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Rev 1.3

irPistol User Manual

Thank you for your purchase of the irTactical system. This highly realistic law enforcement training tool has been developed to meet the needs of training programs world wide. The system is very dependable and can be used for a variety of exercises suiting the user. The irPistol in particular is modeled after one of the most popular handguns, commonly used by law enforcement and military groups all over the world. The irPistol shares the same fit, form, and function as the real thing without the danger associated with projectiles. Now you'll be able to train cheaper, faster, and anywhere.

Safety

⚠️ WARNING

The irPistol is designed to be very realistic in order to meet the needs of law enforcement training programs and is **not recommended for use by persons under the age of 18**. Users must take care in keeping the irPistol separate from real firearms at all times. Training with the irPistol and irTactical system must never occur in areas where real firearms and other hazardous equipment are being used. Serious injury or even death may occur. Prior to using the irPistol, please ensure that it visibly appears to be in good shape. If something seems odd, contact irTactical.

⚠️ CAUTION

The developers at irTactical have taken great care in designing a product that can be used safely. The irPistol is unable to fire a projectile and cannot be made to fire a projectile in any way. Instead, an infrared laser is emitted to 'simulate' a projectile. This beam of infrared light is completely invisible and eye safe. The irPistol is designed to emit this infrared light at safe levels that do not constitute a health hazard. However, as with any light source, we recommend that the user take precautions to avoid any unnecessary exposure such as intentionally aiming the irPistol at someone's eyes or staring down the barrel at close range for extended periods of time.

⚠️ CAUTION

Always pay attention to the training organizer and safety briefings when instructed. Be aware of any signs or special hazards in area. irTactical does not provide any training.

⚠️ CAUTION

Never modify your irPistol or irTactical gear in any way at any time for any reason. Repairing the irPistol or replacing parts may only be done by a certified irTactical technician or with their permission. Disassembly of the irPistol might damage sensitive electronics or internal components and immediately voids the factory warranty.

Stay clear of magnetics during training to prevent misfires and malfunctions.

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⚠️ FCC NOTICE

This product contains FCC ID: UYI24

This device complies with Part 15 of the FCC Rules. Operation 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.

Instruction to user:

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 (on radio, TV, or other device).
    * Increase the separation between the equipment and receiver.
    * Consult the dealer or an experienced radio/TV technician for help.

In order to maintain compliance with FCC regulations, shielded cables are used with this equipment or product. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment or product without the approval of manufacturer could void the user's authority to operate this equipment as well as the factory warranty.

Class 1 laser product

This device complies with US FDA 21 Subchapter J parts 1040.10 and 1040.11 Model IRT 20/20-LR laser module @4Vdc Produced by irTactical 640 North Prospect Drive, Whitewater, WI 53190 (1 / 2012)

The FDA has deemed Class 1 laser products to be eye-safe and harmless to the body.

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Liability Statement

This product is surrendered by irTactical with the understanding that the purchaser and or user assumes all liability resulting from unsafe handling or any action that constitutes a violation of any applicable laws or regulations. Neither irTactical nor Predator Games shall be liable for personal injury, loss of property or life resulting from the use of this product under any circumstances. All information contained in this manual is subject to change without notice. irTactical and Predator Games reserve the right to make changes and improvements to products and manuals without incurring any obligation to incorporate such improvements in products previously sold.

Warranty

Predator Games and irTactical warrants that this product is found free from defects in materials and workmanship for a period of one year from the original date of purchase by the initial owner/purchaser. This warranty does not apply to a) defects discovered after purchase which were caused by the unauthorized modifications, alterations or misuse of the purchased product; b) consumable parts such as batteries, o-rings, or other components designed to diminish or may wear out over time; c) cosmetic damage, including but not limited to, scratches, dents, rips, tears, or broken plastics and metals; d) damage caused by accident, abuse, misuse, liquid contact, fire, flood, or other external cause; e) damage occuring from operating product outside of irTactical's published guidelines found in this manual or otherwise; f) damage caused by service such as upgrades and expansions performed by anyone who is not a representative of irTactical; g) irTactical products that have been functionally or capability modified without written permission from irTactical; h) defects caused by normal wear and tear or otherwise due to normal aging of the irTactical product; i) an irTatical product in which the serial number has been removed or defaced, or is otherwise illegible. Determining a product's warranty status is solely the responsibility of Predator Games and irTactical. Predator Games and irTactical will repair or replace, without charge, any of its products that have failed through defect in material or workmanship.

IMPORTANT: Do not open or otherwise disassemble your irTactical product without express written permission from an authorized irTactical representative. Opening or disassembling the product may cause damage that is not covered under warranty.

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Service

If you begin to notice odd performance with any of your irTactical gear, please contact irTactical Customer Service at 888-950-1221 right away. You may also email irTactical Service at support@irTactical.com.

All irTactical products are covered under a 1 year limited warranty from the time of purchase. If your irTactical product must be serviced, contact irTactical Customer Service at support@irTactical.com to receive return instructions. If your product is found to be outside of warranty, irTactical will contact you with any charges before proceeding to repair your product. You are responsible for all shipping charges to and from irTactical for both warranty and non-warranty repairs. In most cases, irTactical can simply send you the parts you require for repair if a technician has approved.

AS STATED ABOVE, YOU ARE RESPONSIBLE FOR ALL SHIPPING CHARGES TO AND FROM IRTACTICAL FOR ANY/ALL SERVICES BOTH UNDER WARRANTY AND NOT UNDER WARRANTY.

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The irPistol

Take a few minutes and orientate yourself with the irPistol. Become familiar with its functions and design. Users of this type of semi automatic pistol should quickly become accustomed to the irPistol.

1. Steel Moving Slide
2. Standard Sights
3. Weaver Rail
4. Two-Stage Trigger
5. Status LED and Mode Switch
6. USB Port

7. Magazine Release
8. Slide Release
9. Textured Grip
10. Glass-Filled Nylon Receiver
11. Orange Safety Tip
12. Magazine Well

NEVER modify or remove the orange safety tip.

Battery Power

The irPistol is sold with a minimal but uncertain charge in the lithium ion rechargeable batteries. It may require charging before use. Connect the supplied USB charger to the port on the right side of the irPistol and plug it into a standard wall outlet. A completely dead battery will take approximately 4 hours to fully charge. The Status LED will blink if the batteries are low (when not being charged) and also blink while charging. Charging is complete when the Status LED is solid.

Preparation

The irPistol can only operate when a loaded SmartMag is inserted. Pry open the SmartMag cartridge door from the top. Insert an 8 gram CO_2 cartridge **(we recommend using Leland brand CO2 cartridges only)** into the slot bottom first, at a slight angle. Then snap the top portion of the cartridge into place so that it sits fully inside of the mag. Close the cartridge door with one complete motion to secure and power up the SmartMag. Completely insert the SmartMag into the magazine well of the irPistol until it clicks. It should not freely fall out of the pistol unless the magazine release button is pressed. *See SmartMag User Manual for more detail.*

⚠️ WARNING

Wear safety glasses while loading and unloading the SmartMag

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Step 1

Insert the SmartMag into the magazine well with a firm tap until it clicks if you have not already done so. Before the irPistol can fire, it must be fully cocked. Pull the slide back until it clicks and stops then release it. It should return fully forward and the bolt of the gun will be locked in position ready to fire. Please note that the slide will move back and forth during normal operation and firing, so be sure to handle the gun properly to avoid injury.

⚠️ **WARNING**

> The moving slide may cause injury if pistol held improperly during firing.

Step 2

The irPistol is semi-automatic only. This means that each pull of the trigger will fire one shot. There is no safety switch that controls the fire modes. When the magazine is inserted into the gun, it is ON and ready to fire. Fully grip the irPistol ensuring a proper hold (as to not be injured by the moving slide) and press the trigger completely to the rear. The pistol will fire the laser beam and the slide will move. Releasing the trigger will allow another shot. The beam fired is invisible to the naked eye. A simulated muzzle flash, loud noise, and actual recoil will occur with each shot. Scoring occurs when you successfully hit another player's irVest.

Worth Noting...

Each shot will reduce the ammunition count from the SmartMag by one. SmartMags come preset at 30 rounds with each newly loaded CO_2 cartridge, but requires ejection and reinsertion after 15 rounds. Changing the CO_2 cartridge at any time will reset the ammo count. The irPistol will not function if the SmartMag ammo count reaches zero.

Due to the valving system, the SmartMag can be ejected from the irPistol at any time with minimal air loss. The SmartMag will contain its pressure until inserted into a pistol. This means you can fire 5 shots, eject and pass the SmartMag to your partner, so that he can load up his or her irPistol and fire the remaining 10 rounds.

There is more than enough air pressure in the SmartMag to fully operate the irPistol for 30 shots, even after ejecting and reinserting it several times.

Using the irPistol

Syncing

When using the irPistol for training, the trainee must first sync the irPistol to the their irVest. Syncing the irPistol to the irVest does three things. First, it prevents the trainee from shooting his or her self at close range if the infrared beam happens to reflect off of a nearby surface. Second, it disables the irPistol for a period of 30 seconds when the trainee is hit, through the integrated short range radio. This prevents cheating and removes the trainee from the exercise temporarily. Third, it allows the irVest to keep training stats on the trainee such as accuracy percentages and shot data. This data can be reported to a computer through the CCM server and iCE software, then printed out for record keeping and data management.

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To do this, you must have a loaded SmartMag inserted into the irPistol. Power on the irVest, wait for it to initialize, and then press the irVest **Gun** button so that it begins blinking. Take the irPistol and shoot at any sensor on that (your) vest. Within a few seconds, the irVest will beep to confirm the sync and the **Gun** button will turn solid. You can sync up to three weapons to a single irVest. *Please consult the irVest manual on how to do this and for further instruction.*

Resetting the irPistol Sync (Unsync)

From time to time, you may wish to sync your irPistol to another irVest. In order to do this, the irPistol's electronics must be reset to clear out the sync data. To reset the pistol, remove the magazine then press and hold the trigger for 5 seconds. The Status LED on the side of the frame will blink for three seconds to confirm the reset. This will clear any irVest sync data on the irPistol.

Worth Noting...

A synced irPistol will not shut off until the related irVest is powered down. An un-synced irPistol will shut off after 60 seconds when the SmartMag is removed.

Status LED and Programming

On the side of the irPistol frame is a Status LED and USB port. The USB port is used for charging the irPistol and updating the software. New software updates are released periodically and are free of charge. Updating the irPistol is done through the iCE software. The Status LED offers a quick look at the pistol's status. You can cycle through the modes by using a small paper clip and inserting it into the hole next to the USB port and pushing the button lightly.

Blinking LED (any color for 3 seconds) - irPistol has been unsynced
Solid Green - Outdoor mode
Solid Blue - Indoor mode
Solid Red - Target mode   Slow Blinking (on any color) - Low Battery
Blinking Purple - Software update mode

To update the software on the irPistol, open your iCE program and plug the USB cable into your computer and then the pistol. Be sure iCE is up-to-date and run the Software Updater. *Please see the iCE Manual for full instructions on how to update your pistol.*

Charging the irPistol

To charge the irPistol, plug the supplied 5 volt 1 amp wall charger into an AC outlet and then into the irPistol. The Status LED will blink slowly to indicate charging and become solid when the irPistol is fully charged. A completely dead battery will take approximately 4 hours to fully charge. It is acceptable to recharge the battery at any time.

Maintenance

The irPistol is an extremely durable piece of equipment and will last for years of *regular* use. However, there are several important parts of the system that must be maintained often. Use the supplied packet of lubricating oil to apply a few drops through the hole on the top of the slide as shown on next page. Oil should be added before every day of play. *Do not use any other lubricating substance unless approved by irTactical.*

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Apply 1-2 drops of oil into tiny hole before every day of play.

Cycle the slide a few times to distribute oil.

Be sure to keep the lens at the tip of the barrel clean and free of debris at all times. Use a standard alcohol wipe or cotton swab to clean. Hard objects may scratch the lens.

Use a damp rag or paper towel to wipe down and clean the irPistol. Do not use solvents or other chemicals as this may corrode parts and damage the finish. Applying a very light coat of the included gun oil to the irPistol body and parts will prevent rust.

Performance Specifications

Infrared Beam
The infrared beam (eye-safe laser) range of the irPistol varies depending on the environment that it's being used in. The irPistol can shoot a maximum of 150 feet in daylight and double that indoors.

The beam width (diameter) varies depending on the setting but on Outdoor Mode, expect it to be 12 inches at 100 feet. At all distances, the irPistol remains accurate and requires precise aiming.

RF Range
The irPistol is equipped with several radios for communicating with the rest of the irTactical system. A very short range radio establishes communication between the irPistol and a SmartMag, and only works when the SmartMag is fully inserted into the gun. The second radio on the irPistol communicates with the irVest after being synced. The maximum operating range between the irPistol and irVest is 10 feet. The irVest is equipped with a third radio for communicating with the CCM software up to 1 mile away. RF range varies with different terrain and obstacles. It is recommended that trainees keep a clear line of site between the irVest and CCM when possible. Excessive WIFI traffic may affect RF performance.

Environmental Conditions
The irPistol's design and durability allow it to be used in a variety of environments without issue. It can be used in temperatures ranging from 32-110 degrees Fahrenheit (0-43 degrees Celsius). Performance may degrade in cooler temperatures due to the nature and physics of CO_2. The electronics are coated to provide moisture resistance. Damp or dry playing areas will not affect the irPistol. Using it in light rain is fine but be sure to let the gun completely dry out before storing away or using again.

⚠️ **CAUTION**

Do not store pistol with SmartMag inserted, as this will drain the battery.
Do not keep a loaded SmartMag in pistol in hot (>125ºF) environments when not being used.

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