IES WRK Recoil Kit User Guide

CZ 75

Revision 1.1

IES Interactive Training

Introduction

The purpose of the CZ 75 B recoil kit is to quickly convert a live pistol into an effective training weapon that is both realistic and safe. When the weapon is fired with the recoil kit installed, an eye-safe, infrared (IR, non-visible) laser at the front of the barrel is fired, allowing interaction with the IES simulator.

No live ammunition can be loaded into, or fired from, the weapon when the recoil kit is installed.

ALL FIREARMS SAFETY RULES AND GUIDELINES SHOULD BE FOLLOWED AT ALL TIMES!

User Guide Contents

Parts & Components of the Weapon & Kit

There are several parts of the original weapon needed, in addition to the recoil kit components, in order for proper operation.

The following original weapon components are used:

- Slide
- Receiver (and all sub components)
- Guide Rod & Spring

The following recoil kit components are provided as part of the recoil kit:

- Recoil Barrel: Takes the place of the weapon's original barrel.
- Recoil Magazine (2): Takes the place of the weapon's original magazine.
- #50 Recoil Laser: Installed at the front of the recoil barrel to provide indication of shots fired on an IES simulator. Note the laser is infrared and is not normally visible. The laser is eye safe, but should never be pointed or fired at another person.
- Spare Parts & Tools:
    - Magazine top port gasket (2)
    - Magazine piercing nozzle gasket
    - Laser installation wrench (7/16" or 11mm)
    - Barrel Oil
    - Gasket Grease

Recoil Kit Installation

1) Remove the original magazine from the weapon and ensure that then weapon is clear and safe.
2) Remove the slide from the receiver following the normal CZ75 handgun disassembly method.
3) Remove the original weapon barrel from the slide.

NOTE: Before proceeding, ensure that the weapon is properly cleaned to avoid live ammunition residue and excess weapon oil from entering the recoil kit components and causing degraded performance.

4) Install the recoil barrel to the slide and secure it with the original guide rod and spring. Note that the laser should be installed in the recoil barrel before installation of the recoil barrel to the slide.

5) Install the slide to the lower receiver following the normal CZ 75 handgun assembly method.

6) Install the slide stop lever to the receiver following the normal CZ 75 handgun assembly method. Be sure to line up the notch on the rear of the slide with the notch on the rear of the receiver to fully install the slide stop lever.

7) To install the CO2 cartridge to the magazine, place the smaller diameter portion of the cartridge into the magazine first and align it with the piercing nozzle at the top of the magazine. Then, firmly tighten the thumb screw at the bottom of the magazine to secure the CO2 cartridge in place and pierce it for use.

Insert the magazine into the receiver and ensure that it is seated firmly in place.

8) If charging of the slide is required for this weapon, do so.
9) Test fire the recoil weapon.

Recoil Kit Removal

To remove the recoil kit, take out the magazine and fire the weapon once to ensure the recoil barrel is not charged. Note that some recoil kits may require you to release the magazine and manually pull on the magazine to release it. Now, perform installation steps 1 to 3 in reverse order, while following normal CZ 75 handgun disassembly methods.

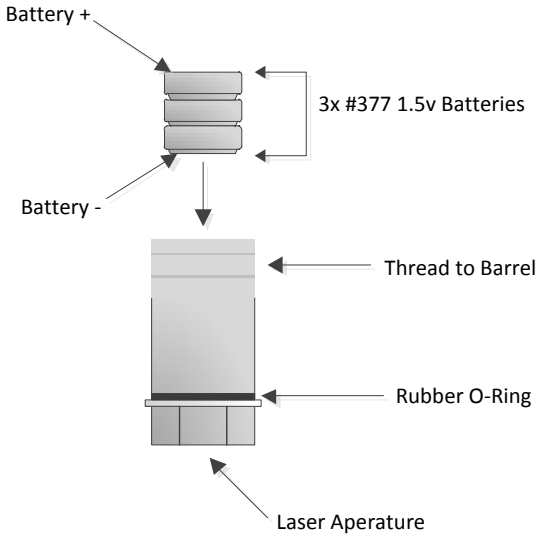
Recoil Laser Information

An infrared (IR) laser module is provided with each recoil kit. The IR laser emits a pulse of light each time the weapon is fired. The pulse is not visible to the human eye. The laser pulse is detected by the IES simulator and is used to indicate the shot location.

CZ75 recoil kits use a #50 IES recoil laser

Laser Batteries

To power the laser, 3x #377 batteries are used. A set of batteries should last 100,000 shots or 6 months, whichever occurs first. The batteries should be installed with the negative (-) side facing into the laser, as shown below.



INVISIBLE LASER RADITAION

AVOID DIRECT EYE EXPOSURE

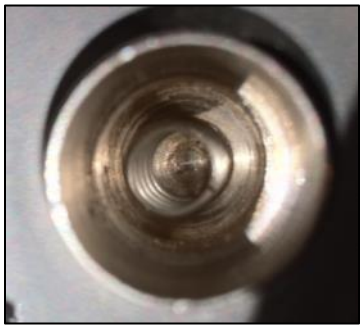
CLASS 3R LASER PRODUCT

Laser Installation & Removal

Battery Spring

For proper functioning, the laser requires that a battery spring be installed in the barrel. This spring completes the battery circuit, in order to energize the laser. Before installing a laser, and after removing a laser, check the recoil barrel to ensure that the battery spring is present and positioned correctly in the barrel. Typically this spring installed at the factory for you, but in some cases you may need to install it. Note that the battery spring should be fully seated in a recessed area of the barrel and therefore should stay in place when the barrel is pointed at the ground. If not, press the spring into the recess using a flat tool such as a pen cap.

RECESSS AREA



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Laser Installation

1) Verify that the recoil kit is installed in the weapon.
2) Verify the battery spring is in place in the recoil barrel according to the pictures above.
3) Verify that you have 3 batteries properly installed in the laser.
4) Remove the magazine from the recoil weapon and fire the weapon once to ensure the recoil barrel is not charged.
5) Hold the recoil weapon pointing at the ground.
6) Insert the laser into the barrel, battery end first.
7) While continuing to hold the recoil weapon pointed at the ground, so that the batteries do not fall out of the laser, screw the laser into the barrel using clockwise motion.
8) Once the laser is tightened by hand, use the wrench (7/16" or 11mm) with light torque to tighten the laser until it is completely mated to the barrel. DO NOT OVERTIGHTEN THE LASER!

Laser Removal

1) Remove the magazine from the recoil weapon and fire the weapon once to ensure the recoil barrel is not charged.
2) Aim the recoil weapon at the ground to prevent batteries from falling out during removal.
3) Unscrew the laser from the barrel using the wrench (7/16" or 11mm) turning in a counter-clockwise motion.
4) Ensure that they battery recoil spring did not come out. If it did, place it back in the recoil barrel and use a screw driver or other tool to press it firmly into position.

Maintenance

Every 5000 shots, or as needed, you should perform the following maintenance on the recoil kit:

Lubrication of weapon

If your weapon normally requires lubrication on slide rails or elsewhere, be sure to apply it.

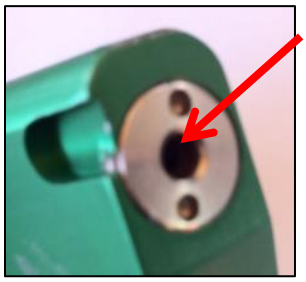
Lubrication of recoil barrel

Place a single drop of oil on the underside of the recoil barrel

Lubrication of magazine port:

Place a small amount of grease in the top port of the magazine

Troubleshooting



Air leak on top port of magazine when not in weapon

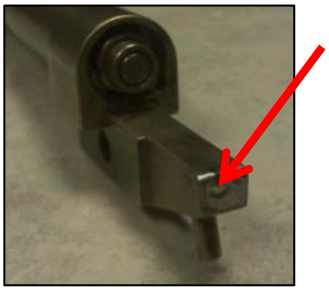
An air leak from the top port of a magazine that is not installed in a recoil weapon is an indication that the magazine itself has a loose coupler or a worn gasket. Tighten the coupler with the provided tool and if the leak persists, follow the repair guide for magazine gasket replacement. If the magazine continues to leak afterwards, contact IES Customer Service.

Air leak at top of CO2 cartridge in magazine when not in weapon

An air leak from the top of the CO2 cartridge is an indication that the gasket around the piercing nozzle of the magazine is worn or missing. Follow the repair guide for piercing nozzle gasket replacement. If the magazine continues to leak afterwards, contact IES Customer Service.

Air leak in gun when magazine is installed in weapon

Depending upon the model of the weapon, there are several places that can leak due to worn O-rings or post-production tolerances being exceeded. In many cases, it is difficult to tell where the leak may be coming from, so the following list is provided in the order of most-likely. If you are unsure of where the leak is coming from, follow this list in order to resolve the leak.



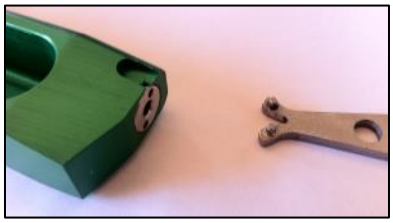
Leak from ball near CO2 inlet: There is a press-fit ball bearing pushed into a hole at the back of the tail piece. On rare occasions, tolerances in the ball and hole can allow for a leak at this position. Follow the repair guide for leaking ball near CO2 inlet.

Leak in the recoil striking piston or surrounding housing: Depending upon the model of the recoil kit there may be one or more O-rings on these parts that can wear over time due to normal usage. If you have checked all other locations for leaks, and are sure the leak is coming from inside the barrel, please contact IES for further support.

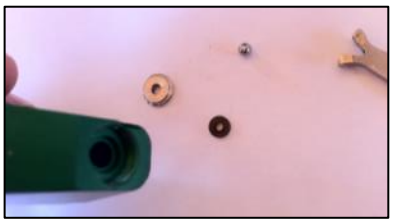
Repair Guide

Magazine CO2 Port Gasket

1) Remove any CO2 cartridge in the magazine.
2) Remove the coupler from the top of the magazine using the provided tool.



3) Pull the black gasket out of the magazine and discard it. Do not lose the ball bearing.



4) Verify that the ball bearing is still in the magazine.

5) Place a new gasket into the magazine and secure it firmly in place using the provided gasket installation tool. Make sure that it is seated fully in the recessed area.

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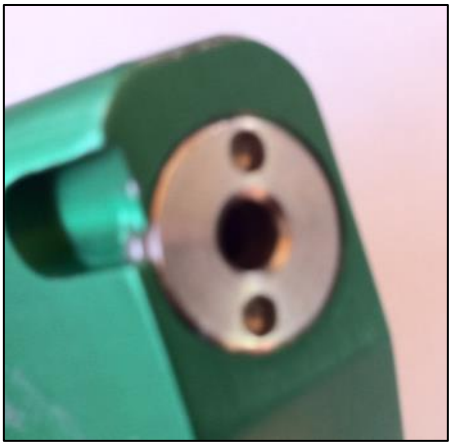
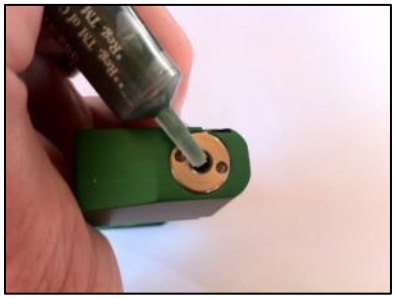
6) Secure the coupler back onto the magazine.

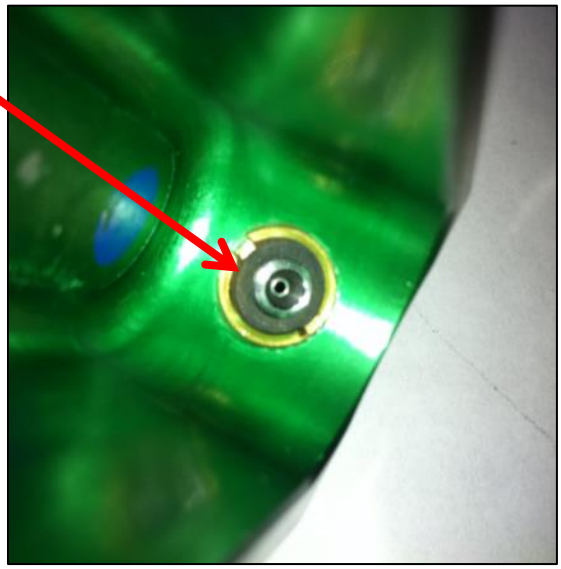


7) Grease the opening at the top of the magazine.



Magazine Piercing Nozzle Gasket

1) Remove any CO2 cartridge in the magazine.
2) Hold the magazine upside down and pry out the piercing nozzle gasket.
3) Place a new gasket on the piercing nozzle and ensure that it is fully seated.



Leaking Ball near CO2 Inlet

1) Place a small drop of red Loctite directly onto the ball surface.
2) Tap lightly on the ball with a screwdriver and hammer to allow the Loctite to fall into any gaps created by the tolerances.
3) Allow the Loctite to dry for at least an hour before testing the recoil kit again.