Operator's and Maintainer's Manual for the WILCOX® *Ruggedized Aiming/Illumination Device*

RAID X™

PNs:
65300G02 - Green Laser

65300G03 - Red Laser
(NSN: 1240-01-687-2256)

CAGEC: 004F1

WARNING

You are required to thoroughly read all instructions and product safety information in the RAID-X 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 by contacting Wilcox Customer Service at 603-431-1331.

This manual and product contain technical data as defined in the International Traffic in Arms Regulations ITAR 22 CRF 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.

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

WARNING

Laser Safety

- ***The RAID-X features Class 3B laser products which emit visible and infrared laser radiation from the front end of the device. Both visible and infrared laser light can be dangerous if misused. Laser light reflected or refracted off mirrored surfaces may be equally harmful.***
  - ***Never stare into a laser.***
  - ***Never point lasers at someone's eyes.***
  - ***Do not aim lasers at personnel or mirrored surfaces.***
  - ***Never point the lasers at other persons as Class 3B lasers may cause skin irritation.***
  - ***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.***
- ***Visible and infrared laser beams are more visible 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.***
- ***Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.***

- *Removing the Blue Lock Out Screw from the Mode Selection Switch may allow accidental exposure to high powered lasers. When high power operation is not intended, always keep the Lock Out Screw in place.*
- *Ensure that the weapon is CLEAR and on SAFE before installing the RAID-X on a weapon, in accordance with the weapon's Operator's Manual, and that the RAID-X is powered off, lens cap on prior to installation. Failure to so can result in property damage, injury, and/or death.*
- *Operation without the Blue Lock Out Screw allows the RAPTAR-S to function in High Power mode. High Power mode increases laser radiation which can cause damage or injury.*

WARNING

Usage Safety

- *Wilcox strongly recommends reviewing the operational and maintenance procedures outlined in this manual prior to operating the device.*
- *Always ensure that the primary battery is removed prior to mounting the RAID-X to, or dismounting it from the primary weapon or when performing service.*
- *When mounting the RAID-X to a weapon, or to a new rail position, it is necessary to properly boresight the RAID-X to the weapon to ensure aiming accuracy.*

- *When handling a weapon fitted with a RAID-X, ALWAYS keep the muzzle pointed down range and clear of all personnel.*
- *Failure to maintain the O-Ring may affect product performance.*
- *In the event of a detected built-in test failure, contact Wilcox Industries at 603-431-1331 and do not use this product.*
- *Ensure that the weapon is CLEAR and on SAFE before mounting or dismounting the RAID-X.*

WARNING

Battery Safety

- *Lithium batteries should be handled in the following manner:*
  - *If the battery compartment becomes hot to touch and you hear 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.*
  - *Batteries have a safety vent to prevent explosion. When they are venting gas, you will smell gas, your eyes may become irritated, and/or you may hear the sound of gas escaping. When safety vents have operated, batteries are fairly safe from bursting, but will be hot and must be handled with care.*
  - *DO NOT use batteries, which look bulged or have burst. Turn these batteries in to your Property Disposal Office. Contact your Unit Safety Officer for help with bulged or burst batteries.*

- ***DO NOT use water to extinguish lithium battery fire if a shock hazard exists due to high voltage electrical equipment in the immediate vicinity (i.e., greater than 30 volts alternating current (AC) or direct current (DC).***

CAUTION

Battery Safety

- ***Do not store the RAID-X with battery installed.***
- ***When opening or closing the battery compartment, ensure that moisture is not allowed into the compartment.***

CAUTION

- ***It is recommended that the battery be replaced and that activation procedures for the RAID-X be conducted prior to operation to ensure proper operation prior to use (see Section 4.2).***

Laser Safety

- ***The RAID-X G02 and G03 Models feature class 3B lasers with a maximum output power of 80 mw. Refer to the front of this document for eye safety specifications. ALWAYS turn off the RAID-X and replace lens covers when the unit is not in use. Follow all eye and skin safety guidelines for Class 3B lasers to avoid injury to the operator or others.***
- ***When boresighting the RAID-X to the target, it is recommended that only the Visible Laser be used.***

NOTE

Usage Safety

- *This manual should always accompany the product and be transferred with it upon change of ownership.*
- *Ensure that the Mode Selection Knob is set to the 'OFF" position when not in use to avoid inadvertent battery drain.*
- *A Laser Boresight Kit is required for optimal zeroing to the weapon.*

NOTE

Maintenance Safety

- *Do not use harsh abrasives or chemicals such as acetone to clean the RAID-X. Clean only as instructed in Section 4.1.*
- *Adjustments or attempted repairs to the RAID-X other than those expressly described in this manual will void the warranty.*

Battery Safety

- *Periodically inspect the Battery Compartment o-ring. If a Battery Compartment Cap o-ring becomes cut, nicked or torn, notify unit armorer.*

S4. Laser Radiation Output Parameters

Table S4-1. *RAID-X* Laser Safety Parameters

RAID X G02						
	VIS Aim		**IR Aim**		**IR Illuminator**	
	Low	**High**	**Low**	**Max**	**Low**	**Max**
Wavelength (nm)	515		850		860	
Class	2	3B	1	3B	1	3B
Power (mW)	<0.7	25	<0.7	30	<0.7	80
Beam Divergence (1/e) (mrad)	0.21		0.28		13	
NOHD (m)	0	164	0	155	0	5
NSHD (m)	0	0	0	0	0	0
NOHDe (m)	0	1094	0	907	0	31

RAID X G03						
	VIS Aim		**IR Aim**		**IR Illuminator**	
	Low	**High**	**Low**	**Max**	**Low**	**Max**
Wavelength (nm)	635		850		860	
Class	2	3B	1	3B	1	3B
Beam Power (mW)	<0.7	55	<0.7	30	<0.7	80
MPE (W/cm^2)	0.0026		0.001995		0.002089	
Divergence (1/e) (mrad)	0.21		0.28		13	
NOHD (m)	0	245	0	155	0	5
NSHD (m)	0	19	0	0	0	0
NOHDe (m)	0	1633	0	907	0	31

OPERATOR'S AND MAINTAINER'S MANUAL TO SOFTWARE VERSION CROSS-REFERENCE

The *RAID-X* features built-in software. When utilizing any version of the *RAID-X*, it is critical to reference the correct version of the Operator's and Maintainer's Manual for the software version that you are using. The following table provides a cross-reference for verifying the correct *RAID-X* software revision to the correct version of the Operator's Manual.

Manual Rev.	***RAID-X* Software Rev.**
A-1, A-2, A-3, A-4	2.00

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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 *Ruggedized Aiming/Illumination Device (RAID-X)*.

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: Marketing Department, Wilcox Industries, Corp., One Wilcox Way, Newington, NH 03801. To submit feedback by e-mail, visit *www.wilcoxind.com*.

SECTION 1

OVERVIEW

1.1 GENERAL SAFETY WARNINGS

The *RAID-X* should not be used by anyone unfamiliar with its operation. This manual contains specific operating and maintenance instructions which the operator should become familiar with before actual field usage.

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.** You must familiarize yourself with the entire contents of this Operator's and Maintainer's Manual before using the *RAID-X*. All general text, WARNINGS, CAUTIONS and NOTES should be strictly followed.

This manual is intended to provide you with information relevant to the operation of the *RAID-X* and is not a substitute for the information contained in the Operator's and Maintainer's Manual issued by the manufacturer of any 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 *RAID-X* and the weapon.

Laser Radiation Danger

Lasers built into the *RAID-X* emit visible and/or infrared laser radiation from the front end of the device (see Section 2.6 for technical data). Both visible and infrared laser light can be dangerous if misused. **Direct eye exposure may cause permanent eye damage, including blindness.** Laser light reflected or refracted off mirrored 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 mirrored surfaces.
- Do not look at a laser beam through telescopes, binoculars, scopes, etc.

First Aid

Administer first aid in accordance with local procedures.

G02 Model

G03 Model

Figure 1.1–1 *RAID-X* Laser Safety Marking

SECTION 2

INTRODUCTION

2.1 PRODUCT DESCRIPTION

The Wilcox *RAID-X* is a multi-laser, small arms weapon mounted, pointing, aiming and illumination system, designed to improve target acquisition and illumination for the operator when mounted to a MIL-STD-1913 or STANAG 4694 NATO rail. It features visible and Near IR (NIR) aiming lasers for target acquisition in day or night conditions. It also features both an NIR Short Range Illuminator and an NIR Long Range Illuminator (see Table 2.6-1 for laser specifications). It attaches to the 9, 12, and 3 O'clock positions of the primary weapon and features a built-in shot counter that provides a total round count for the system over its lifetime.

The *RAID-X* provides a proven nighttime fighting capability through the use of an infrared aiming laser. It features an OLED display screen that varies in brightness by means of a built-in light sensor or through manual adjustment by the operator and is powered by a single CR123 Lithium battery (sold separately).

The *RAID-X* is designed to allow operation with a gloved hand and to minimize snag hazard during operation. No special tools are required for mounting or operating the *RAID-X.*

2.2 LIST OF *RAID-X* MAJOR COMPONENTS

1. *RAID-X*
2. Carrying Pouch
3. Operator's and Maintainer's Manual
4. Quick Reference
5. Remote Trigger
6. 1/16 Hex Key

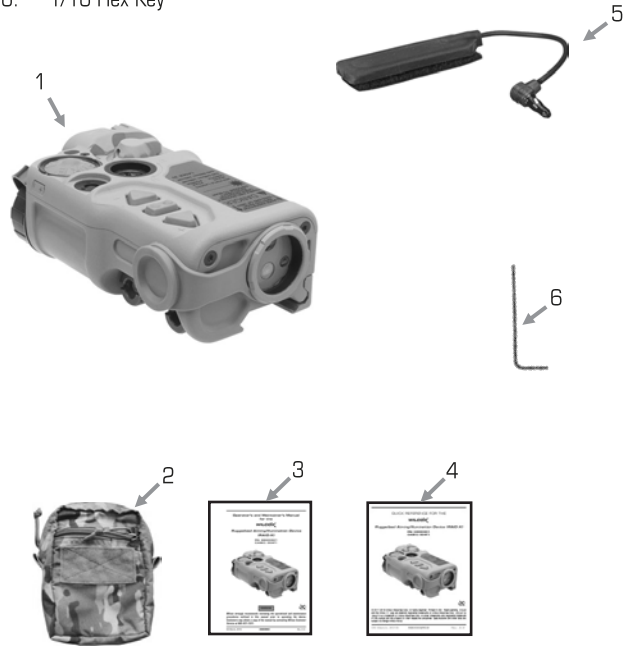


Figure 2.2–1 Major Component Identification

2.3 LIST OF *RAID-X* SUBCOMPONENTS AND ANCILLARIES

COMPONENTS:

C-1. Windage Adjustment Knob
C-2. Elevation Adjustment Knob
C-3. Mode Selection Knob
C-4. Up Button
C-5. Center Button
C-6. Down Button
C-7. FIRE Button
C-8. IR Flood Focus Wheel
C-9. Blue High Power Lock Out Screw
C-10. Blue High Power Lock Out Screw Storage Port
C-11. Light Sensor
C-12. Near IR Long Range Illuminator Port
C-13 Near IR Aiming Laser (Pointer) Port
C-14. Visible Aiming Laser (Pointer) Port
C-15. Near IR Short Range Illuminator Port
C-16. Lens Cover
C-17. Lens Cover Attachment Ring
C-18. Thumb Screws (2)
C-19. Rail Grabbers (2)
C-20. Remote Trigger Connection Port
C-21. Adjustable Window Shroud and Display
C-22. Battery Compartment & Cap
C-23. Laser Warning Label

CLEANING KIT:

CK-1 Cleaning Brush
CK-2. Cleaning Cloth

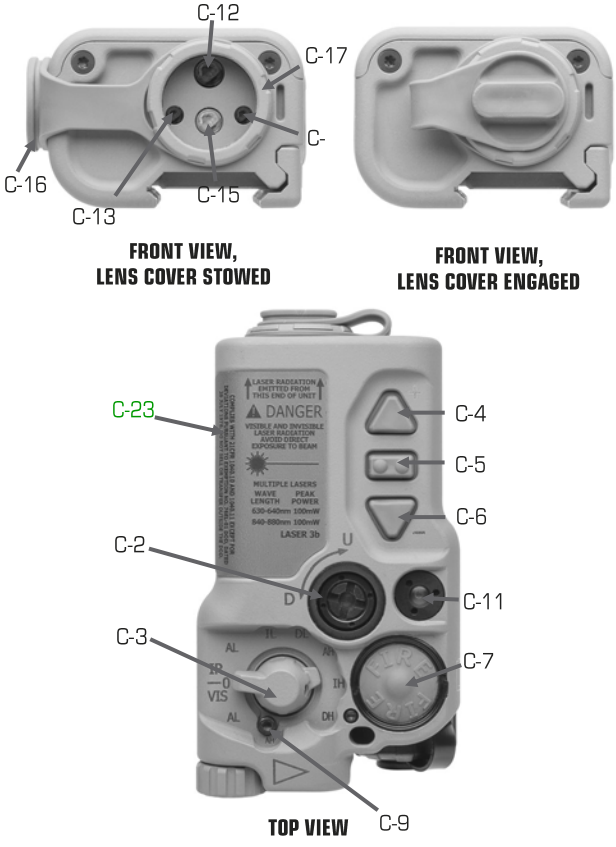


Figure 2.3–1 Subcomponent Identification - *RAID-X* (1 of 2)

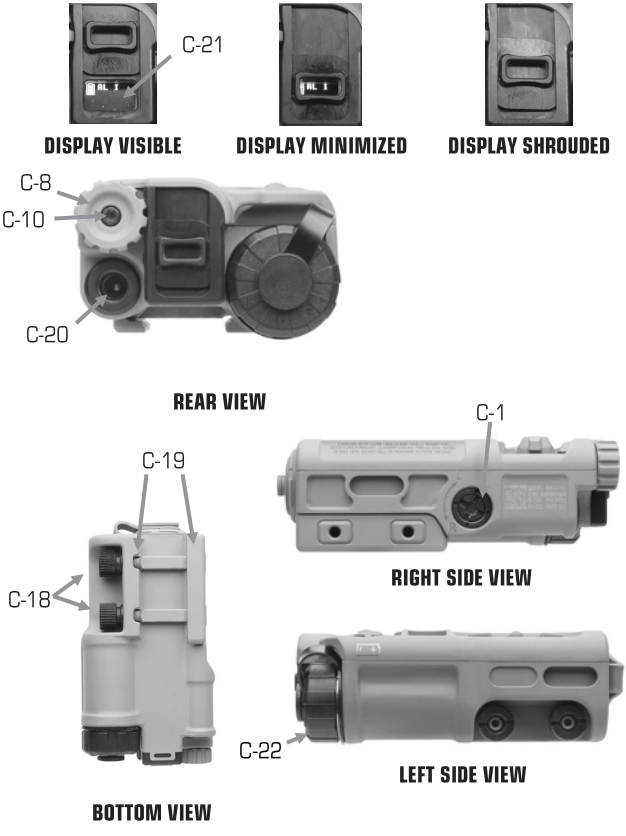


Figure 2.3–2 Subcomponent Identification - *RAID-X* (2 of 2)

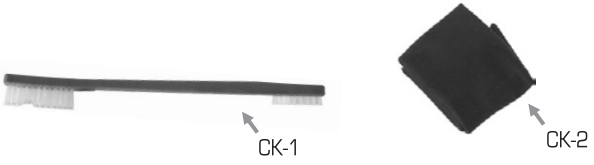


Figure 2.3–3 Cleaning Kit Identification - *RAID-X*

2.4 DESCRIPTION OF *RAID-X* MAJOR COMPONENTS

1. Ruggedized Aiming/Illumination Device (*RAID-X*). The *RAID-X* features an IR Pointer Laser and IR Flood Illuminator that provide invisible targeting at close quarters and at distance. An IR Pointer Laser and IR Flood Illuminators for near and far distance provide targeting at night when used with NVGs. Boresighting is accomplished using the Visible Pointer laser and once performed all lasers will be zeroed to the weapon. One (1) commercial CR123 lithium battery (sold separately) powers the *RAID-X* (Surefire ™ brand recommended).

2. Carrying Pouch. A Carrying Pouch is provided for stowing the *RAID-X* when not in use.

3. Operator's and Maintainer's Manual. A printed copy of the *RAID-X* Operator's and Maintainer's Manual outlines the use and maintenance of the *RAID-X.*

4. Quick Reference. A printed copy of the *RAID-X* Quick Reference summarizes *RAID-X* operation and is designed to be taken out into the field for quick reference. It is printed on water resistant paper to resist environmental degradation. The Quick Reference shall not be considered a replacement to the safety information in this Operator's Manual.

5. Remote Trigger. A Remote Trigger is provided with the *RAID-X* for operation of the *RAID-X* and an optional SureFire flashlight (purchased separately).

6. 1/16 Hex Key. One 1/16 Hex Key is provided for installing and removing the blue Lockout Screw.

2.5 DESCRIPTION OF *RAID-X* SUB-COMPONENTS

C-1. Windage Adjustment Knob. A Windage Adjustment Knob allows for easy windage adjustment when boresighting or Zeroing of the *RAID-X* to the weapon and maintains its setting until reset by the operator. All Lasers move together when adjusting windage. For information on adjusting Windage, refer to the Boresighting Procedure in Section 3.5.

C-2. Elevation Adjustment Knob. An Elevation Adjustment Knob allows for easy elevation adjustment when boresighting or Zeroing the *RAID-X* to the weapon and maintains its setting until reset by the operator. All Lasers move together when adjusting elevation. For information on adjusting elevation, refer to the Boresighting Procedure in Section 3.5.

C-3. Mode Selection Knob. A Mode Selection Knob allows the operator to select the operational mode of the *RAID-X*. When the Mode Selection Knob is set to a selected mode of operation, the display indicates the selected operational mode (see Table 2.5-1).

C-4 - C-6. Up / Center / Down Buttons. The Up, Center and Down Buttons are multi-purpose buttons that operate differently depending on the selected mode of operation as defined in Table 2.5-2.

C-7. FIRE Button. A Fire Button activates the selected laser as defined in Table 2.5-1. Single tap of the Fire Button emits selected laser until the button is released, while double tap activates the selected laser until it is deactivated with another press of the Fire Button.

Table 2.5-1. Mode Selection Options

KNOB POSITION	OLED DISPLAY	LOCKOUT AVAILABLE	MODE / FUNCTION DESCRIPTION
OFF		NO	*RAID-X* Power Off
AL	AL I	NO	Low Power IR Aiming Laser (Pointer)
IL	IL I	NO	Low Power IR Short or Long Range Illuminator*
DL	DL I	NO	Low Power IR Aiming Laser (Pointer) and IR Short or Long Range Illuminator*
AH	AH I	YES	High Power IR Aiming Laser (Pointer)
IH	IH I	YES	High Power IR Long Range Illuminator
DH	DH I	YES	High Power IR Aiming Laser (Pointer) and IR Long Range Illuminator
AH	AH V	YES	High Power Visible Aiming Laser (Pointer)
AL	AL V	NO	Low Power Visible Aiming Laser (Pointer)

* Low Power IR Illuminator distance is selected within the "Illum" option on the Function Menu.

C-8. IR Long Range Illuminator Focus Wheel. Allows the operator to adjust the size of the Infrared Long Range Illuminator beam aperture from a Wide Field of View (WFOV) of 110 milliradians (6 degrees), to a Near Field of View (NFOV) spot of 20 milliradians (1/2 degree). Refer to Table S4-1, for laser safety specifications.

C-9. Blue High Power Lock-Out Screw. A removable Blue High Power Lock-Out Screw prevents the Mode Selection Knob from rotating to the High Power modes (AH, IH and DH) when it is desired to prevent mode access. When the Lock-Out Screw is not installed, the knob will rotate to any mode selected by the operator and the screw can be stored in the Lock-Out Screw Storage Port.

C-10. Blue High Power Lock-Out Screw Storage Port. A small threaded storage port is located in the center of the Focus Wheel to prevent loss of the screw when not in use.

Table 2.5-2. Button Operations (by Mode)

MODE SELECTION SWITCH POSITIONS	FIRE BUTTON OPERATION *	UP BUTTON OPERATION **	CENTER BUTTON OPERATION ***	DOWN BUTTON OPERATION **
AL (IR or Visible)	Low Power Aiming Laser On/Off	In Adjust Mode, increases Aiming Laser Power one step.	Enter/Exit Adjust Mode	In Adjust Mode, decreases Aiming Laser power by one step
IL	Low Power Illuminator On/Off	In Adjust Mode, increases Illuminator power by one step	Enter/Exit Adjust Mode	In Adjust Mode, decreases Illuminator power by one step
DL	Both Low Power Aiming Laser and Illuminator On/Off	In Adjust Mode, increases Short Range Illuminator or Aiming Laser power by one step.	Enter/Exit Adjust Mode for Pointer or Illuminator	In Adjust Mode, decreases Illuminator or Aiming Laser power by one step.
AH (IR or Visible)	High Power Aiming Laser On/Off	In Adjust Mode, increases Aiming Laser power by one step.	Enter/Exit Adjust Mode	In Adjust Mode, decreases Aiming Laser power by one step.
IH	High Power Long Range Illuminator On/Off	In Adjust Mode, increases Illuminator Power by one step.	Enter/Exit Adjust Mode	In Adjust Mode, decreases Illuminator Power by one step.
DH	Both High Power Aiming Laser and Long Range Illuminator On/Off	In Adjust Mode, increases Illuminator or Aiming Laser power by one step.	Enter/Exit Adjust Mode for Pointer or Illuminator	In Adjust Mode, decreases Illuminator or Aiming Laser power by one step.
[FUNCTION MENU] **	Laser on/off for the selected operational mode.	Scroll up through available options	Select the Currently Highlighted Option	Scroll down through available options

* Single tap of the Fire Button emits selected laser until the button is released, while double tap activates the selected laser until it is deactivated with another press of the Fire Button.

** Pressing the Up and Down Buttons simultaneously accesses the *RAID-X* Function Menu. Note that the Function Menu is not available while laser is powered on.

*** When Laser is off and not in Function Menu, toggles between short and long Illuminator.

C-11. Light Sensor. A Light Sensor located on the top of the *RAID-X* senses ambient light for determining the brightness of the Display. Covering the Light Sensor, may cause the display to become too dim for use in bright conditions.

C-12. Near IR Long Range Illuminator Port. The *RAID-X* features a bright Near Infrared Flood Illumination Laser that can be used as a covert (distant) target illuminator for use in the high power modes while wearing NVGs. Refer to Sections S4, and 2.6 for laser specifications and Section 1.1 to identify the laser safety label.

C-13. Near IR Aiming Laser (Pointer) Port. The *RAID-X* features a Near Infrared Aiming Laser that can be used as a covert target designator for use while wearing NVGs. Refer to Sections S4, 1.1 and 2.6 for laser specifications.

C-14. Visible Aiming Laser (Pointer) Port. The Visible Aiming Laser is used as a target designator and boresighting aid. Refer to Sections S4, and 2.6 for laser specifications and Section 1.1 to identify the laser safety label.

C-15. Near IR Short Range Illuminator Port. The Near Infrared LED illuminator can be used for close quarters (room) illumination for use while in the low power modes. Refer to Sections S4 for illuminator specifications.

C-16. Lens Cover. When the *RAID-X* is not being used, the Lens Cover stows on the lens port of the unit to keep the optics clean and to prevent accidental laser emissions. During operation, it stows on the left or right side of the unit to prevent loss.

C-17. Lens Cover Attachment Ring. The Lens Cover Attachment ring secures the Lens Cover loop to prevent loss of the cover and allows the operator to slip the cover off and on for easy replacement of the Lens Cover.

C-18. Thumb Screws (2). Two thumb screws on the integrated Rail Mount Assembly enables mounting the *RAID-X* to the weapon using a torque specification of 30 in-lbs (see Section 3.1).

C-19. Rail Grabbers (2). The Rail Grabbers of the rail mount attach to the MIL-STD-1913 rail of the primary weapon for mounting the *RAID-X*. One is affixed to the *RAID-X* and the other floats for attachment to the rail. The *RAID-X* is secured to the weapon by means of two thumb screws (see Section 3.1).

C-20. Remote Trigger Connection Port. Accepts the connector of the Remote Trigger. The port is conveniently located behind and to the left of the Display.

C-21. Adjustable Window Shroud and Display. The *RAID-X* features an OLED display that displays up to three rows of 6-character text information to the user. View of the display is adjustable by sliding the Window Shroud to minimize light output for nighttime operations. The shroud can slide completely out of the way for full screen display. It can also either partially or completely shroud the screen to prevent light output.

C-22. Battery Compartment & Cap. A threaded Battery Compartment Cap on the *RAID-X* allows the operator to access the Battery Compartment and secures the battery in place when closed. The internal battery compartment houses one (1) CR123 lithium battery (sold separately). Refer to Section 4.2 for battery installation instructions.

C-23. **Laser Warning Label.** A Laser Warning Label identifies the laser specifications and precautions for using the *RAID-X*.

CK-1. **Cleaning Brush.** A cleaning brush is provided for removing loose dirt and debris from the mechanical components of the *RAID-X*. DO NOT use the 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.

2.6 TECHNICAL DATA

Table 2.6-1. Technical Data

WEIGHT AND DIMENSIONS	
Operational Weight (w battery)	Less than 153.09 gr, (5.4 oz)
Cubic Size	Less than 9 in^3
LASER SPECIFICATIONS	
VIS Pointer (G02)	Class 3B Visible Green Laser, 25 mW Max Output - HIGH Class 2 Visible Green Laser, <0.7 mW Max Output - LOW 515nm Collimated to <.5 mrad
VIS Pointer (G03)	Class 3B Visible Red Laser, 55 mW Max Output - HIGH Class 2 Visible Red Laser, <0.7 mW Max Output - LOW 635nm Collimated to <.5 mrad
NIR Pointer	Class 3B Infrared Laser, 30 mW Max Output – HIGH Class 1 Infrared Laser, <0.7 mW Max Output - LOW 850 nm Collimated to <.5 mrad
NIR Near Fixed Illuminator (Low Power IR Modes)	LED, 22 mW Max Output 870 nm 20 Degree FOV
NIR Distance Variable Illuminator (High Power IR Modes)	Class 3B Infrared Laser, 80 mW Max Output – HIGH Class 1 Infrared Laser, <0.7 mW Max Output - LOW 860 nm Variable Collimation from 20 mrad to 75 mrad
TEMPERATURE SPECIFICATIONS	
Operating Temperature Range	-4° F (-20° C) to 140° F (60° C)
Storage Temperature Range	-40° F (-40° C) to 160° F (71° C)
ADDITIONAL SPECIFICATIONS	
Power Source	One (1) CR123 Lithium Battery (sold separately); Wilcox recommends the Surefire Lithium CR123 battery.
Display	72x 40 Pixel OLED
Color	Black or Coyote Brown Matte Finish
Low Pressure Altitude	25,000 Feet Above Sea Level
Water Resistance	Saltwater Depth, 33 Feet for One (1) Hour

SECTION 3

OPERATION

3.1 MOUNTING AND DISMOUNTING THE *RAID-X*

The *RAID-X* features a built-in Rail Mount that allows the *RAID-X* to attach to the MIL-STD-1913 rail of the primary weapon by means of two (2) Thumb Nuts and a rail grabber.

WARNING

Ensure that the weapon is CLEAR and on SAFE before installing the RAID-X on a weapon, in accordance with the weapon's Operator's Manual, and that the RAID-X is powered off, lens cap on prior to installation. Failure to so can result in property damage, injury, and/or death.

To Mount the *RAID-X* to the Primary Weapon:

Step 1.) Fully unthread the two Lock Nuts CCW to loosen the rail grabber.

Step 2.) Attach the *RAID-X* floating rail to the MIL-STD-1913 rail of the weapon.

Step 3.) Pivot the *RAID-X* downward so that it sits flat on the weapon rail and the opposite rail grabber is positioned to engage.

Step 4.) Rotate the locking screws CW, alternating between nuts for even distribution, using a blade screwdriver or coin. 30 in/lb is recommended. Attempt to remove the *RAID-X* from the rail by pulling to ensure that it is securely attached. If not properly attached, retighten.

To Dismount the *RAID-X* from the Primary Weapon:

Carefully grasp the *RAID-X* then unthread the mounting nuts CCW to allow the locking plate to slide, using caution not to release the nuts from the screw. Rotate the *RAID-X* away from

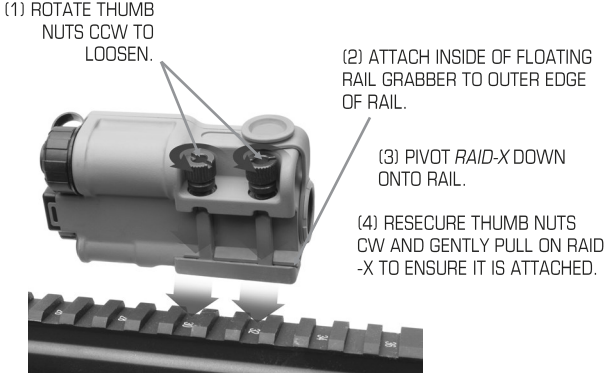
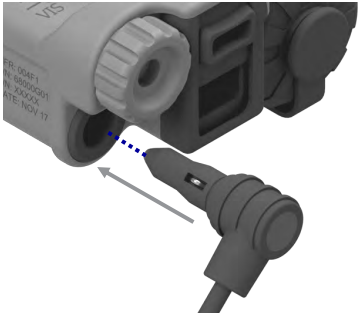


Figure 3.1–1 Mounting the *RAID-X* to the MIL-STD-1913 Rail (0900 Mounting Depicted)

3.2 ATTACHING THE REMOTE TRIGGER TO THE *RAID-X*

The *RAID-X* features a Remote Trigger that allows operation of the selected lasers. It attaches to the Remote Trigger Port on the RAID-X when in use.



TO ATTACH: INSERT REMOTE TRIGGER INTO REMOTE CONNECTOR PORT AND PRESS UNTIL IT CLICKS.

TO DETACH: GRASP THE HEAD OF THE CONNECTOR AND PULL OUTWARD. DO NOT PULL ON WIRES.

Figure 3.2–1 Attaching the Remote Trigger to the *RAID-X*

3.3 POWERING ON THE *RAID-X*

To Power On the *RAID-X* :

Step 1.) Ensure that the *RAID-X* is securely mounted.

Step 2.) Rotate the Mode Selection Knob to select the desired mode of operation. When the power is on in any mode, the Display illuminates. The active mode of the laser is displayed on the top of the screen (see Figure 3.3-1). If the *RAID-X* display indicates that a low battery condition exists when powered on, replace the battery as described in Section 4.2.

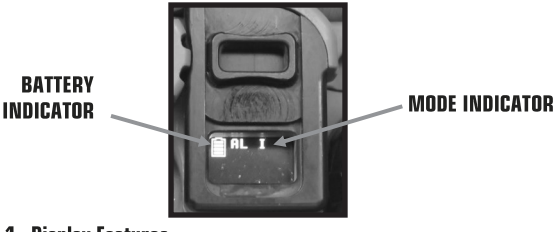


Figure 3.3–1 Display Features

3.4 CONFIGURING USER FUNCTION SETTINGS

The *RAID-X* provides a Function Menu that allows the operator to display and/or configure a variety of *RAID-X* attributes (see Table 3.4-1). Press the Up and Down buttons simultaneously to enter or exit the Function Menu.

Figure 3.4–1 Function Menu

The "Bright" function allows the operator to set the display brightness to automatically dim and brighten in accordance with ambient light, or to a manually set value. To quickly restore the *RAID-X* to automatic brightness, press and hold the Up and Down Buttons while powering on the system.

Table 3.4-1. Function Menu Options

FUNCTION	DESCRIPTION	VALUES	DEFAULT
Bright	Adjust Display Brightness	Auto, Dim 4, Dim 3, Dim 2, Dim 1, Brite1, Brite2, Brite3, Brite4	Auto
Blink	Set the Laser ID Blink Pattern	ID:OFF, ID: 1, ID: 2, ID: 3, ID: 4, ID: 5, ID: 6	ID:OFF
Illum	Selecting the Low Power Illuminator	Short, Long	Short
Remote	Reserved for Future Use		
Test	Perform a Built In Test	—	—
DefIt	Set Factory Defaults	Reset, No Rst	No Rst
Shots	Display the Shot Counter and Shot Configuration Menu	GasImp, Piston	GasImp
Events	Display the Event Log	—	—
About	Display Version Information and Battery %	—	—

3.4.1 Setting Display Brightness

To Set Display Brightness:

Step 1.) Press the Up and Down Buttons simultaneously to access the Function Menu. The first highlighted function menu option (i.e., "Bright") appears on the display. Press the Center Button to enter the "Bright" Menu.

Step 2.) Press the Up or Down Button until the desired option is highlighted, then press the Center Button to select.

OPTION	DESCRIPTION
Auto (Default)	Dim 3 to Brite4, Based on Light Sensor Input
Dim 4 *	Dimmest
Dim 3	…
Dim 2	…
Dim 1	…
Brite1	…
Brite2	…
Brite3	…
Brite4	Brightest

* The "Dim 4" (lowest brightness option) is not available from Auto mode. If this is required for NVG usage, use the manual setting to acquire this brightness level.

Step 3.) Press the Up and Down Buttons simultaneously to exit this Function Menu.

3.4.2 Setting ID Patterns

The *RAID-X* provides a built-in "Blink" function that allows the operator to set a custom blink identification pattern for the *RAID-X* pointer lasers.

To Set the Laser ID Blink Pattern:

Step 1.) With lasers turned off, press the Up and Down Buttons simultaneously to access the Function Menu.

Step 2.) Press the Up or Down Button until "Blink" is highlighted, then press the Center Button to select.

Step 3.) Press the Up or Down Button until the desired option is highlighted then press the Center Button to Select.

OPTION	DESCRIPTION
ID:OFF (DEFAULT)	No Blinking
ID: 1	Fast Blink Rate
ID: 2	Medium Blink Rate
ID: 3	Slow Blink Rate
ID: 4	Long On, Short Off
ID: 5	Long On, Short On
ID: 6	Long On, Medium On

Step 4.) Press the Up and Down Buttons simultaneously to exit this Function Menu.

3.4.3 Selecting the Low Power Illuminator

The "Illum" function allows the operator to select between the Short Range Illuminator or Long Range Illuminator when operating in Low Power illuminator modes.

To Select the Low Power Illuminator:

Step 1.) With lasers turned off, press the Up and Down Buttons simultaneously to access the Function Menu.

Step 2.) Press the Up or Down Button until "Illum" is highlighted, then press the Center Button to select.

Step 3.) Press the Up or Down Button until the desired option is highlighted then press the Center Button to Select.

OPTION	DESCRIPTION
Short (DEFAULT)	Low Power, Short Range Illuminator
Long	Low Power, Long Range Focusable Illuminator

Step 4.) Press the Up and Down Buttons simultaneously to exit this Function Menu.

3.4.4 Performing a Built-In Test

The "Test" function allows the operator to perform tests against the internal hardware to ensure proper operation. It consists of multiple test steps and a message is displayed at each step.

To Perform a Built-In Test:

Step 1.) Ensure that the *RAID-X* is fitted with fresh batteries.

Step 2.) Press the Up and Down Buttons simultaneously to access the Function Menu.

Step 3.) Press the Up or Down Button until "Test" is highlighted, then press the Center Button to select.

Step 4.) Press the Up or Down Button to step through the tests until the final screen is displayed. The final screen will display "Done All Passed" if the test passed, or "Done [#] Failed" if it failed (where [#] is the number of failed tests. Note: if you continue to press the Up or Down button, testing will be repeated.

Step 5.) Press the Center Button to exit testing.

Step 6.) Press the Up and Down Buttons simultaneously to exit the Function Menu.

3.4.5 Setting Factory Defaults

The "Deflt" function allows the operator to restore *RAID-X* settings to the defaults set at the factory. These settings include the low power mode laser step (default = 5) high power mode laser step (default = 25), laser ID blink pattern (default = "ID:OFF"), the display brightness (default = "AUTO") and shot counter configuration (default = "GasImp").

To Restore Factory Defaults:

Step 1.) Press the Up and Down Buttons simultaneously to access the Function Menu.

Step 2.) Press the Up or Down Button until "Deflt" is highlighted, then press the Center Button to select.

Step 3.) Press the Up or Down button until "Reset" is highlighted, then press the Center Button to select.

Step 4.) Rotate the Mode Selection Switch to the "OFF" position. The *RAID-X* is now reset and restoration is now complete.

3.4.6 Displaying the Shot Counter and Setting Weapon Type for Shot Counter Accuracy

The "Shots" function displays the accumulated count of shots taken over the life of the *RAID-X*. To get a count of shots taken during an operation, log the pre-operational count for later comparison post-operation. It also allows

the operator to configure the Shot Counter to look for the correct weapon signature when counting shots. Doing this prior to operation provides for better counter accuracy.

To Display the Shot Counter and Optionally Set Weapon Type:

Step 1.) Press the Up and Down Buttons simultaneously to access the Function Menu.

Step 2.) Press the Up or Down Button until "Shots" is highlighted, then press the Center Button to select. The current shot count displays.

Step 3.) If you wish to set the Weapon Type to ensure Shot Counter Accuracy refer to the following steps, otherwise, skip to Step 4.

Step 3a.) Press the Up and Down Buttons until "Config" is highlighted, then press the Center Button to select.

Step 3b.) Press the Up and Down Buttons to highlight "GasImp" (Gas Impingement - DEFAULT) or "Piston" (Piston Driven), then press the Center Button to Select.

Step 4.) Press the Up and Down Buttons simultaneously to exit the Function Menu.

3.4.7 Displaying the Event Log

The "Events" function displays up to three (3) events, categorized by their criticality from low to high as follows: "I" = Informational, "W" = Warning, and "E" = Error. Warning and error events will cause a highlighted "!" to display briefly below the battery indicator. Refer to Section 4.6 for code definition.

To Display the Event Log:

Step 1.) Press the Up and Down Buttons simultaneously to access the Function Menu.

Step 2.) Press the Up or Down Button until "Events" is highlighted, then press the Center Button to display the Event Log:
Event 1: The first event since Power On.
Event 2: The next event, or the first higher level event.
Event 3: The most recent highest level event.

Step 3.) Press any button to exit the Event Display and return to the Function Menu.

Step 4.) Press the Up and Down Buttons simultaneously to exit the Function Menu.

3.4.8 Displaying the About Screen

The "About" function allows the operator to display unit information. The information is displayed on two screens. The first screen displays the software revision, hardware revision and battery percentage level. The second screen includes the unit serial number and model configuration.

To Display the About Screen:

Step 1.) Press the Up and Down Buttons simultaneously to access the Function Menu. The first function menu option (i.e., "Bright") appears on the display.

Step 2.) Press the Up or Down Button until "About" is highlighted, then press the Center Button to select. The first system information screen displays.

Step 3.) Press the Up or Down Button once again to display the second page of information. This information includes the product serial number and the model ("Rd" for Red Laser, or "Gr" for Green Laser).

Step 4.) Press the Center Button to return to the Function Menu or the Up and Down Buttons simultaneously to exit the Function Menu.

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

The lasers are co-aligned at the factory and are all adjusted simultaneously. Follow your organization's procedures for boresighting. Whenever possible, follow with live fire to verify aiming accuracy.

WARNING

When mounting the RAID-X to a weapon, or to a new rail position, it is necessary to properly boresight the RAID-X to the weapon to ensure aiming accuracy.

CAUTION

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

NOTE

When boresighting the RAID-X to the target, it is recommended that only the Visible Laser be used.

3.6 PRE-OPERATION CHECKLIST

Prior to operation, perform the following pre-operational checks to ensure proper system operation.

CAUTION

It is recommended that the battery be replaced and be conducted prior to operation to (see Section 4.2).

Step 1.) Ensure that a fresh CR123 battery has been installed.
Step 2.) Note and record the shot count for comparison to the post-operational count as described in Section 3.47.
Step 3.) Set the Shot Counter to the correct weapon configuration as instructed in Section 3.4.8.
Step 4.) Remove the lens covers.
Step 5.) Mount the *RAID-X* to the primary weapon and zero the weapon to the lasers as instructed in Section 3.5.

3.7 OPERATING THE *RAID-X*

To quickly fire the weapon, align to the target using the selected pointer laser, and fire.

NOTE

After 5 minutes of inactivity, the RAID-X laser timer will deactivate the lasers. Pressing the FIRE Button will reactivate the laser.

Step 1.) Ensure that all pre-operational steps have been performed as described in Section 3.6.

Step 2.) Rotate the Mode Selection Knob to the desired mode position. The selected mode displays on the OLED Screen along with a battery power indicator.

Step 3.) To activate or deactivate the selected laser, press the "Fire" button on the *RAID-X* or the fire button on the Remote Trigger. To activate or deactivate an attached Surefire flashlight, regardless of the laser mode selected (as described in Section 3.4.4), press the flashlight button on the Remote Trigger.

Step 4.) To adjust laser brightness while any laser is active, press the Center Button to enter the laser power adjustment mode then use the Up and Down buttons to adjust the pointer laser power output. When in a dual mode, the IR Pointer is adjusted first. After adjusting the pointer laser, press the Center Button again to adjust the illuminator. Upon exiting power

adjustment, laser powers are saved and will persist through power cycling.

A total of 30 steps are available for each laser, while the Short Range Illuminator supports 5 steps. Low power laser modes support steps 1 through 5, with 5 being the calibrated power. High power modes support steps 1 through 30, with 25 being the default calibrated power. Steps 26-30 will turn the laser powers higher at the operator's discretion.

Step 5.) Verify that the weapon is level to the horizon.

Step 6.) Align the laser with the target and fire the weapon.

SECTION 4

MAINTENANCE

4.1 CARE OF THE *RAID-X*

NOTE

Do not use harsh abrasives or chemicals such as acetone to clean the RAID-X. Clean only as instructed in Section 4.1.

Periodically inspect the Battery Compartment o-ring. If a Battery Compartment Cap o-ring becomes cut, nicked or torn, notify unit armorer.

Dismount the *RAID-X* from the primary weapon and inspect the unit for dirt, rust, and corrosion. If the display or lenses are broken or cloudy, notify unit armorer.

Ensure that the Battery Compartment Cap and o–ring are tightly sealed and that the area is free of sand and dirt particles. If a Battery Compartment Cap o–ring becomes cut, nicked or torn, notify unit armorer.

Dirt and other residue, like exposure to salt water, may impede the mechanical operation of the *RAID-X*. Flush exterior with water to remove any debris. Blow any residual dirt or dust free from the lenses, then wipe with a clean Lens Cloth, provided. Do not use the brush provided for cleaning optic glass and laser port lenses. Using the brush, remove dirt and debris from the mounting rails and controls. This should be done on a regular basis.

After flushing and cleaning with water to remove debris, if further lens cleaning is necessary, use the clean Lens Cloth provided with a small amount of Isopropyl (Rubbing) Alcohol.

Always keep the Lens Covers and Battery Cap fully installed when not in use to prevent ingress of foreign debris, to protect the port from corrosion, and to prevent scratching of the lenses.

4.2 BATTERY REPLACEMENT

The *RAID-X* operates on one (1) CR123 battery. When the battery is not correctly installed, the positive ("+") post of the battery cannot make contact, thereby preventing damage to the *RAID-X*. Refer to Table 4.2-1 for total estimated runtime after installing a fresh CR123 battery.

Table 4.2-1. ***RAID-X Estimated Run Time (by Ambient Temperature)***

TOTAL ESTIMATED RUN TIME	
TEMPERATURE	**ESTIMATED RUN TIME ***
-20°C (-4°F)	4 Hours
-10°C (14°F)	4 Hours, 40 Minutes
0°C (32°F)	5 Hours, 30 Minutes
10°C (50°F)	6 Hours, 30 Minutes
20°C (68°F)	7 Hours
30°C (86°F)	7 Hours, 20 Minutes
40°C (104°F)	7 Hours, 30 Minutes
50°C (122°F)	7 Hours, 45 Minutes
60°C (140°F)	8 Hours

* Tested with Surefire CR123 battery in Dual High Mode. Operator can expect longer operational run times when operating in other modes.

The Battery Indicator on the *RAID-X* Display shows up to 4 bars, one bar for approximately each 20% of remaining battery life (see Table 4.2-2). If no bars appear in place of the indicator, the *RAID-X* has less than 20% of battery life remaining.

Table 4.2-2. ***RAID-X Estimated Remaining Battery Life (by Ambient Temperature)***

ESTIMATED REMAINING BATTERY LIFE	
TEMPERATURE	**ESTIMATED REMAINING RUN TIME FROM WHEN YOU FIRST SAW THE LOW BATTERY INDICATOR ***
-20°C (-4°F)	1 Hour
-10°C (14°F)	30 Minutes
0°C (32°F)	20 Minutes
10°C (50°F)	12 Minutes
20°C (68°F)	6 Minutes
30°C (86°F)	6 Minutes
40°C (104°F)	6 Minutes
50°C (122°F)	6 Minutes
60°C (140°F)	6 Minutes

* Tested with Surefire CR123 battery in Dual High Mode. Operator can expect longer operational run times when operating in other modes.

When the low battery indicator appears on the display, all active lasers will briefly flash five (5) fast blinks. This blink sequence will also occur if a low battery condition exists when activating a laser.

When lasers flash to indicate a low battery, remaining battery life will depend on operational temperature (see Tables 4.2-1 and 4.2-2). When this occurs, performance of the *RAID-X* will be degraded in accordance with Table 4.2-2. Replace the used CR123 size battery when the Battery Indicator becomes low.

Table 4.2-3. *RAID-X* Key Display Indicators

INDICATOR	DESCRIPTION
	Low Battery (Less than 20%)
	Full Battery

REMOVE BATTERY CAP BY TURNING CCW 1/3 TURN AND

INSTALL ONE (1) FRESH CR123 BATTERY (SOLD SEPARATELY) PRIOR TO OPERATION, "+" SIDE FIRST.

INSPECT BATTERY COMPARTMENT O-RING SEAL FOR DAMAGE OR WEAR. REPLACE IF NECESSARY, LUBRICATING THE O-RING WITH A NON-HYDROSCOPIC GREASE PRIOR TO INSTALLATION.

Figure 4.2-1 Replacing the Battery in the *RAID-X*

4.3 INSPECTING AND REPLACING O-RINGS

CAUTION

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

The Battery Compartment of the *RAID-X* contains one (1) Buna O-Ring that prevents dirt and water intrusion to the Battery Compartment.

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, to ensure proper sealing of the compartment.

O-Ring replacements are available through Wilcox and should be purchased in advance of need to ensure continued service.

Step 1.) Gently brush any debris away from the o-rings with the cleaning brush provided.

Step 2.) Inspect the O-Rings for cracks, pinches, hardness, dryness, or tackiness of feel. If an O-Ring exhibits any of these characteristics, replace it.

Step 3a.) If the *RAID-X* O-Ring does not need replacement, but requires lubrication, lubricate the exterior surface of the O-Ring without removing it with a small amount of Silicone Grease.

Step 3b.) If replacement is required, gently remove the O-Ring using a pick tool. Gently lubricate the *RAID-X* O-Ring on both sides, with the thumb and index finger, using Silicone Grease. Using the pick tool, gently replace the lubricated O-Ring, using caution not to overstretch or damage.

Figure 4.3-1 Inspecting and Replacing O-Rings

4.4 STORAGE

Ensure that cleaning instructions in Section 4.1 have been followed. When the *RAID-X* is dismounted for storage, place the Mode Selection Knob in the 'OFF' position. Resecure the laser cover to the *RAID-X* lens port to prevent dust and dirt entry. Remove battery from the *RAID -X* and retain.

CAUTION

Do not store the RAID-X with battery installed.

4.5 SHIPPING

Prior to shipping the *RAID-X,* follow cleaning and storage instructions as described in Sections 4.1 and 4.4. Package all components securely in a suitable shipping container, maintaining adequate separation between components.

4.6 TROUBLESHOOTING

Use the Event Log function on the Function Menu to determine the cause of system events. The Event Log displays up to 3 events:

- **Event 1**: is the first event since the last power up.
- **Event 2**: is the next event, or the first highest level event.
- **Event 3**: is the most recent event of the highest level.

Event Levels

- Levels are an indication of importance.
- Levels include: **Info (I)**, **Warning (W)**, and **Error (E)**.
- Info events do not display the event flag, '!', above the battery icon.

Table 4.6-1 identifies the codes, causes and solutions of these events. If an event code should display, and persists after attempting to perform the solutions listed in the table, please contact Wilcox Customer Service for assistance at 603-431-1331.

Table 4.6-1. System Events

EVENT LEVEL	EVENT CODE	DESCRIPTION	SOLUTION
I	71	Update patch applied. This may occur on firmware updating to initialize changes to persistent storage.	No action required.
W	72	Low battery detected during storage of a configuration change. The change was NOT stored in persistent memory. However, the attempted change is in active memory and the unit can be operated using the changed value until the next power cycle. This event displays "LO-BAT' at the bottom of the display.	1. Use unit with changes not saved. 2. Replace battery and try again (refer to Section 4.2).
E	75	Setting defaults failed. This may occur after a 'LO-BAT' event.	Install a fresh battery and try again (refer to Section 4.2).

E = Error, W = Warning, I = Information

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 by WX if purchased through an authorized sale. To make a warranty claim, the product and purchasing documents must be returned to WX (at user's expense) and WX will have the option (in its sole discretion) to exchange or recondition the product, that after examination by WX is determined to be 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 damages 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.

This Limited Warranty is purchaser's 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 incidental or consequential damages, including without limitation, personal injury, property damages or other costs resulting from labor charges, repairing surrounding 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. IN NO EVENT SHALL WX BE LIABLE FOR 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. IN THE EVENT THIS LIMITATION OF DAMAGES IS HELD UNENFORCEABLE, THEN THE PARTIES AGREE THAT BY REASON OF THE DIFFICULTY IN FORESEEING POSSIBLE DAMAGES, ALL LIABILITY WITH RESPECT TO A CLAIM AGAINST WX IN CONNECTION WITH OR RELATED TO ANY PRODUCT PROVIDED HEREUNDER SHALL BE LIMITED SOLELY TO DIRECT DAMAGES, AND MAY BE SATISFIED BY REPAIR OR REPLACEMENT OF NONCONFORMING PRODUCT DURING THE WARRANTY PERIOD (AS DETERMINED BY WX IN ITS SOLE AND ABSOLUTE DISCRETION), AND IN NO EVENT SHALL EXCEED THE PURCHASE PRICE OF THE PRODUCT.

A.2 WARRANTY CLAIM AND SERVICE INFORMATION

WX must be contacted in the United States at (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 # _____
25 Piscataqua Drive
Newington, NH 03801

The *RAID-Xe* 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

CCW	Counter-Clockwise
CU IN	Cubic Inches
CW	Clockwise
IR	Infrared
ITAR	International Trafficking in Arms Regulations
lb	Pound
mm	Millimeter
mrad	Milliradian
NFOV	Near Field of View
nm	Nanometer
NVD	Night Vision Device
NVG	Night Vision Goggle
OLED	Organic Light Emitting Diode
oz	Ounce
RAID-X	Ruggedized Aiming/Illumination Device
WFOV	Wide Field of View

APPENDIX C

SPARE PARTS

C.1 SPARE PARTS LIST

To order replacement parts, contact the Wilcox marketing department at 603-431-1331. Please specify your product color when ordering.

#	PART NO	DESCRIPTION	REPAIR TYPE	REFERENCE
C.1.1	65301P14	BATTERY CAP TETHER	FIELD	Page 40
C.1.2	65312G17	BATTERY CAP QUICK TURN	FIELD	Page 8
C.1.3	F1424	BRUSH, ALL PURPOSE, DOUBLE END	FIELD	Page 9
C.1 .4	F2770	POUCH NYLON COYOTE	FIELD	Page 5
C.1 .5	F2481	BLUE SCREW	FIELD	Page 7
C.1 .6	F3019	O-RING BATTERY TUBE 1X16X18	FIELD	Page 40
C.1 .7	F2656	PRESSURE REMOTE DUAL SURFIRE SR09-D-IT	FIELD	Page 5
C.1 .8	F1968	MICROFIBER OPTICAL CLEANING CLOTH	FIELD	Page 9
C.1 .9	F1808	KEY - 1/16 HEX X 1-13/16 L BLACK OXIDE	FIELD	Page 5

Manufactured by:

Wilcox Industries, Corp.
One Wilcox Way
Newington, NH 03801-7816

Phone: 888-8WILCOX
603-431-1331
Fax: 603-431-1221

WWW.WILCOXIND.COM

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