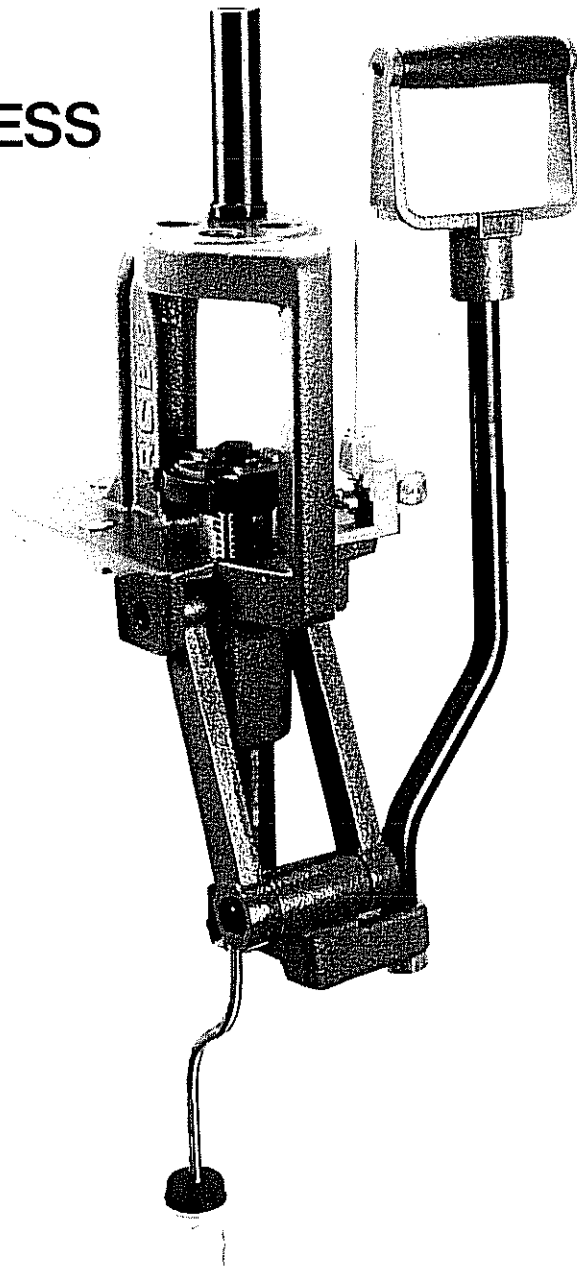


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# 4x4<sup>TM</sup>

PROGRESSIVE  
RELOADING PRESS



Safety and Operating Instructions

# SAFETY

Reloading is an enjoyable and rewarding hobby that is easily conducted with safety. But carelessness or negligence can make reloading hazardous. This Press has been designed from the beginning with the user's safety in mind.

As when loading with any other reloading press, some safety rules must be followed. By observing these few rules, the chance of a hazardous occurrence causing damage or injury becomes extremely remote.

## GENERAL

1. Use the reloading equipment as the manufacturer recommends. Study the instructions carefully and become thoroughly familiar with the operation of the tool. Don't take short cuts.
2. Observe "good housekeeping" in the reloading area. Keep tools and components neat, clean and orderly. Promptly and completely clean up primer and power spills.
3. Reload only when you can give your undivided attention. Do not reload when fatigued or ill. Develop a reloading routine to avoid mistakes. Avoid haste—load at a leisurely pace.
4. Always wear adequate eye protection. You assume unnecessary risk when reloading without wearing safety glasses.
5. If any unusual resistance is encountered when moving the operating handle, STOP IMMEDIATELY and investigate the cause. To proceed against unusual resistance may damage equipment and/or cause serious injury!

## LOADING DATA

1. Use only laboratory tested reloading data. We highly recommend the use of the SPEER Reloading Manual.
2. OBSERVE ALL WARNINGS ABOUT THE USE OF MAXIMUM LISTED LOADS.

## PRIMERS AND POWDER

1. Store primers and powder beyond the reach of children and away from heat, dampness, open flames and electrical equipment.
2. DO NOT use primers of unknown identity. To destroy unwanted primers, soak in oil for a few days and then bury.
3. Keep primers in original factory container until ready to use. Return unused primers to the same factory packaging for safety and to preserve their identity.
4. DO NOT store primers in bulk. The blast of just a few hundred primers is sufficient to cause serious injury to anyone nearby.
5. DO NOT force primers. Use care in handling primers.
6. DO NOT use any powder unless its identity is positively known. Discard all mixed powders and those of uncertain or unknown identity.
7. If you use a Powder Measure, replace the lids on both the Powder Hopper and powder can after the Powder Hopper has been filled.
8. Before charging cases, settle the powder in the Powder Hopper. Throw and check the weight of at least ten charges. This will assure you that the correct powder charge is being thrown.
9. After a reloading session ends, pour the remaining powder back in its original factory container. This will preserve the identity and shelf life of the powder.
10. DO NOT smoke while handling powder or primers.

## RECORD KEEPING

1. Keep complete records of reloads. Apply a descriptive label to each box showing the date produced, and the primer, powder and bullet used. Labels for this purpose are packed with SPEER bullets.

Since Omark Industries has no control over the choice of components, the manner in which they are assembled, the use of this press, or the guns in which the resulting ammunition may be used, no responsibility, either expressed or implied, is assumed for the use of ammunition reloaded with this press.

## INTRODUCTION

The 4x4 Press is the ideal reloading press for high volume shooters and reloaders who prefer a continuous series process over a "batch" process. It is simple enough for the beginning reloader but incorporates features, capabilities and a level of quality that will please the most discriminating expert.

It is a four station, fully progressive tool designed primarily for rapid reloading of either rifle or pistol cartridges. In addition, the 4x4 can be used as a single stage tool and has the strength and power to form wildcat cases or swage bullets with the proper tooling.

The 4x4 Press was designed and built to traditional RCBS quality standards. No expense has been spared in the materials, production or assembly of this high quality, precision reloading press.

This instruction manual is limited to the operation of the 4x4 Press. Beginning reloaders desiring specific instructions on reloading procedures, loading data and ballistic information can find such information in the SPEER Reloading Manual available at your local dealer. Utilize the operating instructions furnished with the reloading dies and powder measure you choose to install on the 4x4 Press.

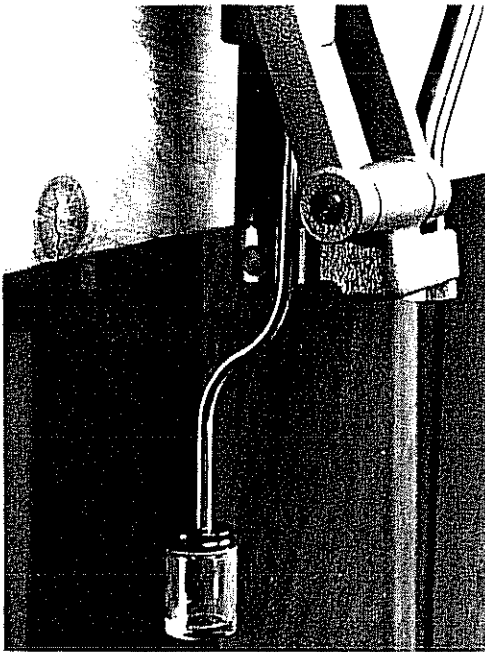


Photo #1

## UNPACKING

Unpack the press and look for the following: Refer to parts list on page 7 for identification.

1. Press (With or without Shell Plate, depending on model)
  2. Handle Assembly
  3. Powder Measure Adaptor
  4. Depriming Tube
  5. Automatic Primer Feed Tube Assembly, Large
  6. Automatic Primer Feed Tube Assembly, Small
  7. Accessory Pack consisting of:
    - A) Ammunition Catcher Box
    - B) Hex Key Wrenches (3)
    - C) Powder Drop Tubes (3)
    - D) Wrench
    - E) Cleaning Brush
    - F) Resizing Lubricant
    - G) Primer Tray
    - H) Hex Lock Nut 7/8-14
    - I) Depriming Bottle and Depriming Bottle Cap
    - J) Ram Return Spring
    - K) Index Ball and Index Ball Spring
    - L) Primer Plug Large
    - M) Primer Sleeve Large
    - N) Primer Plug Coil Spring
- Report any shortage to your dealer immediately.

## MOUNTING

The press should be bolted to a sturdy bench using 3/8 inch bolts installed through the three drilled holes on the rear flange. Make certain that the linkage is free to cycle without contacting any under-the-bench obstructions.

## HANDLE ASSEMBLY

Attach the Handle Assembly #87170 with the double elbow outward making certain it clears the Priming Arm #87182 when cycled. The Handle Nut #09136 must be securely tightened to prevent handle rotation during use.

## DEPRIMING SYSTEM ASSEMBLY

The press was packaged without the Depriming Tube #87176, Ram Return Spring #87167, Depriming Bottle #87177, or Depriming Bottle Cap #87178 assembled. To assemble the depriming system:

1. Place the Depriming Bottle Cap #87178 over the unflared end of the Depriming Tube #87176 and slide it down to the flared end.
2. Screw the Depriming Bottle to the Depriming Bottle Cap. The Depriming Bottle Assembly should now be captive on the flared end of the Depriming Tube (see photo #1).
3. With the press operating handle raised (ram in lowered position), insert the unflared end of the Depriming Tube Assembly into the 3/8" hole on the underside of the press adjacent to the ram. The 3/8"-hole is under station No. 1.
4. Raise the Depriming Tube Assembly through the hole until it contacts the underside of the Shell Plate Holder #87150. Raise the Ram/Shell Plate Holder Assembly enough to place the Ram Return Spring over the exposed end of the Depriming Tube.
5. Raise the Depriming Tube Assembly and the Ram/Shell Plate Holder Assembly simultaneously until the Ram reaches the top of its stroke. Insert the Depriming Tube into the mating socket in the Shell Plate Holder. Rotate the Depriming Tube so that the bends are in a fore and aft orientation (see photo #1). Secure Depriming Tube in place by tightening the recessed setscrew with the 1/16 Hex Key Wrench #87161 (see photo #2). Do not over tighten which might collapse the tube.



Photo #2

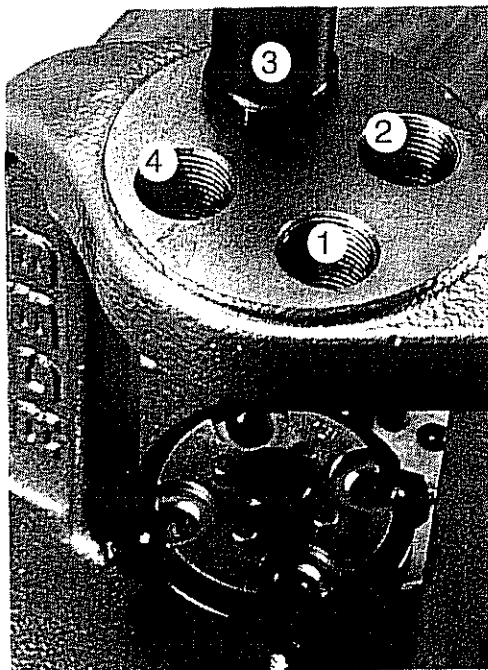


Photo #3

## GENERAL ORIENTATION

The sequential reloading operations take place in the four die stations and corresponding positions in the Shell Plate. Shell Plate rotation is in the counter clockwise direction. See photo #3.

DIE STATION	OPERATION
#1	Resizing Depriming
#2	Case Mouth Expanding (pistol cases) Priming
#3	Powder Dispensing
#4	Bullet Seating Bullet Crimping

## POWDER MEASURE ADAPTOR

Screw the Powder Measure Adaptor #87190 securely into Station #3.

## SHELL PLATES

The 4x4 Press utilizes a four position shell plate that incorporates the same numbering system as used on conventional RCBS Shell Holders. Consult with your dealer or Good Ol' Boys Product Catalog for the shell plate appropriate to the caliber you wish to reload.

4x4 Shell Plates are not available for cartridges utilizing conventional Shell Holders #5, #8, #13, #14, #22, #29 or #31 due to excessively large or thick rim dimensions.

## SHELL PLATE INSTALLATION

1. Insert Index Ball Spring #87153, followed by Index Ball #87152 into the socket in the Shell Plate Holder as shown in photo #4.
2. Insert the Ram Shoulder Bolt #87151 through the appropriate Shell Plate. The Ram Shoulder Bolt Head should be on the same side of the Shell Plate as the Shell Plate number.
3. Thread the Ram Shoulder Bolt/Shell Plate into the Shell Plate Holder until Shell Plate will not rotate. This tightening can be accomplished with your fingers. If any resistance is encountered prior to bottoming on the shell plate, check to make certain that the Locking Set Screw #87160 is not engaged too far. The Locking Set Screw is located under the Shell Plate Holder at Station #4. See photo #5.
4. Loosen the Ram Shoulder Bolt Approximately 1/8 turn, just enough to allow free rotation of the Shell Plate.
5. Tighten the Locking Set Screw just enough to prevent rotation of the Ram Shoulder Bolt. Do not over tighten.

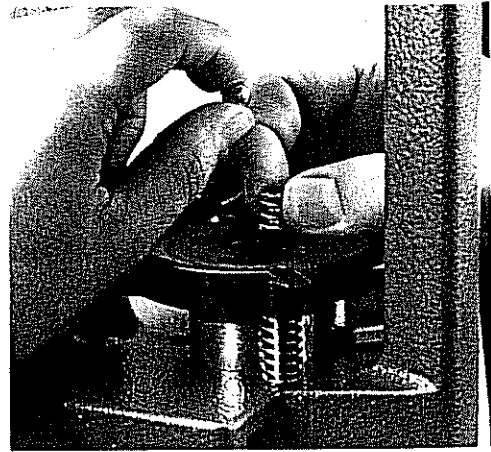


Photo #4

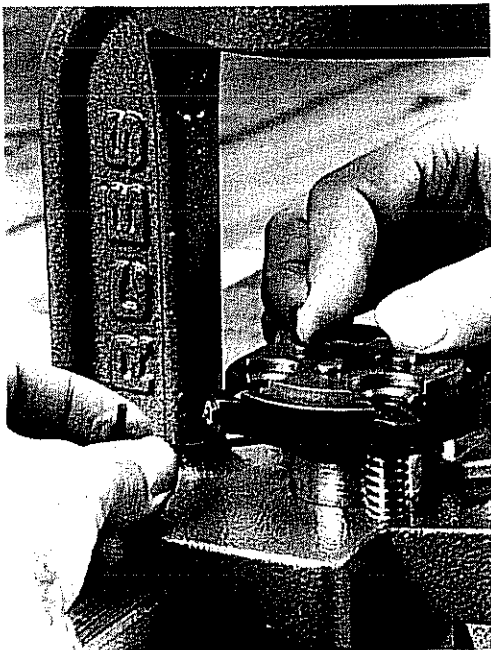


Photo #5

## CASE DETENTS

The Case Detents #87154 must be properly adjusted each time a Shell Plate is changed. The 4x4 is equipped with three case detents, located in the Shell Plate holder at Station 2, 3 and 4. Their function is to position the cartridge case fully into the Shell Plate. Since they are spring loaded, a cartridge case may be removed for inspection by simply sliding the case over the detent, which forces the detent down, freeing the case. Cases may be reinserted into the Shell Plate in a similar manner.

To adjust the Case Detents:

1. Loosen the Hex Lock Nut #87157 with 1/4 Wrench, #86765.
2. Fully depress the Case Detent with your thumb or finger.
3. Insert the 1/16 Hex Key Wrench #87161 into the screw adjacent and perpendicular to the Case Detent. See Photo #6. Engage the Socket Head Setscrew and rotate it clockwise until it just contacts the Case Detent. Do not remove 1/16 Hex Key Wrench yet.
4. Insert appropriate cartridge case into the Shell Plate. Be certain that the case is completely into the Shell Plate.
5. Rotate 1/16 Hex Key Wrench and Socket Head Setscrew in a counter clockwise direction which allows the detent to rise. Stop the rotation when the detent just touches the cartridge case rim. It is easy to detect by looking for movement in the case mouth as it starts to tip. See photo #6.
6. If adjusted too far, simply depress the detent and repeat steps 3, 4 and 5.

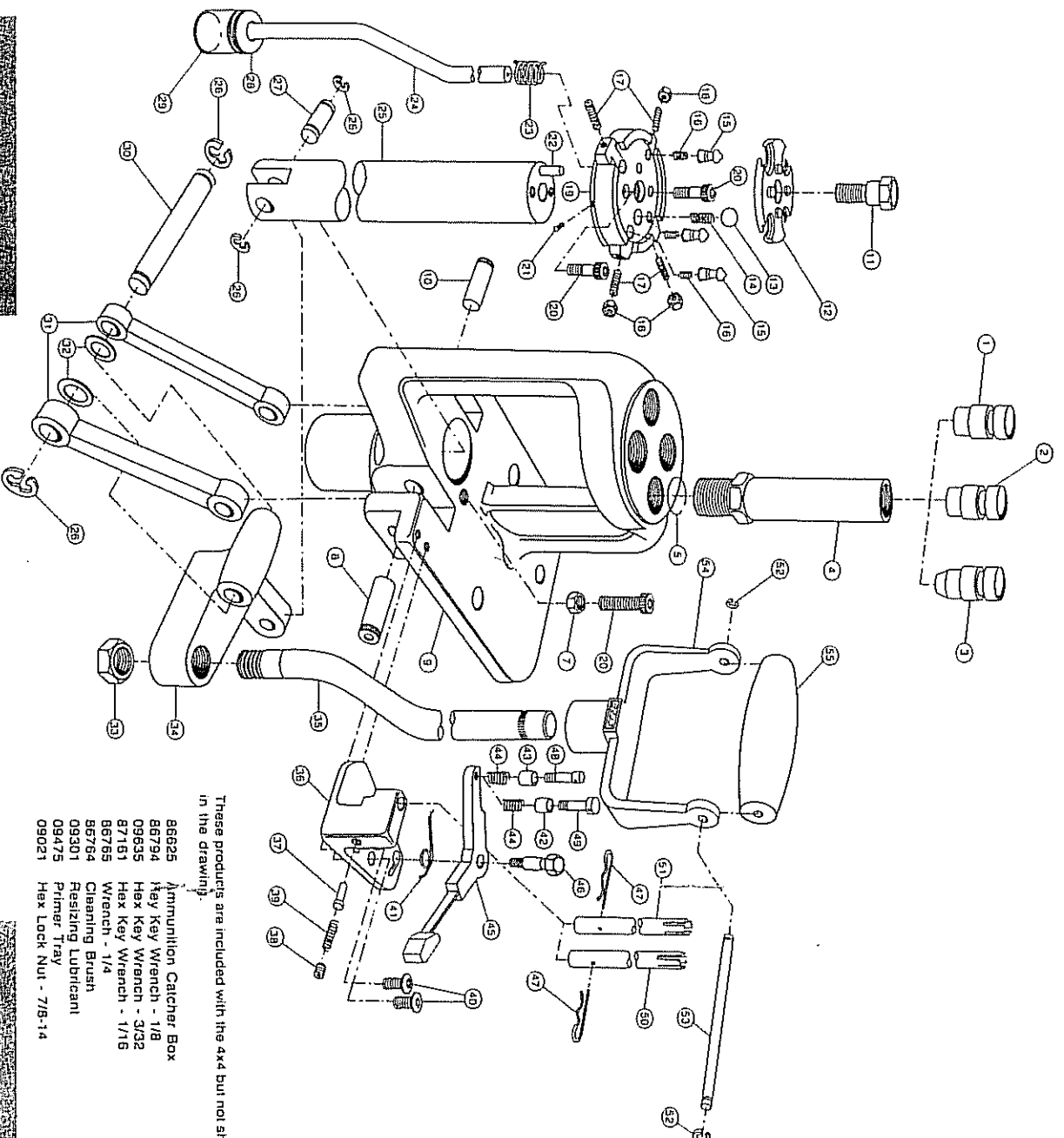
**CAUTION: DO NOT ROTATE THE SOCKET HEAD SETSCREW IN A CLOCKWISE DIRECTION TRYING TO LOWER THE DETENT WITHOUT FIRST DEPRESSING THE DETENT OR DAMAGE TO THE PARTS MAY RESULT.**

7. Carefully retain the Hex Key Wrench in the Socket Head Setscrew to maintain your adjustment and lock the Hex Lock Nut with the 1/4 wrench. See photo #7.
8. Check for proper function.

If the Case Detents are removed, the following procedure is recommended for reassembly:

1. Place some heavy grease into the drilled hole in the bottom of the Case Detent.
2. Insert the Case Detent Spring into the hole in the Case Detent.
3. Drop the Case Detent and Spring into the detent socket in the Shell Plate Holder.
4. Depress the Case Detent.
5. Rotate Socket head Setscrew clockwise until it contacts Case Detent.
6. Adjust.

4x4 PROGRESSIVE RELOADING PRESS



- 86625 Ammunition Catcher Box
- 86794 Hex Key Wrench - 1/8"
- 09635 Hex Key Wrench - 3/32"
- 87161 Hex Key Wrench - 1/16"
- 86765 Wrench - 1/4"
- 86764 Cleaning Brush
- 09301 Resizing Lubricant
- 09475 Primer Tray
- 09021 Hex Lock Nut - 7/8-14

These products are included with the 4x4 but not shown in the drawing.

KEY	PART #	DESCRIPTION
1	87191	Small Rifle Drop Tube
2	87192	Large Rifle Drop Tube
3	87193	Pistol Drop Tube
4	87190	Powder Measure Adapter
5	38286	Retaining Ring
7	87175	1/4-28 Hex Nut
8	09128	Link Arm Pin, Right
9	87140	Press Frame
10	09127	Link Arm Pin, Left
11	87151	Ram Shoulder Bolt
12	-	Shell Plate
13	87152	Index Ball 3/8"
14	87153	Index Ball Spring
15	87154	Case Detent
16	87155	Case Detent Spring
17	87156	Socket Head Setscrew 6/32 x 3/8
18	87157	Hex Lock Nut 6/32
19	87150	Shell Plate Holder
20	87159	1/4-28 x 3/4 Socket Screw
21	87160	10-32 x 3/8 Brass Tipped SHSS
22	87158	3/16 x 5/8 Roll Pin
23	87167	Ram Return Spring
24	87176	Depriming Tube
25	87165	Ram
26	09105	Retaining Ring
27	87166	Ram Pin
28	87178	Depriming Bellie Cap
29	87177	Depriming Bellie
30	87146	Toggle Block Pin
31	09150	Link Arm
32	09144	Bow Washer 134-5-20
33	09136	Handle Nut 5/8-18
34	87145	Toggle Block
35	87171	Handle Shaft
36	87180	Priming Plate
37	09595	APF Stop Pin
38	09591	Set Screw 1/4-28 x 3/16 Cup Point
39	09596	APF Coil Spring
40	87181	Button Head Cap Screw 10/32 x 5/8
41	87184	Priming Return Spring
42	09506	Primer Sleeve UPA, Large
43	09507	Primer Sleeve UPA, Small
44	09508	Primer Plug Coil Spring
45	87182	Priming Arm
46	87183	Priming Shoulder Bolt
47	09599	APF Cotter Pin
48	09555	Primer Plug UPA, Small
49	09554	Primer Plug UPA, Large
50	09568	APF Tube, Small
51	09587	APF Tube, Large
52	86733	Retaining Ring
53	09155	Handle Grip Pin
54	09153	Handle Grip Fork
55	09160	Handle Grip

## RESIZING DIE INSTALLATION

Resizing Dies are to be installed in Station #1. Most standard dies with 7/8-14 threads may be used, however, the die must incorporate a decapping assembly. An auxiliary 7/8-14 Hex Lock Nut #09021 was included in your accessory pack to use on the sizer die as many standard furnished lock nuts are so large as to interfere with the adjacent die lock nuts.

Adjust the sizer die exactly as you would in a conventional single stage press. Thread the die down until it contacts the shell plate when the ram assembly is in its fully raised position. Lower the ram assembly and screw the resizing die down an additional 1/4 turn and tighten the lock nut.

Carbide sizer dies are highly recommended when reloading straight wall pistol cases. Not only is resizing effort reduced, but the use of resizing lubricant is eliminated. Resizing lubricant must be applied to the cartridge cases when using steel sizer dies.

## EXPANDER DIES

Station #2 is reserved for expander dies to accomplish case mouth expansion and flaring on straight walled cases. Adjust the die using your die set instructions or the SPEER Manual.

Most bottle necked cartridge cases do not require an expander die, therefore station #2 may remain unused for certain cartridges.

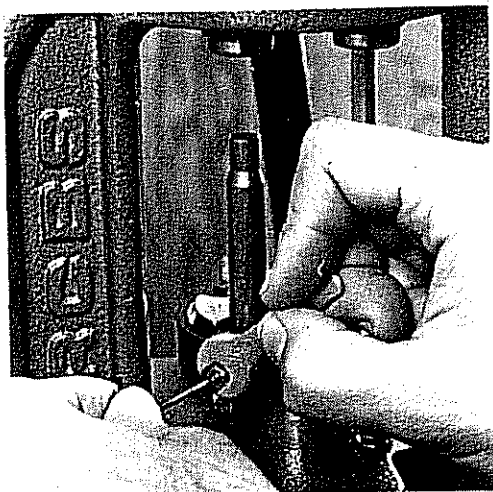


Photo #7

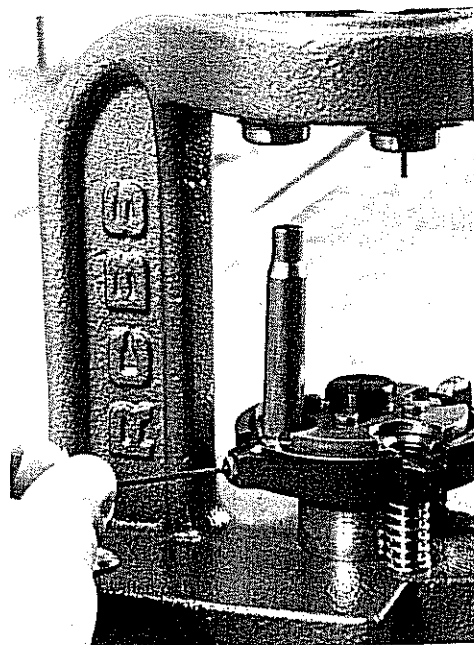


Photo #6

## PRIMING

Your 4x4 Press was shipped with the priming system installed, adjusted and set-up for small primers. The accessory pack contains the Primer Plug and Primer Sleeve to convert to large primers.

**WARNING: DO NOT ATTEMPT TO PRIME MILITARY CARTRIDGE CASES WITH CRIMPED PRIMER POCKETS UNTIL THE CRIMP HAS BEEN REMOVED WITH A COUNTER SINK, A SPECIAL REAMER OR BY SWAGING. PRIMERS SEATED INTO CRIMPED POCKETS ARE SUBJECT TO DEFORMATION WHICH CAN CAUSE MISFIRES AND EVEN DETONATION DURING SEATING WHICH CAN CAUSE PERSONAL INJURY.**

**WARNING: DO NOT ATTEMPT TO SEAT PRIMERS AGAINST EXCESSIVE RESISTANCE WHICH MIGHT CAUSE DETONATION AND POSSIBLE PERSONAL INJURY. CHECK TO BE CERTAIN THAT THE CASE WAS NOT PREVIOUSLY PRIMED, THAT THE FIRED PRIMER WAS REMOVED, THAT A PORTION OF THE PRIMER CUP WALL MIGHT STILL BE IN THE PRIMER POCKET AND THAT YOU ARE USING THE CORRECT SIZE PRIMER.**

**WARNING: DO NOT MODIFY THE 4x4 PRIMING SYSTEM OR PARTS IN ANY MANNER OR ATTEMPT TO USE SIMILAR PARTS OR PRIMING SYSTEMS FROM OTHER MANUFACTURERS. DO NOT USE THE 4x4 PRIMING SYSTEM ON ANY OTHER RELOADING PRESS. TO DO SO COULD RESULT IN PRIMER DETONATIONS RESULTING IN PERSONAL INJURY.**

Empty the Depriming Bottle each time the Primer Tube is filled with new primers. The 4x4 Reloading Press Priming System was designed specifically for the use of CCI brand primers.

## PRIMER SIZE CHANGE OVER

Only the Primer Plug and Primer Sleeve need to be changed to convert between primer sizes. The change over can be accomplished without removing the priming system from the press, but some may find it more convenient to first remove the entire priming system. All parts are in the accessory pack.

To change primer sizes:

1. Pull the Primer Sleeve down the Primer Plug far enough to expose the cross hole. The 1/16 hex key or a straightened paper clip can be used to turn the primer plug out with a counter clockwise rotation. Use care in turning the primer plug as it is under force from the spring and may fly loose.
2. Drop the other size Primer Plug through the other size Primer Sleeve. Place the Primer Coil Spring over the threaded end of the Primer Plug.
3. Screw the Primer Plug into the Primer Arm. Do not over tighten.
4. Check from time to time to be certain the Primer Plug remains tight.

## PRIMING SYSTEM REMOVAL/ INSTALLATION

To remove the Priming System:

1. Raise the Ram to its highest position.
2. Loosen and remove the two Button Head Cap Screws #87181. See photo #8.
3. Lift off Priming System.

To install Priming System:

1. Raise the Ram to its highest position.
2. Install the Button Head Cap Screws through the Priming Plate and tighten the bolts into the corresponding holes in the press frame.
3. Loosen the Button Head Cap Screws approximately 1/2 turn each or until the Priming Plate is just movable on the frame.
4. Slowly and carefully lower the Ram while at the same time shifting the Priming Plate so that the Priming Plug Assembly mates into the corresponding priming hole in the Shell Plate Holder.
5. Hold the Ram/Shell Plate Holder in their lowest position. Carefully hold down the Priming Plate. Release the operating handle and tighten the Button Head Cap Screws.
6. Check the priming function by raising and lowering the Ram/Shell Plate Holder over the Priming Plug Assembly. The Shell Plate Holder must not contact the Priming Sleeve or priming difficulties will be experienced.
7. The Socket Screw #87159 and Hex Lock Nut #87175 are pre-set at the factory.

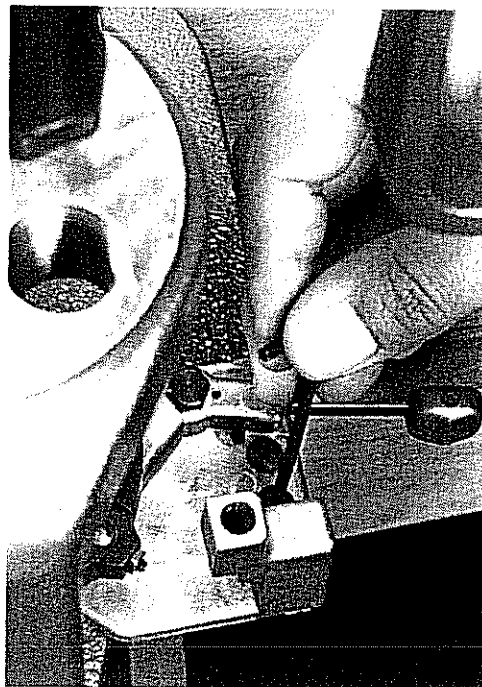


Photo #8



Photo #9

## PRIMER FEED TUBE FILLING

The plastic primer tray and cover have been designed to orient primers for fast, easy handling and pick-up with the Primer Feed Tubes. To use:

1. Gently scatter primers onto the grooved surface of the primer tray.
2. Gently shake the tray horizontally until all primers are positioned anvil side up.
3. Place the cover on the primer tray and while holding the tray and cover together, turn the tray upside down.
4. The primers are now oriented anvil side down for easy pick-up with the appropriate size Primer Feed Tube. See photo #9.
5. Insert the APF Cotter Pin #09599 through the drilled hole in the Primer Feed Tube prior to primer pick-up. It will be removed after the tube is inserted into the priming system.

**WARNING: CARE MUST BE TAKEN WHEN LOADING THE PRIMER FEED TUBE. DO NOT FORCE PRIMERS. BECAUSE OF THE STACKED CONDITION OF THE PRIMERS, IF ONE SHOULD IGNITE, ALL THE PRIMERS IN THE TUBE WILL EXPLODE CAUSING AN EXTREME HAZARD. NO MORE THAN FIVE POUNDS OF FORCE SHOULD BE APPLIED WHEN PICKING UP PRIMERS WITH THE PRIMER FEED TUBE (THIS CAN BE CHECKED USING A BATHROOM SCALE). IF DIFFICULT PRIMER PICK-UP SHOULD OCCUR, INVESTIGATE THE CAUSE AND CLEAR THE CONDITION OR RETURN THE PRIMER FEED TUBE TO RCBS FOR CORRECTION. ALWAYS WEAR EYE PROTECTION WHEN HANDLING PRIMERS OR RELOADING EQUIPMENT.**



## PRIMING ON THE 4x4

Priming on the 4x4 is accomplished at the bottom of the RAM stroke while the operating handle is in essentially a vertical position. It is extremely important to seat primers correctly in the cartridge primer pocket to prevent misfires or other unsafe conditions. Primers **MUST** be seated below flush of the case head to insure proper function of the 4x4, and to prevent misfires or "slam fires." Ideally, the primer should be .002 to .005 inch below flush.

**WARNING: PRIMERS NOT SEATED BELOW FLUSH OF THE CARTRIDGE CASE HEAD CAN RESULT IN A "SLAM FIRE," A CONDITION WHEREIN THE CARTRIDGE FIRES INADVERTENTLY AS THE GUN MECHANISM IS CYCLED. A "SLAM FIRE" CAN RESULT IN SERIOUS EQUIPMENT DAMAGE AND PERSONAL INJURY.**

To prime on the 4x4:

1. Fill the Primer Feed Tube as described in the proceeding section.
2. Insert the cotter pin end of the tube into the mating socket of the raised portion of the Priming Plate #87180.
3. Remove the Cotter Pin and the primers will drop down to the Stop Pin. The priming system is now ready to use.

**WARNING: DO NOT ATTEMPT TO PUSH INTO THE FULL PRIMING TUBE THE LAST PRIMER THAT REMAINS CAPTIVE IN THE FOUR FINGERED END OF THE PRIMING TUBE. IF THAT PRIMER SHOULD BE DETONATED A PROBABILITY EXISTS THAT THE OTHER PRIMERS IN THE TUBE COULD MASS DETONATE CAUSING SERIOUS PERSONAL INJURY.**

4. Check to be certain that the primer plug and primer sleeve are the correct size for the primers used.
5. With the Ram in its fully raised position, push the Priming Arm in a counter clockwise direction until the Primer Sleeve overrides the Stop Pin and a single primer is deposited into the Primer Sleeve. See photo #10.

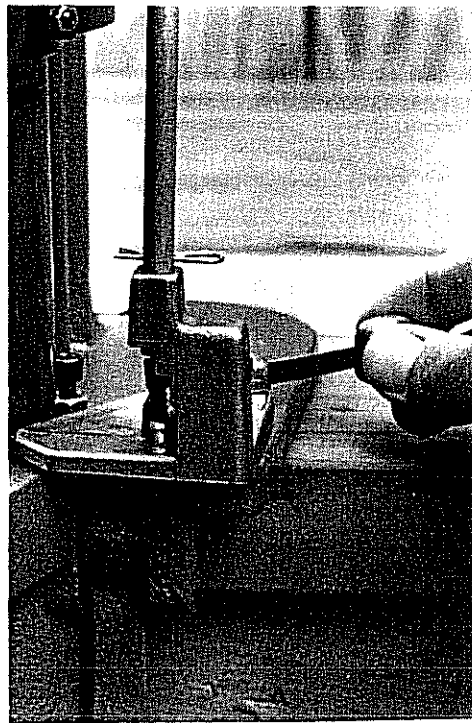


Photo #10

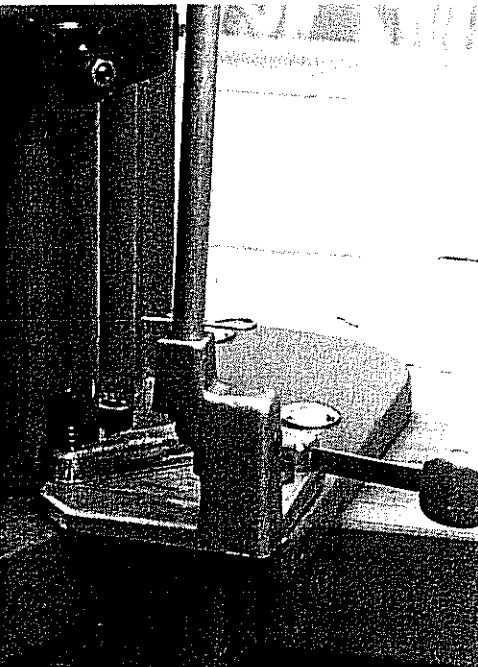


Photo #11

6. Gently, allow the Priming Return Spring #87184 to return the Priming Arm to its rest position. See photo #11.

**WARNING: DO NOT FORCE A PRIMER THAT FAILS TO COMPLETELY FALL INTO THE PRIMING SLEEVE AND JAMS THE MECHANISM WITH MORE FORCE THAN IS APPLIED WITH THE PRIMING RETURN SPRING AS A PRIMER EXPLOSION MAY OCCUR WITH RESULTING INJURIES. GENTLY CLEAR ANY JAMMED CONDITION IN THE PRIMING SYSTEM.**

7. Gently lower Ram and prepared cartridge case over the new primer in the Priming System.
8. Apply firm and substantial force to the operating handle to seat the primer into the case.
9. Check every case primed for proper seating until the "feel" of the operation is learned.

## POWDER DISPENSING SYSTEM

Install the Powder Measure Adaptor #87190 in the station #3 as described in a previous section. One of the Powder Drop Tubes supplied in the Accessory Pack **MUST** be used with the system.

**WARNING: THE POWDER MEASURE ADAPTER AND POWDER DROP TUBES ARE DIPPED IN A RUST PREVENTATIVE BEFORE SHIPPING AND MUST BE WIPED DRY BEFORE USING.**

**WARNING: THE "FLOW" CHARACTERISTICS OF POWDER VARIES CONSIDERABLY DUE TO WEATHER, OPERATOR TECHNIQUE AND OTHER FACTORS INHERENT TO THE POWDER ITSELF. LONG AND/OR LARGE GRANULED POWDERS MAY TEND TO "BRIDGE" IN THE POWDER DROP SYSTEM AND CAUSE ERRATIC CHARGE WEIGHT. BE CERTAIN THAT THE POWDER YOU SELECT FLOWS FREELY THROUGH THE POWDER DISPENSING SYSTEM.**

Choose the appropriate Powder Drop Tube and insert it with the reduced diameter end down. See photo #12. It should freely slide down until retained by a wire ring #38286 approximately 1/2 inch from the bottom.

Any powder measure incorporating the standard 7/8-14 thread may be used. Either the RCBS Uniflow or Little Dandy Powder Measures are ideally suited. Simply thread the measure used as far as possible into the Powder Measure Adaptor. Then unscrew the measure until the handle orientation suits you. Tighten the locking ring.

Some powder measures, including the RCBS Uniflow, have optional methods of assembly that change the handle orientation with respect to the body for more convenient operation on the 4x4. See photo #13 for suggested orientation.

To convert an RCBS Uniflow, simply remove the metering screw and bushing. Then remove the powder measuring drum. Insert it with the handle on the opposite side of the measure. Reassemble the powder measure and reset the metering screw for the proper charge weight.

**WARNING: THE OPERATOR IS SOLELY RESPONSIBLE FOR ALL ASPECTS OF THE POWDER DISPENSING SYSTEM. EITHER INSUFFICIENT OR EXCESSIVE POWDER CHARGES CAN RESULT IN GUN DAMAGE AND SERIOUS PERSONAL INJURY. BE CERTAIN THAT THE CORRECT TYPE OF POWDER IS USED AND THAT THE POWDER MEASURE DOES NOT RUN OUT OF POWDER. CONFIRM ON AN ACCURATE RELOADING SCALE THAT THE CORRECT CHARGE WEIGHT IS BEING DISPENSED. BE ABSOLUTELY CERTAIN THAT ONLY ONE CHARGE IS DISPENSED INTO EACH CARTRIDGE. NO MORE, NO LESS. IF IN DOUBT, CHECK CASE PRIOR TO SEATING BULLETS.**

## BULLET SEATING AND CRIMPING

Bullet seating and crimping is accomplished in Station #4. Adjust your die the same as you would in a single stage reloading press.

Some seater dies of older manufacture do not have sufficient entry chamfer for use in a progressive reloader. Return them to the manufacturer for adjustment or replacement.

If you wish to taper crimp certain hand gun cartridges, RCBS offers seater plug capability in currently produced taper crimp dies. Contact your dealer for more information.

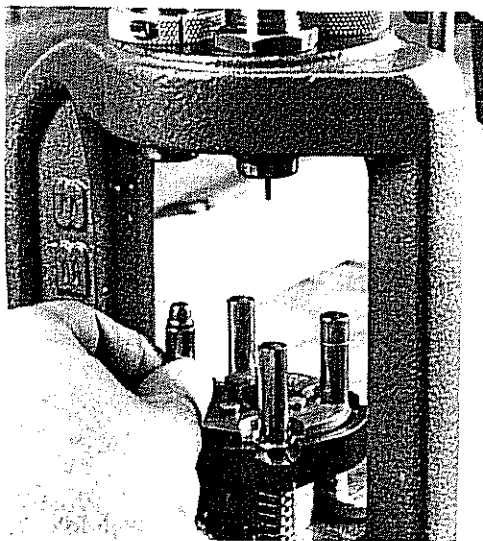


Photo #14



Photo #12

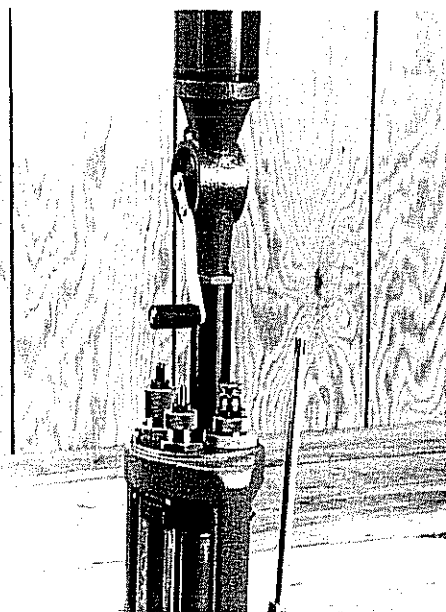


Photo #13

## GENERAL OPERATION

Indexing rotation of the 4x4 is in the counter clockwise direction. To index, simply grasp the loaded cartridge in Station #4, and pull it towards Station #1, simultaneously withdrawing it from the shell plate (see photo #14). In the same motion, place the loaded cartridge into its cartridge box.

**CAUTION: DO NOT SACRIFICE QUALITY FOR SPEED OF OPERATION. THE VERY PURPOSE OF RELOADING IS DEFEATED FOR THOSE WHO DO NOT STRIVE FOR ABSOLUTE RELIABILITY, SAFETY, ACCURACY AND ECONOMY. MAKE YOUR OWN CHECK LIST OF SEQUENTIAL OPERATIONS TO FOLLOW.**

Suggested check list (once operation has reached steady state):

1. Remove cartridge.
  2. Insert fired case.
  3. Position bullet.
  4. Ram up.
  5. Pick-up primer.
  6. Dump powder.
  7. Ram down - seat primer
- REPEAT -

## HELPFUL HINTS

1. Box the reloaded ammunition in an orderly manner as you proceed rather than dropping each round into a large container. An occurrence such as an empty powder hopper will not pollute an entire lot, but can be back-tracked in the ammo box.
2. Reload alone. Do not let anyone or anything distract you!
3. If you have the slightest doubt whether a particular round contains powder, set it aside. Often an empty round can be detected by weighing or shaking. Take no chances!
4. Develop the habit of running your forefinger across the case head while boxing the round. A primer protruding as little as .001 can be detected by feel with practice.
5. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE!

## TROUBLE SHOOTING

1. Shell Plate doesn't rotate
  - A) Ram shoulder bolt not adjusted properly
  - B) Fired Primer at Station #1 not pushed clear of case
  - C) New primer at Station #2 not seated deep enough
  - D) Fired primers stacked up in Depriming Tube
2. Seated Primer Upside Down or Sideways
  - A) Shell Plate Holder contacting Primer Sleeve on down stroke
  - B) Picked-up wrong in Priming Tube
  - C) Case Detent at Station #2 not adjusted properly
  - D) Incorrect size Primer Plug and Priming Sleeve
3. Deformed Primer during seating
  - A) Military case with crimped primer pocket
  - B) Case Detent at Station #2 not properly adjusted
  - C) Debris laying on Primer Rod
  - D) Incorrect size Priming Plug and Priming Sleeve
4. Primer Plug Assembly did not pick-up primer
  - A) Primer Tube empty
  - B) Wrong size primer
  - C) Loose Primer Plug
  - D) Primer Plug bent
5. Spilled powder at Station #3
  - A) Wrong size or absence of Powder Drop Tube
  - B) Powder Drop Tube installed upside down
  - C) Case Detent improperly adjusted
  - D) Powder Measure Adaptor needs cleaning
  - E) Excessive powder charge
  - F) Over rapid Ram lowering
6. Spilled Powder at Station #4
  - A) Over rapid or abrupt indexing
  - B) Excessive powder charge
  - C) Powder selection not suited for progressive tool reloading, i.e.: powder level too close to case mouth
7. Fired case hangs up trying to enter size die
  - A) Case not fully inserted into shell plate
  - B) Case mouth bent
  - C) Inadequate entry chamfer on die (common to older dies)



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