TX-50™
RELOADING PRESS
INSTRUCTION MANUAL

TEN-X TACTICAL™

Table of Contents

SAFETY FIRST

Loading ammunition and handling powder and primers is inherently dangerous. Just as in shooting, accidents do happen. These accidents are nondiscriminatory; they happen to both the novice and the experienced reloader. We have done everything we know how to make your press as safe as possible. We cannot, however, guarantee your complete safety. To minimize your risk, use common sense when loading and follow these basic rules:

• ALWAYS operate the press with ear and eye protection on.

• PAY ATTENTION: Load only when you can give your complete attention to the loading process. Don't watch television or try to carry on a conversation and load at the same time. Watch the automatic systems operate and make sure they are functioning properly. If you are interrupted or must leave and come back to your loading, always inspect the rounds at every station to insure that the proper operations have been completed.

• SMOKING: Do not smoke while reloading or allow anyone else to smoke in your loading area. Do not allow open flames in loading area.

• SAFETY DEVICES: Do not remove any safety devices from or modify your press in any way.

• MODIFICATIONS: Any modifications performed to a press, or the addition of any unapproved equipment from other manufacturers will void the warranty.

• LEAD WARNING: Be sure to have proper ventilation while handling or shooting lead components (i.e., lead bullets and primers that contain lead styphnate). Lead is known to cause birth defects, other reproductive harm and cancer. Wash your hands thoroughly after handling anything made of lead.

• LOADS AND LENGTHS: Avoid maximum loads and pressures at all times. Use only recommended loads from manuals and information supplied by reliable component manufacturers and suppliers. Since Ten-X Ammunition, Inc. has no control over the components which may be used on the TX-50™, no responsibility is implied or assumed for results obtained through the use of any such components. Refer to a reliable loading manual for overall length.

• QUALITY CHECKS: Every 20-25 rounds, perform periodic quality control checks on the ammunition being produced. Check the amount of powder being dropped and primer supply.

• RELOADING AREA: Keep your components safely stored. Clear your work area of loose powder, primers and other flammables before loading.

• POWDER: Never have more than one type of powder in your reloading area at a time. The risk of a mix-up is too great. Keep powder containers closed when not pouring from them or back into them.

• CASINGS: Inspect casings prior to loading for flaws, cracks, splits or defects. Discard these casings.

• PRIMERS: Never force primers. If they get stuck in the operation of the machine, disassemble it and gently remove the obstruction. Never attempt to de-prime live primers – eventually one will go off. When it does it may detonate other live primers in the spent primer cup.

• LOADED AMMUNITION: Properly label all of your loaded ammunition (date loaded, bullet, primer, powder charge, etc.). Keep all components and ammunition out of reach of children.

• LUBRICATION: Periodically lube your TX-50™ with light oil to ensure smooth, long-lasting operation. Just like an automobile engine requires oil, your reloading press does too.

• BE PATIENT: The TX-50™ is of exceptional design and workmanship, and you should have no trouble achieving the level of quality loading you desire with a smooth, steady hand. If something doesn't seem right; stop, look and listen. If the problem or the solution isn't obvious, call us. The reloading bench is no place to get into a hurry.

• CONVERSION KITS: While this instruction manual primarily addresses the setup for .50 BMG, it also includes information that relates to conversions to Large Rifle Primer (LRP) calibers. Your TX-50™ may have been set up for .50 BMG or a particular LRP caliber. Be sure that you are reading the appropriate instructions that relate to .50 cal or LRP calibers.

• **REMEMBER: If your machine does not perform to your expectations, or if you are having technical difficulties, give us a call at (909) 946-TenX (8369).**

UNPACKING YOUR TX-50™

After opening the boxes, check the contents against your packing slip and the list below. If any items are missing or damaged, call us right away so we can send out a replacement at no charge. Normally, a complete TX-50™ Reloading Press system would have the following:

BOX 1

1. Reloading Press with handle installed. The optional Roller Handle, if purchased, has not been installed would normally be packaged in the other box.

BOX 2

1. Bench Stands (left and right)

2. Shell Feeder Post

3. Shell Feeder Bowl with caliber specific Shell Plate attached

4. Accessory Bag
- **a.** Powder Check Die
- **b.** Powder Check Die Adapter
- **c.** Powder Check Probe (caliber specific)
- **d.** Station Pins (3) (caliber specific)
- **e.** Spent Primer Cup
- **f.** Primer Shuttle Bridge
- **g.** Shell Exit Finger
- **h.** Shell Feeder Plastic Tube (caliber specific)
- **i.** Primer Tube (black steel tube) [LRP conversion also includes aluminum tube]
- **j.** Primer Tube Follower (.50 cal or LRP)
- **k.** Bench Stand hardware (3/8" flange head bolts, washers, nylon-insert lock nuts)

5. RCBS Powder System
- **a.** Powder Measure with Powder Baffle, and Case Activated Linkage attached
- **b.** Powder Die with Case Activated Linkage attached
- **c.** Powder Funnel (caliber specific) with Powder Funnel Bushing attached
- **d.** Powder Drain Spout
- **e.** RCBS Powder Measure Instruction Manual (please read completely)

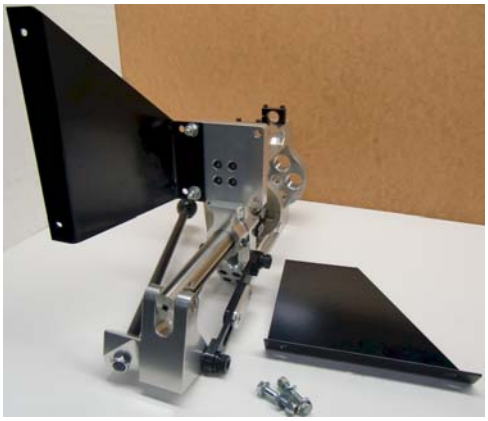
6. OPTIONAL ITEMS AND CONVERSION KITS
- **a.** Optional items and conversions would be included in this box.

NOTE: Keep all boxes and packaging materials. They will need to be used for shipping should the TX-50™ or certain other parts need to be returned for warranty work.

MOUNTING YOUR TX-50™ TO A BENCH

Locate a sturdy bench at least 24" wide and 20" deep, with 44" of overhead clearance. We suggest a minimum of 1" plywood or equivalent, secured to the back wall. The workbench should be tall enough to place your eye level about 18" above the bench.

A. Attaching the Bench Stands to the Press:



Carefully lay the press on its front column with its base facing you. Attach the Bench Stands with the 3/8" mounting hardware provided. Use the inner bolt holes so that the outer holes will be available for you to mount optional accessories like the cartridge chute and bullet tray. Be sure to install the flange head bolts from the top. The washers and lock nuts go on the underside. There is a left stand and a right stand with the sloped sides pointing to the rear, which ensures the TX-50™ is mounted with the ram hanging out past the edge of the bench. Use 9/16" wrenches or sockets to tighten these bolts.

B. Tools needed to mount your press to the bench:

1. Electric drill
2. 17/64" drill bit preferred, 1/4" – 9/32" okay
3. Four 1/4" through bolts with nylon lock nuts and washers are strongly recommended. Do not use lag bolts or wood screws! **Note:** 1/4" bolts should be at least 1-1/2" LONGER than the mounting surface thickness.
4. A square or straight edge measure for measuring and locating the holes
5. Two 7/16" wrenches or sockets to fit the 1/4" bolt heads and nuts.

C. Marking and drilling the mounting holes in the bench:

1. Stand the press up. Position the press with the front edge of the Bench Stands as close as possible to the bench's forward edge. This ensures the ram and link will not come into contact with the bench. Mark the hole locations for the left stand only. The location of the hole marked closest to the front edge of the bench will be your starting position for your measurements. Now carefully move the press out of the way to measure, mark and drill the bench holes.
NOTE: All measurements are to the centers of the holes.

2. Using a square, measure the distance from the front edge of the bench to the center of the marking you just made for the front left bench stand hole. If the bench stands are flush to the front of the bench, then it is 1" to the center of the hole. You will use this measurement for the front hole location for the right bench stand. Now, measure from the center of that hole to the center of the rear left bench stand hole to confirm that it is 9".

3. Now, measure out 11-3/4” to the right from the center of the front left bench stand hole marking across the front edge of the bench and make a mark. Then, measure back from the front edge of the bench the distance of the measurement you took in number 2 above, and make a mark. This mark will represent the center of the front right bench stand hole.

4. Measure 9” straight back from the front right bench stand hole and mark the location of the rear right bench stand hole. Measure the center to center distance of the rear left and right bench stand hole markings to confirm that it is 11-3/4”.

5. Double check all measurements before drilling the bench stand holes!!! Now, you can drill the holes.

D. Bolting the press to the bench:

1. Carefully position the press with the left bench stand holes first. Put a smaller washer on each of the 1/4” bolts. Starting with the rear left bench stand hole, insert the bolts from the top through the Bench Stand into the drilled holes in the bench. If mounting to wood, use large area or fender washers on the nut-side of the bolt.

2. Run lock nuts from the underside of the bench with the large washers. Use nylon-insert lock nuts to ensure that the nuts do not loosen while using the press. Using the wrenches or sockets, tighten down the two bolts on the left bench stand only.

3. Using the 9/16” wrenches or sockets, slightly loosen the two flange head bolts for the right bench stand. This will allow you to more easily insert the 1/4” bolts through the bench stands and into the bench.

4. Starting with the rear right bench stand hole, insert the bolts from the top through the Bench Stand into the drilled holes in the bench. The pattern is designed to ensure a tight fit of the Bench Stands to the TX-50™ to the bench. Run lock nuts from the underside of the bench with the large washers. Using the wrenches or sockets, tighten down the two bolts on the right bench stand.

5. Use the 9/16” wrenches or sockets to tighten the flange head bolts through the base block of the press to the Bench Stands. The mounting process is now competed.

INITIAL SET UP

A. Operation of the handle:

Operate the handle slowly to ensure smooth press operation. Make sure the handle and the link completely clear the bench. Contact with the bench may hinder the range of movement. Observe the movement of the shell plate and verify there is no interference or contact of the shell feeder block with the platform.
NOTE: Never let go of the handle in the middle of a stroke. The press will naturally want to return to the neutral position and the sudden drop of the platform could damage critical parts of the press.

B. Shell Feeder Installation:

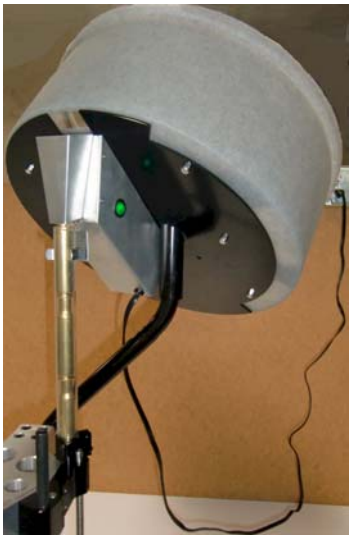
1. Remove the Shell Feeder Bowl, other parts and hardware from the box. Make sure the caliber specific Shell Feeder Plate is installed. To change Shell Feeder Bowl Plates, simply loosen the set screw on the side of the hub, pull the plate straight out, and reverse the process to install the new plate.

2. Be sure the Shell Feeder Post Clamp screws nearest the milled slots are loose to allow the Shell Feeder Post to easily slip through both clamps.

3. Insert the Shell Feeder Post through the Shell Feeder Post Clamps.

4. Apply a little light-weight oil to the outside top 2" of the Shell Feeder Post and then place the Shell Feeder Bowl onto the post.

5. Align the Shell Feeder Bowl so the Shell Feeder Funnel is directly over the Shell Feeder Stop Bracket. Ensure the correct discriminator is in place, and caliber specific LRP funnel insert (if required). The LRP conversions also come with a Shell Feeder Stop Bracket Insert. Simply insert it into the Shell Feeder Stop Bracket, and turn it until it drops into position. It will no longer be able to be turned after it has dropped into place.



6. Place the squared off end of the clear plastic tube into the shell feeder stop bracket, or insert, then connect the beveled end of the tube to the Shell Feeder Tube Holder. Keep the front edge of the clear tube aligned with the front edge of the funnel on the Shell Feeder Housing. The LRP conversions use a slightly shorter tube to accommodate the extra height of the Shell Feeder Stop Bracket Insert.

7. Hand-tighten the loose post clamp bolts. Do not over-tighten!

8. Plug the shell feeder power cord into a 110v AC outlet. Place approximately 10 empty shells into the shell feeder and turn it on. Notice that each time an empty shell exits the shell feeder, it passes a microswitch before entering the tube. The motor will run until the clear shell feed tube fills and then it will automatically shut off. The microswitch uses the pressure of the shell against the aluminum arm on the switch to turn the motor off.

9. Remove all brass cases and the clear plastic tube before continuing with the installation of the powder system and reloading dies. The plastic tube can be reinstalled after the dies are set. **Note:** The shell feeder bowl is not designed to be completely filled with brass. If it is fully loaded it will not function reliably. **Approximately, 40 shells would be considered a maximum load.**

C. Powder System Installation:

Until the powder measure has been fully adjusted for proper case activation, DO NOT put any powder into the flask. The powder charge is not being set at this time, so there is no need for powder to be handled yet. Every complete stroke of the press handle dispenses one charge of powder, if a shell is in station 2.

1. The Powder Die has the base of the case activated linkage already attached to it. **** This die MUST be installed before any other die is added.** **
It should be carefully threaded into Station Two, which is a 1" diameter hole nearest to the Primer Tube, until the bottom of the die is about flush with the bottom of the head plate. The linkage spring should be positioned toward the handle side (or right side) for now. **DO NOT TIGHTEN THE NYLON SET SCREW YET!!!**

2. Remove the powder measure and other parts from the RCBS box. Fully read the RCBS instruction booklet on assembly and use of their powder measure. **NOTE: While the powder measure and case activated linkage has been assembled and is functional, RCBS packages their parts with a light coat of oil to prevent rust. Follow their instructions with regard to cleaning the oil off before filling with powder.**

3. Again, be sure the Powder measure is empty before proceeding. The Powder Funnel Bushing must be carefully threaded onto the bottom of the Powder Measure and hand tightened. **NEVER USE PLIERS!!!** The caliber specific Powder funnel should now be carefully threaded into the powder funnel bushing. It is easily removed for cleaning and changing for other calibers.

4. With the powder measure handle pointing forward, the Powder Measure can now be inserted into the Powder Die. Remove the thumbscrew from the bottom bracket which is attached to the powder die. Insert the thumbscrew through the case activated linkage arm and tighten down by hand. Using your fingers, or pliers, carefully pull the linkage spring up until it goes over the peg on the bracket attached to the powder measure. This maintains the spring tension required to operate the case activated linkage.

5. The powder die must be adjusted to a height so the Powder Measure can make full strokes. A nylon set screw is accessed through a hole in the side of the Head Plate Bracket to lock the Powder Die. Very little effort is required to loosen and tighten this nylon set screw. Never over-tighten the set screw as it can easily be stripped. Place an empty shell into the shell plate at station 2 and pull the handle down (raising the platform) until the mouth of the shell comes into contact with the

powder die funnel. Continue to pull the handle down until either the handle reaches the bottom of the stroke or the powder measure runs up to the top. Adjust the powder die up or down (by turning the whole powder measure and powder die together) until you reach the bottom of the stroke of the handle at the same time as the powder measure handle runs up to the top of the powder measure. Lightly tighten the nylon set screw to lock the position. Very little force is needed here.

Note: If the powder die is not adjusted down far enough to allow the powder measure to travel its full distance the powder charge will be erratic. If it is set too low, then damage to the powder measure, linkage, and brass may occur. It is critical to set this height correctly.

6. After the Powder Die height is correctly set, the Powder Check die can be installed. The Powder Check Adapter is attached to this die and is supposed to be free-spinning. Carefully thread the die into the Head Plate in the 1" hole next to the installed Powder Die. Do not insert this die too deeply and do not tighten the nylon set screw until final adjustments are made with a casing filled with the desired powder charge.

7. Insert the correct Powder Check Probe (caliber specific) into the top of the Powder Check Adapter. Rotate the adapter until the window cutout is facing the front.

8. Measure out and fill a primed case with the desired powder charge, and place it in the shell plate in Station Three.

9. Move the handle down, which will raise the filled case on the platform into the Powder Check Die. With the handle in the down position, turn the die by hand until the probe begins the rise. Continue to turn the die until the scribed line on the probe is in the position in the window cutout that you desire.

10. When the desired position of the line is where you want it, lightly turn the nylon set screw on the left side of the Head Plate to lock the die. Never over-tighten the set screw as it can easily be stripped. Very little pressure is needed to lock the die in place.

D. Primer Tube Installation:

1. Raise the platform (i.e., lower the handle all the way).

2. Insert the primer tube through the top of the Head Plate Bracket directly over the Primer Tube Platform Bracket. The primer tube must be fully inserted into the Primer Tube Platform Bracket before securing it with the set screw.

3. Hand-tighten the set screw for the primer tube. Do not over-tighten, as this can deform the primer tube and cause the primers to hang up in the tube.

4. Lower the platform (i.e., lower the handle to the neutral position) and be sure the Primer Tube is properly aligned and that the Primer Tube is secure.

5. If the Large Rifle Primer (LRP) system is being installed, then the aluminum tube would be inserted into the larger black steel tube. The LRP Tube Cap should already be installed, and properly adjusted. To set the tube and cap, follow these steps:

a. Insert a .005" shim/gap tool (or a piece of paper folded in half) between the primer shuttle and primer tube bracket.

b. Insert the aluminum LRP tube into the black steel tube. The tube will rest on the shim/gap tool.

c. Place the LRP tube cap onto the aluminum tube, and slide it down until it stops on the black steel tube.

d. Tighten the two plastic set screws to lock in the setting. Now you can remove the shim/gap tool.

6. If loading primed brass or case prep is the intended use of the press, it is recommended that the primer tube not be installed (or removed if already installed), and suggested that the Primer Shuttle also be removed. This improves the ease of operation and reduces wear to unused parts. DO NOT remove the primer seating punch since it also serves as a stop for the press. Also, the primer seating depth adjustment should be backed off so there is minimal contact with the primed brass. **Note:** BEFORE REMOVING the Primer Shuttle, READ the instructions in "*Disassembly of the Press -- Step 6) Removing the Primer Shuttle*". The primer shuttle spring is under tension, so be ready to catch it.

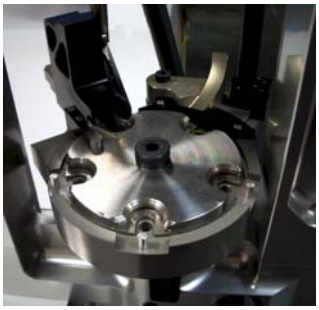
7. The correct Primer Tube Follower should be inserted into the top of the primer tube. It was designed to lock the Primer Shuttle in the "out" position when there are no primers in the tube.

E. Spent Primer Cup Installation:

1. Raise the platform (i.e., lower the handle all the way).

2. Install spent primer cup on underside of the platform under station 1.

F. Station Pins, Shell Exit Finger, & Primer Shuttle Bridge:



1. Now it's time to install the three Station Pins in the shell platform at stations 3, 4 and 5. These caliber specific pins retain the cases during loading while providing an easy way to remove a case from the shell plate at any station without disturbing the other rounds.

2. The Shell Exit Finger easily slips over the two steel pins on the Platform between Station Five and Station One. The exit finger is

designed to be installed and removed in a straight vertical motion.

3. The Primer Shuttle Bridge slips on the two shorter pins located at Station Two. The curve will follow the shell plate. It will only fit on one way with the flat side up. The Primer Shuttle Bridge was designed to be easily removed when a casing needs to be removed from Station Two to set primer seating depth and adjust the powder measure system. Because of the safety tolerances designed into this part, a primer will be stopped from entering the shell plate if it is not sitting flat. A recent improvement to the Primer Shuttle Bridge is the addition of an adjustable spring to keep light tension on a casing in Station Two, regardless of the caliber.

G. Loading Dies Installation:

1. The loading die stations (one, four & five) are standard 1-1/2" die holes. Reducer bushings can be installed in these stations to make use of smaller dies. Further explanation is detailed in 6 – 8 below.

2. Thin die lock rings should be used on the 1-1/2" dies to not interfere with other dies. These thin lock rings are standard on RCBS 50 BMG dies, and are available separately from Ten-X.

3. A Size Die can be installed in Station One, and standard installation should be followed.

4. Station Four is intended for bullet seating and crimping, or seating alone. Alternately, Station Four is for the application of case mouth sealant. In this type of use, bullet seating and crimping is done in Station Five.

5. Station Five is intended for separate crimping (if bullet seating is done in Station Four), combo bullet seat/crimping (if Station Four is used for case mouth sealing), loaded case inspection (if bullet seat/crimp is completed in Station Four), or left empty.

6. When using a 1-1/4" reducer bushing in Station Five (e.g., for the Lee .50 BMG collet crimp die), it is recommended that the bushing be inserted from the top side. In this situation, the Lee lock ring will fit.

7. When using a 7/8" reducer bushing (i.e., for most LRP calibers), you will need to use the Ten-X 7/8" oversized lock rings. The reducer bushings should be threaded on from underneath the top plate and tightened. The 7/8" dies would be threaded from the top as normally done, and the Ten-X lock rings would be used in place of the factory lock rings that came with your dies. Two Ten-X 7/8" oversized lock rings are included with an LRP Conversion Kit.

LOADING STATION REVIEW

Before loading with the TX-50™, it is important to have a brief review of the intended functions of each station. The loading process begins with one complete stroke or cycle of the handle, which causes the first shell to be cycled through the shell feeder system and fed into the shell plate.

CRITICAL NOTE: While it is possible to size and decap brass on the TX-50™ in sequence with priming and loading shells all in the same process, this method is ***strongly discouraged***. The proper method for reloading fired rifle brass, particularly .50 BMG casings, is to process the spent brass first. After the used brass has been appropriately processed, the casings are ready for priming and reloading. The primary reason for this is to ensure that the most consistent powder dropping can be achieved. The smoother the operation of the press, the more consistent the powder drop will be.

The TX-50™ does not have a primer pocket swaging tool, so it is important to ensure that primer pocket depth, diameter, and mouth are ready to receive a primer. Used brass that may have had staked/crimped primers and/or lacquer sealant should have the primer pocket cleaned, uniformed, and the crimp removed. Follow reloading industry standard brass prepping procedures regarding primer pocket preparation and case mouth trimming.

Station One is intended primarily for case neck sizing and decapping spent primers.

The TX-50™ will easily neck size and decap/remove spent primers which will drop into a cup attached under the platform that can easily be emptied when filled. This station can also be used to expand the case neck in preparation for seating the bullet during the loading process. The neck expanding step also ensures that the case mouth is uniformly rounded for more accurate bullet seating and more consistent neck tension. Pull the handle down, the sizing die reforms and also decaps the first case. Returning the handle to its neutral position using a smooth, fluid motion will automatically advance the shells in the press.

NOTE: While the TX-50™ is capable of full length sizing as may be required for automatic and semi-auto rifles, it is strongly recommended that volume full-length sizing be conducted on hydraulic presses or presses intended for the singular purpose of resizing.
It is strongly recommended that case prep and reloading NOT be done simultaneously on the TX-50™. The primary reason for this is to ensure the most consistent powder drop can be achieved.

Station Two has two functions; new primer seating and powder dispensing.

With a prepped case in Station Two, pushing the handle to its full back position will seat a new primer into the case and, at the same time, another case will be fed into the shell plate. If you are seating .50 BMG primers, the collapsible link arms must be used, and the Link Arm Lock must be removed. These unique link arms were designed to automatically collapse when the handle is pushed back, generating the additional leverage required to seat the .50 BMG primer. The link arms then automatically extend to full length when the handle is returned to its neutral position.

NOTE: If your TX-50™ has the collapsible link arms installed and you are not priming, it is strongly recommended you reattach the Link Arm Lock to the link arm nearest the handle. This will ensure a smoother loading process, a shorter stroke, and reduced wear on the press.

The primer feeding system is quite simple and safe in design. The primer tube was designed to hold forty .50 BMG primers. Do not attempt to load more than 40 primers into the tube. The primers can be inserted one at a time with the anvil side up (shiny side down) into the open top of the primer tube. An optional .50 BMG primer pickup tube is available from Ten-X and can also be used to load 20 primers at a time.

If the LRP (large rifle primer) system is being used, then the LRP Primer Tube Insert Assembly must be installed, along with the LRP Primer Shuttle. The LRP tube is designed to hold up to 100 large rifle primers. Standard large primer pickup tubes or automated primers fillers can be used to fill the LRP tube.

NOTE: Never use the .50 BMG Primer Shuttle with large rifle primers, since this will cause several of the smaller primers to feed into the Primer Shuttle and create a risk of detonation. Only use .50 BMG primers with the .50 BMG Primer Shuttle. Additionally, never attempt to feed primers other than .50 BMG primers into the primer tube without an LRP tube insert, as a jam can occur and create a risk of detonation. The Primer Shuttle and Primer Tube must be matched!!!

The Primer Shuttle will automatically pick up only one primer at a time that will be fed into position under the shell plate in Station Two. When the platform is raised up, the Primer Shuttle Rod indexes and passes through the Primer Shuttle to positively position the shuttle under the Primer Tube so that a primer will drop into the shuttle. When the platform is lowered, the spring-loaded Primer Shuttle will return to a position that places the new primer under the Shell Plate and directly over the primer seating punch. Never force the handle when a jam occurs. Slowly return the handle to its rest position. If there is no shell in Station Two to receive the primer, the primer will remain in the primer shuttle and be safely returned to the primer tube position and back again until an unprimed shell is ready to receive it.

NOTE: Unless the Primer Shuttle is positioned exactly with the primer over the primer seating punch, there is no pressure that can be applied to the primer itself, which effectively eliminates the possibility of seating a primer off-center, sideways, or setting one off. The process will not be able to continue until the primer shuttle is correctly positioned.

Warning: Wear safety glasses whenever working with live primers.

The primer seating depth is fully adjustable and is positioned below the platform under Station Two, on the right side of the press base block. Start with the primer seating depth set screw set at approximately 1/16" above the primer seating block. To adjust, first loosen the tension screw on the side on the Primer Seating Block. Then, adjust the height of the set screw on the top of the block as needed. The higher the set screw, the deeper the primer will be seated. Each 1/4 turn generally equates to approximately .001” in primer seating depth. When the desired seating depth is achieved, retighten the tension screw by hand until the set screw is securely held in place.

The second function of Station Two is performed when the handle is pulled down to raise the platform and a case is positioned in Station Two. The case activated RCBS Powder Measure will dispense the charge that has been set. The powder drop will need to be adjusted to the desired powder weight. It is important to use a quality powder scale to do this.

NOTE: Refer to the RCBS Powder Measure instruction manual for specifics regarding its use.

Cycle the handle completely and the Shell Plate (all the shells in it) will advance to their next stations.

Station Three is for the powder check system.

This system is designed to enable visual detection of deviations in the powder charge, i.e. a double charge of powder or no powder at all.

To adjust the Powder Check Probe, first loosen the nylon set screw that is used to lock the Powder Check Die in place. Clockwise rotation of the die raises the Powder Check Probe’s indicator line for a given powder charge. Counterclockwise rotation lowers the Powder Check Probe’s indicator line for a given powder charge.

Station Four is intended for bullet seating/crimping.

This is where the bullet is pushed into the case. An alternate use of Station Four is for the application of case mouth sealant. In this use, bullet seating and crimping would be done in Station Five.

Station Five is intended for separate crimping (if bullet seating is done in Station Four), combo bullet seat/crimping (if Station Four is used for case mouth sealing), loaded case inspection (if bullet seat/crimp is completed in Station Four), or to be left empty.

After Station Five, a completed round is ejected from the press with every complete stroke of the handle. When operating the handle, pay close attention to the cases, noting any changes that take place as they go through the press.

Pace yourself when operating the machine. Do not crash the handle down against its stop and do not snatch the handle upward. It should take two or more seconds to move the handle from its neutral position, down and then back up to its neutral position.

General Press Information

The TX-50™ has some great automated features. Our electric Shell Feeder is larger than others you may have seen, which only makes sense when you consider the TX-50™ was designed to reload one of the largest casings for a shouldered rifle. This unit is designed to hold approximately 40 empty .50 BMG casings, and feed them at up to 20 per minute. Turn the electric Shell Feeder on and the Shell Feeder Plate will rotate until the Shell Feed Tube has filled, then a microswitch will shut the unit off. Every down stroke of the handle will feed another casing from the Shell Feed Tube into the Shell Feeder Block. On the subsequent up and back stroke, the Shell Feeder Block will move one empty casing into the Shell Plate positioned into the first station of the press. Pulling down on the handle will enable the use of the appropriate die in station one to resize the casing (neck only or full length), expand the neck of the casing (if an expander ball is used), and remove the old primer.

NOTE: It is strongly recommended that before loading cartridges from casings that require processing (i.e., fired brass), all such casings should be fully processed since the press does not ream or swage the primer pocket. Additionally, the extra force applied to the press to size fired casings, and the subsequent shaking of the press, could lead to powder splashing out of the casings and the dropping of inconsistent powder charges. The smoother the press is operated, the more consistent and accurate the loaded cartridges will be. The TX-50™ can be set up to size casings, remove spent primers, and even trim case mouths, but these should be completed prior to loading the cartridges.

Moving the handle to its full back position will advance a casing in the Shell Plate to station two, where a new primer is seated into the primer pocket of the casing when the handle is pushed back. The seating depth of the primer is fully adjustable by means of the Set Screw in the Primer Seating Block. If a casing is not present in Station two, then the unused primer will simply shuttle back to the Primer Tube and shuttle over again on the next operation. No primers are lost in this system.

Every complete stroke of the handle will feed another primer into the Primer Shuttle. The powder system is also located at station two. The hopper holds two pounds of powder and has a fully adjustable powder measure that can drop up to 250 grains. The RCBS powder measure is case activated. When pulling the handle down with a casing in station two, the Powder Die Funnel will contact the case mouth, causing the powder measure to be pushed up and dispense one charge of powder into the casing. Bringing the handle to the neutral position lowers the powder measure and causes it to automatically be recharged, and the casing will advance to station three. At the third station, left of the front Column, the accuracy of the powder charge is determined by the Powder Check Probe on the down stroke. The Powder Check Die is fully adjustable to a setting that assists the loader to ensure that an appropriate and accurate charge was dropped. Light duty nylon set screws lock the Powder Die and Powder Check Die in place once the correct setting has been determined. The slot in the free-spinning top of the Powder Check Die enables multiple custom powder settings. Moving the handle again back into the neutral position advances the casing to station four where the bullet can be seated. Pulling the handle down with a seat/crimp die in station four would seat the bullet to the loader's desired depth. Crimping can also be done in this station, or delayed until station five to separate it from seating. Bringing the handle back up again to the neutral position advances the now loaded round into station five for a final crimp or for checking the overall length. Some loaders prefer to use a separate collet crimp die in station five for ammunition that is intended to be used in semi-auto or full-auto rifles. Again, one final move of the handle back up to its neutral position will advance the completed cartridge out of press.

Disassembly of the Press

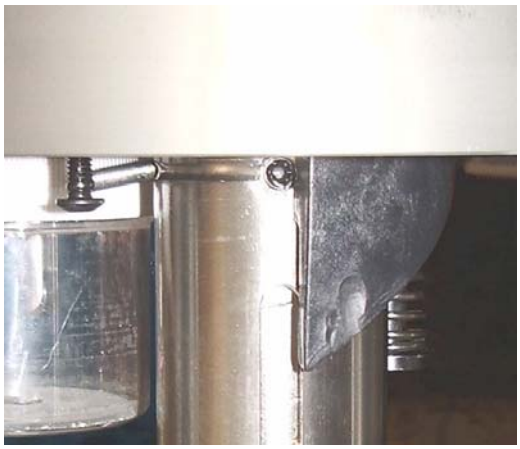
Step 1) Remove the cases from the machine:

1. Turn off the Shell Feeder.
2. Remove the remaining cases from the Shell Feed Tube.

Step 2) Remove the powder from the powder measure:

1. Follow directions in the RCBS manual to do this.
2. Remove the powder measure and empty the powder back into its container.
3. Manually cycle the powder measure to ensure it is empty.

Step 3) Removing the shell plate:



1. Remove the shell exit finger, primer shuttle bridge, and the three station pins.
2. Using a 1/8" Allen wrench, loosen the shell plate set screw. The shell plate set screw is located on the left side of the ram just below the platform. Do not remove the screw. Simply loosen it about a half turn.
3. Using a 1/4" Allen wrench, remove the shell plate shoulder bolt and remove the shell plate.
4. Remove the advancing ball and its spring, and advancing pawl and its spring from the platform. A magnet will be very helpful in this process. Keep them in a bag or parts bin so you do not lose them.

Step 4) Removing the primers:

Remove the primers only if you need to clean.

1. Using a 1/8" Allen wrench, loosen the primer tube set screw located on the front of the primer tube block.
2. Use a small cup or bag to catch the primers as out of the bottom of the primer tube. Carefully lift the primer tube up and out of the block, while carefully holding the cup underneath.
3. Put the primers back into their original box.
4. If any primers remain in the primer area on the machine carefully remove them.

Step 5) Removing the primer shuttle:

NOTE: The Primer Shuttle Spring (under the Shuttle) is under tension, so be ready to catch it! Replacing the Primer Shuttle can be a little tricky since the primer shuttle spring's ends must feed into the small holes.

1. Remove the primer tube as described in Step 5.
2. Remove the two primer tube block screws with an Allen wrench and remove block.
3. Remove the primer shuttle shoulder bolt with an Allen wrench and be sure to catch the spring that is under the Primer Shuttle.

NOTE: When doing a caliber conversion, the primer shuttle change is required.

Step 6) Removing the primer seating punch:

The primer seating punch is attached to the underside of the platform on the right side.

1. Raise the platform.
2. Using a 9/16” wrench, loosen and remove the primer seating punch.
3. Be careful when lowering the platform without the primer seating punch, since it acts as a stop to protect the advancing ring.

NOTE: When doing a primer system conversion, a primer plug assembly change is required.

Step 7) Removing the Platform:

1. Remove the shell plate as described in Step 4 above.
2. From the underside of the platform, on the left, slide the advancing ring spring off of the advancing ring. This spring is attached by the other end to the platform with a small screw, so it will not get lost. Just move it out of the way for now.
3. Using a 1/8” Allen wrench, loosen the three set screws on the right side of the Head Plate Bracket that holds and stabilizes the Shell Feeder Rod. Slide the rod up to move it out of the way and lightly tight the center set screw to hold it in place for now.
4. Using an Allen wrench, loosen and remove the three screws that hold the platform onto the ram. Be careful not to let the ram fall under its own weight. When the three screws are removed, the platform can be removed to the right side of the press.

Step 8) Removing the Ram:

1. Remove the Platform as described in Step 8.
2. Using a 1/8” Allen wrench, loosen the set screw on the bottom of the Ram. This holds the Link Stud in place. Loosen it only enough to allow for the Link Stud to slide out. The set screw can also be removed and placed in a secure place so as not to lose it.
3. Slide the Link Stud out to separate the Link from the Ram.
4. Loosen the two guide screws located on the left side of the base. Hold the ram with a strong grip before removing these guide screws. The ram is heavy and will fall out quickly.

Step 9) Removing the Link Arms:

1. Use correct sockets or end wrenches for this operation. Never use pliers.
2. The easiest way to remove the link arms is one side at a time, starting with the right side. If the purpose of removing the arms is to switch from the collapsible arms to the fixed arms, or vice versa, then loosen and remove the two nuts on the same side that hold the Link arms to the Base and to the Link by the Link Pins.
3. Switch out the link arm on the one side, carefully thread the nuts back onto the press, and tighten down the nuts. Repeat this process on the left side.
4. If the Link Arms and Link Pins are to be removed for maintenance, take the Link Arm off of the right side as described above. With the nuts on the left still attached, slide the remaining Link Arm and Link Pin assembly out to the left. Be careful to hold the link as it will want to drop down under its own weight.
5. Reverse the process to reassemble.

Step 10) Adjusting the Shell Feeder Rod:

1. Using a 1/8” Allen wrench, loosen the top and bottom screws of the three set screws on the right side of the Head Plate Bracket that hold and stabilize the Shell Feeder Rod.

2. Place an empty shell into the shell plate at Station One. You will need to slide the Shell Feeder Block back to do this. The spring will return the block to the shell and maintain pressure.

3. With the handle in the neutral position, use the same Allen wrench and loosen the middle set screw. Now slide the Shell Feeder Rod down until it is touching the Shell Feeder Block. Leave the Allen wrench in the set screw.

4. Push the handle back into the full priming position, and tighten the middle set screw on the Shell Feeder Rod. Be sure that the roller bearing on the rod is lined up correctly with the ramp on the Shell Feeder Block.

5. From this point, the timing of the shell’s entry into the shell plate can be adjusted by moving the rod up or down, as needed. When the setting is correct, and the shell is fully inserted into the shell plate, finalize the position by tightening the top and bottom set screws.

Maintenance

The primer system on the TX-50™ is a fully mechanical system. Every complete stroke of the handle will feed a primer into the press. Two very important but simple points:

1. Always keep the press and its primer system clean and free of dirt. Do not place any oils or grease on the primer shuttle.

2. Never allow excess powder or dirt to build up on the platform where the primer shuttle swings in and out of the machine.

Operating circumstances will dictate the frequency of required lubrication for other parts and connections. It is highly recommended that the TX-50™ be cleaned and lubed after every 3,000 rounds of operation. Use 30-weight motor oil on the ram, and light grease on pivot pins and all other moving parts.

Note: Never use penetrating lubricants, aerosol sprays, or solvent type lubes, such as WD-40 or Break Free.

Use 30w motor oil to lube the ram.

A. Ram: This is the most important part to maintain lubrication on.

Use light grease on the following items:

B. Link Stud (connecting the Ram to the Link)
C. Link Pins (connecting the Link Arms to the Base and the Link)
D. Shell Plate Shoulder Screw Hole
E. Shell Insert Block
F. Advancing Ring
G. Shell Advancing Block

Warranty Information

The warranty on the TX-50™ is for life from defects in material or workmanship, and a 100% warranty against normal wear for one-year. All electrical/electronic components in the TX-50™ are covered by a one year warranty.

The warranty is voided if the TX-50™ is used for any purpose other than the normal processes of loading of ammunition. This specifically prohibits the reforming of brass casings into use for other calibers and cartridges, and also the commercial full length sizing of .50 BMG and derivative cases.

Contact Information

Should you have any questions about the TX-50™ operations and use, or require replacement parts, please contact us at:

TEN-X TACTICAL™

A Division of Ten-X Ammunition, Inc.
8722 Lanyard Court, Rancho Cucamonga, CA 91730
(909) 946-TenX (8369) ● (909) 946-8370 Fax

www.TenXTactical.com