

Firebox® X Edge™ e-Series Hardware Guide

Firebox X55e, Firebox X20e, Firebox X10e, Firebox X55e-W,
Firebox X20e-W, Firebox X10e-W



Copyright and Patent Information

Copyright© 1998 - 2008 WatchGuard Technologies, Inc. All rights reserved.

WatchGuard, the WatchGuard logo, Firebox, LiveSecurity, and any other mark listed as a trademark in the “Terms of Use” portion of the WatchGuard Web site that is used herein are either registered trademarks or trademarks of WatchGuard Technologies, Inc. and/or its subsidiaries in the United States and/or other countries. All other trademarks are the property of their respective owners.

Printed in the United States of America.

Publication ID: 276-2559-002

Text ID: 276-2559-002

Doc Version: 10.0

Revised: October 13, 2008

U.S. Patent Nos. 6,493,752; 6,597,661; D473,879. Other Patents Pending.

Complete copyright, trademark, patent, and licensing information can be found in the Reference Guide. You can find this document online at:

<http://www.watchguard.com/help/documentation/>

Notice to Users

Information in this guide is subject to change without notice. Companies, names, and data used in examples herein are fictitious unless otherwise noted. No part of this guide may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of WatchGuard Technologies, Inc.

Limited Hardware Warranty

This Limited Hardware Warranty (the “Warranty”) applies to the enclosed Firebox hardware product, not including any associated software which is licensed pursuant to a separate end-user license agreement and warranty (the “Product”). BY USING THE PRODUCT, YOU (either an individual or a single entity) AGREE TO THE TERMS HEREOF. If you do not agree to these terms, please return this package, along with proof of purchase, to the authorized dealer from which you purchased it for a full refund. WatchGuard Technologies, Inc. (“WatchGuard”) and you agree as set forth below or on the reverse side of this card, as applicable:

1. LIMITED WARRANTY. WatchGuard warrants that upon delivery and for one (1) year thereafter (the “Warranty Period”): (a) the Product will be free from material defects in materials and workmanship, and (b) the Product, when properly installed and used for its intended purpose and in its intended operating environment, will perform substantially in accordance with WatchGuard applicable specifications.

This warranty does not apply to any Product that has been: (i) altered, repaired or modified by any party other than WatchGuard except for the replacement or inclusion of specified components authorized in and performed in strict accordance with documentation provided by WatchGuard; or (ii) damaged or destroyed by accidents, power spikes or similar events or by any intentional, reckless or negligent acts or omissions of any party. You may have additional warranties with respect to the Product from the manufacturers of Product components. However, you agree not to look to WatchGuard for, and hereby release WatchGuard from any liability for, performance of, enforcement of, or damages or other relief on account of, any such warranties or any breach thereof.

2. REMEDIES. If any Product does not comply with the WatchGuard warranties set forth in Section 1 above, WatchGuard will, following receipt of the product you claim is defective and at its option, either (a) repair the Product, or (b) replace the Product; provided, that you will be responsible for returning the Product and for all costs of shipping and handling. Repair or replacement of the Product shall not extend the Warranty Period. Any Product, component, part or other item replaced by WatchGuard becomes the property of WatchGuard. WatchGuard shall not be responsible for return of or damage to any software, firmware, information or data contained in, stored on, or integrated with any returned Products.

3. DISCLAIMER AND RELEASE. THE WARRANTIES, OBLIGATIONS AND LIABILITIES OF WATCHGUARD, AND YOUR REMEDIES, SET FORTH IN PARAGRAPHS 1 AND 2 ABOVE ARE EXCLUSIVE AND IN SUBSTITUTION FOR, AND YOU HEREBY WAIVE, DISCLAIM AND RELEASE ANY AND ALL OTHER WARRANTIES, OBLIGATIONS AND LIABILITIES OF WATCHGUARD AND ALL OTHER RIGHTS, CLAIMS AND REMEDIES YOU MAY HAVE AGAINST WATCHGUARD, EXPRESS OR IMPLIED, ARISING BY LAW OR OTHERWISE, WITH RESPECT TO ANY NONCONFORMANCE OR DEFECT IN THE PRODUCT (INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ANY IMPLIED WARRANTY ARISING FROM COURSE OF PERFORMANCE, COURSE OF DEALING, OR USAGE OF TRADE, ANY WARRANTY OF NONINFRINGEMENT, ANY WARRANTY OF UNINTERRUPTED OR ERROR-FREE OPERATION, ANY OBLIGATION, LIABILITY, RIGHT, CLAIM OR REMEDY IN TORT, WHETHER OR NOT ARISING FROM THE NEGLIGENCE (WHETHER ACTIVE, PASSIVE OR IMPUTED) OR FAULT OF WATCHGUARD OR FROM PRODUCT LIABILITY, STRICT LIABILITY OR OTHER THEORY, AND ANY OBLIGATION, LIABILITY, RIGHT, CLAIM OR REMEDY FOR LOSS OR DAMAGE TO, OR CAUSED BY OR CONTRIBUTED TO BY, THE PRODUCT).

4. LIMITATION AND LIABILITY. WATCHGUARD'S LIABILITY (WHETHER ARISING IN CONTRACT (INCLUDING WARRANTY), TORT (INCLUDING ACTIVE, PASSIVE OR IMPUTED NEGLIGENCE AND STRICT LIABILITY AND FAULT) OR OTHER THEORY) WITH REGARD TO ANY PRODUCT WILL IN NO EVENT EXCEED THE PURCHASE PRICE PAID BY YOU FOR SUCH PRODUCT. THIS SHALL BE TRUE EVEN IN THE EVENT OF THE FAILURE OF ANY AGREED REMEDY. IN NO EVENT WILL WATCHGUARD BE LIABLE TO YOU OR ANY THIRD PARTY (WHETHER ARISING IN CONTRACT (INCLUDING WARRANTY), TORT (INCLUDING ACTIVE, PASSIVE OR IMPUTED NEGLIGENCE AND STRICT LIABILITY AND FAULT) OR OTHER THEORY) FOR COST OF COVER OR FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES (INCLUDING WITHOUT LIMITATION LOSS OF PROFITS, BUSINESS, OR DATA) ARISING OUT OF OR IN CONNECTION WITH THIS WARRANTY OR THE USE OF OR INABILITY TO USE THE PRODUCT, EVEN IF WATCHGUARD HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THIS SHALL BE TRUE EVEN IN THE EVENT OF THE FAILURE OF ANY AGREED REMEDY.

5. MISCELLANEOUS PROVISIONS. This Warranty will be governed by the laws of the state of Washington, U.S.A., without reference to its choice of law rules. The provisions of the 1980 United Nations Convention on Contracts for the International Sales of Goods, as amended, shall not apply. You agree not to directly or indirectly transfer the Product or associated documentation to any country to which such transfer would be prohibited by the U.S. Export laws and regulations. If any provision of this Warranty is found to be invalid or unenforceable, then the remainder shall have full force and effect and the invalid provision shall be modified or partially enforced to the maximum extent permitted by law to effectuate the purpose of this Warranty. This is the entire agreement between WatchGuard and you relating to the Product, and supersedes any prior purchase order, communications, advertising or representations concerning the Product AND BY USING THE PRODUCT YOU AGREE TO THESE TERMS. IF THE PRODUCT IS BEING USED BY AN ENTITY, THE INDIVIDUAL INDICATING AGREEMENT TO THESE TERMS BY USING THE PRODUCT REPRESENTS AND WARRANTS THAT (A) SUCH INDIVIDUAL IS DULY AUTHORIZED TO ACCEPT THE WARRANTY ON BEHALF OF THE ENTITY AND TO BIND THE ENTITY TO THE TERMS OF THIS WARRANTY; (B) THE ENTITY HAS THE FULL POWER, CORPORATE OR OTHERWISE, TO ENTER INTO THE WARRANTY AND PERFORM ITS OBLIGATIONS UNDER THE WARRANTY AND; (C) THE WARRANTY AND THE PERFORMANCE OF THE ENTITY'S OBLIGATIONS UNDER THE WARRANTY DO NOT VIOLATE ANY THIRD-PARTY AGREEMENT TO WHICH THE ENTITY IS A PARTY. No change or modification of the Warranty will be valid unless it is in writing and is signed by WatchGuard.

Declaration of Conformity

DECLARATION OF CONFORMITY

WatchGuard Technologies, Inc.
505 Fifth Ave. S., Suite 500
Seattle, WA 98104-3892
USA

WatchGuard Technologies Inc. hereby declares that the product(s) listed below conform to the European Union directives and standards identified in this declaration.

Product (s):

Wireless Internet Firewall with VPN, Models XP2E6W, XP2E6,XP2A1E5

EU Directive(s):

Radio & Telecommunications Terminal Equipment (1999/5/EC)
Low Voltage (2006/95/EC)
Electromagnetic Compatibility (2004/108/EC)


Common Standard(s):

EN60950-1: 2001 Safety of ITE (valid until: 2010 12 01)

EN50022:2006	Class A Emissions for ITE
EN61000-3-2:2000 W/A2:05	Harmonics
EN61000-3-3:1995 W/A1:01	Flicker
EN50024:1998 W/A1:01 & A2:03	Immunity for ITE

Wireless Standard(s):

ETSI EN 300 328-02 V1.4.1 (2003-04) EMC and Radio Spectrum Matters
ETSI EN 301 489-17 V1.1.1 (2000-09) EMC and Radio Spectrum Matters
ETSI EN 301 489-01 V1.4.1 (2002-08) EMC and Radio Spectrum Matters

Signature 
Full Name Joe Wang
Position Chief Executive Officer
Date 09 October 2008

FCC Certification

This device has been tested and found to comply with limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. Operation is subject to the following two conditions:

This device may not cause harmful interference.

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

NOTE: The antennas used for this transmitter must be installed to provide a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

CE Notice

The CE symbol on your WatchGuard Technologies equipment indicates that it is in compliance with the Electromagnetic Compatibility (EMC) directive and the Low Voltage Directive (LVD) of the European Union (EU).



Industry Canada

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

VCCI Notice Class A ITE

この装置は、情報処理装置等電波障害自主規制協議会 (VCCI) の基準に基づくクラス A 情報技術装置です。この装置を家庭用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。

CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISPOSE OF USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

ATTENTION: IL Y A DANGER D'EXPLOSION S'IL Y A REMPLACEMENT INCORRECT DE LA BATTERIE, REMPLACER UNIQUEMENT AVEC UNE BATTERIE DU MÊME TYPE OU D'UN TYPE ÉQUIVALENT RECOMMANDÉ PAR LE CONSTRUCTEUR. METTRE AU REBUT LES BATTERIES USAGÉES CONFORMÉMENT AUX INSTRUCTIONS DU FABRICANT.

RoHS Statement

The member states of the European Union approved directive 2002/95/EC, Restrictions of Hazardous Substances ("RoHS directive") that becomes valid on July 1, 2006. It states that all new electrical and electronic equipment put on the market within the member states must not contain certain hazardous materials. The WatchGuard Firebox X Edge e-Series will comply with the European Union's RoHS directive 2002/95/EC and similar regulations that may be adopted by other countries for European Sales.

WEEE Statement

WEEE is a general set of requirements dictated in the EU Directive 2002/96/EC. This Directive mandated that member EU countries enact regulations governing the Waste of Electrical and Electronic Equipment (WEEE). The Directive, and its individual transpositions into specific country laws and legislation, is aimed at the reduction of WEEE through reuse, recovery, and recycling of WEEE.

WatchGuard is working in partnership with our European Union (EU) distribution partners to ensure that our products are in compliance with the WEEE statutes, and that the recovery of our product per the specific EU country legislative requirements is seamless for our product's end users. If you have a WatchGuard product that is at its end of life and needs to be disposed of, please contact WatchGuard Customer Care Department at:

U.S. Customers: 877.232.3531

International Customers: +1.206.613.0456

WatchGuard is reasonably confident that our products do not contain any substances or hazardous materials presently banned by any legislation, and do not present a risk due to hazardous materials. WEEE recovery professionals should also note that these products do not have any materials that are of particular high value in their individual form.

Licensing

Some components of the WatchGuard System Manager software are distributed with source code covered under one or more third party or open source licenses. You can find full licensing information in the Reference Guide on our public web site at www.watchguard.com/help/documentation. We include below the full text of the GNU General Public License.

To get the source code covered by this license, contact WatchGuard Technical Support at:

United States or Canada: 877.232.3531

All other countries: +1.360.482.1083

You can download the source code at no charge. If you request the material be sent to you on CD-ROM, there is a \$35 charge for administration and shipping.

GNU General Public License (GPL)

Each of the following programs are wholly or partially licensed under the GPL: ARPTables, bpalogin, bridge-utils, busybox, ebtables, glibc, hostapd, iproute, ipset, iptables, iputils, linux, nmap, ppp, pptpd, rp-pppoe, wireless_tools, wpa_supplicant.

Specific copyright information for the above software, if any, can be found in subsequent pages of this chapter.

GNU GENERAL PUBLIC LICENSE

Version 2, June 1991

Copyright © 1989, 1991 Free Software Foundation, Inc.

51 Franklin Street, Fifth Floor

Boston, MA 02110-1301, USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software-- to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

Terms and Conditions for Copying, Distribution, and Modification

1 This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program

(independent of having been made by running the Program). Whether that is true depends on what the Program does.

- 2 You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.
- You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.
- If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based

on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

- 3 You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:
 - Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
 - Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
 - Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major

components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

- 4 You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.
- 5 You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.
- 6 Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.
- 7 If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent

license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

- 8 If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.
- 9 The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

-
- 10 If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

- 11 BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.
- 12 IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Hardware Guide

The WatchGuard® Firebox® X Edge e-Series is a firewall for small organizations and branch offices.

The Firebox X Edge e-Series product line includes:

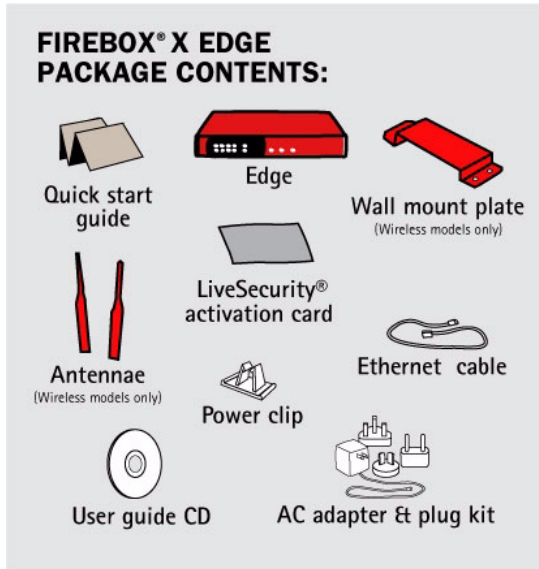
- Firebox X Edge e-Series
- Firebox X Edge e-Series Wireless

Package Contents

The Firebox® X Edge e-Series package includes:

- Hardware firewall
- *Firebox X Edge e-Series User Guide and Hardware Guide on CD-ROM*
- *Firebox X Edge e-Series Quick Start Guide*
- License key certificate
- Hardware warranty card
- AC adapter (12V/1.2A) with international plug kit
- Power cable clip, to attach to the cable and connect to the side of the Edge. This decreases the tension on the power cable.

-
- Four rubber feet you can attach to protect the bottom of your Firebox X Edge case
 - One straight-through cable
 - Wall mount plate (wireless models only)
 - Two antennas (wireless models only)



Specifications

The specifications for the Firebox® X Edge e-Series and the Firebox X Edge e-Series Wireless are:

Processor	X Scale (ARM)
CPU	266 MHz
Memory: Flash	64 MB
Memory: RAM	128 MB
Ethernet interfaces	6 each 10/100
Serial ports	1 DB9
Power supply	12V/1.2A
Operating temperature	0 - 40 C
MTBF for Firebox X Edge e-Series	60,555 hours @ 25 degrees C
MTBF for Firebox X Edge e-Series Wireless	53,901 hours @ 25 degrees C
Environment	Indoor use only
Dimensions for Firebox X Edge e-Series	Depth = 6.25 inches Width = 7.4 inches Height = 1.25 inches
Dimensions for Firebox X Edge e-Series Wireless, including antenna	Depth = 6.25 inches Width = 10.9 inches Height = 1.25 inches
Weight of Firebox X Edge e-Series	1.9 U.S. pounds
Weight of Firebox X Edge e-Series Wireless	2.0 U.S. pounds

Hardware Description

The Firebox® X Edge e-Series has a simple hardware architecture. All indicator lights are on the front panel of the device, and all ports and connectors are on the rear panel.

Front panel

The front panel of the Firebox X Edge e-Series has 18 indicator lights to show link status. The top indicator light in each pair comes on when a link is made and flashes when traffic goes through the related interface. The bottom indicator light in each pair comes on when the link speed is 100 Mbps. If the bottom indicator light does not come on, the link speed is 10 Mbps.



WAN 1, 2

Each WAN indicator shows the physical connection to the external Ethernet interfaces. The light is yellow when traffic goes through the related interface.

LAN 0, 1, 2

Each LAN indicator shows the physical connection to the trusted Ethernet interfaces.

WAP

The WAP indicator shows that the Firebox X Edge e-Series is activated as a wireless access point. The light is green when traffic goes through the wireless interface on a Firebox X Edge e-Series Wireless model.

Fail Over

The Fail Over indicator shows a WAN failover. The light is green when there is a WAN failover from WAN1 to WAN2. The light goes off when the external interface connection goes back to WAN1.

Link

The link indicator shows a physical connection to a trusted Ethernet interface. The trusted interfaces have the numbers 0 through 2. The light comes on when traffic goes through the related interface.

100

When a trusted network interface operates at 100 Mbps, the related 100 indicator light comes on. When it operates at 10 Mbps, the indicator light does not come on.

Status

The status indicator shows a management connection to the Firebox X Edge e-Series. The light goes on when you use your browser to connect to the Firebox X Edge e-Series configuration pages. The light goes off a short time after you close your browser.

Mode

The mode indicator shows the status of the external network connection. The light comes on when the Ethernet cable is correctly connected to the WAN1 interface. The light is green if the Firebox X Edge e-Series can connect to the external network and send traffic. The light flashes if the Firebox X Edge e-Series cannot connect to the external network and send traffic.

Attn

The Attn indicator lights when you reset the Firebox X Edge e-Series to factory default settings.

Power

The power indicator shows that the Firebox X Edge e-Series is on.

Rear view



Ethernet interfaces LAN0 through LAN2

The Ethernet interfaces with the marks LAN0 through LAN2 are for the trusted network.

OPT interface

This Ethernet interface is for the optional network.

WAN interfaces 1 and 2

The WAN1 and WAN2 interfaces are for external networks.

Power input

A 12V/1.2A power supply is included with your Firebox X Edge e-Series. Connect the AC adapter to the Firebox X Edge and to a power source. The power supply tip is plus (+) polarity.

RESET button

To reset the Firebox X Edge e-Series, use the procedure in “Restore Factory Default Settings” on page 8.

Side panels

Computer lock slot

The two side panels of the Firebox X Edge e-Series have a slot for a computer lock.

Antennas (wireless model only)

The two side panels of the Firebox X Edge e-Series Wireless have wireless antennas.

Wall mounting plate (wireless model only)

The wall mounting plate enables you to put the Firebox X Edge e-Series in a good location to increase the range.

AC power adapter

The AC power adapter supplies power for the Firebox X Edge e-Series. You must use the correct plug for the AC power adapter for the power source used in your country.

The international plug kit includes four plugs: Q-NA (North America), Q-UK (United Kingdom), Q-EU (European Union), and Q-SAA (Asia).

Removing a plug from the AC power adapter

If the plug installed in the AC power adapter does not match your power source:

- 1 Use your thumb or finger to move the locking key on the AC power adapter down.
- 2 Hold the bottom of the plug.
- 3 Pull up from the bottom of the plug to remove it from the AC power adapter.

Connecting a plug to the AC power adapter

To install a different plug in the AC power adapter:

- 1 Put the top of the new plug in the AC power adapter at a 45-degree angle.
You must put in the top of the new plug first. Do not use force to put the plug into the adapter.
- 2 Push the bottom of the new plug into the AC power adapter.
The plug clicks into position.

Restore Factory Default Settings

If you have a problem in your configuration file that you cannot correct, you can restore the factory default settings and start from a new configuration file. For example, if you do not know the administrator account passphrase, or if a power interruption causes damage to the Firebox X Edge appliance software, you can restore the Edge to the factory default settings and build your configuration again.

To set the Firebox X Edge e-Series to the factory default settings:

- 1 Disconnect the power supply.
- 2 Hold down the **Reset** button on the back of the Edge.
- 3 Connect the power supply while you continue to hold down the **Reset** button.
- 4 Continue to hold down the button until the yellow **Attn** light stays lit. This indicates that the Edge was successfully restored to the factory default settings.

This process can take 45 seconds or more.

Note

You must start the Edge again before you can connect to it. If you do not, when you try to connect to the Edge, a web page appears with the message, "Your WatchGuard Firebox X Edge is running from a backup copy of firmware." This message also appears if the **Reset** button is stuck in the depressed position. If you continue to see this message, check the **Reset** button and start the Edge again.

-
- 5 Disconnect the power supply.
 - 6 Connect the power supply again.
The Power Indicator lights and your Edge is reset.

About the Firebox X Edge e-Series Wireless



The Firebox X Edge e-Series Wireless conforms to IEEE 802.11g/b wireless LAN standards. Some key features that have an effect on performance of an 802.11g/b wireless device include antenna directional gain, signal attenuation (path loss), and channel data rate.

Antenna directional gain

Antenna directional gain is based on the shape of the radiation pattern around the antenna. The Firebox X Edge e-Series Wireless uses two 5.1 dBi swivel-mount whip antennas. The whip antenna has a radiation pattern similar to a sphere that is squashed in the center. If the antenna points up, the gain is largest in the horizontal direction and less in the vertical direction.

Signal attenuation

Signal attenuation refers to the loss of signal power. It can be caused by multi-path reflection. Multi-path reflection occurs when RF signals that come to the receiver must move along more than one path because of walls and other surfaces between the transmitter and the receiver. It changes based on the phase at which the signals come. Signal strength can be increased or decreased by as much as 30dB.

To decrease the effect of multi-path reflection, the Firebox X Edge e-Series Wireless uses two antennas spaced some distance apart. This decreases signal cancellation and allows the software to find the best antenna to receive and transmit as conditions change.

Wireless clients usually have one antenna and are more sensitive to the effects of antenna location. Because of this, the Firebox X Edge e-Series Wireless can receive signals from a wireless client even if the client does not receive signals from the Firebox X Edge.

Channel data rate

Channel data rate changes with the modulation type, which changes based on conditions including noise and the distance between transmitter and receiver. In general, the available data rates for an IEEE 802.11g/b device change from 1 Mbps in the worst conditions to 54 Mbps in the best conditions.