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# **User Instructions for Forster Products Co-Ax® Reloading Press**

Issue 10

### 1.0 GENERAL INFORMATION

Co-Ax® Press is designed for three rifle and pistol handloading steps:

- 1. Case resizing.
- 2. Primer seating.
- 3. Bullet seating.

Co-Ax Reloading Press accepts any 7/8" x 14 reloading die.

For proper press operation, you must use the two aluminum Cross Bolt Die Lock Rings provided in the Important Parts Packet (Figure 2) either on Forster Products Reloading Dies or your own dies. The Cross Bolt Die Lock Rings are important for two reasons:

- They keep the Co-Ax Press T-Slot free from wear that may be caused by other harder steel lock rings
- They are the proper thickness to allow the dies to "float" in the T-Slot for optimal reloading

# CAUTION

#### PRODUCT DAMAGE

Do not drop Co-Ax Press or expose it to sudden stresses

Failure to comply with these instructions may result in product damage.

### 2.0 SHIPPING PACKAGE CONTENTS (See Figure 2)

Your shipping package should contain the following:

- Section A: Co-Ax Press, already assembled
- Section B: Important Parts Packet
- Section C: Loose Components

#### 3.0 SAFETY INFORMATION



# **WARNING**

#### PERSONAL INJURY

• Avoid possible pinch points.

Failure to comply with these instructions could result in death or serious injury.

Always wear safety glasses.

#### 4.0 MOUNT CO-AX PRESS TO A WORK SURFACE

Co-Ax Press may be directly mounted to a work bench or a board, for later use on the range or in the field.

- 1. See Figure 14 (p. 8) for a scale drilling template. Drill four ¼" holes as shown.
- 2. Mount Co-Ax Press using 1/4" lag bolts.

Due to the extreme mechanical advantage engineered in Co-Ax Press, only two "C" clamps are needed to fasten a board-mounted Co-Ax Press to a working surface.

#### 5.0 SETUP AND ASSEMBLY

#### 5.1 Install the Handle

- 1. Insert the Handle into the Yoke Handle Casting (-055).
- Using the 5/32" Allen Wrench (SHORTARMHEXKEY5/32), tighten the 5/16-24 Handle Set Screw (-028).

A short handle with a ball end is also available separately for use when less leverage is needed. See Section 9.0.

#### 5.2 Install the Primer Catcher

 From below, insert the threaded part of the Primer Drop Tube (028271-057) through the hole in the Primer Catcher Cap (028271-050).

 Screw the Primer Catcher Cap to the Primer Catcher Cup (028271-051), as shown in Figure 1a.



Fig. 1a. Drop Tube in Primer Catcher

Fig. 1b. Primer Catcher under Press



- 3. Pass the Primer Drop Tube through the middle hole in the bottom of the Frame Casting (028271-031), as shown in Figure 1b.
- Screw the Primer Drop Tube into the tapped hole in the bottom of the Guide Block Casting (028271-045) until finger-tight.

Figure 2. Co-Ax Reloading Press (028271) Nomenclature **Section B. Important Parts** Section A. Co-Ax Press with All Components Not Noted in Packet Sections B and C Already Assembled 1/8 Allen Wrench (SHORTARMHEXKEY1/8) 5/32 Allen Wrench CO-AX (SHORTARMHEXKEY5/32) PRESS TOOLS 7/64 Allen Wrench IMPORTANT (SHORTARMHEXKEY7/64) PARTS Locator ENCLOSED (028271-018) (See Figure 9.) Handle Grip **Primer Drop Tube** (028271-011) (028271 - 057)**Handle** Handle Tube **Primer Drop Tube Retaining Ring** (028271-056) (028271 - 013)Small Primer Seater Assembly Lock Ring Detent Screw (5/16-24) (028271-101) (See Figure 7.) (028271-028) Handle Set Screw (5/16-24) Two Cross Bolt Lock Rings Lock Ring Detent Spring (028271-029) (028271-028) (DIE-G-10) Lock Ring Detent Ball (028271-030) **Section C. Loose Components** Yoke Handle Casting (028271-055) **Primer Catcher Cap** 3X Socket Head Cap Screw (028271-050) (10-24x ½") (SCR10-24X1/2SHEADCAP) **Primer Catcher Cup** (028271-051) 3X Top Shell Holder Jaws Handle Grip (028271-016) (See Figure 8.) (028271-011) Handle Handle Tube 2X Button Head Screw (028271-013) Top Shell Holder (10-24x5/8") (not shown) (028271-020) Jaw Block (028271-017) **2X Pin "A"** (028271-026) Large Primer Seater Assembly (028271-102) (See Figure 7.) 2X Roll Pin (1/8" x 1" for Pin "A") (028271-026A) 2X Button Head Screw (10-24x5/8") 2X Pin "B" 2X Guide Rod (028271-032) (028271-020)(028271 - 048)Frame Casting (028271-031)Shell Holder Jaw Housing 2X Link (028271-037) (028271-034)2X Pin "C" (028271-047) Wear Plate 2X Jaw Pressure Spring (028271-046) (028271-039) **Guide Block Casting** (028271-045)Jaw Opening Screw "S" Lower Shell Holder Jaws (028271-044)(001231) (See Table 1) **Primer Drop Tube** Wear Plate (028271-057) (028271-046) 0 **Primer Drop Tube** 0 Retaining Ring (028271-056) 2X Roll Pin (1/8"x5/8") • (Holes not used.) (028271-038) **Primer Catcher Cap** (028271-050) 2X Pin "C' (028271-047) **Primer Catcher Cup** 4X E-Ring (1/2" (028271-051) 2X Socket Set Screw 10-24x3/8" for Pin "C" (028271-035) (028271-054)

Jaw Opening Screw

(028271-044)

Figure 3. Position of Jaw Opening Screw

#### 5.3 Adjust the Jaw Opening Screw

The Jaw Opening Screw (028271-044) controls the amount that the lower Shell Holder Jaws open to accept cases when the Handle is raised to its highest position.

Adjust the Jaw Opening Screw's height so that the Shell Holder Jaws completely open when the handle is in the full up position, but not so far up that it could damage the Shell Holder Housing (028271-037).

### 6.0 CASE SIZING AND BULLET SEATING

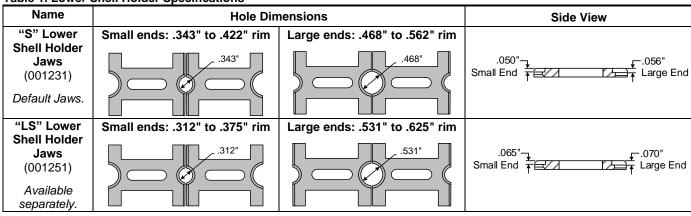
# 6.1 Choose the correct Lower Shell Holder for the caliber being sized/seated.

Spring-loaded Shell Holder Jaws automatically open and close on the case head when the case is inserted into the die and

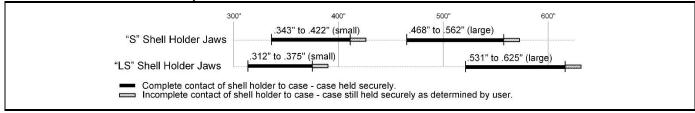
also when the Co-Ax Press handle is lowered for full length resizing, allowing the case to "float." When the handle is raised and the case extracted from the die, these jaws automatically open and release the case.

Co-Ax Press arrives with a set of two factory-installed "S" Lower Shell Holder Jaws (001231) – with the large ends aligned, ready for reloading cases with a .468" to .562" rim. Depending on the caliber, you may need to adjust the size of the S Lower Shell Holder Jaws or purchase a set of "LS" Lower Shell Holder Jaws (001251). The caliber dimensions that each Shell Holder Jaw can accommodate are described in Tables 1 and 2.

**Table 1. Lower Shell Holder Specifications** 

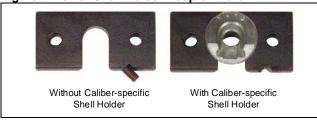


**Table 2. Case Rim Diameter Comparison** 



For those few calibers that the "S" or "LS" Shell Holder Jaws do not accommodate, you may purchase a Lower Shell Holder Adapter Plate (AP1000), which is not spring-loaded. You must provide a third-party caliber-specific Shell Holder (Fig. 4); not available from Forster Products.

Figure 4. Lower Shell Holder Adapter Plate



Quick-change Shell Holder Jaws provide an easy alternative when switching case sizes. These complete assemblies include the aligned jaws; simply replace the two Button Head Screws to install. Available in four sizes: S-Large (028271-201), S-Small (-202), LS-Large (-203), and LS-Small (-204).

Figure 5. Quick-change Lower Shell Holder Jaws



#### 6.2 Find compatible Shell Holder Jaws

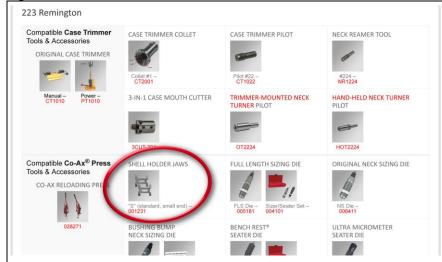
1. Go to the caliber search at http://search.forsterproducts.com.

(Links to "Search by Caliber..." and caliber search forms are found throughout **forsterpoducts.com**.)

- 2. Input your cartridge name (223 Rem is provided here as an example).
- 3. Click the "Search" button.

The search returns matching tools as shown, including the Lower Shell Holder Jaws when applicable.

Figure 6. Online Caliber Search Results for 223 Rem



- 6.3 Change/Adjust the Lower Shell Holders (if Needed)
- 6.31 Change/Adjust the "S" or "LS" Lower Shell Holder Jaws

Figure 7. Lower Shell Holder Jaws Change/Adjustment

**Step 1:** Using the provided 1/8 Allen wrench, loosen the two Button Head Screws (028271-020).



Step 2. Carefully lift off the subassembly containing:

- 1. Two Button Head Screws.
- 2. Shell Holder Jaw Housing (028271-037).
- 3. Two Jaw Pressure Springs (028271-039).
- 4. "S" or "LS" Shell Holder Jaws.
- 5. Wear Plate (028271-046)

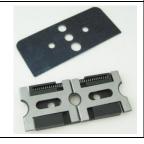
**Step 3:** Remove the two Button Head Screws and set them aside. Set the component stack on a work surface.



**Step 4.** Carefully turn the component stack over.



**Step 5.** Carefully slide the Wear Plate off and set it aside. This is to prevent the two Jaw Pressure Springs from coming loose too soon.



**Step 6.** Remove the "S" or "LS" Shell Holder Jaws and the two Jaw Pressure Springs, in that order.



**Step 7.** Ensure the ends of the selected pair of Shell Holder Jaws are correctly matched. Insert them into the Shell Holder Jaw Housing.



**Step 8:** Replace the two Jaw Pressure Springs.



**Step 9:** Replace the Wear Plate. Ensure the rounded edge of the Wear Plate is placed over the two Jaw Pressure Springs.



**Step 10:** Carefully turn the component stack back over.



**Step 11:** Carefully pick up the component stack and replace the two Button Head Screws.



**Step 12**: Replace the subassembly on Co-Ax Press and tighten the Button Head Screws.



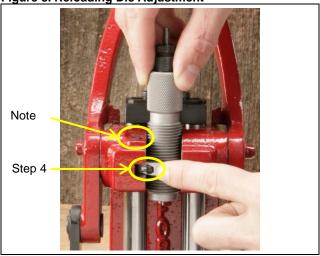
# 6.32 Optional Lower Shell Holder Adapter Plate Installation

- Remove the Lower Shell Holder Jaws Subassembly following the instructions in Section 6.31 and set aside.
- Remove the two Button Screws from the Lower Shell Holder Jaws Subassembly and place them in the corresponding holes in the Lower Shell Holder Adapter Plate.
- 3. Place the Lower Shell Holder Adapter Plate on Co-Ax Press and tighten the Button Head Screws.
- Using the 5/64 Allen wrench (provided separately with Adapter Plate) tighten the set screw against the shell holder.

### 6.4 Adjust the Sizing/Seating Die in Co-Ax Press

 Unscrew the die approximately two-thirds out of the Cross Bolt Die Lock Ring, ensuring that its screw is centered in front.

Figure 8. Reloading Die Adjustment



- 2. Lower the Handle all the way down against the stop.
- While holding the Lock Ring with one hand, screw the die through the Lock Ring until the die makes contact with the Shell Holder Jaws.
- Using the provided 7/64 Allen wrench, tighten the Lock Ring in place on the die. For specific Forster Products Sizing and Seating Die Instructions, go to forsterproducts.com, then click "Resources | User Instructions."

**NOTE:** Do not overtighten the 5/16" Lock Ring Detent Screw (028271-028). This screw should be just tight enough to keep the die lock ring under tension. The die must be allowed to float for Co-Ax alignment. We recommend using Forster Cross Bolt Locking Rings (DIE-G-10).

# 7.0. PRIMER SEATING

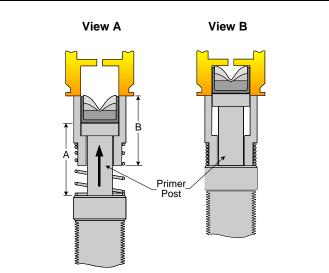
#### 7.1 Primer Seating Overview

Proper priming is one of the most critical operations in the reloading process. In order for your ammunition to perform efficiently, consistent ignition is absolutely mandatory. For this reason, we paid special attention to the priming function in the design of Co-Ax Press.

The primer seater design is engineered with such precision that no excessive tolerance or "slop" is required in any of the mating parts. The primer post in the Primer Seater Assembly (see Figure 9) moves freely in its channel with minimal clearance. This extremely tight tolerance delivers remarkably consistent seating depth, time after time.

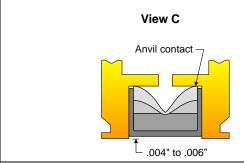
Regardless of the variation in the dimension of the case rim or the amount of force used in seating the primer, with the Forster Products Co-Ax Press, it is impossible to crush a primer or vary the seating depth.

Figure 9. Primer Seater Assembly Function



**View A:** Dimension "A" is greater than dimension "B" by .004" to .006".

**View B:** When force is applied to the guide block of the press, the bottom of the primer cup stops against the base of the primer post. The top of the primer cup stops against the case head. Because the primer post is longer than the cup by .004" to .006", the primer will always be seated .004" to .006" below the case head as shown in **View C**.



#### 7.2 Adjust Co-Ax Press

## 7.21 Primer Seater Assembly

Based on the primer diameter being used, select either the Small Primer Seater Assembly or the Large Primer Seater Assembly (see Figure 10) and screw it into Co-Ax Press.

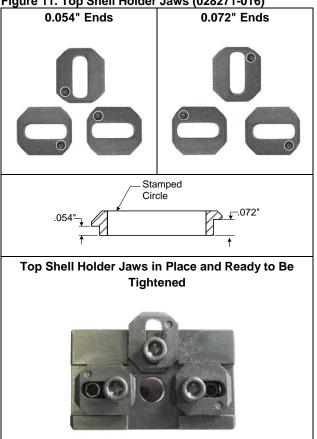
Figure 10. Primer Seater Assembly Versions



# 7.22 Top Shell Holder Jaws

Based on the thickness of the case rim being primed, ensure all three ends of the Top Shell Holder Jaws are matched and aligned, and held loosely face down on the Shell Holder Jaw Block (028271-017). Note the stamped circle that indicates which ends are aligned.

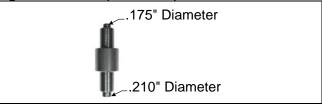
Figure 11. Top Shell Holder Jaws (028271-016)



#### 7.23 Locator

1. Match the Locator end to the primer diameter being used (Figure 12).

Figure 12. Locator (028271-018)



- Lower the Co-Ax Press Handle until there is enough room to insert the Locator up into the Top Shell Holder Jaw Block (028271-017) from underneath.
- 3. Center an unprimed case on the Locator.
- While holding the locator in place, adjust the three Top Shell Holder Jaws inward onto the case rim and tighten the three Socket Head Cap Screws (SCR10-24X1/2SHEADCAP) around the case. Do not overtighten. (See Figure 13.)

Figure 13. Locator in Use



 Lower the Co-Ax Press handle and remove the Locator. You are now ready to prime. If the case rim is either too loose or too tight, try using the opposite end of the Top Shell Holder Jaws.

## 7.3 Prime Your Cartridges

# NOTICE

Wear thin medical gloves on the primer hand to improve the grip and help keep the primer from contamination.

1. Insert the primer on the Primer Seater Assembly and the case on the Top Shell Holder Jaws following the instructions below.

# A

# **WARNING**

#### **PERSONAL INJURY**

Failure to comply with these instructions could result in death or serious injury.

2. Use one of the two following positions for inserting the primers on the Primer Seater Assembly and the cases on the Top Shell Holder Jaws:

# Left-handed primer handling:

- A. Facing the press, take a position to the left of the press.
- B. Lower the handle forward approximately 90°.
- C. From the rear of the press, use your left hand to insert the primer and the right hand to insert the case.



# Right-handed primer handling:

- A. Facing the press, take a position to the right of the press.
- B. Lower the handle forward approximately 90°.
- C. From the rear of the press, use your right hand to insert the primer and the left hand to insert the case.



Raise the Co-Ax Press handle to seat the primer. Only a very small amount of force is needed.

# FORSTER VIDEO LIBRARY



Go to the online Video Library under "Resources" at <u>forsterproducts.com</u> to see videos of Co-Ax Press.

#### 8.0 MAINTENANCE

- Use a good quality gun oil to lubricate moving parts, wipe all unpainted parts with oil to prevent rust.
- When not in use, keep a protective cover, such as 028271-300 (see Table 3), over Co-Ax Press.

#### 9.0 REPLACEMENT PARTS

Every product component is available individually. A complete list of component order numbers and prices is available on our website. Go to <a href="forsterproducts.com">forsterproducts.com</a>, then click "Replacement Parts."

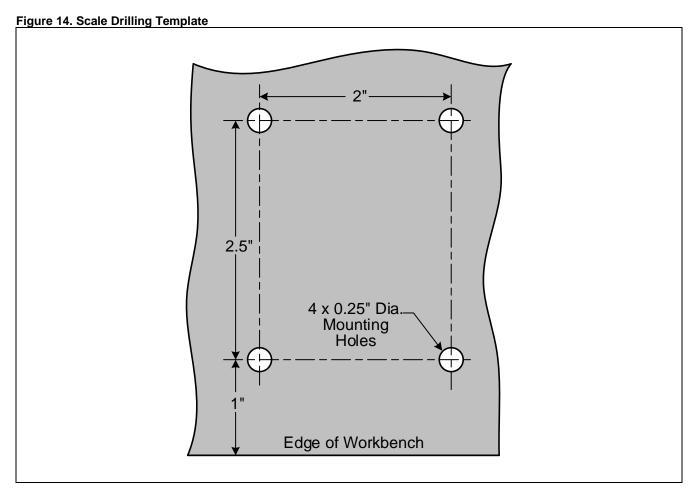
Table 3. Accessories

Order No.	Description
SH1000	Short Handle for Co-Ax Press  In use
028271-300	Protective Cover for Co-Ax Press (Press not included)

# 10.0 DISTRIBUTORS/RESELLERS

We recommend ordering from a dealer or distributor. Their experience and knowledge will help you select the best products that meet your specific requirements. In addition, they usually offer the best prices and convenient delivery options.

To find a Reseller go to **forsterproducts.com** and click **Distributors**. If your distributor cannot supply you, or if you need parts, please contact Forster Products directly by email, phone or fax.



# 11.0 RELEASE HISTORY

Model	Revisions/Enhancements
B1	Compound leverage, reloading press.
	(Designer: Clarence Purdie in conjunction with Army Marksmanship Unit)
B2	Eliminated removable shellholders from top priming station.
В3	Added 11/8" more clearance under yoke handle to accommodate tall dies.
B4	Enlarged drop tube (028271-057) for primer collection and larger set screw (028271-028) for securing handle.
B5	Two pins (028271-037-PIN) added to Shell Holder Jaw Housing (028271-037) to retain Jaw Pressure Springs
	(028271-039).

## WARRANTY

All Forster Products are warranted against defects in materials and workmanship for the life of the product. Parts excluded from the warranty are those that, by nature of their function, are subject to normal wear (such as springs, pins, etc.) or that have been altered, abused, or neglected. If the product is deemed defective by workmanship or materials, it will be repaired, reconditioned or replaced (at Forster's option). This warranty supersedes all other warranties for Forster Products, whether written or oral.

# forsterproducts.com