

M6X

**Operator's
Manual**

Tactical Laser Illuminator



MADE IN THE USA

WARNINGS

Before handling any firearm with the M6X Tactical Laser Illuminator attached, read and understand the entire contents of your firearm manual (especially the safety precautions and procedures for safe firearm handling) and the M6X manual. Failure to follow safety precautions when handling a firearm with the M6X attached can result in serious injury, damage to property, or death. Once the M6X is attached to a firearm, the firearm will be pointed at anything that the M6X is directed at. Do not point the M6X at anything or anyone that you do not intend to shoot.

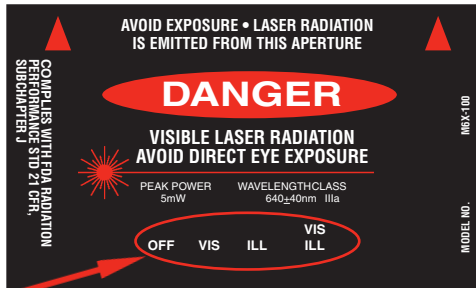
The M6X is designed to produce a sufficient amount of light to allow someone in a low light environment to be safely illuminated and identified without the need to point the M6X light - and the attached firearm - directly at that individual. The light from the M6X can be pointed in a safe direction at a wall, floor, or ceiling and "bounced" onto the darkened silhouette for identification purposes, avoiding the need to point the firearm directly at an individual. The M6X can be defocused for wide-angle illumination. The ON/OFF switch on the M6X allows you to operate it without placing your finger inside the trigger guard. Always keep your fingers off the trigger and outside the trigger guard until you are ready to fire the weapon. Always verify the chamber of the weapon is cleared and safe per your firearm manual before attempting to mount or dismount the M6X. Always dismount the M6X from the firearm when performing maintenance, cleaning the M6X, and when replacing bulbs or batteries.

Do not operate the M6X around cleaning solvents or flammable/combustible materials. Avoid use of the M6X in environments involving gasses or a flammable atmosphere, such as evaporated gasoline. Do Not use the M6X in areas where gasoline, paints, solvents, or other flammable liquids are stored. The M6X should be tested periodically during periods of non-use to be sure that it is functioning properly. When anticipating use of and reliance upon the M6X, check the unit beforehand to be sure that it is in proper working order.

Proper functioning of the M6X is dependent upon fresh, fully charged batteries. Use care when handling batteries: they have the potential to leak harmful chemicals that can damage eyes, skin, clothing, or the inside of the M6X. To avoid risk of injury, do not let any material that has leaked from a battery come in contact with eyes or skin. Do not expose batteries to excessive heat. Follow battery manufacturers' instructions as to proper handling, storage, and disposal of batteries.

CAUTIONS

Never place the light on its face (bulb down) while on. The bulb generates intense heat and could cause damage to the M6X or the surface it is on. Do not store the M6X with the batteries installed. Never put your hand in front of the muzzle while focusing the bezel. Use caution when replacing the bulb: it may be HOT.



Switch Modes

Warning/Aperture/Mode Label

GENERAL INFORMATION



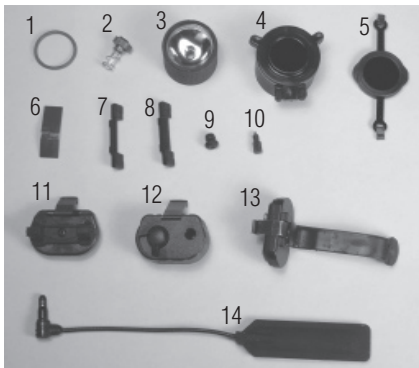
M6X Mounted on a Handgun with optional Bikini-Style Filter

	<u>Rocker Backplate</u>	<u>Long Gun Backplate</u>
Weight (w/o battery)	4.0 oz (115 grams)	4.3 oz (121 grams)
Weight (w/ battery)	5.3 oz (149 grams)	5.5 oz (156 grams)
Length	3.6 in (92 mm)	3.7 in (94 mm)
Width	1.6 in (41 mm)	
Height	2.2 in (56 mm)	
Waterproof	66 feet	
Brightness	125 Lumens Peak	
Facial Recognition	25 meters	
Continuous Operation	>60 minutes	
VISIBLE LASER: Class IIIa		
Output Power:	<5mW	
Wavelength:	640nm +/- 40nm	
OPTIONAL IR LASER: Class IIIb		
Output Power:	600 microwatts	
Wavelength:	830nm +/- 20nm	

The M6X is a compact, lightweight, visible illuminator that emits a highly concentrated beam of visible light for acquisition and identification of targets. The M6X may be equipped with either a visible aiming laser, or an infrared aiming laser for use with night vision devices. The M6X can be hand held or mounted to handgun / long gun weapon systems, and is powered by two 3-volt Lithium batteries. Using an Infrared Filter over the visible light, the M6X can be used with Night Vision Devices to accurately direct fire as well as illuminate and designate targets.

SPARE PARTS / ACCESSORIES

- 1 Bezel O-ring
- 2 Spare Bulb
- 3 Bezel
- 4 Flip-Open Lens Cap Filter, available in IR, Red or Solid
- 5 Bikini-Style Filter, available in IR, Red or Solid
- 6 Latch Spring
- 7 Latchbar, Glock Style
- 8 Latchbar, 1913 Rail Style
- 9 Remote Jack Plug
- 10 Adjuster Tool
- 11 Rocker Backplate
- 12 Remote Backplate, Long Gun
- 13 Remote Backplate, Contoured
- 14 Remote Cable Switch



PACKAGED SPARE KITS

M3X / M6X Bikini-Style IR Filter Kit

IR	CFL-180-A1
Red	CFL-180-A2
Solid	CFL-180-A3

M3X / M6X Flip-Open IR Filter Kit

Thick IR	CFL-210-A4
Red	CFL-210-A2
Solid	CFL-210-A3

Long Gun Kit

M3X / M6X Bulb	CFL-120
M3X / M6X Bezel	CFL-110
M3X / M6X Long Gun Backplate	CFL-170
M3X / M6X Pistol Backplate	CFL-150
M6X Adjuster Tool	CFL-036
STD 4" Ribbon Remote	CFL-053-4

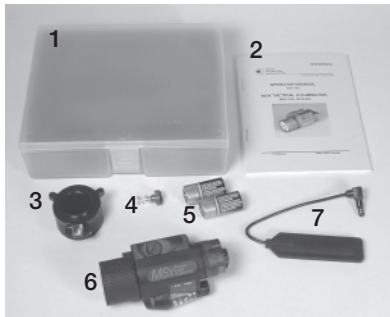
Contoured Remotes for:

Beretta 92/96A	CFL-400-A7
Beretta Vertec	CFL-400-A6
Caspian 45	CFL-400-A2
Caspian 45C	CFL-400-A10
Glock	CFL-400-A1
Kimber 45	CFL-400-A11
Springfield 1911	CFL-400-A3
Springfield XD	CFL-400-A12
SIG 228/229A	CFL-400-A4
SIG 228/229R	CFL-400-A5
S&W TSW	CFL-400-A8
S&W 99	CFL-400-A9

MAJOR COMPONENTS

Major Components

- 1 Shipping / Storage Case
- 2 Operator's Manual
- 3 Flip-Open Filter
- 4 Spare Bulb
- 5 Batteries
- 6 M6X Unit
- 7 4" Remote



MAJOR COMPONENTS DESCRIPTION

M6X Tactical Laser Illuminator

The M6X Tactical Laser Illuminator is a compact, lightweight, visible illuminator that emits a highly concentrated beam of visible light for acquisition and identification of targets, with Visible or Infrared capability. The M6X can be used either hand held or mounted to a firearm.

Filters, Flip-Open or Bikini-Style

Flip-Open or Bikini-Style filters are available in the following three configurations:

IR Filter: An integrated infrared filter used to provide maximum visibility with Night Vision Devices.

Red Filter: An integrated red filter; used for casting a red beam in order to maintain night-adapted eyesight for the unaided eye, and to reduce reflections off of airborne particles.

Solid: A solid black cover used to block all visible light. It should be used to reduce chance of detection from inadvertent activation during covert movement when immediate activation is not required.

Remote Cable Switch

The remote cable provides fingertip control of the M6X using a rubber membrane-style switch when used with the Long Gun Backplate. Hook and Loop tape (Velcro®) is supplied with each Remote Cable Switch to secure the cable to the weapon.

Remote Jack Plug

When installed, the Remote Jack Plug protects the remote jack from dirt, sand, and dust deposits. It is recommended that the jack plug be stored in the remote cable jack at all times (except when using the remote cable).

Spare Bulb

The Bulb assembly is a 6-volt Tungsten Xenon light source providing over 120 lumens of white light illumination, and has a blue base.

Adjuster Tool

A hex key adjuster tool that is stored on the unit is provided for adjuster movement.

Rocker Backplate

Provides fingertip action by moving the switch clockwise or counter-clockwise.

Long Gun Backplate

Provides Remote Cable Switch action for use on weapons other than handguns.

Contoured Remote Backplate

Provides fingertip Remote action for use on handguns.

Operator's Manual

The manual details mounting procedures, operation, maintenance and general information about the M6X.

Case

The M6X ships in a plastic case that securely holds the unit and its components.

SLIDE-LOCK® MOUNTING PROCEDURES

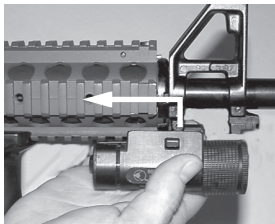
To Mount the M6X:

With your “cleared and safe” firearm in one hand, hold the M6X in the other hand with the light bulb facing in the direction of the muzzle of the firearm, away from your body and in a safe direction.

Bring the M6X up and toward the firearm, aligning the grooves of the M6X and the rail grooves on the firearm; slide the M6X straight back until the latch engages into the locking slot located between the grooves of the firearm. There will be an audible “click” when the M6X is secured. To check for positive engagement of the M6X to the firearm, attempt to slide the M6X forward. You should not be able to move the M6X forward without disengaging the latchbar. The M6X is now mounted.



Handgun Mount



Long Gun Mount

SLIDE-LOCK® DISMOUNTING PROCEDURES

To Dismount the M6X:

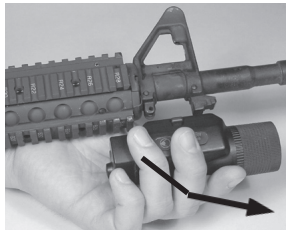
Be sure the M6X light bulb faces in the same direction of the muzzle of the firearm, away from your body and in a safe direction.

With your “cleared and safe” firearm in one hand, place your free hand under the M6X and pull down on the latchbar to disengage the latchbar from the weapon.

With the latchbar disengaged, pull downward and forward until the M6X slides clear of the grooves on the firearm. Do Not put your hand in front of the muzzle.



Handgun Dismount



Long Gun Dismount

RAIL GRABBER MOUNTING PROCEDURES

To Mount the M6X:

Turn the screw of the rail grabber on the M6X counter-clockwise to open the jaws. With your “cleared and safe” firearm in one hand, hold the M6X in the other hand with the light bulb facing in the same direction as the muzzle, away from your body. Bring the M6X up and toward the firearm, aligning the jaw on the M6X with the rail on the firearm, pivoting into place until seated on the rail, and ensuring the screw seats securely in a groove on the rail. Tighten the screw clockwise to secure the M6X to the rail; further tighten using a coin or all-purpose tool if necessary. Verify positive engagement by attempting to move the M6X forward on the rail: it should not move.



Handgun Mount



Long Gun Mount

RAIL GRABBER DISMOUNTING PROCEDURES

To Dismount the M6X:

Turn the screw counter-clockwise to open the jaw. With the jaw loosened, pivot away from the rail until the M6X is dismounted.



Handgun Dismount



Long Gun Dismount

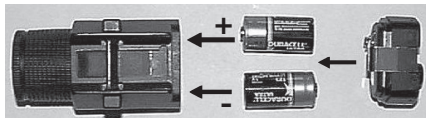
Loosen Screw
Counter-Clockwise

OPERATING PROCEDURES

Battery Installation:

With the M6X dismounted from the firearm, hold the M6X in one hand and press the backplate towards the unit. With the other hand, pull up on the tab located at the top center of the backplate. Pivot the backplate away from the body of the M6X and remove the batteries from the body of the M6X by tipping the body and allowing the two batteries to slide out.

Replace the two, 3-volt Lithium 123 batteries following the raised battery orientation markings on the outside of the unit (manufacturer recommends the use of Lithium 123 batteries). Insert the battery on the left side negative end first, and insert the battery on the right side positive end first. Place the lip of the backplate into the small groove in the bottom of the M6X body and pivot upward. Holding the backplate closed, swing the metal latch onto the body and snap it into place. An audible “click” can be heard. Be sure the light is functioning by turning the unit on. If it does not come on, check to be sure that the backplate is secure. If the light still does not operate, remove the backplate and verify that the batteries are installed correctly.

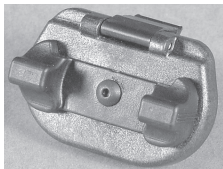


Battery Installation

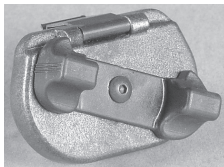
OPERATING PROCEDURES

Rocker Backplate for Handguns:

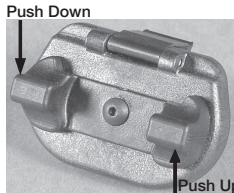
Pushing the Rocker Switch clockwise to the Steady-ON position will make the light come on and stay on until the Rocker Switch is pushed back to the OFF (center) position. Pushing and holding the Rocker Switch counter-clockwise to the Momentary-ON position will make the light turn on and stay on until the Rocker Switch is released and it springs back to the neutral (center) OFF position.



Rocker Backplate OFF



Rocker Backplate Steady-ON

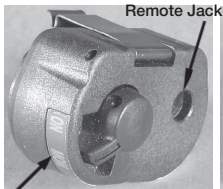


Rocker Backplate Momentary-ON

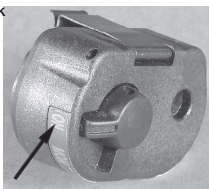
OPERATING PROCEDURES

Long Gun Backplate:

With the M6X (and Long Gun Backplate) securely mounted to the firearm rail, insert the Remote Cable Switch into the Remote Jack and attach the pad to a comfortable position on the firearm with Velcro®. Turn the rotary switch on the Long Gun Backplate to the Momentary-ON position, and press the Remote Cable Switch pad for the light to turn on and stay on until the pad is released. The light will NOT turn on until the pad is pressed when the M6X is in the Momentary-ON position with this backplate. The Remote Cable Switch can only be used in the Momentary position, it has no function in the Steady-ON mode.



Long Gun Backplate
Momentary-ON



Long Gun Backplate
Steady-ON



Remote Cable Switch in Use

OPERATING PROCEDURES

Optional Contoured Remote Backplate:

An optional Contoured Remote Backplate is available for use on handguns. The contour follows the lines of the handgun's trigger guard to the front area of the grip. The end of the remote has a pushbutton switch, enabling the momentary use of the M6X while holding and firing the pistol, all with one hand.

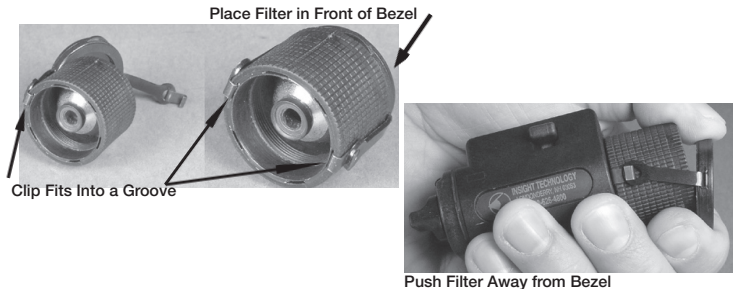
Optional Contoured Remote Switch Backplate in Use



OPERATING PROCEDURES

Bikini-Style Filter Installation (IR, Red or Solid):

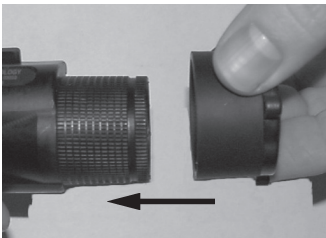
With the bezel removed from the M6X, slip the clip portion of the Bikini-Style Filter harness into a groove on the bezel. Position the filter over the lens end of the bezel as you slip the other strap around and hook it into a groove on the opposite side of the bezel as shown below. Reinstall the bezel by rotating clockwise, being careful not to pinch the O-ring. The Filter can now be flipped away from the end of the bezel if full light is needed as shown below.



OPERATING PROCEDURES

Flip-Open Lens Cap Installation:

Slide lens cap onto bezel until it is snug. To flip open the lens cap, push the tabs away from the lens cap.



Slide Flip-Open Lens Cap onto Bezel



Flip Filter Away from Bezel

OPERATING PROCEDURES

Focusing:

To focus the beam of the M6X, simply turn the bezel until the desired focus is reached. Be careful not to unscrew the bezel from the body.

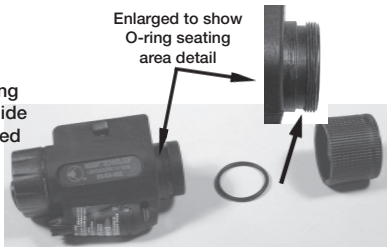
Bezel O-ring:

The Bezel O-ring should routinely be inspected to ensure it is clean and supple. Periodically lubricate the O-ring with a petroleum jelly.

The O-ring should be replaced if it becomes cut, nicked or dried out. To replace the bezel O-ring, slide the O-ring away from the body of the M6X, and slide on a new O-ring that has been lubricated with a petroleum jelly.



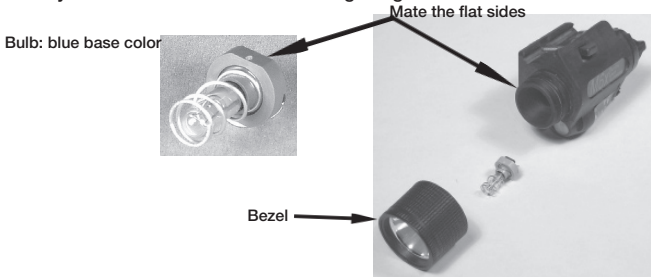
Enlarged to show
O-ring seating
area detail



OPERATING PROCEDURES

Bulb Replacement:

With the M6X dismounted from the firearm and turned OFF, unscrew the bezel counter clockwise until it can be removed from the main body: there is a slight spring pressure as the bezel comes free of the retaining threads. Remove the old bulb from the M6X, and insert the new bulb into the cavity by mating the flat sides, as shown below. NOTE: the bulb has a blue base color, DO NOT use light bulbs from other units. Reinstall the bezel by rotating clockwise, and align the recoil spring in the counter-bore of the reflector. NOTE: Be sure to fully engage bezel on M6X main body so it does not come loose during firing.

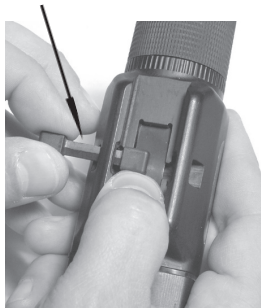
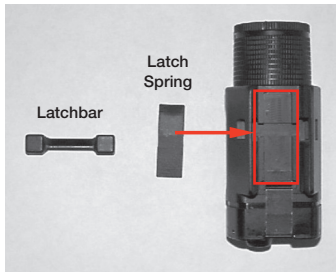


OPERATING PROCEDURES

Latchbar Replacement:

To remove the latchbar, press down on the latch spring and slide the latchbar out either side of the unit. To insert latchbar, place the latch spring in place, curved side up. Press down on the latch spring and slide the latchbar (beveled side up) into position. **NOTE:** Glock Latchbars are marked with a **G** and are specifically designed for Glock rails. 1913 latchbars are specifically for 1913 rails (no distinguishing mark).

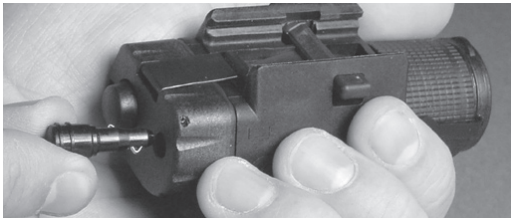
Beveled side of latchbar faces UP!



OPERATING PROCEDURES

Remote Cable Switch:

The Remote Cable Switch provides fingertip control of the M6X using a rubber membrane style switch that is compatible with other Insight products. Velcro® is supplied to secure the switch to the weapon. A cable switch is required to operate the M6X when using the long gun backplate in the Momentary-ON position (it has no function in Steady-ON). The cable switch plugs into the remote jack on the M6X. When the Long Gun Backplate switch is rotated to the Momentary-ON position, pressing the pad at the end of the Remote Cable Switch causes the M6X to turn on momentarily. When the Remote is installed in the M6X long gun backplate, it automatically locks in place. To remove it, pull back on the plug sleeve and pull the plug out. **DO NOT TRY TO REMOVE THE PLUG BY PULLING ON THE CABLE.**



MODE SELECT SWITCH



Mode Select Switch:

There are four (4) positions to select from depending on the intended mode of operation, and the model of the M6X that you are using. Each mode is indicated on the bottom of the Warning Label. While looking at the label, the first position is OFF, the second is IR or VIS, the third is ILL, and the fourth is IR/ILL or VIS/ILL. The following is a list of operational modes

available when the rotary Mode Select switch is activated through its positions, and the switch is then activated (either on the Rocker Backplate, Long Gun Backplate or Contoured Remote Backplate).

VISIBLE LASER

OFF - The system is completely inoperable in this mode.

VIS - Only the visible laser operates.

ILL - Only the white flashlight Illuminator operates.

VIS/ILL - Both the laser and white flashlight operate together.

INFRARED LASER

OFF - The system is completely inoperable in this mode.

IR - Only infrared laser operates.

ILL - Only the white flashlight Illuminator operates.

IR/ILL - Both the laser and white flashlight operate together.

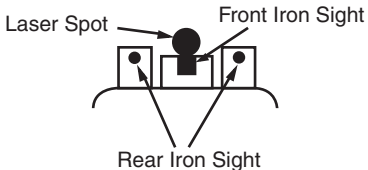
ZEROING PROCEDURES: 25m RANGE

Set up a target at 25 meters with a clearly visible aiming point. With the unit mounted to the weapon, turn the Mode Select Switch to a laser mode, and turn the rocker switch to Steady-ON. While aiming the weapon through the iron sights, use the provided adjuster tool (hex wrench) to adjust the aim point of the M6X by turning the adjusters, as needed, to superimpose the beam's aiming point over the weapon's iron sight aim point. For IR, use Night Vision Devices to perform this operation. Aim and fire a three round shot group into the center of the target aiming point at 25 meters. Compare the impact point of the shot group to where the beam's aiming point was on the target to ensure proper alignment.

Make the necessary adjustments to the beam to ensure the M6X aiming point and the shot group are properly aligned. Turn the unit OFF.



Adjusting the Aiming Point
Bottom Adjuster (Azimuth)



MAINTENANCE

Clean the M6X by rinsing with clean water or using mild soap and water, then wipe dry with a soft cloth. Standard gun cleaning solvents may be used to clean stubborn areas. Rinse with clean water to eliminate residue. Cleaning should be done whenever the M6X becomes dirty or after exposure to salt water.

To clean the illumination window, wipe using a soft cloth with clean water, alcohol, or general-purpose window cleaner.

NOTE: To avoid a build-up of muzzle blast on the flashlight bezel lens, rub a small amount of oil or lubricating solvent on the exterior glass **ONLY** before shooting. This will make post-shooting clean up easier.

Clean the electrical contacts with a cotton ball or soft cloth dipped in alcohol. For heavier build-up, use a standard pencil eraser.

Replacement bulbs can be purchased through the dealer where you purchased your light, or you can contact Insight directly to locate a stocking distributor. M6X bulbs have a **blue** colored base, **DO NOT** use other bulbs in the M6X.

LIMITED LIFETIME WARRANTY

INSIGHT TECH-GEAR

Insight Tech-Gear warrants this product free from defects in workmanship and materials for the life of the product. This Lifetime Warranty covers the product but excludes batteries, bulbs, and accessories.

At its sole discretion, Insight Tech-Gear shall either repair or replace any product or part (batteries, bulbs, and accessories not included) which is found to be defective under normal use and service. Insight's obligation to either repair or replace shall be the purchaser's sole and exclusive remedy under this warranty. Damage from batteries is not covered. Carefully follow maintenance instructions to prevent battery damage from occurring.

There are no other warranties, expressed or implied, other than as set forth on this page, and Insight Tech-Gear disclaims any warranties of merchantability or fitness for a particular purpose. Insight Tech-Gear shall not be liable for incidental, consequential or special damages arising out of or in connection with product use or performance.



For service, repair, or replacement, please call for a Return Material Authorization Number (RMA) before returning unit. Send via "UPS Prepaid" with a copy of the sales receipt and the RMA number clearly marked on the package to:

Insight Tech-Gear
23 Industrial Drive
Londonderry, NH 03053
ATTN: COMMERCIAL SALES

Phone: 877-744-4802 / Fax: 603-668-1084
www.insighttechgear.com

The exportation of this product falls under the jurisdiction of the U.S. Commerce Department Bureau of Industry and Security and is subject to the Export Administration Regulations.

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