



Products covered by this manual

USB eLock Filter:

- **FF10N-3: USB eLock Configurable Filter, 2-Port**
- **FH10N-3: USB eLock HID Filter, 2-Port**

Rev: E
Doc No.: HDC10354

Table of Contents

Introduction	3
Intended Audience.....	3
What is an eLock USB Filter?.....	3
Package Contents	3
Revision.....	3
Safety Precautions	4
Safety Precautions (French).....	5
User Guidance & Precautions.....	6
Main Features.....	7
Tamper Evident Labels	8
Active Anti-Tampering System	8
Equipment Requirements.....	9
Product Specifications	10
Before Installation	11
Installation	12
Typical system installation Illustration	12
COPYRIGHT AND LEGAL NOTICE	13

Introduction

Thank you for purchasing this High Sec Labs (HSL) Secure product designed for use in secure defense and intelligence installations.

The eLock USB Filter physically mounts and locks down a standard computer USB port while providing a secure solution for connecting authorized USB devices to the protected USB port. The eLock provides the highest security safeguards and features that meet today's IA (information assurance) computing requirements.

The product provides the highest security safeguards and features that meet today's IA (information assurance) computing requirements as defined in the latest PSS Protection Profile Rev 3.0.

This User Manual provides all the details you'll need to install and operate your new product.

Intended Audience

This document is intended for the following professionals:

- System Administrators/IT Managers
- End Users

What is an eLock USB Filter?

HSL eLock USB Filter allows protecting computer USB ports from unauthorized peripheral usage and is suitable for scenarios where leaving USB ports open makes a computer vulnerable.

Package Contents

Inside product packaging you will find the following:

- eLock USB Filter
- User Guidance Documentation

Revision

A – Initial Release, 24 Feb 2015

B – Corrections, 2 April 2015

C – Rev change, 12 May 2015

E – Updated product behavior, 13 August 2015

Important Security Note:

If you are aware of potential security vulnerability while installing or operating this product, we encourage you to contact us immediately in one of the following ways:

- Web form: <http://www.highseclabs.com/support/case/>
- Email: security@highseclabs.com
- Tel: +972-4-9591191 or +972-4-9591192

Important: This product is equipped with always-on active anti-tampering system. Any attempt to open the product enclosure will activate the anti-tamper triggers and render the unit inoperable and warranty void.

Safety Precautions

Please read the following safety precautions carefully before using the product:

- Before cleaning, disconnect the product from any electrical power supply.
- Do not expose the product to excessive humidity or moisture.
- Do not store or use for extensive period of time in extreme thermal conditions – it may shorten product lifetime.
- Install the product only on a clean secure surface.
- If the product is not used for a long period of time, disconnect it from electrical power.
- If any of the following situations occurs, have the product checked by an HSL qualified service technician:
 - Liquid penetrates the product's case.
 - The product is exposed to excessive moisture, water or any other liquid.
 - The product is not working well even after carefully following the instructions in this user's manual.
 - The product has been dropped or is physically damaged.
 - The product shows obvious signs of breakage or loose internal parts.

- The product should be stored and used only in temperature and humidity controlled environments as defined in the product's environmental specifications.

- Never attempt to open the product enclosure. Any attempt to open the enclosure will permanently damage the product.

- The product contains a non-replaceable internal battery. Never attempt to replace the battery or open the enclosure.

- This product is equipped with always-on active anti-tampering system. Any attempt to open the product enclosure will activate the anti-tamper triggers and render the unit inoperable and warranty void.

Safety Precautions (French)

Veillez lire attentivement les précautions de sécurité suivantes avant d'utiliser le produit:

- Assurez-vous de ne pas exposer l'appareil à une humidité excessive.
- Assurez-vous d'installer l'appareil sur une surface sécurisée propre.
- Ne placez pas le cordon d'alimentation DC en travers d'un passage.
- Si l'appareil n'est pas utilisé de longtemps, retirez l'alimentation murale de la prise électrique.
- L'appareil devra être rangé uniquement dans des environnements à humidité et température contrôlées comme défini dans les caractéristiques environnementales du produit.
- L'alimentation murale utilisée avec cet appareil devra être du modèle fourni par le fabricant ou un équivalent certifié fourni par le fabricant ou fournisseur de service autorisé.
- Si une des situations suivantes survenait, faites vérifier l'appareil par un technicien de maintenance qualifié:
 - En cas d'alimentation externe - L'alimentation de l'appareil surchauffe, est endommagée, cassée ou dégage de la fumée
 - ou provoque des court circuits de la prise du secteur.
 - Un liquide a pénétré dans le boîtier de l'appareil.
 - L'appareil est exposé à de l'humidité excessive ou à l'eau.
 - L'appareil ne fonctionne pas correctement même après avoir suivi attentivement les instructions contenues dans ce guide de l'utilisateur.
 - L'appareil est tombé ou est physiquement endommagé.
 - L'appareil présente des signes évidents de pièce interne cassée ou desserrée
 - L'appareil contient une batterie interne. La batterie n'est pas remplaçable. N'essayez jamais de remplacer la batterie car toute tentative d'ouvrir le boîtier de l'appareil entraînerait des dommages permanents à l'appareil.
 - Ce produit est équipé d'un système anti-sabotage actif. Toute tentative d'ouvrir le boîtier du produit va activer le déclencheur anti-sabotage et de rendre l'unité inutilisable et garantie.

User Guidance & Precautions

Please read the following User Guidance & Precautions carefully before using the product:

1. As product powers-up it performs a self-test procedure. In case of self-test failure for any reason, the product will be Inoperable. Self-test failure will be indicated by the following LED behavior:
 - a. A specific, predefined LED combination will be turned ON;
 - b. The predefined LED combination will indicate the problem type (e.g. firmware integrity).

Try to power cycle device connected to product. If problem persists please contact your system administrator or technical support.

2. Product power-up and RFD behavior:
 - a. At power up the product LED behavior will be as described in Operation section.
 - b. RFD is controlled by software shortcut "CTRL, CTRL, F11, R".

Notes:

1. Keyboard shortcut keys are to be pressed sequentially
2. CTRL key refers to LEFT CTRL key.



3. Product is equipped with always-on active anti-tampering system. Any attempt to open product enclosure will activate the anti-tamper system. In this case, product will be inoperable and warranty void. If product enclosure appears disrupted, please remove product from service immediately and contact technical support.
4. Product log access and administrator configuration options are described in product Administrator Guide.
5. If you are aware of any potential security vulnerability while installing or operating product, please remove product from service immediately and contact us in one of the ways listed in this manual.

Main Features

The HSL eLock USB Filter is an advanced USB protection product which incorporates physical and programmed protection of computer USB ports . Below is a summary of the main features incorporated into the product.

Physical USB Protection

- The eLock physically mounts and locks on a standard USB port.
- Force removal of the eLock damages the USB port making it unusable.

Note: The physical locking aspects of the product were not evaluated to NIAP or Common-Criteria standards.

HID Filter

- Accepts only USB HID devices (Keyboard and mice Devices) and blocks other HID devices.
- Hardcoded ASCII keyboard / mice characters.
- Incapable of processing any code other than HID-ASCII.
- Highly secure, read-only non-configurable chip.

Configurable Filter

- USB-ID based filter.
- Accept USB devices based on unique identifiers such as serial, HID, VID, ClassID, and more.
- For programing features please refer to the eLock setup manual.

Secure administrator access & log functions

Product incorporates secure administrator access and log functions to provide auditable trail for all product security events.

Always-on, active anti-tamper system

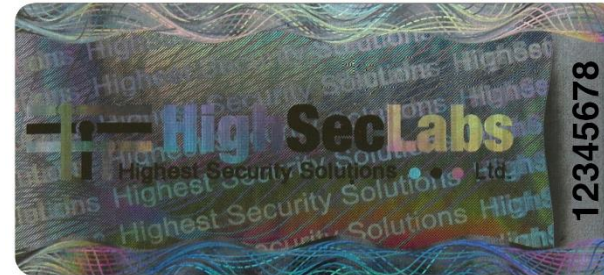
Active anti-tampering system prevents malicious insertion of hardware implant such as wireless key-logger inside product enclosure. Any anti-tampering attempt renders product inoperable and shows clear indications of tampering event to user.

Holographic security tamper-evident labels are placed on the enclosure to provide a clear visual indication if product has been opened or compromised.

Tamper Evident Labels

Product uses holographic tamper evident labels to provide visual indications in case of an enclosure intrusion attempt. When opening product packaging inspect the tampering evident labels.

If for any reason one or more tamper-evident label is missing, appears disrupted, or looks different than the example shown here, please call Technical Support and avoid using that product.



HSL Tamper Evident Label

Active Anti-Tampering System

Product is equipped with always-on active anti-tampering system. If mechanical intrusion is detected by this system, the Product will be permanently disabled and all LEDs will blink continuously.

If product indicates "tampered state" (all LEDs blinking) - please call Technical Support and avoid using that product.

Equipment Requirements

Operating Systems

Product is compatible with devices running on the following operating systems:

- Microsoft® Windows®
- Red Hat®, Ubuntu® and other Linux® platforms
- Mac OS® X v10.3 and higher.

USB Keyboard console port

The product USB keyboard port is compatible with Standard USB keyboards.

Notes:

- a. USB keyboard and mouse ports are switchable, i.e. you can connect keyboard to mouse port and vice versa. However, for optimal operation it is recommended to connect USB keyboard to console USB keyboard port and USB mouse to console USB mouse port.
- b. For security reasons products do not support wireless keyboards. In any case do not connect wireless keyboard to product.
- c. Non-standard keyboards, such as keyboards with integrated USB hubs and other USB-integrated devices, may not be fully supported due to security policy. If they are supported, only classical keyboard (HID) operation will be functional. It is recommended to use standard USB keyboards.

USB Mouse console port

The product console USB mouse port is compatible with standard USB mice.

Notes:

- a. USB keyboard and mouse ports are switchable, i.e. you can connect keyboard to mouse port and vice versa. However, for optimal operation it is recommended to connect USB keyboard to console USB keyboard port and USB mouse to console USB mouse port.
- b. USB mouse port supports Standard KVM Extender composite device having a keyboard/mouse functions.
- c. For security reasons products do not support wireless mice. In any case do not connect wireless mouse to product.

Programming Cable for Configurable Filter

USB Type-A to USB Type-A Programming cable

Product Specifications

Enclosure:	Sealed plastic enclosure	Operating Temp:	32° to 104° F (0° to 40° C)
Power Requirements:	None	Storage Temp:	-4° to 140° F (-20° to 60° C)
No. of Users Supported:	1	Humidity:	0-80% RH, non-condensing
No. of Computers Supported:	1	Product design life-cycle:	10 years
Computer Keyboard/Mouse ports:	Self-locking USB Type A Plug	Warranty:	2 years
Indicators HID Filter:	Authentication LED (bi-color) Mouse status LED (bi-color) Keyboard status LED (bi-color)		
Indicators Configurable Filter:	Authentication LED (bi-color) Upper port device status LED (bi-color) Lower port device status LED (bi-color)		

Before Installation

Unpacking the Product

Before opening the product packaging, inspect the packaging condition to assure that product was not damaged during delivery.

When opening the package, inspect that the product Tamper Evident Labels are intact.

Important:

1. If the unit's enclosure appears disrupted, please remove product from service immediately and contact HSL Technical Support at <http://highseclabs.com/support/case/>.
2. Do not connect product to computing devices:
 - a. That are TEMPEST computers;
 - b. That include telecommunication equipment;
 - c. That include frame grabber video cards
 - d. That include special audio processing cards.

Where to locate the Product?

The enclosure of the product is designed for desktop configuration. Product must be located in a secure and well protected environment to prevent potential attacker access.

Consider the following when deciding where to place product:

- Product must be visible to the user at all times.
- The location of the computers in relation to the product and the length of available cables (typically 1.8 m)

Warning: Avoid placing cables near fluorescent lights, air-conditioning equipment, RF equipment or machines that create electrical noise (e.g., vacuum cleaners).

Installation

1. Connecting the eLock USB Port Filter to a computer

- **Note:** Once connected to the computer, eLock cannot be removed without damaging the USB port.
- Select the computer USB port that you wish to protect and connect the eLock male USB connector to it.

2. Connecting USB peripherals to the eLock female USB ports

- Connect your USB peripherals to the eLock female USB ports.
- **Note:** When using the Hardcoded HID Filter, only standard USB keyboard and mouse will be accepted. Other devices will be rejected and unrecognized.
- **Note:** When using the Configurable Filter, only preconfigured devices will be accepted and operational. For programming features please refer to the eLock setup manual.

3. LED behavior:

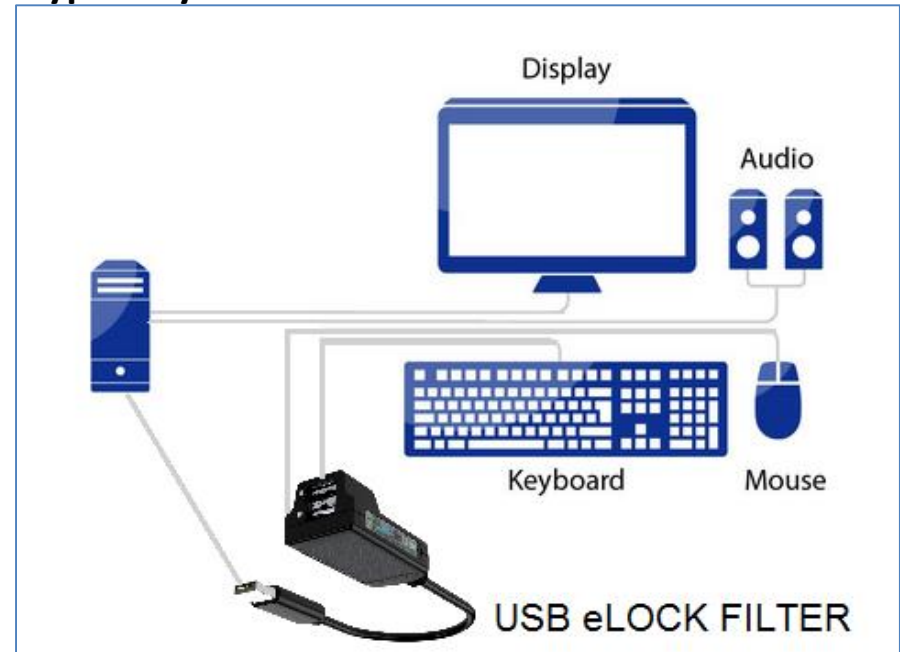
Device (USB/KBD) LEDs would mean the following:

- Not lit = Nothing connected/Not detected
- Steady Green = Qualified
- Steady Red = Rejected

Authentication LED:

- Steady Red = Failed
- Steady Green = Successfully authenticated

Typical system installation illustration



Important Security Notes:

1. If you are aware of potential security vulnerability while installing or operating this product, we encourage you to contact us immediately in one of the following ways:
 - Web form: <http://www.highseclabs.com/support/case/>
 - Email: security@highseclabs.com
 - Tel: +972-4-9591191 or +972-4-9591192
2. **Important:** If the unit's enclosure appears disrupted, please remove product from service immediately and contact HSL Technical Support at <http://highseclabs.com/support/case/>
3. **Important:** This product is equipped with always-on active anti-tampering system. Any attempt to open the product enclosure will activate the anti-tamper triggers and render the unit inoperable and warranty void.

COPYRIGHT AND LEGAL NOTICE

© 2015 High Sec Labs Ltd. (HSL) All rights reserved.

This product and/or associated software are protected by copyright, international treaties and various patents.

This manual and the software, firmware and/or hardware described in it are copyrighted. You may not reproduce, transmit, transcribe, store in a retrieval system, or translate into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual, or otherwise, any part of this publication without express written permission from HSL.

HSL SHALL NOT BE LIABLE FOR TECHNICAL OR EDITORIAL ERRORS OR OMISSIONS CONTAINED HEREIN; NOR FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE FURNISHING, PERFORMANCE, OR USE OF THIS MATERIAL.

The information contained in this document represents the current view of HSL on the issues discussed as of the date of publication. Because HSL must respond to changing market conditions, it should not be interpreted to be a commitment on the part of HSL, and HSL cannot guarantee the accuracy of any information presented after the date of publication. PRODUCT DESIGN AND SPECIFICATION IS SUBJECT TO CHANGES WITHOUT NOTICE

This Guide is for informational purposes only. HSL MAKES NO WARRANTIES, EXPRESS OR IMPLIED, IN THIS DOCUMENT.

PATENTS AND TRADEMARKS

The products described in this manual are protected by multiple patents.

HSL Product/s and logo are either trademarks or registered trademarks of HSL.

Products mentioned in this document may be registered trademarks or trademarks of their respective owners

U.S. GOVERNMENT RESTRICTED RIGHTS

The Software and documentation are provided with RESTRICTED RIGHTS.

You agree to comply with all applicable international and national laws that apply to the Software, including the U.S. Export Administration Regulations, as well as end-user, end-use and country destination restrictions issued by U.S. and other governments.

The information and specifications in this document are subject to change without prior notice.

Images are for demonstration purposes only.