TEN-X AMMUNITION, INC.

TX-40 Reloading Press Instructions

The use of 40mm less-lethal impact munitions has become a popular tool in law enforcement. These munitions offer increased engagement distances, providing greater standoff from physical contact. The ability to disorient or incapacitate an individual without engaging in physical contact inevitably ensures the safety of the officer, while providing a favorable alternative to deadly force when officer or public safety is not compromised. However, for less-lethal impact munitions to be effective, the user must have the ability to consistently deliver the projectile on target across a wide range of distances. This necessitates proper training and a sufficient number of rounds downrange to accomplish this.

The TX-40 reloader, by Ten-X Ammunition, Inc., is an economical way to increase training time without increasing cost. The TX-40 is a reloading system specifically designed for the 40mm less-lethal launching systems that utilize reusable projectiles including those made by Defense Technology, CTS, ALS, MAST, and others who utilize a standard M212 case. This single-stage reloader only requires one tool change to accomplish the reloading functions, and use of the TX-40 is simple and can be accomplished with minimal training.

The Propelling Charges designed by Ten-X Ammunition, Inc. utilize smokeless .38 caliber blanks (along with a Burst Disk in certain cases) designed to consistently replicate stated muzzle energy and velocities from the original manufacturers of the duty ammunition. The smokeless powder reduces barrel fouling and minimizes smoke that can obscure vision when targeting during training.

Unpacking and Setup

The TX-40 includes all tooling required to reload the cartridges of your choice. When ordering Propelling charges, the specific brand being reloaded must be stated to ensure the proper charge is provided for reloading.

Packing list: (the reloading kit includes the following)

- Reloading Press (1)
- Shell Plate (1)
- Propelling Charge Extraction Pin (1)
- Propelling Charge Seating Punch (1)
- Propelling Charge Seating Block (1)
- 10-32 Stainless Set Screws (2)
- #18 drill bit (1)
- 10-32 tap (1)
- Tap “T” –Handle (1)

Optional item:

- #24 drill bit (1) – required for reloading CTS cases (Part # TX40-001-09)

The TX-40 reloader should be securely bolted to a sturdy surface for reloading. If a temporary mounting is preferred, the TX-40 can be bolted to a sturdy board, and then affixed to a worktable using clamps.

Safety Considerations

Reloaded less-lethal munitions are only to be used for training purposes and NEVER suitable for duty use. They should be used **strictly for point of aim training against non-living targets such as paper, cardboard, plywood, rip-stop material, etc.**

Never use this kit to extract an unfired propelling charge! Wear eye and ear protection at all times when reloading ammunition.

WARNING

To avoid serious injury/death to shooter and bystanders: USE only in 40mm launchers in good condition which are specifically designed for use of the munitions being reloaded. Always check barrel and remove obstructions before firing, or if light recoil or off sound occurs. If launcher fails to fire, point muzzle in safe direction and avoid exposure to breech while carefully unloading. USE shooting glasses and hearing protection. Keep launcher pointed in safe direction at all times. Do NOT shoot at hard surfaces or water that could create a ricochet risk. Always keep munitions dry. Store in a cool, dry place. Discharging launchers in poorly ventilated areas, cleaning launchers or handling these munitions may result in exposure to lead, a substance known to cause birth defects, reproductive harm and other serious physical injury. Have adequate ventilation at all times. Wash hands thoroughly after exposure. Since reloading practices are beyond our control, we disclaim all liability for damage, injury or death that may result. We warrant the exercise of reasonable care in the manufacture of this reloading press and its components, but make no other warranty, express or implied. Propelling charges older than 3 years should not be used. Safely discharge them to ensure that they are not used in less lethal munitions.

Casing Compatibility

The casing type intended for use must be specified when ordering. Some manufacturers have standardized on the M212 40mm casing dimensions, which can be made of aluminum or a synthetic/plastic material. The synthetic/plastic casings require a 38 S&W propelling charge, and are manufactured by companies that include, CTS, ALS, and MAST. Defense Technology uses two different casings, both requiring a 38 Short Colt propelling charge. **The propelling charges used for each manufacturer are unique and should not be substituted into another manufacturer's shell.** If you are not sure which propelling charge your launcher uses, contact us and we will help find the answers.

Suitability for Reloading

Only casings in good condition should be reloaded. Casings which have any of the following defects should not be reloaded:

- Propelling charge does not stay in propelling charge hole.
- Case mouth severely dinged or damaged.
- Case rim severely dinged or damaged.
- Casing is damaged and will not allow breech of weapon to close and lock.
- Dirty or heavily used casings should be cleaned with hot soapy water. The propelling charge hole should be cleaned with a brush, and the casing should be completely dried before reloading.

Instructions for Reloading

1. After the TX-40 reloader is securely mounted, place the Shell Plate into the alignment flange on the reloading press. The flat side should be down. This will hold the Shell Plate steady during use. It is strongly recommended that reloading should be done in batches, stage by stage (e.g., extract all spent propelling charges before seating new charges).

2. To extract a fired propelling charge, loosen the Set Screw on the side of the ram to remove any installed accessory. Insert the Propelling Charge Extraction Pin fully into the ram (large end goes into the ram) and hand-tighten the Set Screw to hold the extraction pin in place. **Do not over tighten!**

3. Place a fired casing into the shell-holder with the propelling charge down. Carefully bring the ram down by slowly turning the handle. Make sure the extraction pin is not bent and goes easily into the flash-hole of the casing. Just inside the flash-hole, the pin will make contact with the fired propelling charge cartridge. Use firm, steady pressure on the ram handle to extract the spent cartridge (this may require some effort). It may be necessary to bring the ram up and then down a second time to release the spent propelling charge from the casing. Recycle or discard the spent charges and burst disks (if any) that collect in the space under the press. When a duty round is being reloaded for the first time, it is not uncommon for the Propelling Charge Extraction Pin to push out the propelling charge primer only and leave the propelling charge brass casing in place. If this occurs, refer to the Stuck Propelling Charge Extraction Process in #11 below. [If you are reloading a CTS casing, a #24 drill bit (Part # TX40-001-09) is required to open the flash hole of the metal insert in the synthetic/plastic shell.]

4. To seat a new propelling charge, loosen the Set Screw on the side of the ram and remove the Propelling Charge Extraction Pin (or any other installed accessory). Insert the Propelling Charge Seating Punch fully into the ram and hand-tighten the Set Screw to hold the seating punch in place. **Do not over tighten!**

5. Clean propelling charge hole with a 40 caliber brush to ensure that it is clean and free of debris. DO NOT use solvent to clean the hole, as this may damage the casings.

6. Place the Propelling Charge Seating Block onto the shell plate. There is a nipple on one end of the seating block that goes through the hole in the shell plate.

7. Take empty casing and turn it upside-down. For reloading the Defense Technology casings, drop ONE burst disk into the propelling charge hole. The burst disk must lay flat in the hole. Look into the hole and make sure that the shiny disk can be seen. **DO NOT USE MORE THAN ONE BURST DISK AT A TIME! Use of more than one burst disk will cause excessive pressure and may result in damage to launcher, personnel and training equipment.**

8. Put a new propelling charge nose down into the hole, and press lightly until there is resistance. Different propelling charges are used for different casings (e.g., CTS, ALS, and MAST require a 38 S&W propelling charge). **Do not attempt to fully seat the propelling charge in any manner other than with the Reloading Press.**

9. Place the casing on the Propelling Charge Seating Block so that the protruding cartridge is on top. Carefully bring the ram down by slowly turning the handle to bring the seating punch into

contact with the propelling charge. Use firm, steady pressure on the ram handle to seat the new cartridge flush to the casing (this may require some effort). If propelling charge will not seat perfectly flush, try loading the shell into the launcher to assure that the breach will fully close. The propelling charge does not have to be perfectly flush, it simply needs to chamber and allow for the breach to close.

10. To insert a fresh projectile, align the bottom of the projectile with the case mouth and force together. If this can not be done by hand, stand the casing up on a sturdy surface and press the projectile down with your hand. In some cases, it may be necessary to seat the projectile with the Reloading Press. To do this, remove the seating block from the Shell Plate and place the primed casing into the Shell Holder. Align the projectile with the case mouth and bring the ram down by turning the handle. The seating punch will provide even pressure to seat the projectile. This results in a fully reloaded cartridge.

11. In the event that a propelling charge does not fully extract, which is not uncommon when attempting to reload a duty round for the first time, follow these steps:
    a. Drill out the brass primer pocket of the propelling charge with the #18 drill bit.
    b. Using the 10-32 tap and Tap "T" -Handle, tap the hole until the tap turns easily.
    c. Take the additional 10-32 stainless set screw and screw in by hand until flush.
    d. Follow Step #3 above. When the propelling charge falls out, unscrew the set screw and save for future use.

Replacement Parts

Part #	Description
TX40-001-CK	TX-40 Complete Reloading Kit
PC-38DT	Propelling charges w/ burst disks (for Defense Technology cases); 250 per box
PC-38CTS	Propelling charges (for CTS cases); 250 per box
PC-38ALS	Propelling charges (for ALS cases); 250 per box
TX40-001-01	TX-40 40mm Shell Plate (1)
TX40-001-02	TX-40 Propelling Charge Extraction Pin (1)
TX40-001-03	TX-40 Propelling Charge Seating Punch (1)
TX40-001-04	TX-40 Propelling Charge Seating Block (1)
TX40-001-05	10-32 Stainless Set Screws (2)
TX40-001-06	#18 drill bit
TX40-001-07	10-32 tap
TX40-001-08	Tap "T" –Handle
TX40-001-09	#24 drill bit is required for reloading CTS casings

Contact Information

Should you have any questions about the TX-40 operations and use, require replacement parts, or need to reorder propelling charges and burst disks, please contact us at:

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