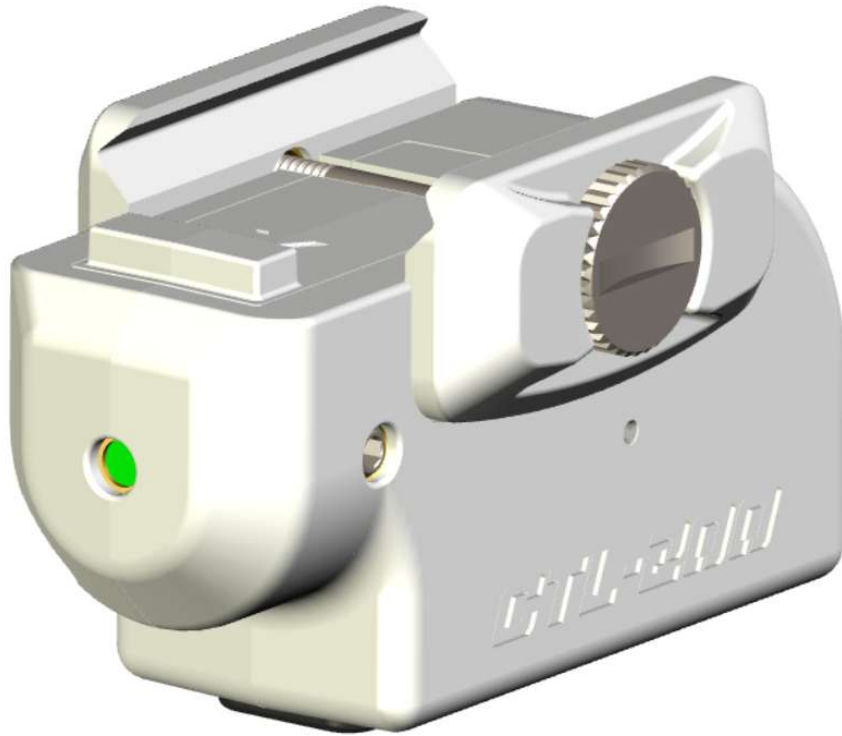


CTL-200



COMBAT TACTICAL LASER
MOTION ACTIVATED LASER TARGETING SYSTEM™
(MALTS™)



CTL-200

Welcome

Developed by Police and Military Veterans, Combat Tactical Laser introduces a highly differentiated laser product using our patented Motion Activated Laser Targeting System (MALTS™). Tactical experience, married with technology ensures seamless laser functionality in critical tactical scenarios.

This first of its kind application with lasers helps the user maintain concealment and improve accuracy in a tactical situation. Under duress is not the time to fumble with buttons or peep through a hole to locate your target.

The **CTL-200** easily mounts to many rail systems, such as Picatinny and Weaver. Featuring an adjustable design and a rechargeable battery that can hold its charge for months, it can provide several hours of active use. CTL offers a limited 3-year warranty – restrictions apply.

- Utilizes MALTS™ patented technology
- Laser activates upon weapon motion
- Enters sleep mode when at rest
- Laser automatically OFF in “high ready” “low ready” and “Sul” positions
- Laser OFF when on its side
- Laser ON when aimed downrange
- Bluetooth®

CTL-200

What's in the Box

- CTL-200 with MALTS™ Technology
- USB-C Cable
- CTL Wrench with 1.5 mm Hex Drive
- Laser Warning Labels
- CTL Welcome Card

PROTOTYPE

This prototype enclosure is 3D printed; the final product will be much stronger. Please use it accordingly.

CTL-200

Overview

| Feature | Description |
|------------------|--|
| Laser | Green |
| Activation | Laser On/Off controlled with Motion |
| Mounting | Rails: Picatinny and Weaver |
| Battery | Rechargeable Lithium Polymer |
| Charging Port | USB-C |
| Laser Adjustment | Windage and Elevation with Included CTL Wrench |
| Housing | Impact-Resistant Glass-Filled Polymer PROTOTYPE |
| Color | Black |
| Environment | Water Resistant (do not submerge) |
| Bluetooth® | Features Under Development |

CTL-200

Features

The *CTL-200* is powered by a high-capacity Lithium-Ion rechargeable battery, ensuring sustained performance during missions. With a wide operational temperature range from 14°F to 113°F, the *CTL-200* is engineered to deliver reliable performance for your needs.

Featuring a modern USB C charging port, the *CTL-200* offers convenient and quick recharging.

Equipped with a premium-grade laser compliant with FDA regulations, the *CTL-200* delivers exceptional visibility, even in daylight conditions.

The *CTL-200* easily mounts to various Picatinny and Weaver rails using our adapters. Some weapon manufacturers deviate from these specifications. If you have any issue with fitting our unit to your weapon, please give us a call.

PROTOTYPE 30-Day Return Policy

Take your time to ensure that our CTL-200 is the right product for you. We offer a 30-day return policy for units purchased directly from CTL and our registered affiliates. Please give us a call at **1-800-XXX-XXXX**.

CTL-200

Theory of Operation

The *CTL-200* is designed with cutting-edge technology to enhance weapon accuracy and performance. While in the Low Ready, High Ready or SUL positions, the laser is OFF. Once the weapon begins to be leveled downrange, our sophisticated IMU and microprocessor turns the laser ON, allowing the user to keep both eyes open to find the target.

The *CTL-200* collects data on the weapon's movement, sending continuous streams of information to a powerful microprocessor. The inertial sensors calculate the precise orientation of the weapon in real-time.

As soon as the weapon is moved from the firing position to a high ready, low ready, or Sul position, the laser swiftly deactivates.

Once in **Sleep Mode**, the *CTL-200* enters a low power state, providing extremely long battery life.

CTL-200

PROTOTYPE Specifications

| | |
|-----------------------|---|
| Green Laser* | Wavelength: 520nm |
| Output | ≤5.0mW |
| Class | IIIa |
| Beam Size | <10 x 20mm @ 20m (<0.4" x 0.8" @ 65 Feet) |
| Operating Temperature | -10°C to 50°C (14°F to 122°F) |
| Storage Temperature | -40°C to 80°C (-40°F to 176°F) |
| Working Life Span | 8,000 Hours @ 25°C |
| Battery* | Lithium-Polymer (LiPo) |
| Capacity | 330mAh, 3.7v |
| Operating Environment | -30°C to 60°C (-22°F to 140°F) |
| Charging Environment | 0°C to 45°C (32°F to 113°F) |
| Humidity | (40 - 90% RH) |
| Storage Temperature | <i>Recommendation:</i> -5°C to 35°C (23°F to 95°F) |
| Charge Time | Approximately 2 hours |
| Charge Amperage | <1/2 amp |
| Cycle Life | ≥300 @ 80% capacity |
| Self-Discharge | 28 days to 90% capacity |
| Dimensions | |
| Length | 51.3 mm (2.02") |
| Width | 28.2 mm (1.11") |
| Height | 31.3 mm (1.23") |
| Weight | 25g (0.9oz) |

*Based on ambient conditions at sea level; actual results may vary

CTL-200

Important Warnings

Failure to follow these operating instructions and warnings may result in property damage, serious injury, or death.

Firearm Safety: Prior to installing the CTL-200, ensure the firearm is unloaded and the magazine is removed.

WARNING:

Follow these precautions when handling a firearm:

- Ensure all users are trained in the proper handling and use of the firearm – including functionality and safety features.
- Always treat a firearm as if it were loaded.
- Always store your firearm so that children and others cannot gain access to it.
- Always point the barrel in a safe direction, away from anything you do not want to destroy.
- Keep your finger off the trigger until you are ready to fire.
- Be aware of your surroundings, your target and what is beyond.

CTL-200

Laser Safety

WARNING: The CTL-200 contains a Class IIIa laser, capable of causing permanent eye injury.

- DO NOT stare into the laser beam or use binoculars or telescopes to stare into the beam.
- DO NOT point the laser beam at reflective surfaces.
- DO NOT point the laser beam at faces or eyes.

Aperture Label



Affix to side of CTL-200 w/arrow pointing forward

Laser Warning Label



Affix to side of CTL-200

CTL-200

Laser Operation

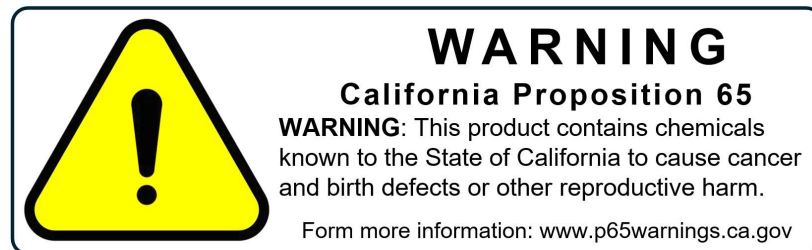
Regular Cleaning: Dust and debris that accumulates on the lens or aperture will affect the laser's performance. Use a soft, lint-free cloth and appropriate cleaning solution to gently clean the optical components. Keep the exterior housing clean to prevent dust and dirt from entering the module.

Environmental Control: Ensure the laser module operates within its specified temperature and humidity range. Excessive heat or humidity can damage the internal components, while extreme cold can affect performance.

FCC Compliance: This device has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

PROTOTYPE

Proposition 65 Warning



CTL-200

Battery Precautions

WARNING: FIRE, EXPLOSION, BURN HAZARD

The rechargeable battery within the *CTL-200* is equipped with integrated protection elements to prevent overcharging, over-discharging, shorting, over voltage and over current hazards.

Like a cell phone or other rechargeable battery device, follow these precautions to keep your battery healthy, and to prevent leaking, overheating, fire or explosion.

- **Avoid extreme temperatures:** Avoid storing or using in temperatures above 95°F or below 32°F. Avoid strong direct sunlight or in a vehicle in extremely hot weather. The battery can overheat, degrading its performance, shortening its life, or possibly causing a fire and/or explosion.
- **Avoid temperature shock:** While rechargeable batteries are capable of storage and operation at extreme temperatures for limited periods, avoid severe temperature swings. If exposed to very hot or very cold environments for a prolonged period, allow the battery to adjust back to ambient before use.

CTL-200

Battery Precautions

WARNING: FIRE, EXPLOSION, BURN HAZARD

For the best performance and life of the battery, follow these additional precautions:

- **Recharging:** Use a compliant 5V USB charger, suitable for rechargeable battery powered devices with the adapter cord provided.
- **Avoid physical damage:** Do not puncture and avoid damaging the enclosure, as this can lead to internal shorts, overheating and potentially, a fire.
- **WARNING:** If the unit gives off an odor, generates heat, becomes discolored or deformed, or in any way appears abnormal during use, recharging or storage, immediately remove the unit from your weapon and isolate it from flammable materials. Contact CTL for warranty replacement or repair.

CTL-200

Battery Warnings

WARNING: FIRE, EXPLOSION, BURN HAZARD

DO NOT OPEN THE ENCLOSURE OR REMOVE THE BATTERY. THIS VOIDS THE WARRANTY AND EXPOSES THE USER TO ADDITIONAL RECHARGEABLE BATTERY HAZARDS:

- DO NOT use or store the battery near a heat source such as fire or heater
- DO NOT dispose of the battery in fire or heat
- DO NOT short circuit, puncture, or disassemble
- DO NOT expose the battery to static electricity
- DO NOT transport, store or dispose of the battery together with metal objects which could cause a short
- DO NOT immerse in water or seawater
- DO NOT solder directly onto the battery
- DO NOT connect the battery to an electrical outlet
- DO NOT strike the battery against a hard surface

IF THE OUTER METAL CONDUCTOR CONTACTS THE INNER ALUMINUM LAMINATE FILM, THE RESULTANT SHORT WILL CAUSE HEAT, SWELLING, AND POSSIBLY A FIRE AND/OR EXPLOSION.

CTL-200

Battery Warnings

WARNING: FIRE, EXPLOSION, BURN HAZARD

DO NOT OPEN THE ENCLOSURE OR REMOVE THE BATTERY. THIS VOIDS THE WARRANTY AND EXPOSES THE USER TO ADDITIONAL RECHARGEABLE BATTERY HAZARDS:

- Use the battery charger specifically for that purpose.
- Store the battery in a cool dry environment.

ELECTROLYTE HAZARDS: The electrolyte within the battery is harmful. If the electrolyte comes into contact with your eyes, rinse your eyes with clean running water, and seek medical attention immediately. DO NOT rub your eyes. Continued exposure of the electrolyte to the eye surface can cause permanent injury and loss of sight.

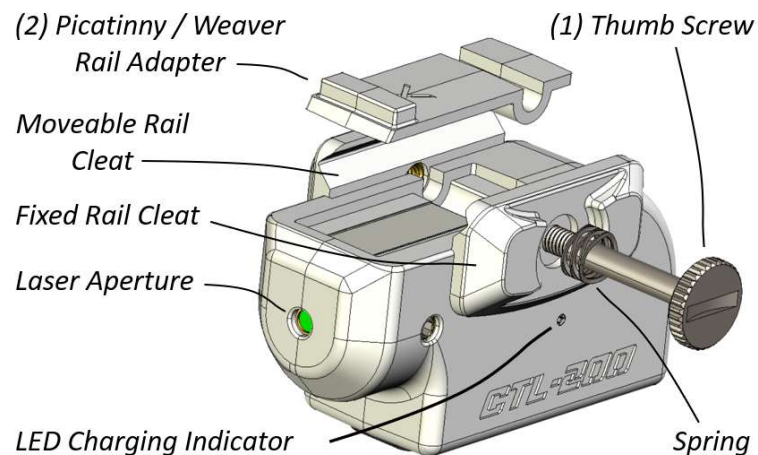
DISPOSAL:

- Be aware that discarded batteries may cause a fire. Apply insulating tape to the battery terminals before disposal.
- For proper battery disposal, follow all applicable federal, state, and local regulations and laws.

CTL-200

Getting Started

Charge: Charge the battery for about 2 hours, or until fully charged. While charging, the LED indicator is green, (the laser will not activate). Once fully charged, the LED indicator turns off.



Install: Find and install your included Picatinny or Weaver rail adapter appropriate for your weapon. (See table in this guide for a list of weapons and suggested adapters.)

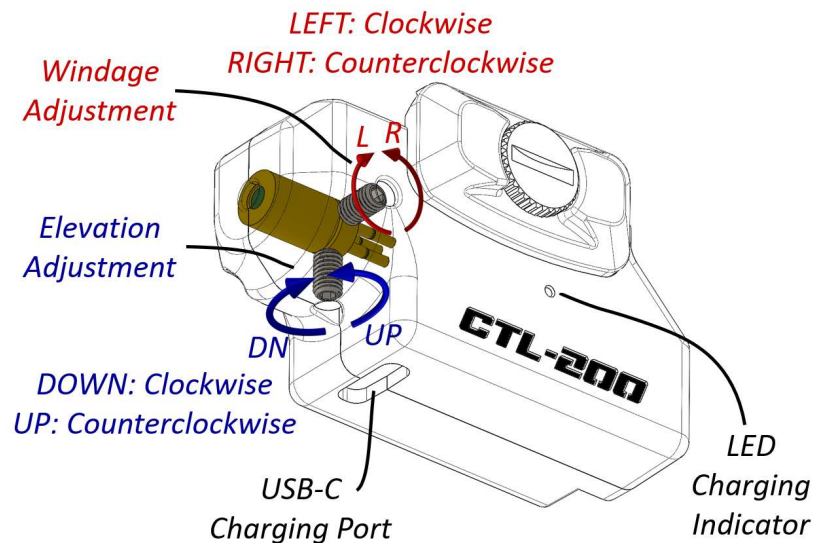
(1) Back-out the thumb screw (taking care to retain the spring and moveable rail cleat) and install your adapter (2). Reengage the thumb screw into the moveable cleat. Push the spring-loaded thumb screw and snap the CTL-200 onto your rail from the side by aligning the rail adapter with your rail's slot. Tighten the thumb screw with the included CTL wrench, a coin or a flat screwdriver.

CTL-200

Getting Started

WARNING: Do not install the CTL-200 in a manner which impedes the weapon manufacturer's intended operation. After installation and before use, ensure your weapon functions as the weapon manufacturer intends.

Laser Adjustment: Windage and Elevation alignment is accomplished using the included CTL Wrench (or 1.5mm Allen Wrench). Alignment set screws actuate the rear portion of the laser module. Align the laser in accordance with your weapon's fixed sight, at your desired distance. Because of parallax, alignment will differ due to distance.



CTL-200

LED Indicator

The LED Indicator has several modes:

- **RED BLINKING:** Indicates low battery. The laser will not activate. Red blinking will persist until:
 - a. without motion, the unit enters **Sleep Mode**
 - b. the battery is fully depleted
 - c. the unit is being charged
- **GREEN:** indicates the unit is charging
- **LED OFF:** while the charge cord is plugged-in, this indicates that the unit is at full charge.
- **TWO QUICK RED FLASHES:** When fully charged and the charge cord is unplugged, the unit will respond with 2 quick red flashes.

CTL-200

Charging Schedule

To prolong the life of the lithium battery, charging daily after use to a full charge is recommended.

- Avoid fully discharging the battery.
- Avoid partially charging the battery.

Active User: Charge daily. After a day of carrying your weapon, fully charge the unit – even if the laser was not activated. While in motion the *CTL-200* is in **Active Mode**, monitoring your every movement and ready to activate your laser when you need it most.

Range Use: Charge daily. After a day of active use at the range, fully charge your *CTL-200*.

Transportation Storage: Charge every 4 days. While being transported and under the effects of motion (and sometimes non-motion), the *CTL-200* switches between **Active Mode** and **Sleep Mode**. This power use requires the *CTL-200* to be charged after transportation.

Motionless Storage: Charge once a month. When placed in storage and without motion, the unit enters **Sleep Mode** to conserve power. the *CTL-200* will still be ready for use when needed. However, the lithium battery charge will diminish over time. To maintain readiness and to prolong the life of the lithium battery, charge once a month.

CTL-200

Operational Modes

The CTL-200 has four operational modes:

Sleep Mode: Lowest power state. This mode is entered when the laser is NOT ON and there has been no motion for 10 seconds. Upon sensing motion, the CTL-200 will exit this mode and return to **Active Mode**.

Active Mode (Laser OFF): Unit is monitoring position to determine when the laser should be ON and monitoring for the **Double-Double-Tap** gesture.

Active Mode (Laser ON): Highest power state. The laser is turned ON when the barrel angle and grip angle meet the ON criteria. The laser is turned OFF when the barrel and grip angle do not meet the ON criteria.

In the event that the user inadvertently moves the weapon into the barrel angle and grip angle position to activate the laser ON, after 20 seconds without any motion, the CTL-200 enters **Sleep Mode**.

Laser Disabled: The laser will not turn ON regardless of motion. *This mode is only entered and exited through the **Double-Double-Tap** gesture.* Use this mode for storage and transportation. Internally, the CTL-200 will be in **Sleep Mode** or **Active Mode (Laser OFF)**. The CTL-200 cannot enter the **Active Mode (Laser ON)** mode until the **Double-Double-Tap** gesture is performed again.

CTL-200

Gestures

The CTL-200 reacts automatically to certain movements and gestures:

Wake On Motion: While in **Sleep Mode**, the CTL-200 'awakens' in reaction to any movement and automatically enters **Active Mode**.

Auto Sleep Feature:

- While in **Active Mode (Laser OFF)**, the CTL-200 enters **Sleep Mode** if there has been no discernable motion for 10 seconds.
- While in **Active Mode (Laser ON)**, the CTL-200 enters **Sleep Mode** if there has been no discernable motion for 20 seconds.

CTL-200

Gestures

The CTL-200 reacts automatically to certain movements and gestures:

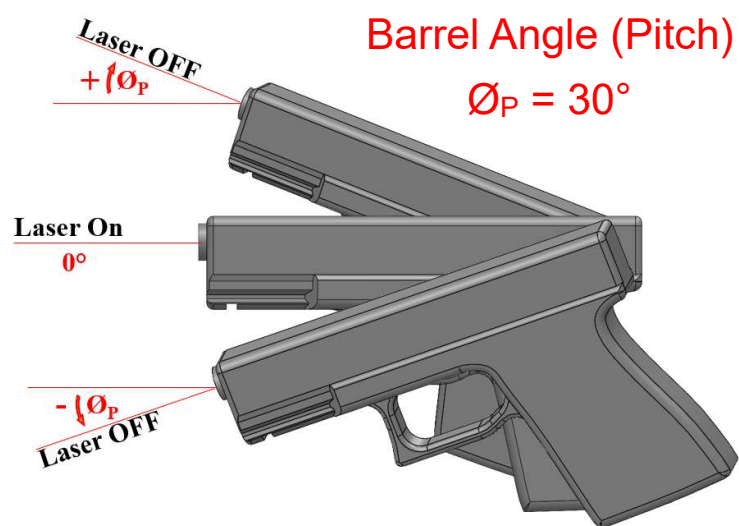
Barrel Angle Activation: While in **Active Mode**, the CTL-200 turns the laser ON and OFF based on the angle of the barrel relative to gravity.

The Laser is OFF when in the following positions:

- Pointed up (high ready)
- Pointed down (low ready)
- Pointed downward while held close (Sul)

The Laser is ON when pointed downrange at your target

The **Barrel Angle** is programmed at $\pm 30^\circ$ from horizontal.



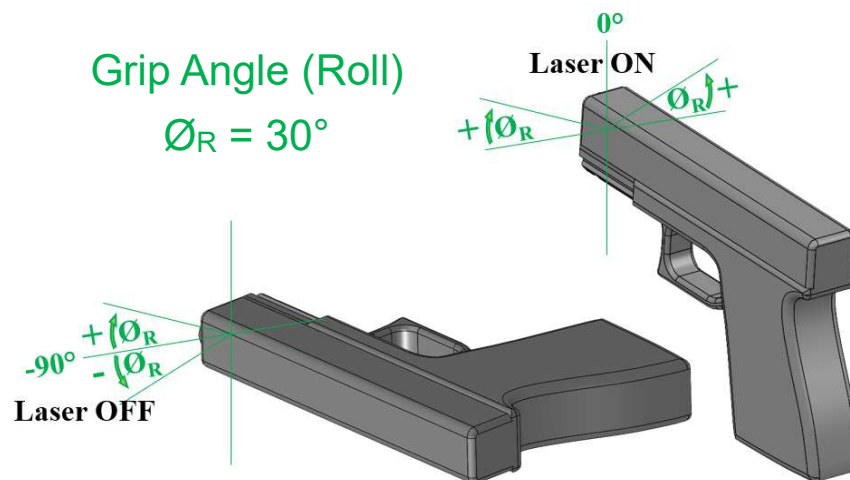
CTL-200

Gestures

The CTL-200 reacts automatically to certain movements and gestures:

Grip Angle Deactivation: While in **Active Mode**, the CTL-200 turns the laser OFF when the weapon is turned on its side – regardless of **Barrel Angle**. This affords the user the ability for concealment (laser OFF), while keeping the barrel trained on the target. This also turns the laser OFF simply by laying the weapon down on a flat surface.

The **Grip Angle** is programmed at $\pm 30^\circ$ from horizontal.



CTL-200

Gestures

The CTL-200 reacts automatically to certain movements and gestures:

Double-Double Tap Feature: When in Active Mode with the laser OFF, performing a Double-Double Tap disables the laser. The laser will not turn ON no matter what the barrel and grip angles are. The only way to reenable the laser is to perform the Double-Double Tap again.

Note - You must wait 3 seconds after the last "bump" to the unit before attempting the Double-Double Tap gesture.

Cadence (5 count):

| | | | | |
|----------|----------|----------|----------|----------|
| 1 | 2 | 3 | 4 | 5 |
| Tap | Tap | (pause) | Tap | Tap |

- *When Disabled: The laser will quickly flash four times*
- *When Enabled: The laser will slowly flash 2 times*

If the unit doesn't enter/exit Disable Mode (indicated by laser flashing), simply wait 3 seconds and try again. All 5 beats of the cadence should be completed in about 1.5 seconds. Try increasing (or decreasing) the speed of your cadence accordingly.

CTL-200

Terminology

Danger: Indicates an immediate and severe threat that can cause serious injury or death.

Warning: Alerts to significant hazards and encourages proactive measures to avoid injury or harm.

Caution: Advises taking precautions to prevent minor or moderate injury.

Future Improvements

Under development is a CTL App to work with our Bluetooth® capabilities to allow users to enable/disable the unit from your phone. The App will also allow the user to customize their preferred Barrel Angle and Grip Angle ON/OFF gestures. Our plans include user feedback on weapon movement prior to pulling the trigger. We also plan to include a count of shots fired.

CTL-200

FCC Statement

While charging, this device is subject to the FCC rules of operation. Ensure that your USB charging adapter is FCC compliant,

This device complies with Part 15 of the FCC Rules. Operation of this product is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications (by the user) not expressly approved by the party responsible for compliance with the FCC Rules (CTL), could void the user's 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.

CTL-200

FCC Statement

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 technician for help.

CTL-200

Warranty and Repair

Combat Tactical Laser, LLC (CTL), warrants its products against defects in workmanship and materials for a period of three (3) years from the date of purchase. This warranty is void if the product has been abused, misused, neglected, or disassembled prior to the return to the manufacturer.

This warranty does not cover commercial use, accident, loss, theft, deliberate damage, or cosmetic damage that does not hinder the performance of the product.

Review your manual and our website at www.CombatTacticalLaser.com for information and advice for using your CTL-200.

To return your CTL-200 for repair, please contact us on our website.

CTL-200

Warranty Details

CTL Limited Warranty: CTL defends the quality and durability of our products. We are committed to delivering reliable and innovative laser solutions for our customers. This limited warranty reflects our confidence in the performance and craftsmanship of CTL products.

What Is Covered: This warranty covers defects in materials and workmanship under personal use and proper care for a period of three (3) years from the date of purchase. The warranty is valid for the original end user and applies only to products purchased from authorized affiliates or directly from CTL.

What Is Not Covered:

- Normal wear and tear, including cosmetic damage not affecting product performance.
- Damage caused by misuse, neglect, improper installation, or unauthorized modifications.
- Damage resulting from exposure to extreme environmental conditions or improper storage.
- Battery degradation.
- Products purchased from unauthorized dealers or resellers.

CTL-200

Limitations and Exclusions: This limited warranty gives you specific rights that are in addition to other rights you may have under applicable laws.

To the extent permitted by law, this warranty is the sole and exclusive warranty provided by Combat Tactical Laser, LLC, and replaces all other warranties, whether expressed or implied, including but not limited to any warranty of merchantability, satisfactory quality, fitness for a particular purpose, Title, and non-infringement.

The total and complete liability of Combat Tactical Laser, LLC shall be limited to the original purchase price. CTL shall not be liable for incidental or consequential damages arising from the purchase, use or inability to use the product.

Transferability: This warranty is non-transferable and applies only to the original end user of the product.

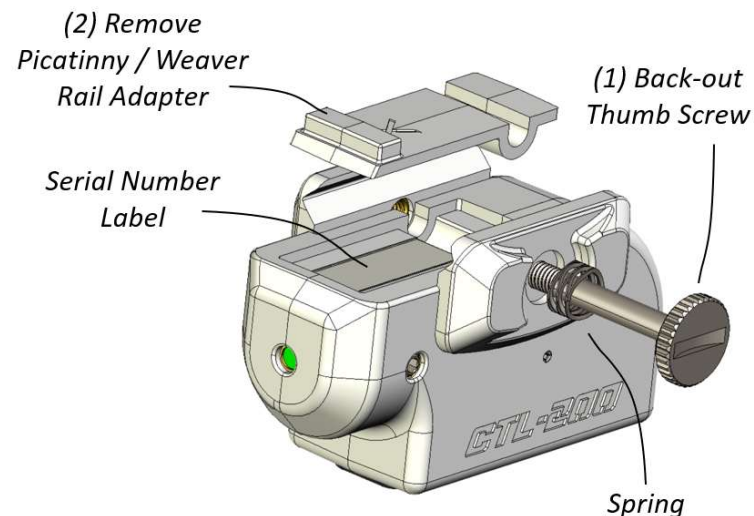
Your Commitment: To ensure optimal performance and longevity, always follow the recommended maintenance, storage, and usage guidelines provided in the Combat Tactical Laser User Guide.

Combat Tactical Laser:
Innovating Precision for Every Mission.

CTL-200

Registration: Register your Combat Tactical Laser product within 30 days of purchase to activate the warranty. Registration can be completed on our website at www.combattactical.com/register

The product Serial Number Label is easily accessible:



Note: If you fully remove the thumb screw, take care to retain the spring.

CTL-200

Warranty Claims Process:

For warranty service on covered defects during the warranty period, contact our customer support team at support@combattactical.com or call 1-800-XXX-XXXX to obtain a Return Merchandise Authorization (RMA) number. Please provide a description of the issue, the serial number, and proof of purchase.

Upon approval of the warranty claim, and upon receipt of the returned item, Combat Tactical Laser, LLC will at its option: (A) repair the product using new or refurbished parts; (B) replace the product with an equivalent new or refurbished product; or (C) provide a partial or full refund of the original purchase price to you in exchange for return of the product. The returned item becomes the property of Combat Tactical Laser, LLC.

Combat Tactical Laser, LLC is not responsible for any damages or costs incurred for any delay in completion of Warranty or Repair Services.

Shipping charges may apply.

CTL-200



Innovating Precision for Every Mission

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