

**Operator's and Maintainer's Manual
for the**

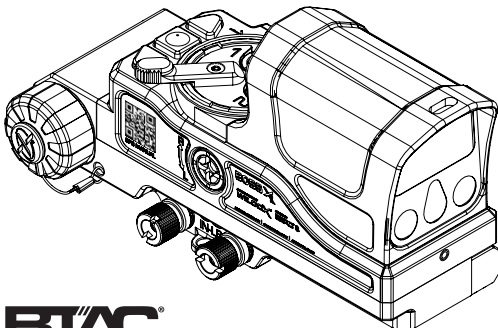


High Power Fire Control System

PNs:

**64000G23 - High Power Red Laser
64000G24 - High Power Green Laser**

CAGEC: 004F1



BTAC[®]
ENABLED

ERGOCTO[®] X



OSHA LASER OPERATOR SAFETY REQUIREMENTS

Inside the United States, State and Federal OSHA require the operation of Class 3B laser products to occur only under a formalized laser safety program as defined in ANSI Z136.1 Compliance with OSHA requirements are the sole responsibility of the purchaser/user.

Many countries have similar safety of use requirements. Reference the International IEC 60825 part 14, User's Guide for Laser Safety, outside the US.

FEDERAL RESTRICTIONS ON CLASS 3B WEAPON SIGHTS

This product is in conformity with performance standards for laser products under 21 CFR 1040, except with respect to those characteristics authorized by Variance Number 2021-V-0922 effective November 2, 2021.

The following restrictions apply:

- The sale of this product is restricted to Federal, State, or local government law enforcement agencies only, through a direct purchase order and shall not be sold to individual personnel of these agencies or organizations.
- Immediately terminate laser emissions if optical aids (e.g., monocular, binoculars, weapon mounted optics, telescopes, etc.) are in use near the laser termination or its beam path. It is necessary and intended that the invisible beam emitted by this device be viewed by the user through night vision equipment.
- The purchasing organization must maintain a property log that lists the type and number of each device owned and the responsible party having control of these devices, and must maintain an active training program for its employees in the safe use of the laser system.
- Batteries shall be removed when the product is not intended to operate in order to prevent unauthorized use.

▲ WARNING ▲

The Operator is required to thoroughly read all instructions and product safety information in the *BOSS Xe* Operator's Manual before using this product. **FAILURE TO COMPLY WITH PROPER INSTRUCTIONS COULD RESULT IN PROPERTY DAMAGE, INJURY, AND/OR DEATH.** Wilcox is not responsible for damages resulting from improper use and/or maintenance. Customers may obtain a copy of the Manual from the Wilcox website by scanning the barcode on the product.

This product contains technical data as defined in the International Traffic in Arms Regulations ITAR 22 CFR 120.10. Export of this material is restricted by the Arms Export Control Act 22 U.S.C. 2751 et seq. and may not be exported to foreign persons without prior written approval from the U.S. Department of State.

BLACK & WHITE - NO GRAY!™

SAFETY SUMMARY

S1 GENERAL SAFETY INSTRUCTIONS

WARNING and CAUTION statements have been strategically placed throughout the text to indicate operating or maintenance procedures, practices, or conditions considered essential to the protection of personnel (WARNING) or equipment and property (CAUTION). NOTES emphasize necessary and important data. WARNINGS, CAUTIONS, and NOTES appear throughout the text as applicable.

S2 WARNINGS, CAUTIONS, AND NOTES

Definitions for WARNINGS, CAUTIONS, and NOTES are as follows:

▲ WARNING ▲

Highlights an operation or maintenance procedure, practice, condition, statement, etc., which, if not strictly observed, could result in injury to or death of personnel.

■ CAUTION ■

Highlights an essential operating or maintenance procedure, practice, condition, statement, etc., which, if not strictly observed, could result in damage to or destruction of equipment or loss of mission effectiveness.

NOTE

Highlights an essential operating or maintenance procedure, condition, or statement.

S3. SAFETY PRECAUTIONS

Laser Safety

▲ WARNING ▲

- The **BOSS Xe** is a Class 3B laser product which emits visible (VIS) and infrared (IR) laser radiation from the front end of the device. Both VIS and IR laser light can be dangerous if misused. Laser light reflected or refracted off reflective surfaces may be equally harmful.
 - Never stare into a laser.
 - Never point lasers at someone's eyes.
 - Never point the lasers at other persons as Class 3B lasers may cause skin irritation.
 - Do not aim lasers at personnel or reflective surfaces.
 - Do not look at a laser through telescopes, binoculars, scopes, image intensifiers, etc.
 - Direct eye exposure to a laser may cause permanent eye damage, including blindness. Special glasses for filtering laser light must be used if protection from laser radiation is required.
- VIS and IR laser beams refract when used in smoke, fog, and rain, making them more easily detectable by onlookers or observers. When used in these environments, prolonged activation of the lasers should be avoided.
- Laser light is bright and blinding. Do not point lasers at aircraft or vehicles at any distance.
- Do not operate the device if the Lens Cap is missing, the unit is defective, or the Lens Cap or laser aperture seal are damaged.
- This device may emit laser radiation when the product body is opened. Do not open the product body.

▲ WARNING ▲

- Laser aperture covers are intended to be removed from the laser aperture when in use. Always replace the Lens Cap after use of the *BOSS Xe*.
- Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
- Lasers are activated during the *BOSS Xe* system test. Follow safety precautions for laser eye safety and operational cover.
- Removing the Blue High Power Lockout Screw from the Mode Selection Switch may allow exposure to high powered lasers. When high power operation is not intended, always keep the Blue High Power Lockout Screw in place.

■ CAUTION ■

- In the event of a detected built-in test failure, contact Wilcox Industries Customer Service at +1-603-431-1331 and do not use this product.

NOTE

- For guidance on the proper use of lasers, refer to ANSI Z136.1, "Standard for Safe Use of Lasers", American National Standards Institute.
- For proper targeting, it is recommended that the VIS Laser be used for boresighting this device to the target.

Usage Safety

▲ **WARNING** ▲

- **Make sure the weapon is CLEAR and on SAFE before installing this device and its accessories on a weapon, in accordance with the weapon's operator's manual, and that the device is powered off, Lens Cap on, and the primary battery (CR123A) removed prior to installation. Failure to do so can result in property damage, injury, and/or death.**
- **Always ensure that the primary battery is removed prior to mounting the *BOSS Xe* to or dismounting it from the primary weapon or when performing service.**
- **This device contains a Bluetooth interface which transmits radio frequencies that may be discoverable by enemy forces. See the unit armorer when it is desirable to turn off the Bluetooth transmitter.**
- **Mounting of this device should always be performed by the unit armorer and followed with weapon boresighting. Failure to properly boresight can cause inaccurate firing, which may lead to property damage and injury or death. Reverify boresight any time the device is exposed to marked changes in temperature (see Section 3.5).**
- **When handling a primary weapon fitted with a *BOSS Xe*, ALWAYS keep the muzzle pointed down range and clear of all personnel.**

NOTE

- This Operator's and Maintainer's Manual should always accompany the product and be transferred with it upon change of ownership.
- Make sure the Mode Selection Knob is set to the "OFF" position when not in use to avoid inadvertent battery drain.

Maintenance Safety

▲ WARNING ▲

- This device may emit laser radiation when the product body is opened. Do not open product body.
- The Operator should perform regular maintenance as outlined in this manual. Any procedures not specifically outlined in this manual shall be performed only by a Wilcox certified maintenance technician. Performance of procedures outside of those specified in this manual may cause injury will invalidate the product warranty.
- Follow all instructions in accordance with the weapon's operator's manual. Make sure the device is powered off with the Lens Cap on when performing any maintenance. Failure to do so can result in property damage, injury, and/or death.

■ CAUTION ■

- Do not use harsh abrasives or chemicals such as acetone to clean this device. Any questions about appropriate chemicals should be directed to Wilcox Customer Service at +1-603-431-1331 or via the website at <https://wilcoxind.com/contact>.

NOTE

- Failure to maintain the Primary Battery Compartment O-ring and the Clock Battery Compartment Cap O-ring may affect product performance.
- This device contains no serviceable internal parts. The product is not to be opened (except for battery change and O-ring inspection or replacement) or modified. Do not modify the unit. Do not remove protective covers or housings. Adjustments or attempted repairs to the device other than those expressly described in this Operator's Manual will void the warranty. Service is only to be handled by Wilcox Industries.
- Periodically inspect the all O-rings. If an O-ring becomes cut, nicked, or torn, see Section 4.3 for replacement instructions.

Battery Safety

▲ WARNING ▲

- **Lithium batteries should be handled in the following manner:**
 - If the Battery Compartment becomes hot to touch and there is a hissing sound (i.e., battery venting), **IMMEDIATELY** turn off the equipment. Wait until battery has cooled before removing it, then replace with a fresh battery.
 - **DO NOT** heat, puncture, disassemble, test for capacity, short circuit, attempt to recharge, or otherwise tamper with battery.
 - Many batteries have a safety vent to prevent explosion. When batteries vent gas, there will be a gas smell, one's eyes may become irritated, and/or there may be the sound of gas escaping.
 - **DO NOT** use batteries that look bulged or have burst. Contact the unit armorer for help with bulged or burst batteries.
 - **DO NOT** use water to extinguish lithium battery fire.

▲ WARNING ▲

- It is recommended that the battery be replaced and that activation procedures for the be conducted prior to operation to ensure proper operation before use (see Section 4.2).
- Make sure the Mode Selection Knob is set to the “OFF” position prior to changing batteries for user safety.
- Refer to battery manufacturer's instructions for safety warnings.

■ CAUTION ■

- Do not store this device with the primary (CR123A) battery installed.
- When opening or closing either of the battery compartments, make sure moisture or debris is not allowed into the compartments.

S4 LASER RADIATION OUTPUT PARAMETERS**Table S4-1 BOSS Xe Laser Safety Parameters***

BOSS Xe Laser Function	FDA COMPLIANCE MAXIMUM							
	VIS Aim G24 (Green) * *		VIS Aim G23 (Red)		IR Aim		IR Illuminator	
Wavelength [nm]	520		640		850		840	
Divergence [1/e] [mrad]	0.10		0.25		0.22		21	
Power Setting	Low	High	Low	High	Low	High	Low	High
Maximum Output Power [mW]*	<0.7	18	<0.7	18	<0.7	36	<0.7	36
NSHD [m]	0	0	0	0	0	0	0	0
NOHD [m]	0	288	0	115	0	215	0	2
OD	0	1.3	0	1.3	0	1.7	0	1.7
Class	2	3B	2	3B	1	3B	1	3B
Beam Diameter at Aperture [mm]	5.5							
Notes	Reduced power setting achieved via PWM, though no settings exceed the above stated CW values.							

*This table is intended for laser safety guidance. Values in table exceed the set nominal values of the laser product.

**Green laser calculated as a rectangular beam.

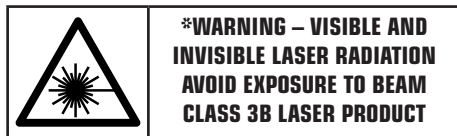
S5 SYMBOLS**Figure S5-1 BOSS Xe Product Symbols**

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PREFACE

1. SCOPE. The purpose of this Operator's and Maintainer's Manual is to assist the Operator in the operation and maintenance of the **BOSS Xe**.

The information in this manual should not replace the experience of a trained operator. Keep this manual and all safety instructions for future use. The information must be provided to each product user.

2. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATION. Wilcox requests that all errors, omissions, and discrepancies be forwarded to: Sales Department, Wilcox Industries Corp., One Wilcox Way, Newington, NH 03801. To submit feedback by e-mail, visit www.wilcoxind.com/contact.

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SECTION 1

OVERVIEW

1.1 GENERAL SAFETY WARNINGS

The **BOSS Xe** should not be used by anyone unfamiliar with its operation. The Operator is required to thoroughly review and understand operational and maintenance instructions outlined in this manual prior to actual field use. All general text, WARNINGS, CAUTIONS, and NOTES must be strictly followed.

The Safety Warnings in this manual are intended to point out the dangers that are common in handling this type of equipment. **Failure to observe any of these warnings may result in serious physical injury, blindness, or death.**

This manual is intended to provide information relevant to the operation of the BOSS Xe and is not a substitute for the information contained in the operator's manual issued by the manufacturer of the primary weapon to which it is attached. It is the responsibility of the Operator to read and thoroughly understand the handling and operating procedures for both the **BOSS Xe** and the primary weapon to which it is installed.

Laser Radiation Danger

Lasers built into the **BOSS Xe** emit visible (VIS) and/or infrared (IR) laser radiation from the front end of the device (see Sections S1 and 2.6 for technical data). Both VIS and IR laser light can be dangerous if misused. **Direct eye exposure may cause permanent eye damage, including blindness.** Laser light reflected or refracted off reflective surfaces may be equally harmful.

- Never stare into a laser beam.
- Never point a laser beam at someone's eyes.
- Do not point a laser beam at reflective surfaces.
- Do not look at a laser beam through telescopes, binoculars, scopes, etc.

First Aid

In the event of a safety incident, administer first aid in accordance with local procedures.

Laser Radiation Warning

Note the laser radiation warning as displayed on the Laser Safety Label:

**WARNING – VISIBLE AND INVISIBLE LASER RADIATION
AVOID EXPOSURE TO BEAM
CLASS 3B LASER PRODUCT**

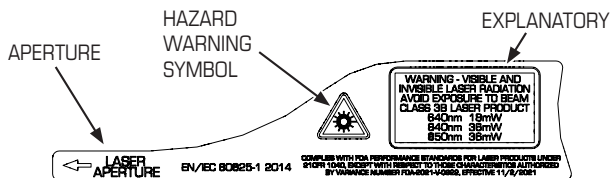


Figure 1.1-1 G23 Model *BOSS Xe* Laser Safety Label

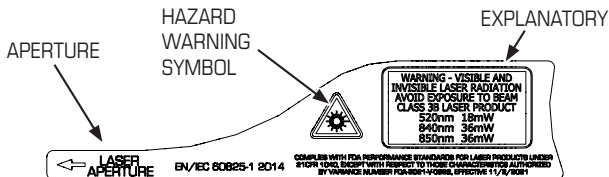


Figure 1.1-2 G24 Model *BOSS Xe* Laser Safety Label



Figure 1.1-3 *BOSS Xe* Product Identification Label

1.2 MODEL NUMBER AND EQUIPMENT NAME

Table 1.2-1 Model Number and Equipment Name

PN	LASER POWER, LASER COLOR, CABLE STYLE, POUCH STYLE
64000G23-01-B	High Power, Red, Single, Berry
64000G23-02-B	High Power, Red, Single, Non-Berry
64000G23-03-B	High Power, Red, Dual, Berry
64000G23-04-B	High Power, Red, Dual, Non-Berry
64000G24-01-B	High Power, Green, Single, Berry
64000G24-02-B	High Power, Green, Single, Non-Berry
64000G24-03-B	High Power, Green, Dual, Berry
64000G24-04-B	High Power, Green, Dual, Non-Berry

1.3 MANUFACTURER

Wilcox Industries Corp.
One Wilcox Way
Newington, NH 03801 USA

SECTION 2

INTRODUCTION

2.1 PURPOSE OF EQUIPMENT

The Wilcox Ballistically Optimized Sighting System - Enhanced (**BOSS Xe**) is a Class 3B high power laser aiming device that mounts to a Picatinny style 1913 rail and NATO STANAG 4694 rail. It features a fully integrated bench that houses a realigned reflex sight, red or green VIS laser, near infrared (NIR) laser, fixed NIR illuminator, and Iron Sights. The fixed NIR illuminator and room illuminator provide a tactical solution in low light combat situations. A single adjustment to the elevation and windage knobs adjusts all coaligned lasers and illuminators. Real-time data is shared with the depot's armorer between the **BTAC** User App and **BlueforceCOMMAND** Armorer's App to enhance the maintenance of the weapon.

2.2 PRODUCT DESCRIPTION

The **BOSS Xe** provides repeatable accuracy, featuring a fully integrated Reflex Sight, VIS Aiming Laser (Red - G23 Model or Green - G24 Model), IR Aiming Laser, IR Illuminating Laser, and Fixed IR Light Emitting Diode (LED) Room Illuminator. It allows the user to interchangeably utilize supersonic or subsonic ammunition by the flip of a trajectory switch without having to re-zero the weapon. A single CR123A battery powers the system.

2.3 LIST OF *BOSS Xe* MAJOR COMPONENTS

ITEM	DESCRIPTION
1.	<i>BOSS Xe</i>
2.	Carrying Pouch
3.	<i>BOSS Xe</i> Operator's and Maintainer's Manual (Not Depicted) (Download Only)
4.	<i>BOSS Xe</i> Quick Reference (Not Depicted) (Download Only)
5.	<i>ERGOCTO</i> Control Activation Keypad, 6.75", Single Cable

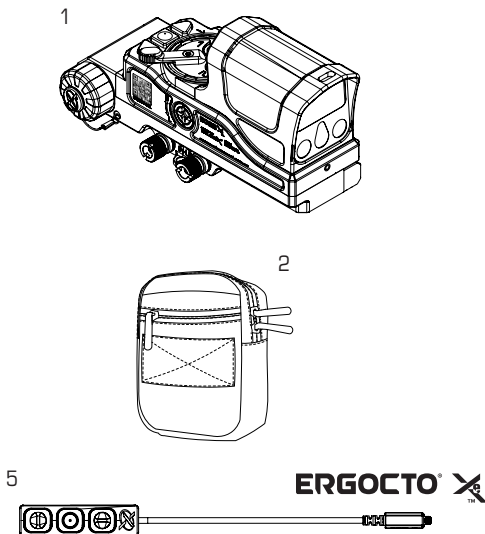


Figure 2.3-1 Major Component Identification

2.4 LIST OF *BOSS Xe* SUBCOMPONENTS AND FEATURES

ITEM	DESCRIPTION
U-1.	Optic Sight
U-2.	Primary Battery Compartment and Cap
U-3.	Windage Adjuster
U-4.	Thumbnuts (2)

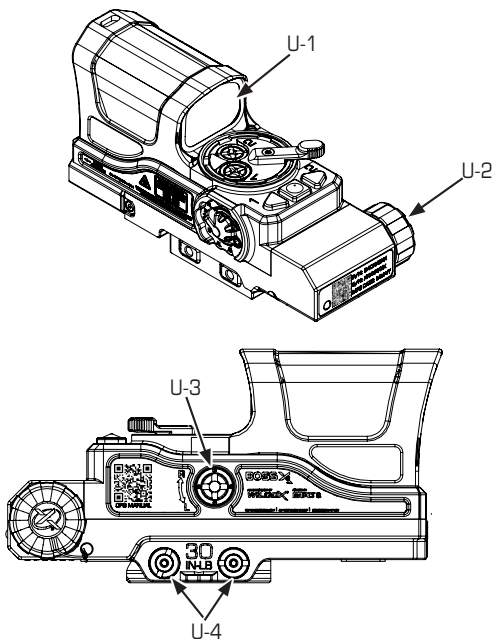


Figure 2.4-1 Subcomponent Identification - *BOSS Xe* (1 of 3)

ITEM DESCRIPTION

- U-5. Elevation Adjuster 1
- U-6. Elevation Adjuster 2
- U-7. Left Button
- U-8. Center Button
- U-9. Right Button
- U-10. Mode Selection Knob
- U-11. Trajectory Switch
- U-12. IR Aiming Laser Aperture
- U-13. VIS Aiming Laser Aperture
- U-14. IR Illuminating Laser Aperture
- U-15. IR LED Room Illuminator Aperture
- U-16. Blue High Power Lockout Screw
- U-17. Lockout Screw Retention Hole
- U-18. Laser Warning Label

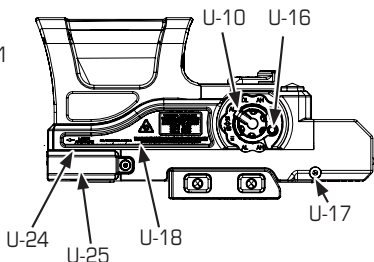
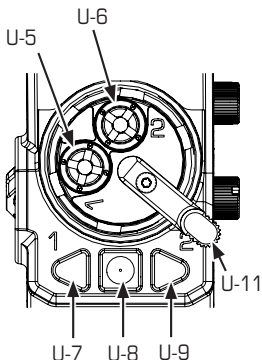
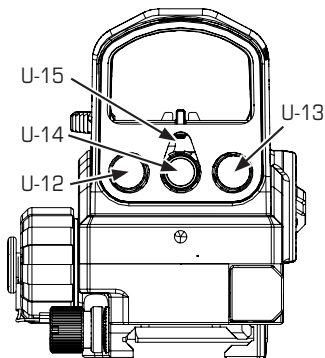


Figure 2.4-2 Subcomponent Identification - BOSS Xe (2 of 3)

ITEM DESCRIPTION

- U-19. Iron Sights
- U-20. LED Indicator
- U-21. Red Dot Sight
- U-22. Cant Indicators
- U-23. Clock Battery Compartment and Cap
- U-24. Remote Connector Port
- U-25. Remote Port Plug
- AK-1. Lens Cap

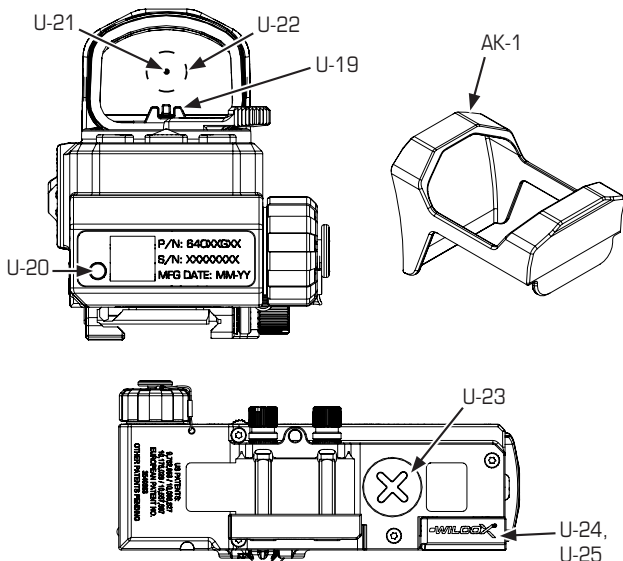


Figure 2.4-3 Subcomponent Identification - BOSS Xe (3 of 3)

ITEM	DESCRIPTION
CK-1.	Cleaning Brush
CK-2.	Cleaning Cloth
CK-3.	Xe Utility Tool
CK-4.	.050 Hex Key
CK-5.	ERGOCTO Rail Clamp
CK-6.	ERGOCTO Control Activation
CK-7.	Keypad O-ring Lens Pen

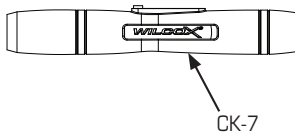
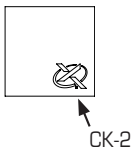
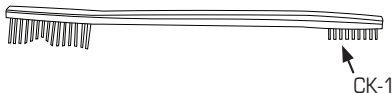
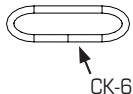
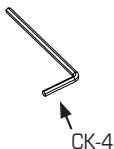
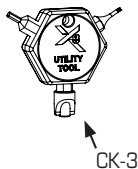
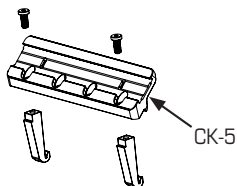


Figure 2.4-4 Cleaning Kit Identification - BOSS Xe

2.5 DESCRIPTION OF **BOSS Xe** MAJOR COMPONENTS

1. **BOSS Xe** The **BOSS Xe** features a fully integrated Optic Sight, VIS Red or Green Aiming Laser, NIR Aiming Laser, NIR Laser Illuminator, and Fixed NIR LED Room Illuminator. It allows the user to interchangeably utilize supersonic and subsonic ammunition by the flip of a single trajectory switch. The Reflex Sight, Lasers, and Illuminator are coaligned on one Optical Bench. One (1) commercial CR123A lithium battery (sold separately) powers the **BOSS Xe** (**Surefire™** brand recommended).

2. **Carrying Pouch** A Carrying Pouch is provided for stowing the **BOSS Xe** when not in use.

3. **Operator's and Maintainer's Manual for the BOSS Xe (Not Depicted) (Download Only)** The **BOSS Xe** Operator's and Maintainer's Manual outlines the use and maintenance of the **BOSS Xe**. The Manual is available for download on the Wilcox website by scanning the QR code on the **BOSS Xe**.

4. **Quick Reference for the BOSS Xe (Not Depicted) (Download Only)** The **BOSS Xe** Quick Reference summarizes **BOSS Xe** operation. The Quick Reference is available for download from the Wilcox website by scanning the QR Code on the **BOSS Xe**. The Quick Reference shall not be considered a replacement to the safety information in the Operator's and Maintainer's Manual.

5. **ERGOCTO Control Activation Keypad, 6.75", Single Cable** A three-button **ERGOCTO** Control Activation Keypad provides control of the Low Power IR Aiming Laser and IR Room Illuminator (see Figure 2.5-1). See Table 2.5-1 for operation.

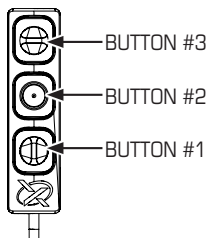


Figure 2.5-1 *ERGOCTO* Control Activation Keypad

Table 2.5-1 *ERGOCTO* Control Activation Keypad Functions

	BUTTON #1	BUTTON #2	BUTTON #3
SINGLE CABLE KEYPAD	Room Illuminator	Mirror Rotary Switch Position	Dual Low (IR Room Illuminator + Low Power IR Aiming Laser)
DUAL CABLE KEYPAD	Flashlight	Mirror Rotary Switch Position	Dual Low (IR Room Illuminator + Low Power IR Aiming Laser)

2.6 DESCRIPTION OF **BOSS Xe** SUBCOMPONENTS

U-1. Optic Sight The integrated Optic Sight is a Red Dot Sight that provides the sighting and targeting capability for the **BOSS Xe** and features multiple reticle segments which allow for shape selection. It features an IR Aiming Laser, IR Illuminator Laser, and red (G23 model) or green (G24 model) VIS Aiming Laser that provide improved targeting, day and night. The Red Dot Sight allows for daytime target acquisition. The Control Pad located on the Optic Sight allows for control of the laser, which can also be activated with the **ERGOCTO** Control Activation Keypad.

U-2. Primary Battery Compartment and Cap The Primary Battery Compartment houses one (1) CR123A battery to operate the device. The Primary Battery Compartment Cap features an O-ring to prevent debris and moisture entry and secures to the compartment with a 1/4 turn. Refer to Section 4.2 for battery installation instructions.

U-3. Windage Adjuster A Windage Adjuster allows for easy windage adjustment when boresighting or Zeroing the **BOSS Xe** to the weapon and maintains its setting until reset by the Operator. All Lasers and the Red Dot Sight move together when adjusting windage. For information on adjusting windage, refer to the Boresighting Procedure in Section 3.5.

U-4. Thumbnuts When the Rail Mount Assembly is attached to the **BOSS Xe**, Thumbnuts allow for hand adjustment of the rail mount. When in position, torque to 30 in-lb.

U-5 and U-6. Elevation Adjuster Two (2) elevation adjusters allow for separate aim points, depending on the position of the trajectory switch. Each facilitates boresighting or Zeroing the **BOSS Xe** to the weapon and maintains its setting until reset by the Operator. All Lasers and the Red Dot Sight move together when adjusting elevation. For information on adjusting elevation, refer to the Boresighting Procedure in Section 3.5.

U-7, U-8, and U-9. Left, Center, and Right Buttons The Left, Center, and Right Buttons on the Control Pad are multipurpose buttons that operate differently depending on the selected mode of operation (see Figure 2.6-1). See Table 2.6-1 for individual mode operation and Table 2.6-2 for Mode Options.

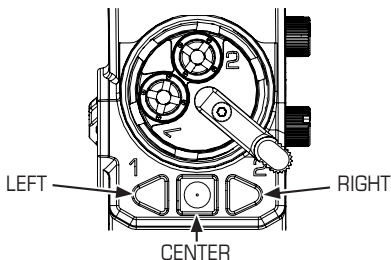


Figure 2.6-1 BOSS Xe Control Pad

Table 2.6-1 BOSS Xe Control Pad Button and Operations (by Mode)

	LEFT BUTTON	CENTER BUTTON	RIGHT BUTTON
Laser Modes: IR DH IR AH VIS AH IR DL IR AL VIS AL	Lasers Active: Decreases laser power of all active lasers. Lasers Inactive: Decreases reticle brightness.***	Turns Operational Mode Laser On/Off. Aiming Lasers are activated in the last selected power level for the power mode position. *, **	Lasers Active: Increases laser power of all active lasers. Lasers Inactive: Increases reticle brightness.***
Reticle Shape Menu: ==	Single Push: Decrease reticle brightness. Push and Hold: When reticle brightness is HIGH, jumps to mid-level brightness.	Single Push: Change reticle shape.	Single Push: Increase reticle brightness. Push and Hold: When reticle brightness is LOW, jumps to mid-level brightness.

* Single Push temporarily activates until the button is released, while rapid double push activates until pushed once again to turn off.

** Active lasers will time out after 5 minutes of continuous non-use.

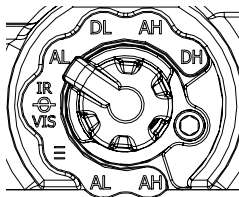
*** Changes are retained when power cycling.

Table 2.6-2 Mode Options Tree

Knob Position	MODE / FUNCTION DESCRIPTION
DH *	Dual IR Aiming Laser and Long Range IR Illuminator - High Power (Can be locked out with Blue High Power Lockout Screw)
AH *	IR Aiming Laser - High Power (Can be locked out with Blue High Power Lockout Screw)
DL	Dual IR Aiming Laser and IR LED Room Illuminator LED - Low Power
AL	IR Aiming Laser (Low Power)
OFF (IR/VIS)	Mechanical Power Off
==	Reticle Configuration * *
AL	Visible Aiming Laser - Low Power
AH *	Visible Aiming Laser - High Power (Can be locked out with Blue High Power Lockout Screw)

* High power switch positions are locked out to the user when the Mode Selection Switch is placed in a non-high power position and the Blue High Power Lockout Screw is in place (see description of Blue High Power Lockout Screw later in this section).

** Selection persists after power cycling.

**Figure 2.6-2 Mode Selection Knob**

U-10. Mode Selection Knob The Mode Selection Knob allows the Operator to select from available functional modes (see Figure 2.6-2). In the event that the Mode Selection Knob position is changed when a laser mode is active, lasers turn off. When the Mode Selection Knob is in a new laser position, the Operator will need to activate the newly selected lasers.

U-11. Trajectory Switch The Trajectory Switch mechanically changes the trajectory of the **BOSS X_e** by enabling one of the two (2) elevation adjusters, representing two pre-set points of aim. When the switch is in Position 1, the Elevation Adjuster 1 is enabled and the Elevation Adjuster 2 is disabled. When the switch is in Position 2, the Elevation Adjuster 2 is enabled and the Elevation Adjuster 1 is disabled.

U-12. IR Aiming Laser Aperture The **BOSS X_e** Optic Sight features an 850 nm IR Aiming Laser that can be used as an IR target designator for Operators while wearing NVGs. Refer to Sections S1 and 2.6 for laser specifications. When activated, the laser will automatically turn off after 5 minutes of continuous non-use.

U-13. VIS Aiming Laser Aperture The **BOSS X_e** Optic Sight features a 640 nm VIS Red Aiming Laser (G23 Model) or 520 nm VIS Green Aiming Laser (G24 Model) that is used as a target designator and boresighting aid. Refer to Sections S1 and 2.6 for laser specifications. When activated, the laser will automatically turn off after 5 minutes of continuous non-use.

U-14. IR Illuminating Laser Aperture The **BOSS X_e** Optic Sight features an 840 nm Infrared Fixed Flood Laser that can be used as an IR target illuminator for Operators while wearing NVGs. Refer to Sections S1 and 2.6 for laser specifications.

U-15. IR LED Room Illuminator Aperture The **BOSS Xe** Optic Sight features an 870 nm IR Fixed Flood LED that can be used as a room illuminator for Operators while wearing NVGs. Refer to Sections S1 and 2.6 for laser specifications.

U-16. Blue High Power Lockout Screw The removable Blue High Power Lockout Screw prevents the Mode Selection Knob from rotating to the High Power Laser modes when it is desired to prevent high power mode access. When the screw is not in use, it can be stored in the Lockout Screw Retention Hole to prevent loss of the screw.

U-17. Lockout Screw Retention Hole A threaded hole is located on the left-hand side of the **BOSS Xe** for storing the Blue High Power Lockout Screw. This prevents loss of the screw when not in use.

U-18. Laser Warning Label The Laser Warning Label identifies the laser specifications and precautions for using the **BOSS Xe**.

U-19. Iron Sights The Iron Sights provide the Operator with a backup aiming option.

U-20. LED Indicator The LED Indicator displays approximate battery life.

Table 2.6-3 LED Indicator Operational States

KEY	DESCRIPTION
Any Laser Active	On Green
Low Battery	On Red
Both Low Battery and Any Laser Active	Blink Red and Green

U-21. Red Dot Sight The **BOSS Xe** features a Red Dot Sight with an expanded reticle design that simplifies finding the reticle and can be used for scaling objects to approximate target distances. The outer ring of the reticle is 34 Minutes of Angle (MOA), which when filled corresponds to a human sized target at 200 meters. The sight features sixteen (16) available brightness settings that can be manually adjusted by pressing the Left or Right Buttons when the laser is powered off. Reticle operation is independent of lasers and will be on whether lasers are activated or deactivated.

U-22. Cant Indicators Two (2) Cant indicators are located on either side of the Display to warn the Operator that the **BOSS Xe** is canted left or right and should be brought back to level. One side arc appears to the left of the reticle, informing the Operator that the system is canted too far left. The other appears on the right of the reticle, informing the Operator that the system is canted too far right. The blinking reticle indicates that the weapon needs to be tilted to the side opposite the blinking light to return the **BOSS Xe** to a level orientation. Note that cant indication is disabled by default. Refer to section 3.7.3 for information on activating cant indication.

U-23. Clock Battery Compartment and Cap The Clock Battery Compartment is located on the bottom of the **BOSS Xe** and houses one CR1220 coin battery for powering the main system clock when the **BOSS Xe** is turned off. The estimated life of this battery is 3-5 years. The threaded Clock Battery Compartment Cap features an O-ring to prevent debris and moisture entry. Refer to Section 4.2 for battery installation instructions.

U-24. Remote Connector Port The Remote Connector Port accepts the **ERGOCTO** Control Activation Keypad. When the keypad is not in use, the Remote Port Plug is used to secure the port from debris entry.

U-25. Remote Port Plug The Remote Port Plug secures the Remote Connector Port when the **ERGOCTO** Control Activation Keypad is not in use.

AK-1. Lens Cap One (1) removable Lens Cap is included with the **BOSS Xe**, which covers the device to block emission of laser output should the lasers on the device be left on. Prior to removing the Lens Cap, always make sure the device is turned off in the event that lasers have been accidentally left on. **BOSS Xe** lasers will power off automatically after 5 minutes for safety and to prevent accidental battery drain.

CK-1. Cleaning Brush A cleaning brush is provided for removing loose dirt and debris from the mechanical components of the **BOSS Xe**. DO NOT USE THIS BRUSH FOR CLEANING THE LENSES as this may scratch the lens surface. For cleaning instructions, refer to Section 4.1.

CK-2. Cleaning Cloth A cleaning cloth is provided for removing any remaining residue from the lenses after they have been blown clean of dirt and dust. For cleaning instructions, refer to Section 4.1.

CK-3. Xe Utility Tool An Xe Utility Tool, including a 5/64 Hex Key, is provided for installing and removing the Blue High Power Lockout Screw.

CK-4. .050 Hex Key One (1) .050 Hex Key is provided for installing and removing the **ERGOCTO** Rail Clamp.

CK-5. ERGOCTO Rail Clamp An **ERGOCTO** Rail Clamp is provided to secure the **ERGOCTO** Control Activation Keypad to the side rail for ease of access to the Keypad in operation.

CK-6. ERGOCTO Keypad O-Ring A replaceable O-ring maintains the environmental seal around the Remote Port to prevent debris entry.

CK-7. Lens Pen One (1) Lens Pen is provided for gently cleaning the lenses of the **BOSS Xe** after dirt and debris have been gently blown away.

2.7 TECHNICAL DATA

Table 2.7-1 Technical Data

WEIGHT AND DIMENSIONS	
Operational Weight	0.62 lb (280.7 g)
Dimensions	2.25" W x 4.77" L x 2.66" H (5.72 cm W x 12.12 cm L x 6.76 cm H)
Operational Height Above Weapon Rail	2.41" (6.12 cm)
LASER SPECIFICATIONS	
VIS Aiming Laser LO (G23 Model)	Visible Red Laser, < 0.7 mW Max Output 640 nm Collimated to 0.25 mrad (1/e)
VIS Aiming Laser HI (G23 Model)	Visible Red Laser, 18 mW Max Output 640 nm Collimated to 0.25 mrad (1/e)
VIS Aiming Laser LO (G24 Model)	Visible Green Laser, < 0.7 mW Max Output 520 nm Collimated to 0.1 mrad (1/e)
VIS Aiming Laser HI (G24 Model)	Visible Green Laser, 18 mW Max Output 520 nm Collimated to 0.1 mrad (1/e)
IR Aiming Laser LO	Infrared Laser, < 0.7 mW Max Output 850 nm Collimated to 0.22 mrad (1/e)
IR Aiming Laser HI	Infrared Lasers, 36 mW Max Output 850 nm Collimated to 0.22 mrad (1/e)
IR Illuminator Laser LO	Infrared Laser, < 0.7 mW Max Output 840 nm Collimated to 21 mrad (1/e)
IR Illuminator Laser HI	Infrared Lasers, 36 mW Max Output 840 nm Collimated to 21 mrad (1/e)
ADDITIONAL SPECIFICATIONS	
Power Source	Lasers powered with One (1) CR123A Battery. One (1) CR1220 coin cell maintains the real time clock when the system is powered off. The estimated life of this battery is 3-5 years.
Color	Black
Water Resistance	Waterproof to 1 Meter for 30 Minutes

SECTION 3

OPERATION

3.1 MOUNTING AND DISMOUNTING THE *BOSS Xe*

The *BOSS Xe* attaches to the 12 O'Clock position of the weapon upper receiver utilizing a rail grabber, clamp, and draw bar system. The process for mounting the *BOSS Xe* to the primary weapon should always be performed by a qualified unit armorer.

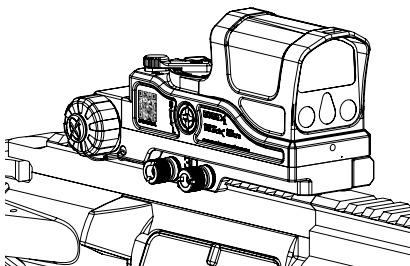
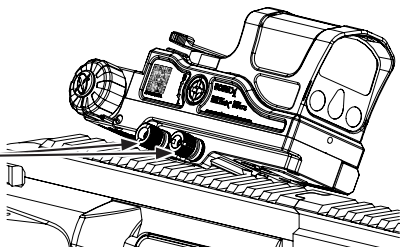
▲ **WARNING** ▲

Make sure the weapon is CLEAR and on SAFE before installing this device and its accessories on a weapon, in accordance with the weapon's operator's manual, and that the device is powered off, the Lens Cap on, and the primary battery (CR123A) removed prior to installation. Failure to do so can result in property damage, injury, and/or death.

To Mount the *BOSS Xe* to the Primary Weapon:

LOOSEN RAIL
GRABBER BY TURNING
THUMBNUTS CCW

POSITION MOUNT
ON RAIL, MAKING
SURE RAIL GRABBER
ENGAGES ON BOTH
SIDES



SECURE THUMBNUTS
BY TURNING CW AND
TORQUING TO 30 IN-LB

GENTLY PULL ON
MOUNT TO MAKE SURE
IT IS SECURE

Figure 3.1-1 Mounting the *BOSS Xe* to the Primary Weapon

To Dismount the *BOSS Xe* from the Primary Weapon:

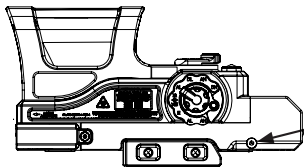
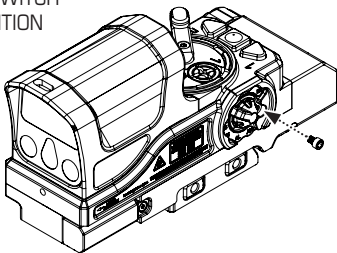
Follow mounting steps in reverse.

3.2 INSTALLING THE BLUE HIGH POWER LOCKOUT SCREW ON THE *BOSS Xe*

The Blue High Power Lockout Screw prevents accidental operation of High Power Lasers when Low Power operation is intended when positioned in the Mode Selection Switch. To prevent accidental discharge of high power lasers, install the Blue High Power Lockout Screw.

(1) PLACE MODE SELECTION SWITCH IN "OFF" POSITION

(2) INSTALL BLUE HIGH POWER LOCKOUT SCREW USING 5/64 HEX KEY HEAD OF THE *Xe* UTILITY TOOL



WHEN NOT IN USE, THREAD SCREW HERE TO PREVENT LOSS OF SCREW

Figure 3.2-1 Installing the Blue High Power Lockout Screw on the *BOSS Xe*

3.3 ATTACHING THE *ERGOCTO* CONTROL ACTIVATION KEYPAD TO THE *BOSS Xe*

The ***BOSS Xe*** is provided with an ***ERGOCTO*** Control Activation Keypad in either single or dual cable configuration as ordered, which allows operation of the selected laser(s). It attaches to the Remote Connector Port on the ***BOSS Xe*** when in use.

To Attach the *ERGOCTO* Control Activation Keypad to the *BOSS Xe*:

- Step 1.)** Remove the Remote Port Plug from the Remote Port by loosening the screw with the .050 Hex Key, provided.
- Step 2.)** Make sure the connector and port are clean of debris.
- Step 3.)** Insert sheet plastic into the port.
- Step 4.)** Press the connector into the port. Maintain pressure on the connector and tighten the screw with the .050 Hex Key.
- Step 5.)** When the connector is fully seated, pull on the plastic to remove it from the port. This creates an environmental seal.

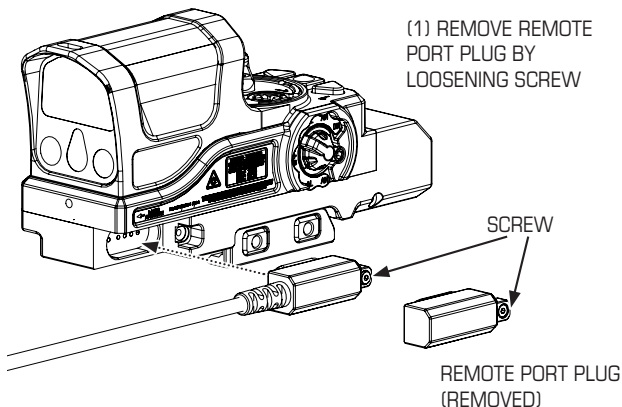


Figure 3.3-1 Attaching the *ERGOCTO* Keypad to the *BOSS Xe*

To Detach the *ERGOCTO* Control Activation Keypad from the *BOSS Xe*:

- Step 1.)** Loosen the screw and pull out the connector.
DO NOT PULL ON WIRES. DO NOT TWIST.
- Step 2.)** Reinstall the remote port plug by pushing it into the port and tightening the screw.

NOTE

The dual cable option additionally allows attachment of a Surefire flashlight. Contact Wilcox Customer Service at +1-603-431-1331 or via the website at <https://wilcoxind.com/contact> for further information.

3.4 ATTACHING THE *ERGOCTO* RAIL CLAMP TO THE WEAPON RAIL

An *ERGOCTO* Rail Clamp is provided to secure the *ERGOCTO* Control Activation Keypad to the side rail for ease of access in operation. The clamp attaches to the rail for use in any of eight (8) orientations on the rail.

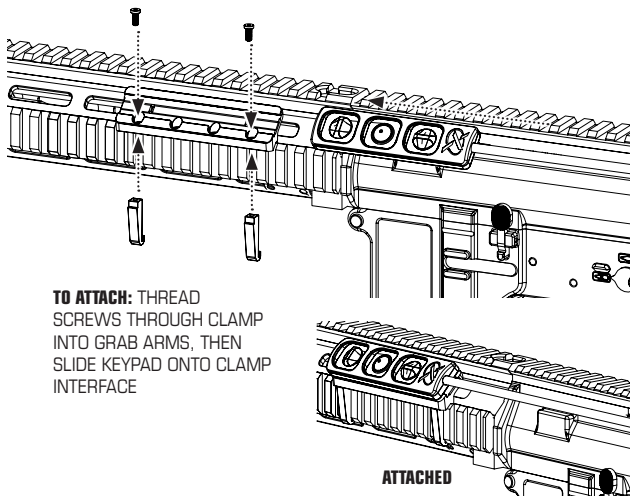


Figure 3.4-1 Attaching the *ERGOCTO* Rail Clamp to the Weapon Rail

3.5 BORESIGHTING PROCEDURE (ESTABLISHING THEORETICAL ZERO WITH A LASER BORESIGHT KIT)

The **BOSS Xe** allows for up to two (2) possible trajectories. Therefore, a laser boresight procedure is required for the shorter of the two distances, using a weapon boresight to determine the theoretical centerline of the primary weapon bore. The lasers and the Red Dot Sight are co-aligned at the factory and are all adjusted simultaneously. Whenever possible, follow with live fire to verify aiming accuracy.

To align the lasers to target at greater distances, a Zeroing procedure consisting of live fire is used.

Verify boresight any time the device is exposed to marked changes in temperature.

▲ WARNING ▲

Mounting of the *BOSS Xe* should always be performed by the unit armorer and followed with weapon boresighting. Failure to properly boresight can cause inaccurate firing, which may lead to injury or death.

■ CAUTION ■

The illuminating beam of the laser emitting from the *BOSS Xe* indicates the area of round impact, provided the boresighting procedures have been properly followed. Be aware of the direction in which the primary weapon is pointed, as well as the direction of the intended target, prior to firing a round.

NOTE

It is recommended that the **VIS Laser** be used for boresighting the **BOSS Xe** to the target.

Boresighting with a Boresight Laser:

- Step 1.)** Follow the device manufacturer's instructions and use the laser to project a simulated Point of Impact (POI) on a target at the intended distance.
- Step 2.)** After installing a battery and closing the Battery Compartment Cap, turn on the mounted **BOSS Xe**.
- Step 3.)** Turn the Windage Adjuster until the reticle is centered on the POI.
- Step 4.)** Turn the trajectory switch to activate Elevation Adjuster 1 (see Figure 3.5-1).

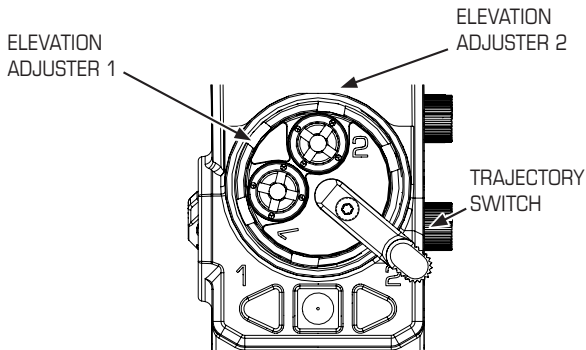


Figure 3.5-1 *BOSS Xe* Elevation Adjustment

- Step 5.)** Turn Elevation Adjuster 1 until the reticle is centered on the POI.
- Step 6.)** When setting the second zero for Position 2 on the trajectory switch, mark your second POI (on the target) in relation to the boresight point of impact.
- Step 7.)** Turn the trajectory switch to activate Elevation Adjuster 2.
- Step 8.)** Turn Elevation Adjuster 2 until the reticle is centered on the target POI (not the laser boresight POI).
- Step 9.)** The **BOSS Xe** should now be close to zeroed when firing live ammunition. Adjust as necessary when live firing.

Boresighting without a Boresight Laser:

NOTE

This method is not as accurate as using a boresight laser and will likely require the zeroing process to start at shorter distances.

Center the Elevation Adjusters and Windage Adjuster using the following procedure:

- Step 1.)** Turn the adjuster CCW until it stops.
- Step 2.)** Then turn the adjuster CW and count the number of clicks while turning the adjuster.
- Step 3.)** Divide the number of clicks by 2.

- Step 4.)** Turn the adjuster CCW by that number of clicks.
- Step 5.)** Once all three adjusters are centered, the **BOSS Xe** should be close to zeroed when firing live ammunition.

3.6 RESTORING FACTORY DEFAULTS

Restoring Factory Defaults allows the Operator to restore any original factory settings that have been modified during previous operations. This option resets the Reticle Shape, Reticle Brightness, and all Laser Steps but does NOT reset Bluetooth On/Off settings.

To Restore Factory Defaults:

- Step 1.)** Simultaneously push and hold the Center and Left Buttons while turning the device on, then release once the device is turned on.

3.7 OPERATING THE *BOSS Xe*

▲ WARNING ▲

Re-verify boresight any time the *BOSS Xe* is exposed to marked changes in temperature.

■ CAUTION ■

It is recommended that the battery be replaced and that activation procedures for the *BOSS Xe* be conducted prior to operation to ensure proper operation before going on patrol (see Section 4.2).

NOTE

After 5 minutes of inactivity, the *BOSS Xe* will go into sleep mode. The lasers will be deactivated when sleeping and will stay off after waking. Pushing any button will awaken the *BOSS Xe*.

3.7.1 Performing Daytime Engagement with the *BOSS Xe*

To Perform Daytime Engagement with the *BOSS Xe*:

- Step 1.)** Remove the Lens Cap.
- Step 2.)** Turn the Mode Selection Knob to a daytime operational position (refer to Table 2.5-2).
- Step 3.)** Acquire the target using the Optic Sight.

Step 4.) To minimize time to acquire the reticle, align the Iron Sights as described in the following section: "To Perform Engagements with the **BOSS Xe** Powered Off", and the reticle will come into view.

Step 5.) Fire the weapon.

3.7.2 Performing Nighttime Engagement with the *BOSS Xe*

To Perform Nighttime Engagement with the *BOSS Xe*:

Step 1.) Remove the Lens Cap.

Step 2.) Turn the Mode Selection Knob to the appropriate nighttime operational mode position.

Step 3.) Push the Center Button to activate the selected laser(s).

Step 4.) Align the aiming laser to the desired POI.

Step 5.) Fire the weapon.

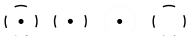
3.7.3 Changing the *BOSS Xe* Reticle Configuration

The Reticle Configuration option on the **BOSS Xe** menu allows the Operator to control reticle brightness and shape. Cant indication within the user reticle can be enabled or disabled and is disabled by default.

To Change the *BOSS Xe* Reticle Configuration:

- Step 1.)** Turn the Mode Selection Switch to the “==” (Menu) position.
- Step 2.)** **To Change Reticle Brightness**, push the Right Button to increase or the Left Button to decrease.
- Step 3.)** **To Change Reticle Shape**, push the Center Button to scroll through the list of available reticle shapes (See Table 3.7-1).

Table 3.7-1 Reticle Shape Options

DESCRIPTION	RETICLE SHAPE OPTIONS	DEFAULT
Reticle Configuration	Dot and Circle, Dot and Sides, Dot Only, Circle Only 	Dot and Circle 

- Step 4.)** **To Toggle Cant Indication ON or OFF**, push and hold the Center and Right Buttons together until the Cant Indicator changes to the desired state (e.g., if the unit has Cant Indication enabled, holding the two buttons will disable). See Table 3.7-2 for cant indicators.

Table 3.7-2 IR Aiming Laser Cant Indication

CANT INDICATION		CAUSE
Left Reticle Blinks	(	Unit Canted Left
Right Reticle Blinks	)	Unit Canted Right

3.7.4 Performing Engagements with the **BOSS Xe** Powered Off

The **BOSS Xe** can still be used to engage targets without being powered on through the use of the Iron Sights.

To Perform Engagements with the **BOSS Xe Powered Off:**

- Step 1.)** Remove the Lens Cap.
- Step 2.)** Look through the window and align the Iron Sights so that the front pin located on the optic window is centered between the two rear pins. Align all pins so that their heights match.
- Step 3.)** While maintaining the alignment of the Iron Sights, as described above, aim so that the top of the center pin is aimed at the target (see Figure 3.7-1).
- Step 4.)** Make sure the weapon is as level to the horizon as you can estimate.
- Step 5.)** Fire the weapon.

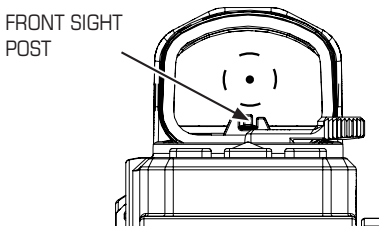


Figure 3.7-1 Iron Sights (Rear View)

3.7.5 Activating the Panic Alert

A panic alert functionality is available for the **BOSS Xe** when Bluetooth is turned on and the system is connected to a device supporting the **BOSS Xe** protocols.

To Activate the Panic Alert:

- Step 1.)** Simultaneously push the Left and Right Buttons on the **BOSS Xe** and hold for roughly three (3) seconds.
- If a Bluetooth device is connected, a Panic Alert message will be sent to it.
 - To repeat the message at roughly two-second intervals, continue to hold the buttons.

3.7.6 Enabling or Disabling Bluetooth

The **BOSS Xe** system can toggle the Bluetooth state by the device directly. The Operator will be notified of what state Bluetooth is entering by the notification LED on the back of the unit.

To Enable or Disable Bluetooth:

- Step 1.)** With the **BOSS Xe** powered off, push and hold the center button while turning the selection knob to the Menu position.
- An LED notification will indicate the configured Bluetooth State (see Table 3.7-3).

Table 3.7-3 LED Indicator Bluetooth Operational States

BLUETOOTH STATE	LED NOTIFICATION
Bluetooth Enabled	3 Green Flashes
Bluetooth Disabled	3 Red Flashes

If Bluetooth is enabled, the LED indicator will flash green once on power up.

NOTE

Bluetooth is disabled by default and is not affected when using the “Set Defaults” menu option. Although the default is “disabled”, if Bluetooth is “enabled” it will still be enabled after running the “Set Defaults” option.

SECTION 4

CARE AND MAINTENANCE

4.1 CARE OF THE *BOSS Xe*

▲ **WARNING** ▲

ALWAYS make sure the primary (CR123A) battery is removed prior to mounting the *BOSS Xe* to or dismounting it from the primary weapon or when performing maintenance.

■ **CAUTION** ■

Do not use harsh abrasives or chemicals such as acetone to clean the *BOSS Xe*. Any questions about appropriate chemicals should be directed to Wilcox Customer Service at +1-603-431-1331 or via the website at <https://wilcoxind.com/contact>.

NOTE

The Operator should perform regular maintenance as outlined in this manual. Any procedures not specifically outlined in this manual shall be performed only by a Wilcox certified maintenance technician. Performance of procedures outside of those specified in this manual will invalidate the product warranty.

Visually inspect the **BOSS Xe** for dirt, rust, and corrosion. If the display or lenses are broken or cloudy, notify the unit armorer.

Make sure the primary and clock Battery Compartment Caps and O-rings are tightly sealed and that the areas are free of sand and dirt particles. If either Battery Compartment Cap O-ring becomes cut, nicked, or torn, notify the unit armorer.

Dirt and other residue, like exposure to saltwater, may impede the mechanical operation of the **BOSS Xe**. Lightly flush with fresh water to remove any debris. Blow any residual dirt or dust free from the lenses, then wipe with the Cleaning Cloth, provided. Do not use the Cleaning Brush on the lenses. Using a soft bristled brush, remove dirt and debris from the mounting rails and controls. This should be done on a regular basis.

4.2 BATTERY REPLACEMENT

▲ **WARNING** ▲

When handling a primary weapon fitted with a *BOSS Xe*, ALWAYS keep the muzzle pointed down range and clear of all personnel.

The LED Indicator displays a solid red when the CR123A battery becomes low and alternates red and green when the CR123A battery is low and any laser is active. When this occurs, performance of the ***BOSS Xe*** will be degraded and the battery should be replaced immediately.

Replace the CR123A battery (see Figure 4.2-1) when the Battery Indicator displays.

A CR1220 battery, which is located on the bottom of the device (see Figure 4.2-2), maintains the clock for the ***BOSS Xe***. Replace this battery every 3-5 years to ensure continuous clock operation.

To Replace the Primary Battery in the *BOSS Xe*:

- Step 1.)** Remove the old CR123A battery, then inspect the Primary Battery Compartment and O-ring for damage and/or moisture. Replace the O-ring, if necessary (see Section 4.3).
- Step 2.)** Install a fresh battery, making sure that the “+” side is inserted first.
- Step 3.)** Make sure the LED Illuminator is not indicating a low battery condition.

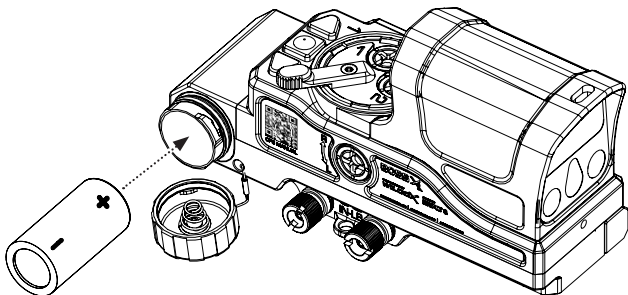
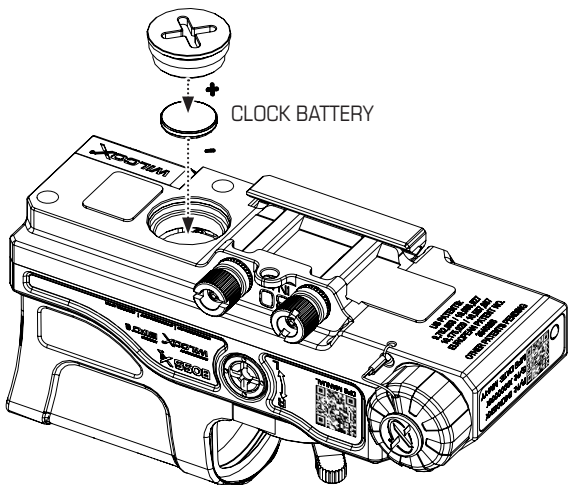


Figure 4.2-1 Replacing the Primary Battery in the *BOSS Xe*

To Replace the Clock Battery in the *BOSS Xe*:

- Step 1.)** Remove the old clock battery (CR1220 coin cell), then inspect the Clock Battery Compartment and Cap O-ring for residue and/or moisture. Replace the O-ring, if necessary (see Section 4.3).
- Step 2.)** Install a fresh clock battery, making sure that the “+” side faces out.
- Step 3.)** Reinstall the Clock Battery Compartment Cap. Make sure it is secure to prevent water entry.

**Figure 4.2-2 Replacing the Clock Battery in the *BOSS Xe***

4.3 INSPECTING AND REPLACING O-RINGS

■ CAUTION ■

Failure to maintain the O-rings may affect product performance.

The Primary Battery Compartment, Clock Battery Compartment Cap, **ERGOCTO** Control Activation Keypad, and Remote Port Plug use Buna O-rings to prevent dirt and water entry into the **BOSS Xe** Main Housing.

Age and temperature can wear Buna rubber, so O-rings should be inspected periodically to maintain proper operation of the system. O-rings are highly pliable and stretchable and can be overstretched in the process of inspection. For this reason, it is strongly advised that they be replaced whenever they are removed for proper sealing of the compartment.

O-ring replacements are available through Wilcox and should be purchased in advance of need for continued service.

- Step 1.)** Gently brush any debris away from the O-ring with the provided Cleaning Brush.
- Step 2.)** Inspect the O-ring (see Figure 4.3-1). If it is cracked, pinched, hard, dry, or feels tacky, gently remove the O-ring using a pick tool. Carefully apply Silicone Grease to both sides with the thumb and index finger and install, using caution not to overstretch or damage the O-ring.
- Step 3.)** If the O-ring does not need replacement but requires lubrication, apply Silicone Grease to the exterior surface of the O-ring without removing it.

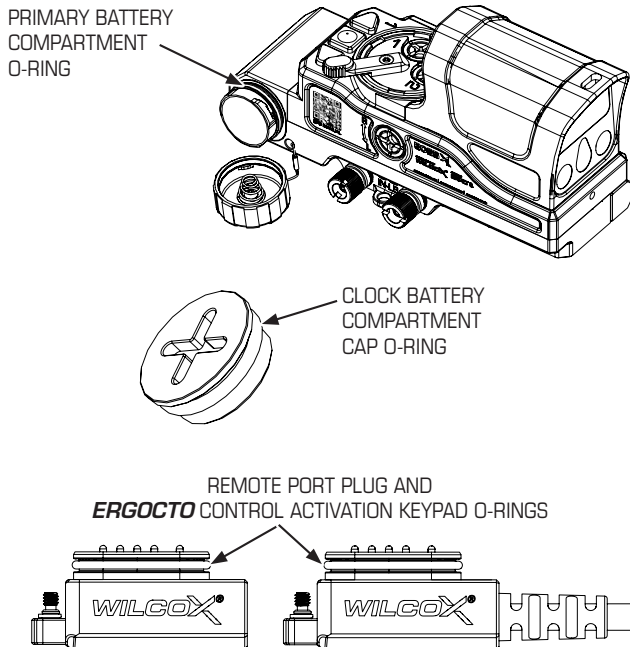


Figure 4.3-1 Inspecting and Replacing O-rings

4.4 STORAGE

■ CAUTION ■

Do not store the *BOSS Xe* with the primary battery installed.

Make sure the cleaning instructions in Section 4.1 have been followed. When the ***BOSS Xe*** is dismantled for storage, turn the Mode Selection Knob to the “OFF” position. Reattach the Lens Cap to the ***BOSS Xe*** to prevent dust and dirt entry. Remove the primary battery from the ***BOSS Xe*** and retain.

4.5 SHIPPING

Prior to shipping the ***BOSS Xe***, follow cleaning and storage instructions as described in Sections 4.1 and 4.4. Package securely in a suitable shipping container.

APPENDIX A

WARRANTY STATEMENT

A.1 STANDARD LIMITED WARRANTY

Wilcox Industries Corp. ("WX") offers a limited warranty ("Limited Warranty") that its products will be free from defects in material and workmanship under proper usage for one (1) year from the date of original shipment from WX ("Warranty Period") if purchased through an authorized sale, provided that, the product and purchasing documents are returned to WX (at user's expense) and WX will have the option (in its sole discretion) to exchange or recondition the product (subject to WX's examination and confirmation that the product is defective), and return the product via preapproved carrier at user's expense. This Limited Warranty is void if the date of manufacture which is laser engraved on the product is defaced, modified, or altered. This Limited Warranty is only for products purchased directly from WX or an authorized reseller. Items purchased via ecommerce such as Ebay, Craigslist, Amazon, or any other online marketplaces are not eligible for the Limited Warranty.

The Limited Warranty does not include damage or defects arising from improper use, maintenance, repairs, installation or storage, abuse, misapplication, vandalism, negligence, neglect, normal wear and tear, or any other circumstances over which WX has no control.

WX MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. WX SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE.

THE LIMITED WARRANTY IS YOUR SOLE AND EXCLUSIVE REMEDY FOR WARRANTY COVERAGE, WX CONDUCT, OR FOR ANY OTHER CLAIM OR CAUSE OF ACTION AGAINST WX. WX SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES WHETHER DIRECT, INCIDENTAL, CONSEQUENTIAL, OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, LABOR CHARGES, REPAIRING OTHER PRODUCTS, REPLACEMENTS, OR ANY DELAYS.

IN ADDITION, TO THE FULLEST EXTENT PERMISSIBLE BY LAW, WX SHALL NOT BE LIABLE FOR ANY INJURY OR DAMAGE TO PERSONS OR PROPERTY OF ANY KIND. IN NO EVENT SHALL WX BE LIABLE FOR DIRECT, SPECIAL, INDIRECT, PUNITIVE, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS, FUTURE REVENUE, DATA, OR ANY OTHER LOSS, REGARDLESS OF WHETHER A CLAIM OR ACTION IS ASSERTED IN CONTRACT OR TORT, WHETHER OR NOT THE POSSIBILITY OF SUCH DAMAGES HAS BEEN DISCLOSED IN ADVANCE OR COULD HAVE BEEN REASONABLY FORESEEN.

NOTWITHSTANDING ANY OTHER AGREEMENT OR UNDERSTANDING BETWEEN THE PARTIES, THE PARTIES AGREE THAT ALL LIABILITY WITH RESPECT TO A CLAIM AGAINST WX IN CONNECTION WITH OR RELATED TO ANY PRODUCT PROVIDED BY WX SHALL BE LIMITED IN DURATION TO THE WARRANTY PERIOD AND SOLELY TO DIRECT DAMAGES, AND MAY BE SATISFIED BY REPAIR OR REPLACEMENT OF NONCONFORMING PRODUCT (AS DETERMINED BY WX IN ITS SOLE AND ABSOLUTE DISCRETION), AND IN NO EVENT SHALL THE AGGREGATE RECOVERY OF ANY KIND AGAINST WX EXCEED THE LESSER OF TWENTY THOUSAND DOLLARS (\$20,000 USD) OR THE PURCHASE PRICE OF THE PRODUCT.

A.2 WARRANTY CLAIM AND SERVICE INFORMATION

For warranty claim or service work, WX must be contacted in the United States at +1 603-431-1331 to assign a Return Merchandise Authorization (RMA)/Service Call Number (SC) prior to return shipment.

After an RMA/SC number is provided, WX will accept a package at the address below, clearly marked with the number assigned as follows:

Wilcox Industries Corp.
RMA/SC # _____
One Wilcox Way
Newington, NH 03801 USA

The Wilcox product must be securely packaged, accompanied by purchasing information, a letter including sender's name, address, daytime phone number, date of manufacture, lot number, and a description of the problem or work to be performed.

APPENDIX B

ABBREVIATIONS

B.1 ABBREVIATIONS

ANSI	American National Standards Institute
<i>BOSS Xe</i>	Ballistically Optimized Sighting System - Enhanced
CAGEC	Commercial and Government Entity Code
CCW	Counterclockwise
CFR	Code of Federal Regulations
cm	Centimeter(s)
CW	Clockwise
CW	Continuous Wave
g	Gram(s)
H	Height
in-lb	Inch-Pounds
IR	Infrared
ITAR	International Traffic in Arms Regulations
L	Length
lb	Pound(s)
LED	Light Emitting Diode
m	Meter(s)
mm	Millimeter(s)
mrad	Milliradian(s)
mW	Milliwatt(s)
MOA	Minutes of Angle

NIR	Near Infrared
nm	Nanometer(s)
NOHD	Nominal Ocular Hazard Distance
NSHD	Nominal Skin Hazard Distance
OD	Optical Density
OSHA	Occupational Safety and Health Administration
POI	Point of Impact
PWM	Pulse Width Modulation
RMA	Return Merchandise Authorization
SC	Service Call Number
W	Width

APPENDIX C

SPARE PARTS

C.1 SPARE PARTS LIST

To order replacement parts, contact the Wilcox Sales Department at +1-603-431-1331. Please specify your product color when ordering.

NOTE

Wilcox supplies "Non-Berry"-compliant tactical pouches unless specified prior to ordering.

Note the repair type specified for the following replacement parts is identified as follows:

- **Field** – Can be changed out at the field level.
- **Armorer** – Can be changed out by the unit armorer.
- **Factory** – A change that occurs at the factory level only.

Table C-1 Spare Parts List

PART NO	DESCRIPTION	REPAIR TYPE	REFERENCE
65334G02	BATTERY CAP ASSEMBLY	FIELD	Page 7
F3014	BATTERY COMPARTMENT O-RING	FIELD	Page 44
F1424	BRUSH, ALL PURPOSE	FIELD	Page 10
65325G01	UTILITY TOOL - XE	FIELD	Page 10
F1968	CLOTH OPTICAL MICROFIBER	FIELD	Page 10
F2509	POUCH - 7 X 5 X 2.25 COYOTE NON-BERRY COMPLIANT	FIELD	Page 6
F2770	OR POUCH - 7 X 5 X 2.25 COYOTE BERRY COMPLIANT		
F2481	HIGH POWER LOCKOUT SCREW (BLUE)	FIELD	Page 8
65335G16	ERGOCTO XE SINGLE 3 BUTTON ACTIVATION KEYPAD - 6.75" CABLE	FIELD	Page 6
F3360	.050 HEX KEY	FIELD	Page 10
68405G01	ERGOCTO XE RAIL CLAMP	FIELD	Page 10
F3517	ERGOCTO XE KEYPAD O-RING	FIELD	Page 10
F799-P-015	BATTERY CAP ASSEMBLY O-RING	FIELD	Page 44

*For non-standard pouches, please specify when ordering.

"Our Customer's Life Depends on It"™



Manufactured by:

WILCOX®

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Newington, NH 03801 USA**

Phone: +1 603-431-1331

Fax: +1 603-431-1221



Visit us at: WWW.WILCOXIND.COM

**For troubleshooting service questions,
contact Wilcox between 8am and 5pm EST.**