FortiDDoS 2000F

FDD-2000F

QuickStart Guide

Before you begin

Register your device to access FortiGuard updates, cloud management, firmware upgrades, technical support and warranty coverage.

http://support.fortinet.com

FORTINET

March 04, 2022

This guide covers models: FDD-2000F

The Essentials

Default Logins

https://192.168.1.99
Username: *admin*
Password**: leave blank**

Admin Guide

For a detailed Getting Started guide, setup and configuration information,
refer to the Admin Guide on https://docs.fortinet.com/

Customer Service

For contracts, licensing, product registration and account management,
contact FortiCare Support at https://www.fortinet.com/support/contact

Self-service Resources

Access our knowledge base, forums, videos and technical experts at
https://www.fortinet.com/support/support-services/forticare-support

Thank you for choosing Fortinet

Package Contents

FortiDDoS 2000F
FDD-2000F

FortiDDoS Device   QuickStart Guide

2x AC Power Cables   1x Console Cable   1x Ethernet Cable
                       (RJ45 to USB)

2x Handles, 4x Screws   1x Slide Rail Kit   4x Rubber Feet
                         (screws included)

Setup Options

Set up your Fortinet device locally.

GUI

❶ MGMT Port

❷ Ethernet Cable

❸ https://192.168.1.99
Username: admin
No Password

Management Computer
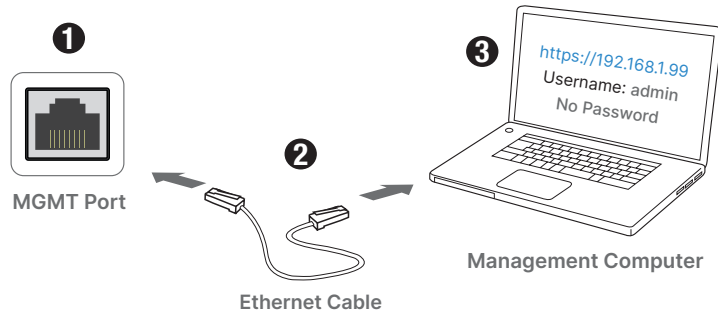
> **Note:** For static IP configuration, use 192.168.1.100 with subnet mask 255.255.255.0

CLI

❶ Console Port

❷ Console Cable

❸

Speed (default):	9600
Data bits:	8
Stop bits:	1
Parity:	None
Flow Control:	None

Management Computer
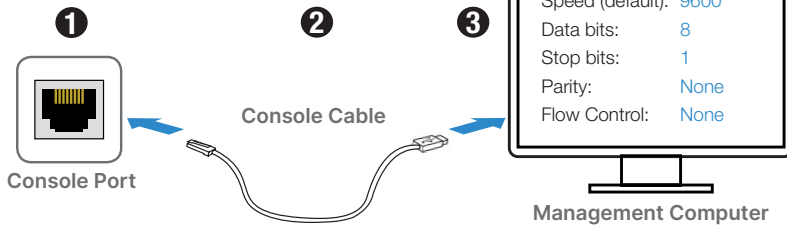
> **Note:** For a detailed CLI guide, visit docs.fortinet.com

SFP Modules

Installation

Cage Socket

SFP

❶

❷ Tx

Rx

Removal

Cage Socket

❶

Lock

❷

SFP
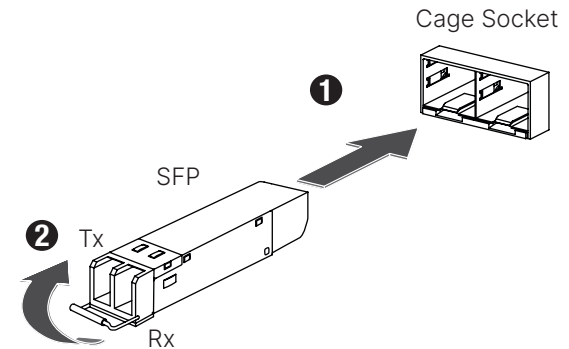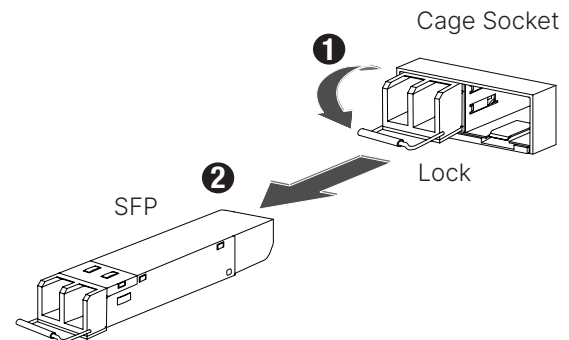
Rack Installation

The supplied equipment is designed for standard 19inch racks.

Rack Stability

Ensure the rack is stable before installing the slide rails and appliance.

- Check that the leveling jacks on the bottom of the rack are fully extended to the floor with the full weight of the rack resting on the jacks
- For single rack installation, stabilizers should be attached to the rack; for multiple rack installations, the racks should be coupled together

Appliance Installation

- To avoid personal injury or equipment damage, use a lifting device
- Do not pick up the appliance by the front handles
- Each inner rail has a system lock out tab to prevent the appliance from sliding out, ensure that it is locked when installing the appliance
- Prevent Electrostatic discharge (ESD) damage by wearing antistatic devices
- Do not place heavy objects on the appliance

What You Will Need

- Philips screwdriver, level & tape measure
- Rack-provided cage nuts and screws
- A lifting device or additional support
- ESD antistatic gear

Support

For video support on installing these slide rails, please visit:

https://video.fortinet.com

For additional support, please visit:

http://support.fortinet.com
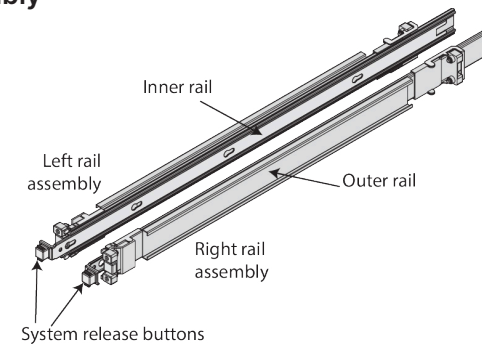
Rail Assembly

- The rail kit includes a left and a right rail assembly
- Each rail assembly includes an inner rail, a middle rail, and an outer rail
- The inner rail has locking keyholes used to secure the rail to the appliance
- The inner rail rear end has a lock out tab which slides into the middle rail
- The middle rail is in the outer rail and used to guide the inner rail into the outer rail
- The outer rail has front and rear mounting pins that push into to the rack holes
- The outer rail also has front and rear locking latches to secure the rail to the rack
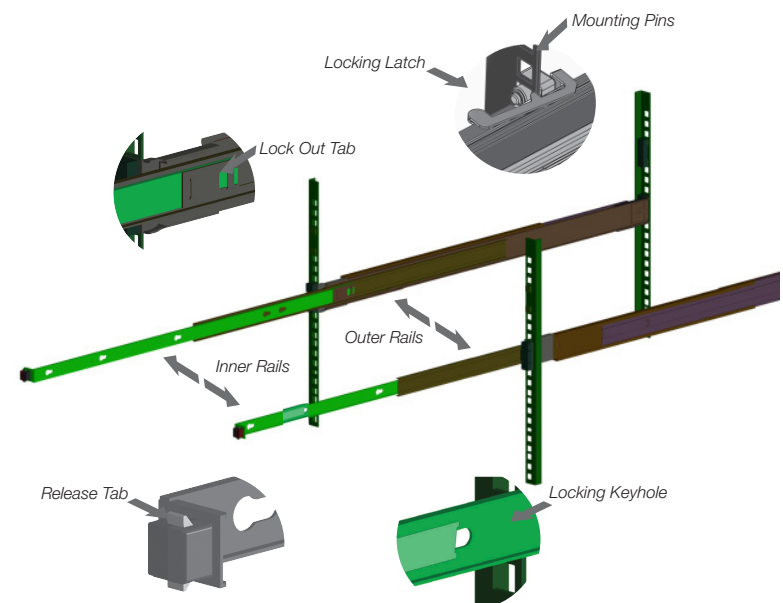
Attach the Inner Rails to the Appliance

1. Detach the inner rail from the rail assembly by pressing the lock out tab
2. Place an inner rail against a side of the appliance
3. Align the inner rail keyholes with the appliance pins
4. Slide the rail towards the front of the appliance until the metal clip locks into place
5. For inner rails with 5 keyholes and a chassis with 3 pins and a thread hole, use the provided M4 shoulder screw to secure the rail to the appliance
6. Repeat steps 1 to 5 for the remaining inner rail

❷
Inner Rail

Metal Clip

❸
Align Rail

❷
Inner Rail

❹
Unlocked
Slide Forward
Locked

❺
Install M4 Shoulder Screw
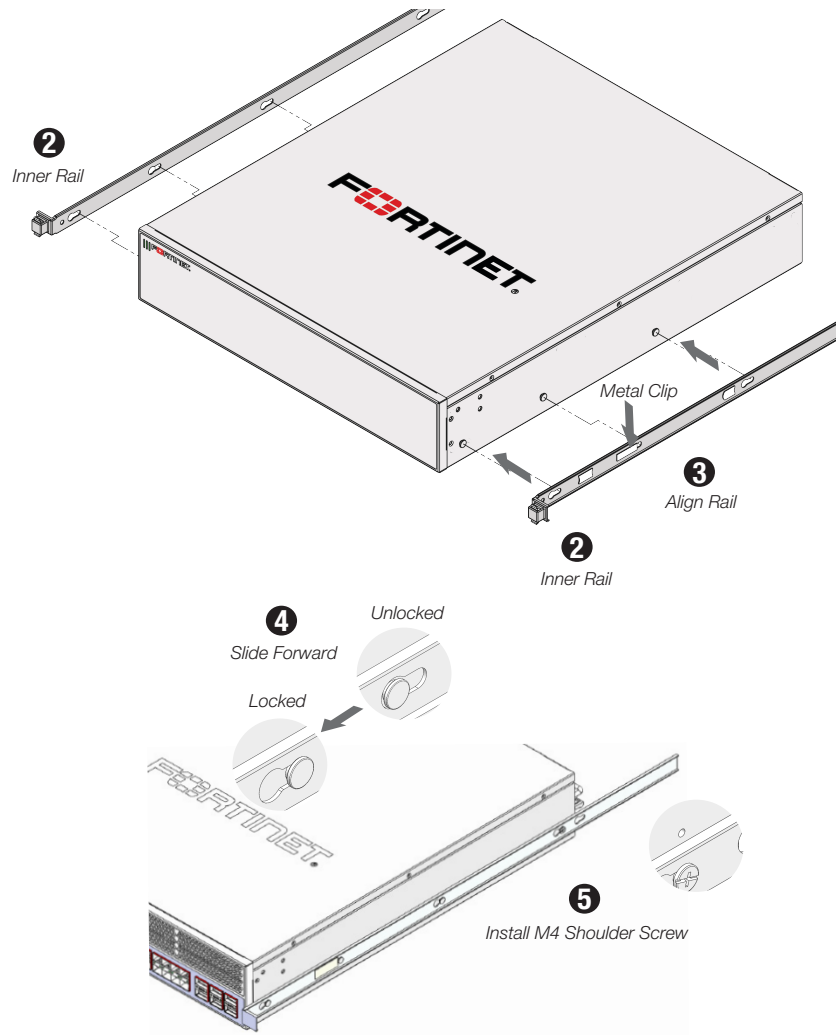
Attach the Outer Rails to the Rack

Front Outer Rail

1. Place an outer rail against a side of the rack
2. Align the front outer rail with the front of the rack
3. Push the front outer rail mounting pins into the rack post holes
4. Lock the locking latch to safely secure the front outer rail to the post

Rear Outer Rail

5. Extend the rear outer rail just past the rack post
6. Level the rail and align the mounting pins
7. Push the rear mounting pins into the rack post holes
8. Lock the locking latch to safely secure the rear outer rail to the post
9. Repeat steps 1 to 8 for the remaining outer rail

❼
Mount Rail

❺
Extend Rail

❶
Right Rail

❷
Front Rail

❻
Align & Level

❽
Lock Latch

❹
Lock Latch

❸
Mount Rail
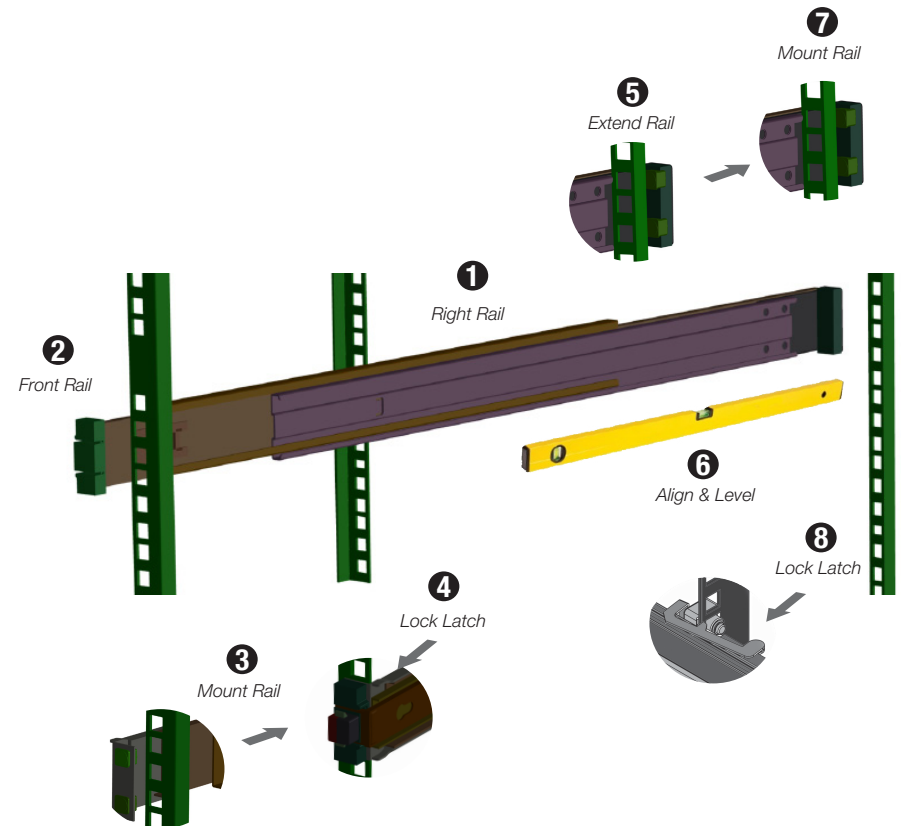
FDD-2000F Front
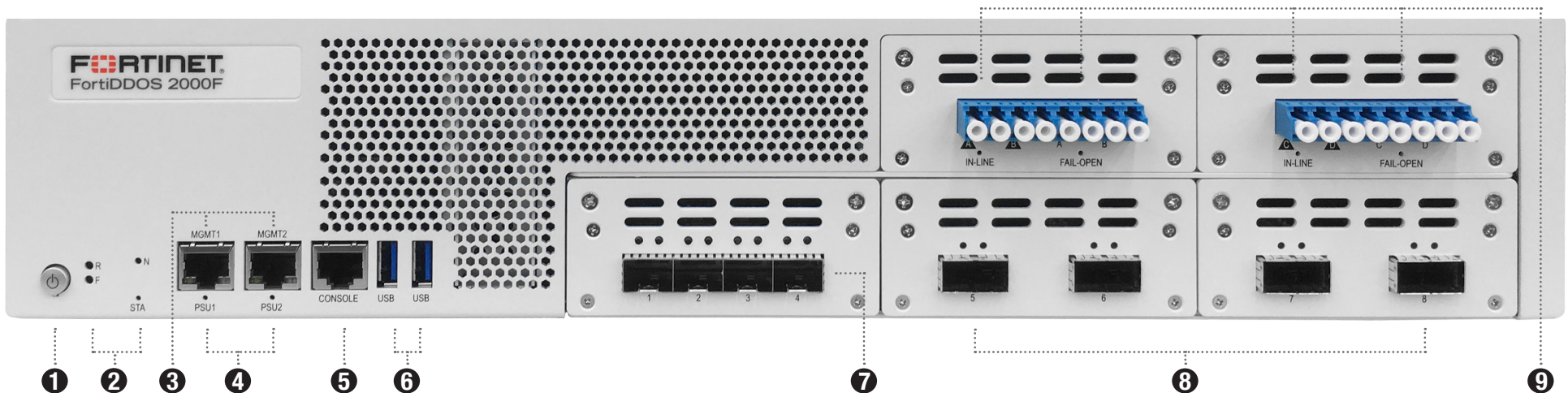
❶ Power Button
- ● **Blue**: Device is on
- ● **Off**: Device is off

❷ Status LED (STA)
- ● **Green**: System operating normally
- ● **Red**: System booting up
- ● **Off**: System is off

Device Reset (R)
Factory Reset (F) *(not in use)*
NMI Button (N) *(not in use)*

❸ MGMT1 & MGMT2 (RJ45)

LINK/ACT
- ■ **Green**: Link established
- ✳ **Flashing Green**: Data activity
- ■ **Off**: No link established

SPEED
- ■ **Amber**: Connected at 1000Mbps
- ■ **Green**: Connected at 100Mbps
- ■ **Off**: Connected at 10Mbps or not connected

MGMT Port
LINK/ACT   SPEED
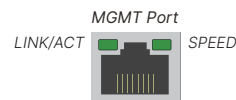
❹ PSU Status LED
- ● **Green**: PSU providing power
- ● **Off**: PSU not providing power

❺ CONSOLE (RJ45)

❻ USB Ports (USB A) *(not in use)*

❼ Ports 1 to 4 (SFP+)

LINK/ACT
- ● **Green**: Link established
- ✳ **Flashing Green**: Data activity
- ● **Off**: No link established

SPEED
- ● **Blue**: Connected at 10Gbps
- ● **Off**: Connected at 1Gbps or not connected

SFP+ Ports
LINK/ACT   SPEED
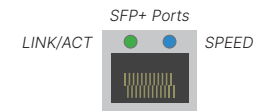
❽ Ports 5 to 8 (QSFP)

LINK/ACT
- ● **Green**: Link established
- ✳ **Flashing Green**: Data activity
- ● **Off**: No link established

SPEED
- ● **Green**: Connected at 40Gbps
- ● **Blue**: Connected at 10Gbps
- ● **Off**: Not connected

QSFP Ports
LINK/ACT   SPEED
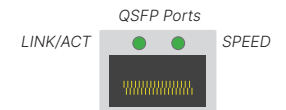
❾ Optical Bypass Status LED
- ● **Green**: In-line mode (⚠→A) & (⚠→B), (⚠→C) & (⚠→D)
- ✳ **Flashing Green**: In-line mode will remain for a system failure or power off event
- ● **Red**: Fail-Open mode (⚠→⚠), (⚠→⚠)

Note: Fail-Open mode breaks the A, B, C, D connections

FDD-2000F Rear

❶ **Power Switch**

❷ **Grounding Screws (12 AWG)**

❸ **Power Disarm Button** Disables PSU warning tone

❹ **Power Supplies** Redundant, 100-240VAC, 10-5A, 50-60Hz

- 🟢 **Green**: PSU providing device power
- ⚙ **Flashing Green**: PSU providing standby power
- 🟠 **Amber**: PSU not providing power, device is on
- 🔴 **Red**: PSU failure detected
- ⚫ **Off**: PSU is off

Cautions and Warnings

Environmental specifications

Ambient operating temperature: 0°C to 45°C

Rack Mount Instructions - The following or similar rack-mount instructions are included with the installation instructions:

Instructions de montage en rack - Les instructions de montage en rack suivantes ou similaires sont incluses avec les instructions d'installation:

Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.
Température ambiante élevée – S'il est installé dans un rack fermé ou à unités multiples, la température ambiante de fonctionnement de l'environnement du rack peut être supérieure à la température ambiante de la pièce. Par conséquent, il est important d'installer le matériel dans un environnement respectant la température ambiante maximale (Tma) stipulée par le fabricant.

Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
Ventilation réduite – Installation de l'équipement dans un rack doit être telle que la quantité de flux d'air nécessaire au bon fonctionnement de l'équipement n'est pas compromise.

Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
Chargement Mécanique – Montage de l'équipement dans le rack doit être telle qu'une situation dangereuse n'est pas lié à un chargement mécanique inégal.

Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
Surtension – Il convient de prendre l'ensemble des précautions nécessaires lors du branchement de l'équipement au circuit d'alimentation et être particulièrement attentif aux effets de la suralimentation sur le dispositif assurant une protection contre les courts-circuits et le câblage. Ainsi, il est recommandé de tenir compte du numéro d'identification de l'équipement.

Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).
Fiabilité de la mise à la terre – Fiabilité de la mise à la terre de l'équipement monté en rack doit être maintenue. Une attention particulière devrait être accordée aux connexions d'alimentation autres que les connexions directes au circuit de dérivation (par exemple de l'utilisation de bandes de puissance).

Refer to specific Product Model Data Sheet for Environmental Specifications (Operating Temperature, Storage Temperature, Humidity, and Altitude)

Référez à la Fiche Technique de ce produit pour les caractéristiques environnementales (Température de fonctionnement, température de stockage, humidité et l'altitude).

Safety

Battery – Risk of explosion if the battery is replaced by an incorrect type. Do not dispose of batteries in a fire. They may explode. Dispose of used batteries according to your local regulations. IMPORTANT: Switzerland: Annex 4.10 of SR814.013 applies to batteries.

Batterie – Risque d'explosion si la batterie est remplacée par un type incorrect. Ne jetez pas les batteries au feu. Ils peuvent exploser. Jetez les piles usagées conformément aux réglementations locales. IMPORTANT: Suisse: l'annexe 4.10 de SR814.013 s'appliquent aux batteries.

警告
本電池如果更換不正確會有爆炸的危險
請依製造商說明書處理用過之電池

CAUTION: Shock Hazard. Disconnect all power sources.
ATTENTION: Risque d'électrocution. Débranchez toutes les sources d'alimentation.

Laser Class 1 optical transceiver shall be used only
L'émetteur-récepteur optique de classe 1 laser doit être utilisé uniquement

IEC 60825-1:2014 transfer to FDA/CDRH Complies with FDA performance standards for laser products except for conformance with IEC 60825-1 Ed.3., as described in Laser Notice No. 56, dated May 8, 2019.

IEC 60825-1:2014 transfert à la FDA/CDRH Conforme aux normes de performance de la FDA pour les produits laser, à l'exception de la conformité à la norme IEC 60825-1 Ed.3., comme décrit dans l'avis laser n° 56, daté du 8 mai 2019.

The SFP ports should use UL Listed Optional Transceiver product, Rated 3.3Vdc, Laser Class 1.
Les ports SFP doivent utiliser un produit émetteur-récepteur en option répertorié UL, 3,3 Vdc, classe laser 1.

Warning: Class I Equipment. This equipment must be earthed. The power plug must be connected to a properly wired earth ground socket outlet. An improperly wired socket outlet could place hazardous voltage on accessible metal parts.
Avertissement: Équipement de classe I. Cet équipement doit être mis à la terre. La fiche d'alimentation doit être connectée à une prise de terre correctement câblée. Une prise de courant mal câblée pourrait placer une tension dangereuse sur les pièces métalliques accessibles.

Warning: All Ethernet cables are designed for intra-building connection to other equipment. Do not connect these ports directly to communication wiring or other wiring that exits the building where the appliance is located.
Avertissement: Tous les câbles Ethernet sont conçus pour une connexion intra-bâtiment à d'autres équipements. Ne connectez pas ces ports directement au câblage de communication ou à tout autre câblage qui sort du bâtiment où se trouve l'appareil.

Regulatory Notices

Federal Communication Commission (FCC) – USA

This device complies with Part 15 of 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 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 it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. 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 his own expense.

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

This device complies with Part 15 of 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 residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it 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.

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

Industry Canada Equipment Standard for Digital Equipment (ICES) – Canada

CAN ICES-003 (A) / NMB-003 (A)

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Cet appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicte par le ministère des Communications du Canada.

European Conformity (CE) - EU

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

$C \in$

Voluntary Control Council for Interference (VCCI) – Japan

この装置は、クラスA機器です。この装置を住宅環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。
ＶＣＣＩ－Ａ

Product Safety Electrical Appliance & Material (PSE) – Japan

日本では電気用品安全法(PSE)の規定により、同梱している電源コードは本製品の専用電源コードとして利用し、他の製品に使用しないでください。

Bureau of Standards Metrology and Inspection (BSMI) – Taiwan

The presence conditions of the restricted substance (BSMI RoHS table) are available at the link below:
限用物質含有情況表（RoHS Table）請到以下 網址下載：
https://www.fortinet.com/bsmi

警告使用者：此為甲類資訊技術設備，於居住環境中使用時，可能會造成射頻擾動，在此種情況下，使用者會被要求採取某些適當的對策。

請仔細閱讀以下說明
本設備勿置於潮濕處。
連接至電源前，請先檢查電壓。
當設備不用時，請將所有電源線拔除，避免電壓不穩而造成傷害。
勿將任何液體灌入設備中，避免線路短路。
基於安全理由，只有受到專業訓練的從業人員，才可以打開本設備。
請勿自行調整或修理已通電的設備，以確保您的安全。
如不小心受傷，請立刻找急救人員給予您適當的救護，千萬別因傷勢輕微而忽略自己的傷勢。

請依照台灣法規處置電池。
若不正確替換電池可能導致爆炸危險，替換電池時，請使用設備生產商推薦使用的電池。
請勿拆卸、刺穿或以其他方式損壞電池。

雷射設備非用戶維修設備，請與生產商聯繫維修事宜。

注意：要斷開電源，請將所有電源線從本機上拔下

英屬蓋曼群島商防特網股份有限公司台灣分公司
地址：台北市內湖區行愛路176號2樓
電話：（02）27961666

China

此为A级产品，在生活环境中，该产品可能会造成无线电干扰。这种情况下，可能需要用户对其采取切实可行的措施。

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