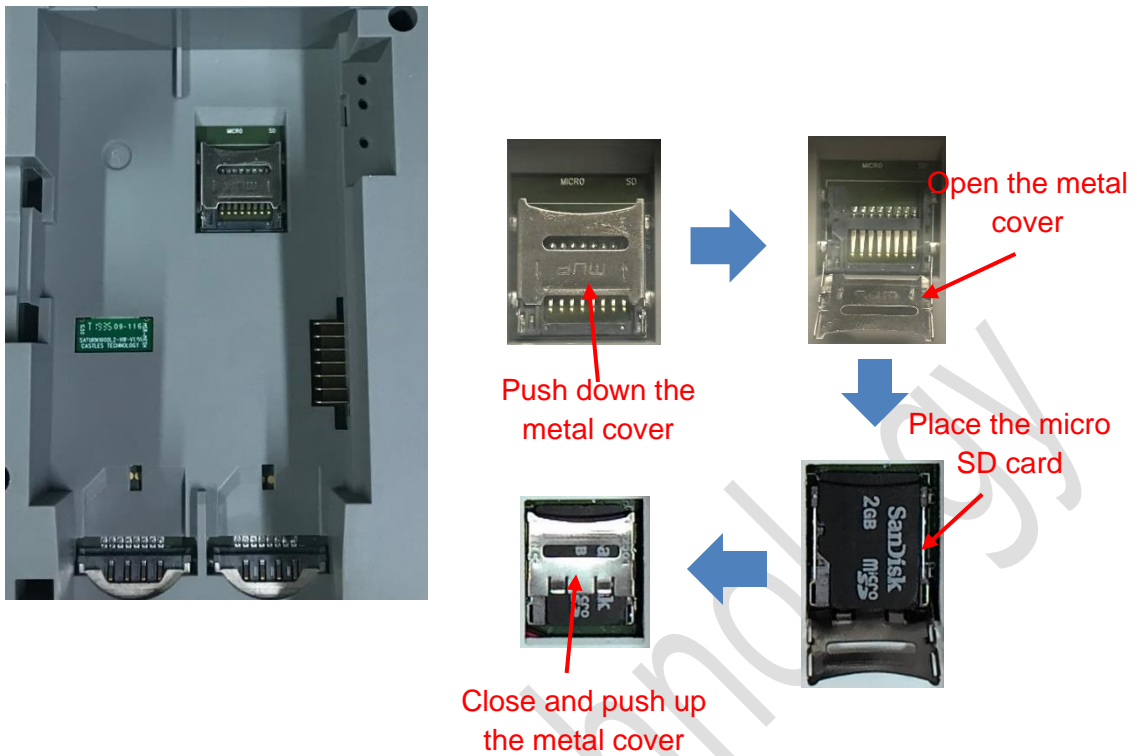


SIM 1 & 2:

Gold contact is on the lower side of the card and facing down.

Step 3: Reverse the operation of step 1 to install the battery cover.

2.5. Insert Micro SD Card



Step 1: Slide down to remove battery cover/back cover.

Step 2: Place the Micro SD memory card.

Step 3: Reverse the operation of step 1 to install the battery cover.

2.6. Insert Paper Roll



Step 1: Pull up the paper roll box handle.

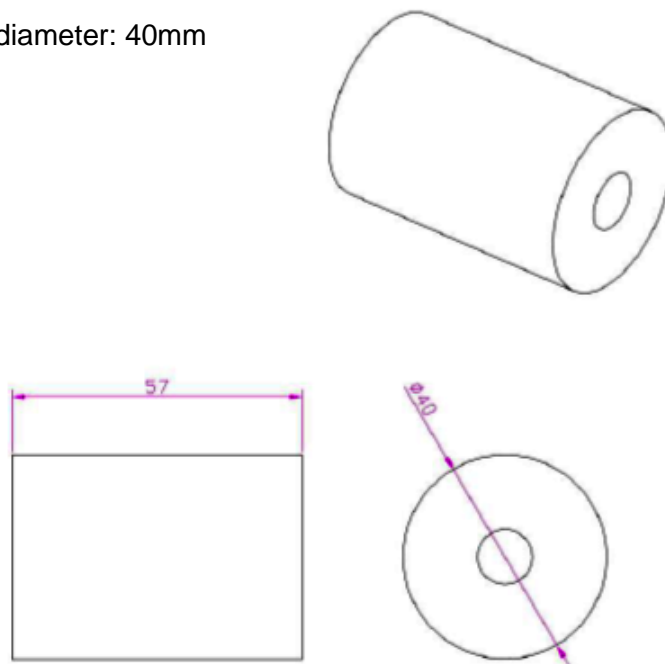
Step 2: Open paper roll cover gently.

Step 3: Insert paper roll as the direction shown.

Paper specification

Width: 57mm

Outside diameter: 40mm



3. Appendix

3.1. FCC

Federal Communication Commission Interference Statement

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.

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 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.

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

Radiation Exposure Statement:

The product comply with the FCC portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

Note: The country code selection is for non-US model only and is not available to all US model. Per FCC regulation, all WiFi product marketed in US must fixed to US operation channels only.

Operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

3.2. IC

Industry Canada statement

This device complies with ISED's licence-exempt RSSs. 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. Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Radiation Exposure Statement:

The product comply with the Canada portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

Déclaration d'exposition aux radiations:

Le produit est conforme aux limites d'exposition pour les appareils portables RF pour les Etats-Unis et le Canada établies pour un environnement non contrôlé.

Le produit est sûr pour un fonctionnement tel que décrit dans ce manuel. La réduction aux expositions RF peut être augmentée si l'appareil peut être conservé aussi loin que possible du corps de l'utilisateur ou que le dispositif est réglé sur la puissance de sortie la plus faible si une telle fonction est disponible.

Caution :

- (i) the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;
- (ii) where applicable, antenna type(s), antenna models(s), and worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in section 6.2.2.3 shall be clearly indicated.

Avertissement:

Le guide d'utilisation des dispositifs pour réseaux locaux doit inclure des instructions précises sur les restrictions susmentionnées, notamment :

- (i) les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;
- (ii) lorsqu'il y a lieu, les types d'antennes (s'il y en a plusieurs), les numéros de modèle de l'antenne et les pires angles d'inclinaison nécessaires pour rester conforme à l'exigence de la p.i.r.e. applicable au masque d'élévation, énoncée à la section 6.2.2.3, doivent être clairement indiqués

3.3. UL / IEC 62368-1

- **Battery**

EUT highest specified charging temperature: 45°C (+3°C/-3°C); lowest specified charging temperature: 0°C (+3°C/-3°C)

- The product's operation temperature at 0-40°C.

- **Input Rating**

5V/2A (supplied by Adapter)

- **Warning:**

Power cord shall be connected to a socket-outlet with earthing connection.

- **Warning:**

Risk of explosion if battery is replaced by an incorrect type. Dispose of expended battery in accordance with local disposal regulations.

- **Warning:**

This product is intended to be supplied by a Listed Power Adapter "L.P.S." (Or "Limited Power Source") and is rated at 5 Vdc, 2 A min., Tma = 40 degrees C.

- **Attention:**

le cordon d'alimentation doit être branché sur une prise secteur avec mise à la terre.

- **Attention:**

Risque d'explosion si la batterie est remplacée par une de type incorrect Éliminer la pile usagée conformément à la réglementation locale en vigueur.

- **Attention:**

Le produit est destiné à être alimenté par un adaptateur secteur répertorié « L.P.S. » (ou "Source d'alimentation limitée") et est évalué à 5 Vdc, 2 A min., Tma = 40 degrés C.