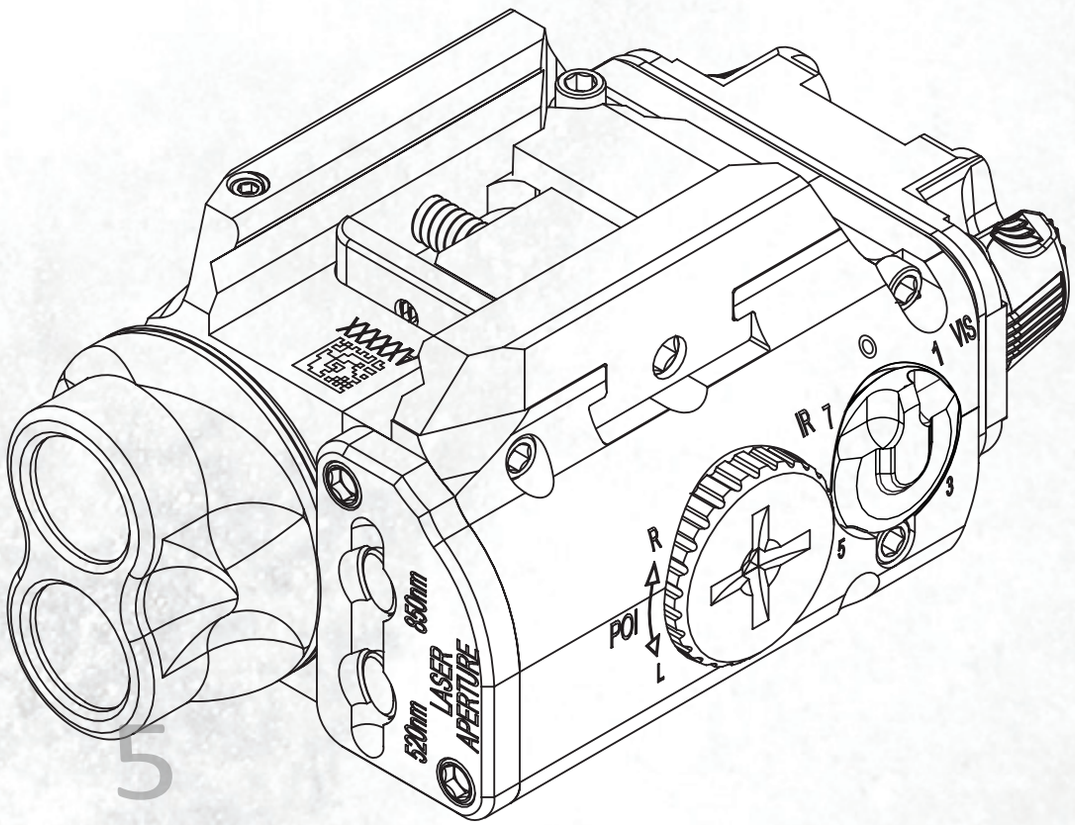
XVL2-IRC

PISTOL & CARBINE LIGHT / LASER MODULE SYSTEM

XVL2-IRC
XVL2-TN-IRC



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LICATION AND SECURITY REVIEW

USER MANUAL

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	OFF	YES
3	520nm <5mW	CLASS IIIa	WHITE	YES
4	OFF	N/A	OFF	-
5	850nm <0.7mW	CLASS I	INFRARED	YES
6	850nm <0.7mW	CLASS I	OFF	YES
7	OFF	N/A	INFRARED	-

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)	<0.7 mW (Class I)
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)	11.2 m (Class I)
NOMINAL OCULAR HAZARD DISTANCE (NOHD) 5 CM AIDED, (M)*	N/A	N/A	232 m (Class IIIa)	56 m (Class I)
NOMINAL OCULAR HAZARD DISTANCE (NOHD) 8 CM AIDED, (M)*	N/A	N/A	372 m (Class IIIa)	90 m (Class I)
NOMINAL OCULAR HAZARD DISTANCE (NOHD) 12 CM AIDED, (M)*	N/A	N/A	558 m (Class IIIa)	134 m (Class I)
LASER CERTIFICATION	N/A	N/A	Class IIIa (Training)	Class I (Training)
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)

MODE SELECTION

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	OFF	YES
3	520nm <5mW	CLASS IIIa	WHITE	YES
4	OFF	N/A	OFF	-
5	850nm <0.7mW	CLASS I	INFRARED	YES
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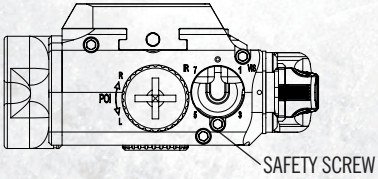
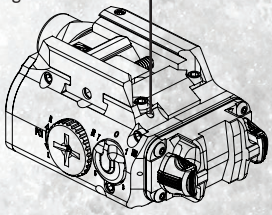


Note: *A low-signature green LED (Figure 1) will illuminate when either infrared emitter is activated. When illuminated the LED provides a visual indicator to determine if the infrared LED and/or laser have been left on and when night vision is not available to detect any infrared emissions.*

INFRARED ACTIVATION INDICATOR LED

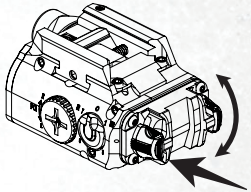
Figure 1.



MOMENTARY & CONSTANT ON OPERATION

⚠ WARNING

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



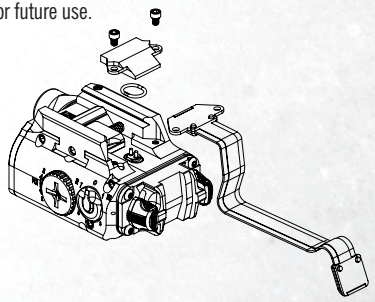
For momentary-on light operation, press and hold either the right or left side of tailcap toggle switch; release to turn light off.
For constant-on operation, rotate tailcap toggle switch up or down; rotate to turn light off.

⚠ 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.



Note: *If a torque wrench is not available use the supplied 5/64" hex key and hand tighten with light pressure until the screw stops rotating.*

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 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).
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, locking it securely in place.

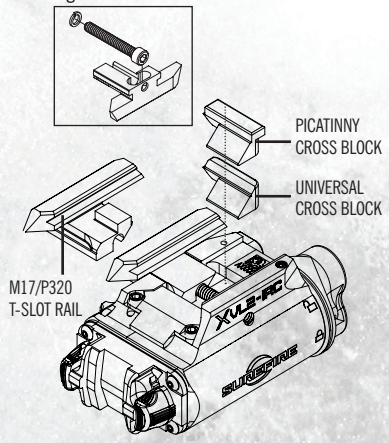
Note: *The Picatinny or Universal Cross Blocks are not necessary when installing the M17/P320 T-Slot Rail.*

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

SIG SAUER P320 INSTALLATION

1. Using the supplied 7/64” hex key, 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 with supplied 7/64” hex key 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 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 Cross Block with no additional Cross Block.*

1. Using the supplied 7/64” hex key, 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-IRC 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 until the XVL2-IRC fits snugly onto host weapon rail. Using a torque wrench and a 7/64” hex key, tighten to 8 in-lb onto a polymer pistol rail and to 8-9 in-lb on a metal pistol rail. **Do NOT overtighten!** The Rail Adjustment Bolt will break if excessive force is applied with a tool.

Note: *If a torque wrench is not available, use the supplied 7/64” hex key and hand tighten with light pressure until the screw stops rotating.*

ZEROING INSTRUCTIONS

⚠ WARNING

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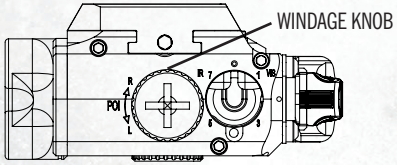
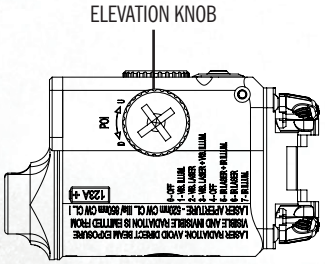




1. While aiming with host weapon sights at the desired range, determine which direction(s) laser needs to be adjusted for green dot's position to match weapon's point of impact (POI).

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: *Each click value for the Windage and Elevation knobs is 1 mil. 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-IRC.

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 forward 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.

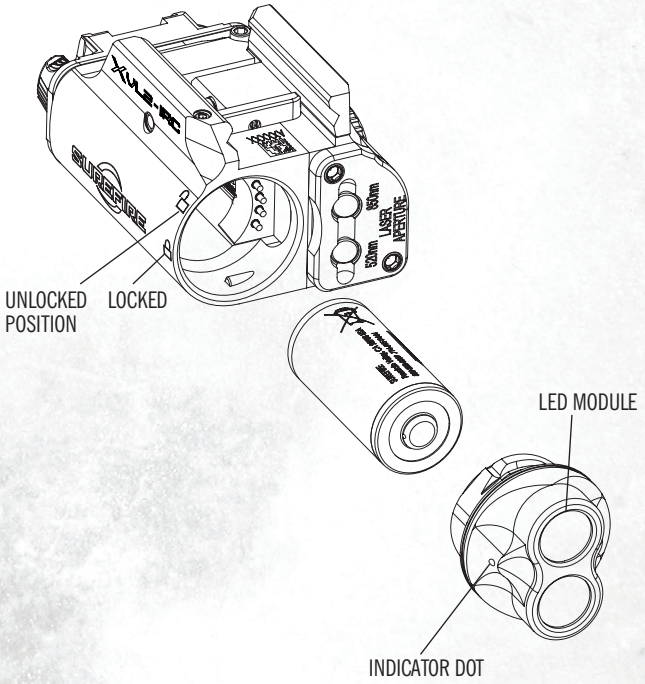
MAINTENANCE

Use supplied microfiber cloth to wipe away dirt and debris from the LED windows and laser lenses. If the microfiber cloth is not available, use a clean soft tissue or cloth towel.

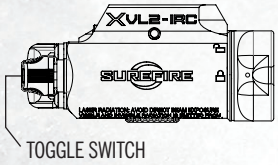
To remove more stubborn debris, spray affected area using supplied cleaning solution and let it sit for 10 seconds. A soft, nylon bristle brush can be used to break up the debris. Wipe debris away with a clean soft tissue or cloth towel.

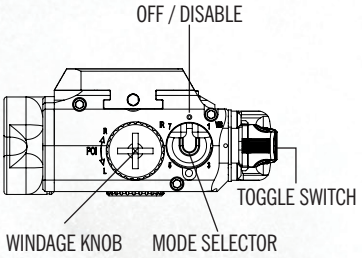
Always rinse XVL2 off with fresh water after being exposed to salt water or if exposed to salt spray. Salt build up will affect the sealing mechanisms potentially causing water ingress failure.

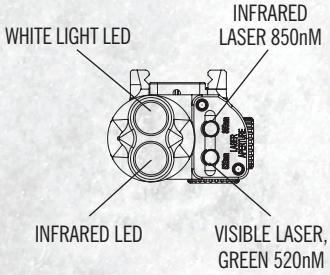
Avoid using petroleum based cleaning products to prevent damage to seals and O-rings.

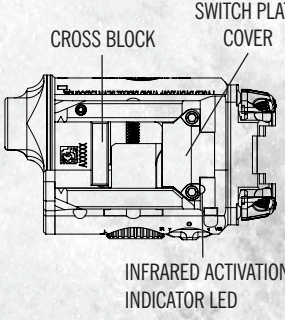


COMPONENT DIAGRAMS









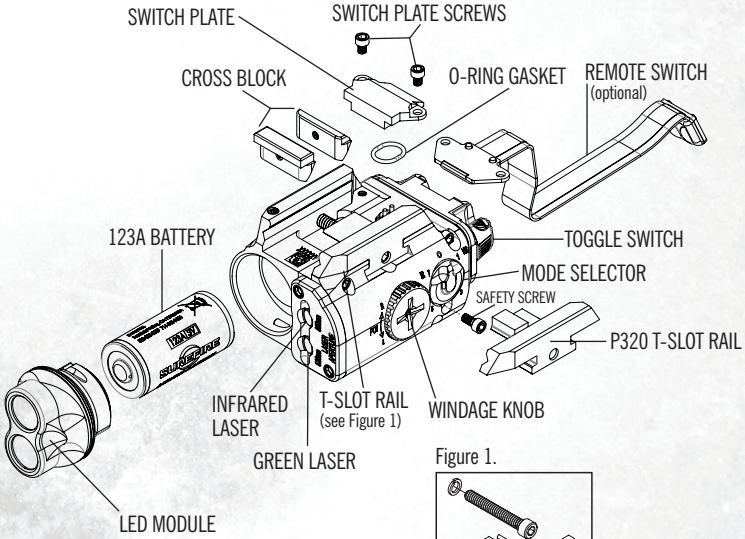
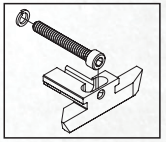


Figure 1.



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-IRC
LIGHT OUTPUT	WH: 400 lumens IR: 300mW
LASER OUTPUT	GN Laser: <5 mW (520 nm) IR: <0.7mW (850 nm)
RUNTIME	1.5 hours
PEAK BEAM INTENSITY	820 candela
DISTANCE	54 meters
CONSTRUCTION	Aluminum
FINISH	Hard Anodized (MIL-A-8625 Type III, Class 2)
WEIGHT (w/batteries)	5 oz (142 g)
LENGTH	3.0 in (7.62 cm)
BEZEL DIAMETER	1.06 in (2.7 cm)
BATTERIES	One 123A lithium (incl.)
SWITCHING	Ambidextrous push/toggle
LIQUID INGRESS PROTECTION	IPX8 (66 feet, 2 hours)

All performance claims tested to ANSI/NEMA FL1-2019 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.

Revision C 6-2021
71-01-1093
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