

# KILO<sup>®</sup>

KILO1600™ 6x22 mm LASER RANGEFINDER

OWNERS MANUAL

**SIGSAUER<sup>®</sup>**

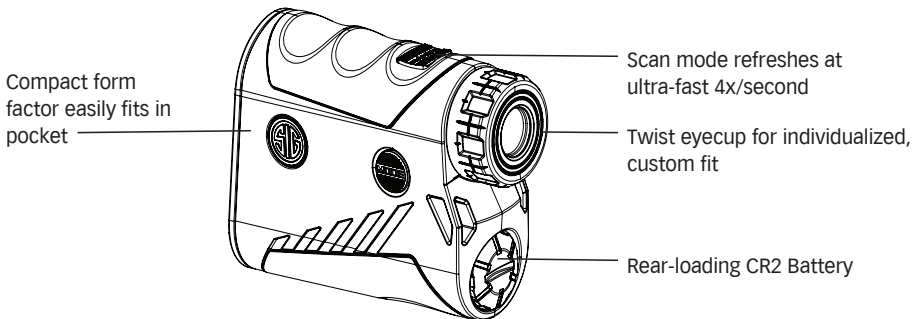
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Please visit [sigsauer.com](http://sigsauer.com) for Owners Manual downloads.

## INTRODUCTION

Congratulations on the purchase of your SIG SAUER® Laser Rangefinder. Your KILO® is one of the most compact, advanced and simple to use rangefinders on the market. All of SIG SAUER's rangefinders feature the fastest digital signal processing engine while streamlining the user interface for a no hassle, out of box experience.



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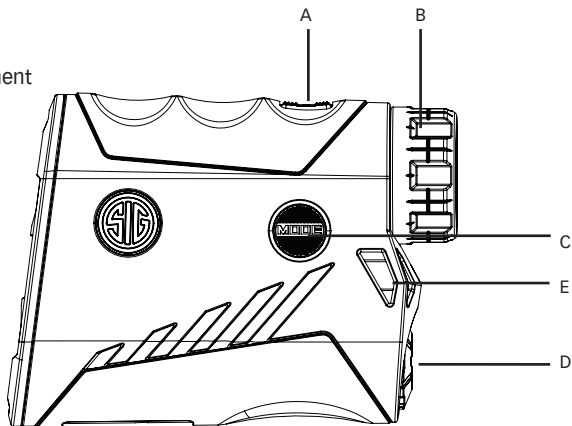
- KILO1600™ Digital Laser Rangefinder
- CR2 Battery (1)
- Premium Padded Ballistic Nylon Case
- Lanyard
- Instruction Manual

**KEY FEATURES:**

- 6 x 22 mm monocular with SpectraCoat™ anti-reflection coatings for superior light transmission and optical clarity.
- Revolutionary Lightwave™ DSP Technology for the fastest and longest distance rangefinder engine.
- HyperScan provides 4 range updates per second in scan mode while RangeLock reports the last range result when ranging distant targets.
- Features line of sight or angle modified range. Units in yards or meters to tenth Y/M resolution.
- Transparent OLED display for daytime and low light use.
- Lumatic™ Display automatically calibrates display brightness to changing ambient light conditions.
- Compact, lightweight polymer housing with eyecup and diopter adjustment.
- Simplified user interface with RANGE and MODE buttons only.

## PRODUCT IDENTIFICATION:

- A- Power/Range Button
- B- Eyecup / Diopter Focus Adjustment
- C- Mode Button
- D- Battery Compartment
- E- Lanyard



## LIGHTWAVE™ DSP TECHNOLOGY

SIG SAUER's proprietary Lightwave DSP engine leverages HyperScan – an advanced power management technique that provides the fastest refresh rate in scan mode (4 times per second) even at distances up to a mile. Our DSP engine uses the latest generation field programmable gate array (FPGA) running sophisticated signal processing algorithms to reduce false positives while finding weak or distant targets.

## RANGING ACCURACY, RESOLUTION AND MAXIMUM RANGES

The KILO1600™ provides line of sight or angle modified range information accurate to  $\pm 0.5$  yards or meters out to 500 yards;  $\pm 1$  yard from 500 - 1000 yards and  $\pm 2$  yards beyond 1000 yards. Range is displayed in 0.1 yard or meter resolution.

RANGING PERFORMANCE IN HYPERSCAN MODE			
	Reflective	Trees	Deer
KILO1600™	Up to 2000 yds	Up to 1000 yds	Up to 800 yds

## **MODES OF OPERATION - ANGLE MODIFIED RANGE (AMR) AND LINE OF SIGHT (LOS)**

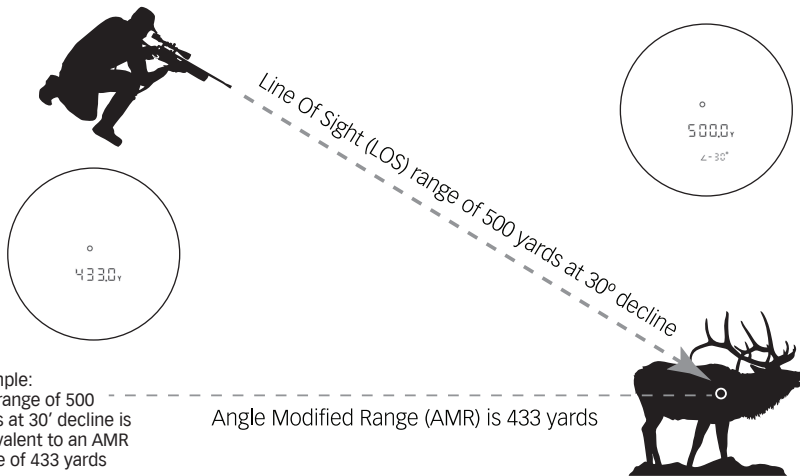
Angle modified range is the equivalent horizontal range to the target and is comparable to the “horizontal leg” of a triangle. AMR is also known as “rifleman’s rule” and uses the LOS range and angle of incline to calculate the horizontal distance the projectile travels between shooter and target. AMR is very accurate for shorter distances (i.e. < 400 yards) and archery.

Line of sight is the range to the target independent of angle. It is comparable to the “hypotenuse” of a triangle. When ranging in LOS mode, the distance is displayed in addition to the angle of incline. This method is preferred for those long range shooters and hunters wanting to use the LOS range and angle of incline to calculate a very precise holdover using a ballistic calculator smartphone application and/or wind measurement device.

For example, if the rangefinder is in LOS mode the line of sight range of 500 yards would be displayed along with the angle of -30 (degrees decline). Use LOS in combination with a ballistic calculator to calculate an exact holdover in minutes of angle or milliradians.

If the rangefinder is in AMR mode the angle modified range of 433.0 yards would be displayed. This is the equivalent horizontal range and can be used in combination with a ballistic / holdover reticle or with the SIG Ballistic Turret SBT™ dial.





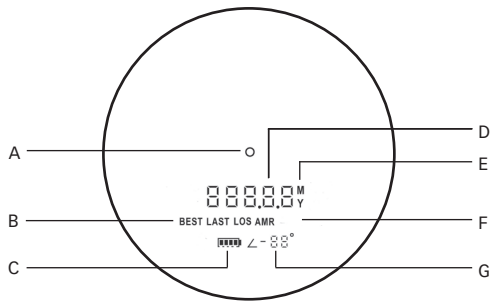
Example:  
LOS range of 500  
yards at 30' decline is  
equivalent to an AMR  
range of 433 yards

Angle Modified Range (AMR) is 433 yards

**TRANSPARENT ORGANIC LIGHT EMITTING DIODE DISPLAY (T-OLED)**

The KILO1600™ rangefinder features a T-OLED red display for any ambient light condition.

- A – Circle center aiming feature
- B – Target Selection: BEST or LAST target
- C – Battery Status indicator
- D – 5 Character alphanumeric digits for range
- E – Range Unit of Measure: Y or M
- F – Mode Selection: LOS or AMR
- G – Angle of incline / decline



 **WARNING****Safety and Operation Procedures**

The KILO is classified as a Class 3R product.

- Do not press the RANGE button while aiming at the human eye or while looking into the transmitting optics on the objective side.
- Do not leave the KILO within reach of small children.
- Do not take the product apart or modify the product in any way to expose internal electronics that might cause damage or electric shock.
- Do not use any other power source other than a CR2 battery or equivalent.

## OPERATION

The KIL01600 is designed to get you up and running without the typical complexity of buried menus and programming modes. The rangefinders come out of box in the following configuration:

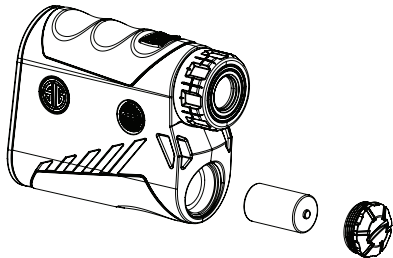
- (A) Angle Modified Range (equivalent horizontal range)
- (B) Best Target (rangefinder returns the best or most likely target, not the first or last)
- (C) Automatic Brightness Control
- (D) Unit of Measure in Yards

## SET UP

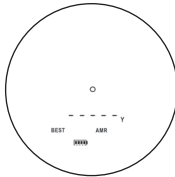
### Installing the Battery

Remove the battery cap by turning the cap in a counter-clockwise direction. Insert (1) CR2 Primary Lithium battery (-) terminal side first. The (+) terminal should be facing out. Place the cap onto the (+) battery terminal and reinstall the battery cap by turning the cap in the clockwise direction.

**⚠ CAUTION** - Be careful to not cross-thread the cap.

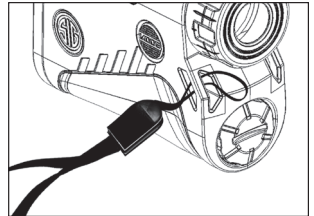


After installation of the battery and depressing the RANGE button, the status of the rangefinder is displayed:



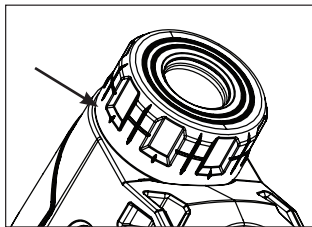
### Installing the Lanyard

Install the lanyard loop through the lanyard attachment point. Pass the lanyard back through the loop for secure attachment.



## Diopter Adjustment

The diopter or focus adjustment is integral to the eyecup. The focus adjustment is used to bring the display into sharp focus along with the target image. The diopter adjustment can turn clockwise or counter-clockwise depending upon the user's prescription.





## DISPLAY INFORMATION

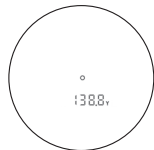
The display shows you the center aiming circle, the unit of measure (Y), Angle Modified Range mode (AMR) and the remaining battery status. The display will remain active for up to 30 seconds, or whatever timeout has been set within in the SIG BDX App. You can then press the RANGE button to determine range to target.

If you press the RANGE button while the rangefinder is off and continue to hold the RANGE button down, the rangefinder will automatically switch into SCAN mode within 1 second.

After determining the distance to the target, the rangefinder will continue to display the center aiming circle and range data for 30 seconds – and only the range data. All other information is not shown after initial wakeup to prevent clutter in the field of view.



Display at initial wakeup



Display when ranging

## **HyperScan MODE**

While the rangefinders support single button push ranging operation, it is highly recommended that you push and hold the RANGE button down to activate HyperScan mode. This mode allows you to scan targets at 4X/second which significantly improves ranging performance at extreme distances. As the ranging distances are updated very quickly in HyperScan mode, once you release the RANGE button the last acquired distance will be displayed. When in HyperScan mode ranging distant targets, the display may update between no result and a distant range - by using RangeLock technology the rangefinder will report the last range result when the RANGE button is released.

## **CHANGING MODES OF OPERATION**

The rangefinder ships with the most common modes already configured. However, you can access and change the following features:

- Line of Sight (LOS), or Angle Modified Range (AMR)
- Best or Last Target
- Display Brightness (AUTO + 3 Low, 3 Medium and 3 High)
- Units of Measure (Y or M)

## RANGEFINDER CONFIGURATION - PROGRAMMING SEQUENCE

### 1. Mode Selection (AMR or LOS)

To enter programming mode, press and release the RANGE button to wakeup the rangefinder. Once the display is visible, press and hold the MODE button for 2 seconds – then release the MODE button and the current selection will be flashing (AMR is the default setting). You can switch between AMR, or LOS by pressing and releasing the RANGE button. Confirm your selection by pressing and releasing the MODE button which will save your setting and index to the next setting for configuration. If you do not press and release the MODE button the rangefinder will save your selection and turn off.

## **2. Target Selection (BEST or LAST)**

BEST or LAST should be flashing (BEST is the default setting). You can toggle between BEST or LAST by pressing and releasing the RANGE button. Confirm your selection by pressing and releasing the MODE button which will save your setting and index to the next setting for configuration. If you do not press and release the MODE button the rangefinder will save your selection and turn off. BEST Target can be used for most situations, however, when hunting through foliage or in high grass the LAST Target is recommended.

## **3. Display Brightness**

Display Brightness (Lumatic OLED Display) - AUTO will be used in most cases which leverages the ambient light sensor located in the objective of the rangefinder. This sensor samples the ambient light conditions and automatically adjusts the display to the local environment. You can change this to 9 individual settings: LOW 1 - 3, MED 1 - 3, and HI 1 - 3. Note - if you accidentally leave the unit on Setting LOW 1 you may not be able to see the display. If this occurs, go into the dark environment and change the illumination setting.

#### **4. Unit of Measure Selection (Y or M)**

Your current selection will be flashing (Yards is default). You can toggle between Y or M by pressing and releasing the RANGE button. Confirm your selection by pressing and releasing the MODE button which will save your setting and index to the next setting for configuration. If you do not press and release the MODE button the rangefinder will save your selection and turn off.

**FREQUENTLY ASKED QUESTIONS (FAQ):****Q: I can't get the display to focus.**

A: You need to adjust the diopter ring to your vision. Rotate the eyecup / diopter ring in either direction until the display comes into sharp focus.

**Q: I can't seem to range very far past trees or animals.**

A: Your KILO will perform differently based on changes in ambient conditions such as bright sunlight or snow, rain or fog, temperature and the reflectivity of the target being ranged. For example, at dusk and dawn your rangefinder may be able to range trees at over 1000 yards but in bright sunlight may only achieve 500 yards. If your KILO will not range at least 400 yards under normal conditions (fog and rain excluded) please contact customer service. Your product may have fallen out of alignment.

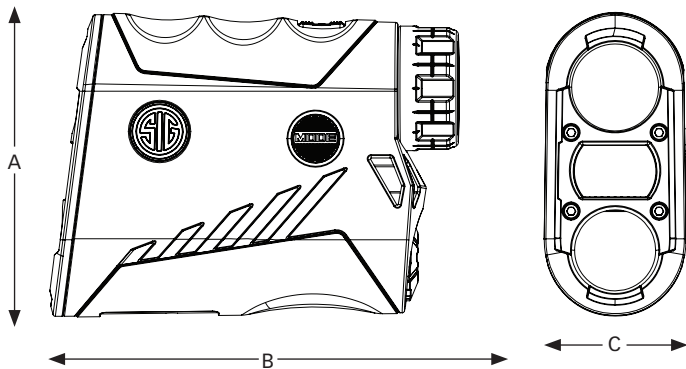
**Q: My battery drains too fast.**

A: Most rangefinders will provide over 4000 individual range calculations using a fresh CR2 primary lithium battery. Your KILO exceeds this specification. When heavily using SCAN mode the battery may appear to drain faster since your KILO is ranging 4x per second in HyperScan mode. This is normal operation but you should keep a spare CR2 battery when heading out to remote locations.

**KILO1600™ 6x22 mm SPECIFICATIONS**

<b>Magnification</b>	6x		
<b>Objective Clear Aperture</b>	22 mm		
<b>Exit Pupil</b>	3.7 mm		
<b>Eye Relief</b>	17 mm		
<b>Angular (FOV)</b>	6°		
<b>FOV @ 100yds</b>	34.18 ft		
<b>Laser Divergence</b>	4.00 x 0.2 MRAD		
<b>Range Response Time</b>	.25 sec		
<b>Scanning</b>	Yes		
<b>Range Resolution Under 100 yds</b>	.1 yds		
<b>Max Range</b>	Reflective up to 2000 yds	Trees up to 1000 yds	Deer up to 800 yds
<b>Weight with Battery</b>	5 oz / 140 g		





A – 3 in / 76 mm  
 B – 4.3 in / 109 mm  
 C – 1.4 in / 36 mm

**! DANGER****CLASS 3R LASER PRODUCT INVISIBLE LASER RADIATION AVOID DIRECT EYE EXPOSURE.**

This product complies with IEC 60825-1: 2014-05 Ed 3.0 and complies with FDA performance standards for laser products except for conformance with IEC 60825-1 Ed.3., as described in Laser Notice NO. 56, dated May 8, 2019.

$P_0 < 23W$ ,  $\lambda = 905 \text{ nm}$ ,  $t = 22 \text{ ns}$



This product has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. The equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with these instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this product does cause interference to radio or television reception the user is encouraged to try to correct the interference by one or more of the following:

- Reorient or relocate the receiving antenna
- Increase the separation between this product and the receiver
- Connect the equipment to an alternative outlet or receiver
- Consult a technician.

Shielded interference cable must be used with the equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

Specifications and designs are subject to change without any notice or obligation on the part of the manufacturer.

## CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**CLASS 3R LASER PRODUCT INVISIBLE LASER RADIATION AVOID DIRECT EYE EXPOSURE**

Complies with FDA performance standards for laser products except for conformance with IEC 60825-1 Ed.3., as described in Laser Notice NO.56, dated May 8, 2019.

$P_0 < 23\text{ W}$ ,  $\lambda = 905\text{ nm}$ ,  $t = 22\text{ ns}$

SIG SAUER Inc.  
27100 SW Parkway Avenue  
Wilsonville, Oregon 97070








**99A000001AAE**

# LASER APERTURE

## FCC STATEMENT:

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

### NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## INDUSTRY CANADA:

This device complies with Industry Canada licence RSS standard(s). Operation is subject to the following two conditions:

- This device may not cause interference, and
- This device must accept any interference, including interference that may cause undesired operation of the device.

Le present appareil est conforme aux CNR d'Industrie Canada applicable aux appareil radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes:

- l'appareil ne doit pas produire de brouillage, et
- l'utilisateur de l'appareil doit accepter tout brouillage radio électrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement

The device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS-102 RF exposure, users can obtain Canadian information on RF exposure and compliance.

 **WARNING: CANCER AND REPRODUCTIVE HARM** – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



## **SIG SAUER® Electro-Optics Infinite Guarantee® / Limited Lifetime Warranty**

SIG SAUER has manufactured the most rugged, dependable, high-performance firearms for more than two centuries. Our heritage of design, engineering, and precision-manufactured quality predates the existence of any other optics company worldwide. We understand the importance of quality in the line of fire, at the shooting range or on your next hunt. SIG SAUER Electro-Optics had to earn the right to wear that badge and the Infinite Guarantee has your back, forever. Period.

We will repair or replace your SIG SAUER product in the event it becomes damaged or defective, at no charge to you. If we cannot repair your product, we will replace it with a product in perfect working order of equal or better physical condition.

### **SIG SAUER Infinite Guarantee®**

- Unlimited Lifetime Guarantee
- Fully Transferable
- No Warranty Card Required
- No Receipt Required
- No Time Limit Applies
- No Charge

Please note that our Infinite Guarantee excludes coverage for intentional damage, misuse, cosmetic damage that does not affect the performance of the optic, loss, theft, or unauthorized repair or modification. Excludes electronic and Tritium components.

Customers seeking warranty coverage must first obtain a Return Merchandise Authorization (RMA) by contacting SIG SAUER Customer Service, and return the product unloaded and freight prepaid.

ANY WARRANTIES IMPLIED BY LAW, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY DISCLAIMED. REPAIR, ALTERATION, OR REPLACEMENT AS PROVIDED HEREIN IS YOUR EXCLUSIVE REMEDY FOR ANY DEFECTIVE PRODUCT. IN NO EVENT SHALL SIG SAUER OR ANY COMPANY AFFILIATED WITH SIG SAUER BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND ARISING OUT OF THE PURCHASE OR USE OF THIS PRODUCT, WHETHER BASED UPON CONTRACT, TORT, STATUTE, OR OTHERWISE. Some states do not allow the exclusion or limitation of implied warranties, or the exclusion or limitation of incidental or consequential damages, so some or all of the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

THIS WARRANTY APPLIES TO COMMERCIAL CUSTOMERS ONLY, AND DOES NOT APPLY TO GOVERNMENT, MILITARY, LAW ENFORCEMENT, OR NON-US CUSTOMERS. NON-US COMMERCIAL CUSTOMERS MUST PURCHASE PRODUCT THROUGH AN AUTHORIZED SIG SAUER DEALER WITHIN THEIR COUNTRY OF RESIDENCE FOR THIS WARRANTY TO APPLY.



## **SIG SAUER® Electronic Component Limited 5-Year Warranty**

SIG SAUER warrants that the electronic and tritium components of the enclosed product were originally manufactured free of defects in workmanship, material, and mechanical function. For a period of five (5) years from the date of manufacture,

SIG SAUER agrees to correct any defect in these components by repair, adjustment, or replacement, at SIG SAUER's option, with the same or comparable quality components (or by replacing the product at SIG SAUER's option); provided however that a Return Merchandise Authorization (RMA) is first obtained by contacting SIG SAUER Customer Service, and that the product is returned unloaded and freight prepaid.

This limited warranty is null and void if the product has been misused, damaged (by accident or otherwise), damaged through failure to provide reasonable and necessary maintenance as described in the user's manual, or if unauthorized repair or any alteration, including of a cosmetic nature, has been performed on the product. This limited warranty does not apply to normal cosmetic wear and tear of any parts.



ANY WARRANTIES IMPLIED BY LAW, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY DISCLAIMED. REPAIR, ALTERATION, OR REPLACEMENT AS PROVIDED HEREIN IS YOUR EXCLUSIVE REMEDY FOR ANY DEFECTIVE PRODUCT. IN NO EVENT SHALL SIG SAUER OR ANY COMPANY AFFILIATED WITH SIG SAUER BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND ARISING OUT OF THE PURCHASE OR USE OF THIS PRODUCT, WHETHER BASED UPON CONTRACT, TORT, STATUTE, OR OTHERWISE. Some states do not allow the exclusion or limitation of implied warranties, or the exclusion or limitation of incidental or consequential damages, so some or all of the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

THIS WARRANTY APPLIES TO COMMERCIAL CUSTOMERS ONLY, AND DOES NOT APPLY TO GOVERNMENT, MILITARY, LAW ENFORCEMENT, OR NON-US CUSTOMERS. NON-US COMMERCIAL CUSTOMERS MUST PURCHASE PRODUCT THROUGH AN AUTHORIZED SIG SAUER DEALER WITHIN THEIR COUNTRY OF RESIDENCE FOR THIS WARRANTY TO APPLY.

**NOTES:**

**NOTES:**

**SIGSAUER®**

**FOR PRODUCT SERVICE ON THIS MODEL, PLEASE CALL 603-610-3000**

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