XVL2

PISTOL & CARBINE LIGHT / LASER MODULE SYSTEM

XVL2 NSN: 6230-01-674-5624

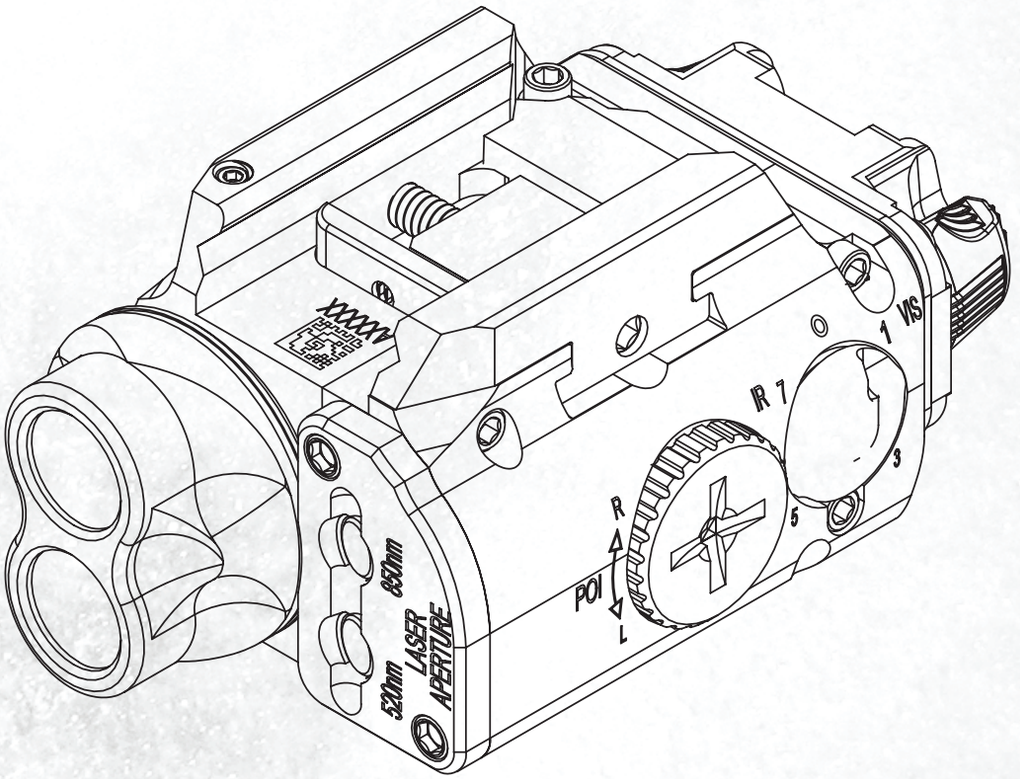
XVL2-TN

MVB
MAXVISION BEAM™

IR VIS
DUAL OUTPUT

LASER

MULTIPLE SETTINGS



USER MANUAL

THESE COMMODITIES, TECHNICAL DATA AND/OR SOFTWARE ARE SUBJECT TO EXPORT CONTROLS ADMINISTERED BY THE U.S. GOVERNMENT. EXPORT AND/OR RELEASE TO FOREIGN ENTITIES MUST COMPLY WITH THE APPROPRIATE U.S. GOVERNMENT REGULATIONS.

LASER SAFETY

A laser produces a very narrow beam of light, which may cause physical harm to a human being. Subsequently, all lasers are regulated by the Federal Government. Lasers are classified by the intensity of the light they emit. Operational safety requirements are set by the Food & Drug Administration (FDA) and the Center for Devices & Radiological Health (CDRH) in accordance with the potential hazard to the user.

Always follow the following guidelines:

1. Never look directly into the laser beam or stare at it at close range.
2. Never shine the laser in a person's eye at close range.
3. Do not direct the beam at anyone operating a vehicle, boat, or aircraft, as the beam appears very bright (especially at night) in a person's eyes, even at great distances.
4. Be aware that beam can be reflected off of mirrors or shiny surfaces.
5. Use the laser sight only for its intended purpose.

DO NOT VIEW THE LASER BEAM WITH OPTICAL INSTRUMENTS (SCOPES, BINOCULARS, ETC.).
DO NOT ATTEMPT TO OPEN OR MODIFY LASER HOUSING.

SWITCH POSITION	LASER OUTPUT	LASER CLASSIFICATION	ILLUMINATOR OUTPUT	EYE SAFE
0	OFF	N/A	OFF	-
1	OFF	N/A	WHITE	-
2	520nm <5mW	CLASS IIIa	WHITE	YES
3*	520nm <47mW	CLASS IIIb	WHITE	NO
4*	520nm <47mW	CLASS IIIb	OFF	NO
5*	850nm <3mW	CLASS IIIb	OFF	NO
6*	850nm <3mW	CLASS IIIb	INFRARED	NO
7	850nm <0.7mW	CLASS I	INFRARED	YES

*Safety screw must be removed to adjust mode switch

TECHNICAL SPECIFICATIONS	VISIBLE ILLUMINATOR	INFRARED (IR) ILLUMINATOR	VISIBLE LASER	INFRARED (IR) LASER
LASER BEAM COLOR	White	N/A	Green	No Color
LASER WAVELENGTH (NM)	N/A	850 nm	520 nm	850 nm
OUTPUT POWER (MW)	400 Lumens	300 mW	<5 mW (Class IIIa) <47 mW (Class IIIb)	<0.7 mW (Class I) <3 mW (Class IIIb)
BEAM DIAMETER AT 25M (MM)	N/A	N/A	29.7 mm	29.4 mm
BEAM DIVERGENCE (MRAD)	N/A	N/A	1 mrad	1 mrad
NOMINAL OCULAR HAZARD DISTANCE (NOHD) UNAIDED, (M)*	N/A	N/A	36.2 m (Class IIIa) 48.5 m (Class IIIb)	11.2 m (Class I) 137 m (Class IIIb)
NOMINAL OCULAR HAZARD DISTANCE (NOHD) 5 CM AIDED, (M)*	N/A	N/A	232 m (Class IIIa) 311 m (Class IIIb)	56 m (Class I) 685 m (Class IIIb)
NOMINAL OCULAR HAZARD DISTANCE (NOHD) 8 CM AIDED, (M)*	N/A	N/A	372 m (Class IIIa) 499m (Class IIIb)	90 m (Class I) 1096 m (Class IIIb)
NOMINAL OCULAR HAZARD DISTANCE (NOHD) 12 CM AIDED, (M)*	N/A	N/A	558 m (Class IIIa) 748 m (Class IIIb)	134 m (Class I) 1644 m (Class IIIb)
LASER CERTIFICATION	N/A	N/A	Class IIIa (Training) Class IIIb (High Power)	Class I (Training) Class IIIb (High Power)
EFFECTIVE RANGE IN DARKNESS (M)	54 meters	100 meters	200 meters	300 meters
EFFECTIVE RANGE IN DAYLIGHT (M)	N/A	N/A	50 meters	N/A
OPERATING TEMPERATURE	-10°C to 75°C	-10°C to 75°C	-10°C to 75°C	-10°C to 75°C

* Based on calculation derived from ANSI Z136.1-2007 (asuming 90% optical efficiency for visible light and 70% optical efficiency for infrared laser)

⚠ WARNING

Tactical Modes are not eye safe and can lead to vision impairment.

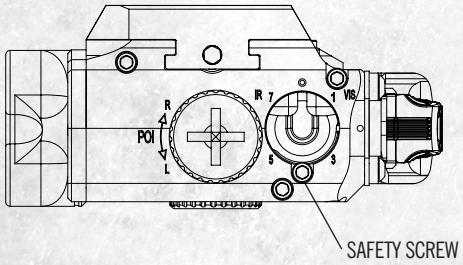
MODE SELECTION

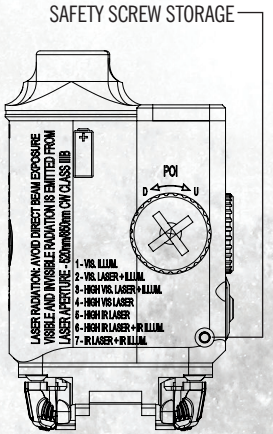
SWITCH POSITION	LASER OUTPUT	LASER CLASSIFICATION	ILLUMINATOR OUTPUT
0	OFF	N/A	OFF
1	OFF	N/A	WHITE
2	520nm <5mW	CLASS IIIa	WHITE
3*	520nm <47mW	CLASS IIIb	WHITE
4*	520nm <47mW	CLASS IIIb	OFF
5*	850nm <3mW	CLASS IIIb	OFF
6*	850nm <3mW	CLASS IIIb	INFRARED
7	850nm <0.7mW	CLASS I	INFRARED

*Safety screw must be removed to adjust mode switch

⚠ WARNING

The high power modes of operation (switch position 3, 4, 5 and 6) are blocked with a blue safety screw. Unit not eye safe in Tactical Mode.

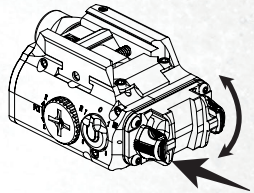




MOMENTARY & CONSTANT ON OPERATION

⚠ WARNING

ALWAYS confirm weapon is unloaded and on SAFE before attempting installation, service or adjustment of the XVL2.



For momentary-on light operation, press and hold either the right or left side of tailcap toggle switch; release to turn light off.

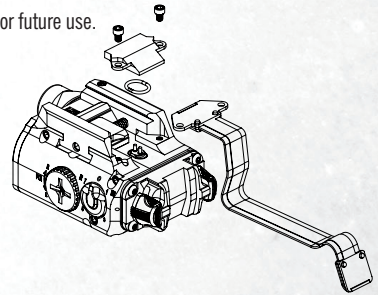
For constant-on operation, rotate tailcap toggle switch up or down; rotate in the opposite direction to turn light off.

⚠ WARNING

Tactical Modes are not eye safe and can lead to vision impairment.

REMOTE SWITCH INSTALLATION (OPTIONAL)

1. Use a 5/64" hex wrench to remove plate cover. Store for future use.
2. Align remote pistol switch pin contacts with contact pads and screw holes on top of the weaponlight body.
3. Replace socket head screws into holes and screw into body using a 5/64" hex wrench.



INSTALLING AND INTERCHANGING THE CROSS BLOCK OR T-SLOT RAIL WITH INTEGRATED CROSS BLOCK

1. Loosen Rail-Adjustment Bolt by turning counterclockwise until Cross Block "wedge" is fully exposed.
2. Remove Cross Block by lifting it out.
3. Place Cross Block into slot ensuring that the "P" or "U" letter on front edge of Cross Block is facing forward (toward bezel) and "wedge" is facing rearward.
4. Push Cross Block all the way forward and, while holding Cross Block in place, tighten Rail-Adjustment Bolt by turning clockwise until T-Slot Rail overlaps Cross Block "wedge," locking it securely in place.

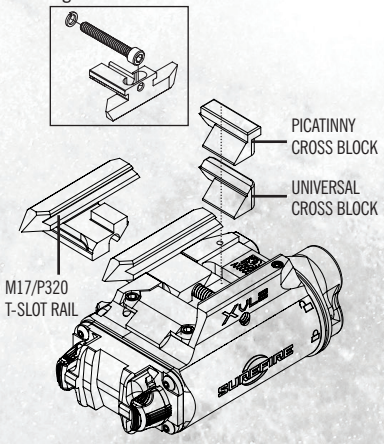
Note: *The Picatinny or Universal Cross Blocks are not necessary when installing the M17/P320 T-Slot Rail.*

Store standard T-Slot, Picatinny and Universal Cross Blocks for future use.

SIG SAUER P320 INSTALLATION

1. Loosen Rail-Adjustment Bolt by turning counterclockwise until T-Slot Rail is removed completely from weapon light.
2. Remove the Rail Adjustment Bolt and Lock Washer from the T-Slot Rail.
3. Install Rail Adjustment Bolt and Lock Washer into M17/P320 T-Slot Rail (Figure 1), align with T-slot cut in body and rotate Rail Adjustment Bolt clockwise until it engages in body.

Figure 1.



ATTACHING TO HOST WEAPON RAIL

⚠ WARNING

ALWAYS confirm weapon is unloaded and on SAFE before attempting installation, service or adjustment of the XVL2.

Note: *The appropriate Cross Block MUST be installed ("U" for Universal rails; "P" for Picatinny rails) to attach XVL2 to host weapon rail. Some pistols with a MIL-STD-1913 rail may require the Universal Cross Block to properly interface with the location of the front trigger guard surface. For Sig Sauer M17/P320 use only supplied T-Slot Rail with integrated Wedge Block with no additional Cross Block.*

1. Adjust gap between stationary and T-Slot Rail by turning Rail-Adjustment Bolt clockwise or counterclockwise until gap is sufficiently wide to fit over weapon accessory rail.
2. Align Fixed Rail with weapon's accessory rail and hinge XVL2 over the cross slot of host weapon
3. Mate Cross Block with corresponding cross slot in weapon's accessory rail.
4. Secure by turning Rail-Adjustment Bolt clockwise. Turn Rail Adjustment Bolt until the XVL2 fits snugly onto host weapon rail. Use a 7/64" hex wrench to further tighten Rail Adjustment Bolt no more than a 1/4 turn or until the Rail Adjustment Bolt stops moving. **Do NOT overtighten!** The Rail Adjustment Bolt will break if excessive force is applied with a tool.

ZEROING INSTRUCTIONS

⚠ WARNING

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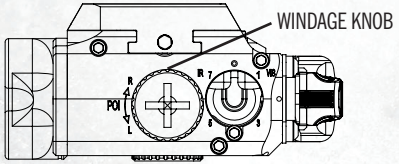
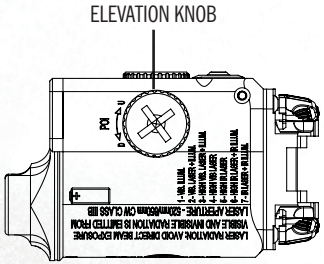




1. While aiming with host weapon sights at the desired range, determine which direction(s) laser needs to be adjusted for green dot's position to match weapon's point of impact (POI).

2. Make the necessary adjustments using a common tool to adjust the Windage and Elevation knobs per instructions below, based on mounting position (from shooter's perspective) and visible or infrared laser dot's relation to weapon's point of impact (POI).

Note: *If gross adjustment is required to zero the laser, alternate between adjustment knobs while making incremental adjustments to prevent the laser module from binding. Excessive tightening of the adjustment knobs can cause damage to the laser assembly.*

If mounted at 6 o'clock position and POI is…

a. …left of point of aim, rotate Windage knob clockwise (CW).
b. …right of point of aim, rotate Windage knob counterclockwise (CCW).
c. …above point of aim, rotate Elevation knob counterclockwise (CCW).
d. …below point of aim, rotate Elevation knob clockwise (CW).

If mounted at 3 o'clock position (long guns only) and POI is…

a. …left of point of aim, rotate Elevation knob counterclockwise (CCW).
b. …right of point of aim, rotate Elevation knob clockwise (CW).
c. …above point of aim, rotate Windage knob counterclockwise (CCW).
d. …below point of aim, rotate Windage knob clockwise (CW).

If mounted at 9 o'clock position (long guns only) and POI is…

a. …left of point of aim, rotate Elevation knob clockwise (CW).
b. …right of point of aim, rotate Elevation knob counterclockwise (CCW).
c. …above point of aim, rotate Windage knob clockwise (CW).
d. …below point of aim, rotate Windage knob counterclockwise (CCW).

Note: *SureFire recommends zeroing the laser sight at 25 yards, against a target, to coincide with point-of-aim of the host weapon's factory sights. Any discrepancy in point-of-aim (POA) versus point-of-impact (POI) at target distances between 10 and 25 yards is negligible. Laser sight may require re-zeroing after the first 10-50 rounds, as the adjustment apparatus may settle into position.*

Laser should be zeroed every time XVL2 is reattached to host weapon.

⚠ WARNING

ALWAYS confirm weapon is unloaded and on SAFE before attempting installation, service or adjustment of the XVL2.

BATTERY INSTALLATION / REPLACEMENT

⚠ BATTERY INFORMATION & WARNING

Before replacing batteries, read the enclosed BATTERY INFORMATION/ WARNING insert in your original packaging. For additional battery safety, handling, and product information, visit **www.surefire.com/batteries**.

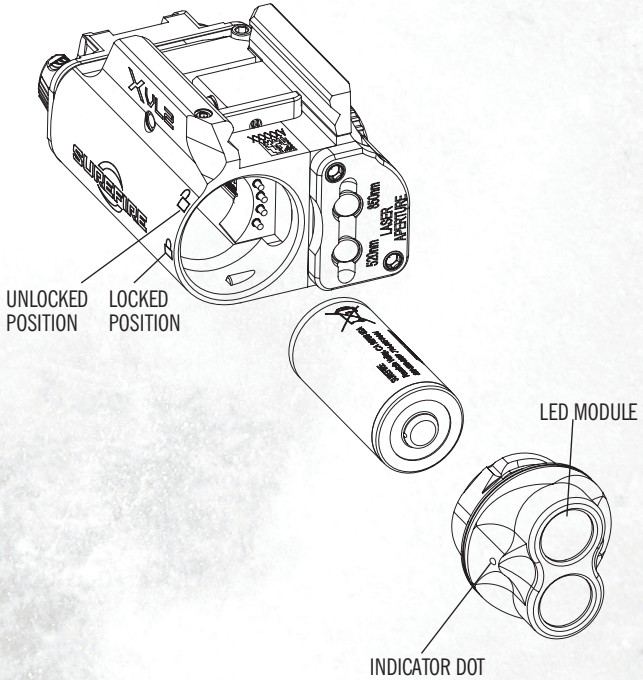
1. Rotate by hand and align indicator dot with unlock symbol and gently pull forward on the LED Module.
2. Remove and appropriately discard depleted battery.
3. Insert fresh battery into the body with the positive (+) terminal facing toward as shown.
4. Align indicator dot on head with unlock symbol.
5. Insert LED Module into body and rotate by hand until dot is aligned with the lock indicator.

MAINTENANCE

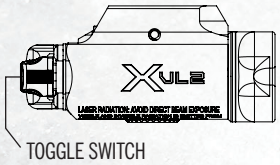
Use a clean, dry cloth to wipe off body and window. For additional tips on maintaining your SureFire illumination tool, visit **www.surefire.com/faqs-maintenance**.

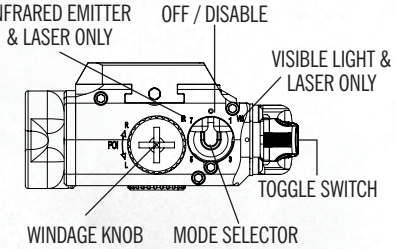
ACCESSORIES

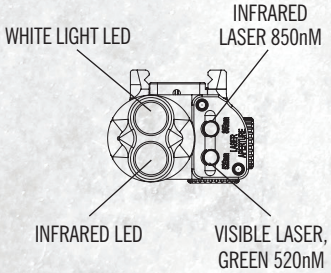
SureFire makes a full line of accessories for most of its illumination tools. For a complete listing, visit **www.surefire.com/partsaccessories**.

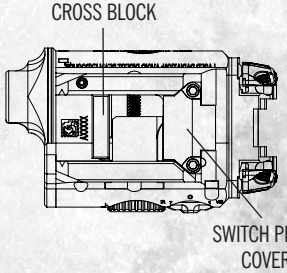


COMPONENT DIAGRAMS









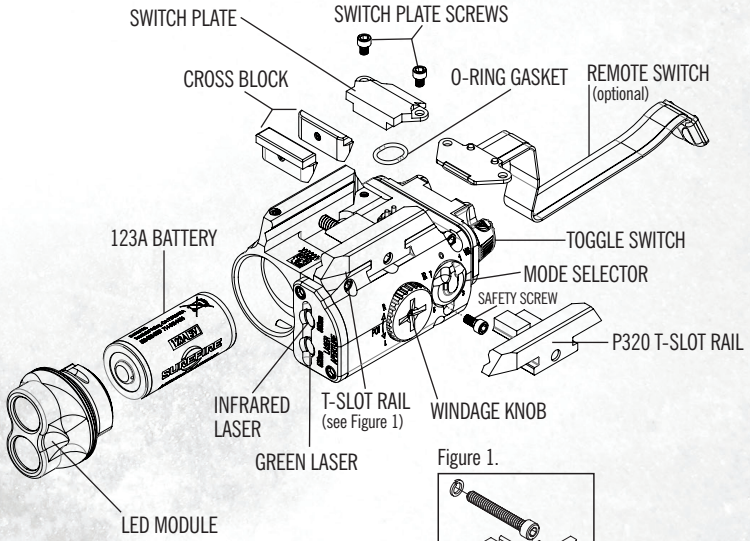
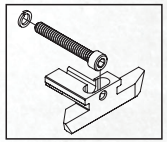


Figure 1.



SPARE PARTS KITS

PART DESCRIPTION	COMMON PARTS	Z88	Z88-TN
T-SLOT RAIL	-	24493-1	24493-11
RAIL ADJUSTMENT BOLT	12-02-138	-	-
SPLIT RING WASHER	25-01-027	-	-
SWITCH COVER	-	24670-1	24670-11
SWITCH COVER SCREW (2 ea)	12-02-124	-	-
SWITCH COVER O-RING GASKET	19-01-215	-	-
CROSS BLOCK, UNIVERSAL	-	24616-1	24616-11
CROSS BLOCK, PICATINNY	-	24669-1	24669-11
SIG SAUER P320 T-SLOT RAIL	-	24851-1	24851-11
SAFETY SCREW	12-02-136	-	-
RAIL SCREW KEY, 7/64"	70-03-001	-	-
SAFETY SCREW KEY, 5/64"	70-03-004	-	-

XVL2 ACCESSORIES

PART DESCRIPTION	COMMON PARTS	BLACK	TAN
LED MODULE	-	KM5-A-BK	KM5-A-TN
REMOTE SWITCH, PISTOL, GLOCK (GEN3/GEN4/GEN5 FRAMES)	RSP-01	-	-
REMOTE SWITCH, PISTOL, H&K P30/VP9 SERIES	RSP-02	-	-
REMOTE SWITCH, PISTOL, X-CARRY, X5 FULL-SIZE, X-VTAC AND P226R	RSP-04	-	-
REMOTE SWITCH, RIFLE, 7" SWITCH, MOMENTARY ON PRESSURE PAD ONLY	RSR-07	-	-
RAIL GRABBER REMOTE SWITCH, RIFLE, FOR XVL2, 7" SWITCH WITH MOMENTARY/CONSTANT ON PRESSURE PAD	RSR-SR07	-	-

SPECIFICATIONS

	XVL2		
LIGHT OUTPUT	WH: 400 lumens IR: 300mW	FINISH	Mil-Spec Hard Anodized
LASER OUTPUT	Training Mode: GN Laser: <5 mW (520 nm) IR: <.7mW (850 nm) Tactical Mode: GN Laser: <47 mW (+/- 10%) IR: <3mW (+/- 10%)	WEIGHT (w/batteries)	5 oz (142 g)
RUNTIME	1.5 hours	LENGTH	3.0 in (7.62 cm)
PEAK BEAM INTENSITY	820 candela	BEZEL DIAMETER	1.06 in (2.7 cm)
DISTANCE	54 meters	BATTERIES	One 123A lithium (incl.)
CONSTRUCTION	Aluminum	SWITCHING	Ambidextrous push/toggle

All performance claims tested to ANSI/NEMA FL1-2009 Standard.

WARRANTY

We'll do what it takes to keep your SureFire gear running smoothly. SureFire warrants that if you — our customer — purchase one of our products, and we determine that it is defective in material and/or workmanship during your lifetime, we will repair or replace it — no hassle!

Our warranty does not cover consumables or normal wear-and-tear — things like batteries draining, headbands and headpads wearing out, ink cartridges running out, and switches wearing out — or damage resulting from abuse, alterations, unauthorized repairs, or use contrary to SureFire's user manuals.

Should you need a replacement product, SureFire reserves the right to replace an obsolete product with a current production, like model. In the event that any issue with a SureFire product is not covered under this warranty SureFire can arrange to have the product repaired for a reasonable fee.

STANDARD DISCLAIMER

Except as specified above or prohibited by applicable law: all express or implied conditions and warranties, including, without limitation, any implied warranty or condition of merchantability or fitness for a particular purpose, or accuracy of any informational content, are hereby excluded and disclaimed by SureFire; and in no event will SureFire be liable for any special, direct, indirect, consequential, incidental or punitive damages howsoever arising and regardless of the theory of liability, even if advised of the possibility of such damages. Products, prices, availability, specifications, and offers are subject to change or cancellation at any time without notice.

WARRANTY CLAIMS

For repair or replacement contact Customer Service at 714-545-9444 and obtain a Return Merchandise Authorization number (RMA#).
Then package the unit carefully and return (no CODs please) to:

SureFire, LLC.
Repairs Department, RMA#____
17680 Newhope Street, Suite B
Fountain Valley, CA 92708

SureFire will pay any reasonable shipping costs to return the unit to you.

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71-01-1061
XVL2, XVL2-TN

SUREFIRE®

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