

Alignment Tool P/N13713 Instructions for RL 550C, XL650 and XL 750

This Alignment Tool aligns the Toolheads to the Platforms on the 550, 650 and 750 Systems. It has two lower diameters. The smaller diameter is used to align the 550 and 750 Platform and the larger diameter is used to align the 650 Platform with the Toolhead.

The 550 Alignment Procedure:

1. Remove the Toolhead and Primer Assembly—Fig. A.
2. Loosen the side Shellplate Bolt Locking Set Screw and remove the Shellplate Bolt, Index Sprocket and Shellplate.
3. Remove the Alignment Buttons, the Index Ball and Spring, the two ¼-28 Platform attachment Socket Head Screws with a 3/16" Allen wrench and the Platform Assembly. Store in a safe location—Fig. B.
4. Thread a Powder Die into Station 1 in a bare 550 Toolhead and place both in the 550 and secure it with the two Toolhead Retaining Pins—Fig. C and D.
5. Thread the Powder Die down to just above the Shellplate and lock the Powder Die in place with the Lock Ring—Fig. D.
6. Clean the mating surfaces of the Main Shaft, both sides of the Failsafe Bracket and the bottom of the Platform.
7. Loosely fasten the Platform Assembly and the Failsafe Bracket to the Mainshaft with the two ¼-28 Socket Head Screws.
8. Insert the Alignment Tool into the Powder Die in Station 1—Fig. D.
9. Raise the Platform/Lower the Operating Handle and guide the Platform Priming Hole over the protruding small diameter of the Alignment Tool. The two should slide freely together with no drag—Fig. E and F.
10. Lower the Platform just enough to lightly tighten the two ¼-28 Platform Socket Head screws. Raise the Platform and verify there is still no drag on the Alignment Tool—Fig. G.
11. Raise the Handle/Lowering the Platform and securely tighten the two ¼-28 Socket Head Screws to 10-12 ft-lbs. Cycle the Handle/Platform up and down verifying the Platform did not shift and there is no drag between the Platform and the Alignment tool. If there is drag repeat steps 11 through 13 until there is no drag.
12. Reinstall the Primer Assembly leaving the two bottom Primer Assembly Socket Head Mounting Screws slightly loose, install the Primer Slide Return Spring and the Primer Slide Operating Rod with the Operating Handle down.
13. Gently raise the Handle and push the Handle full aft to the primer seat position while moving the Primer Slide side-to-side allowing the Primer Cup to center itself in the Priming Hole in the Platform. Tighten the two Primer System Socket Head Mounting screws. Do not overtighten.
14. Verify that there is no drag on the Primer Cup as it enters the Priming Hole in the Platform—Fig. H
15. Remove the Toolhead with the Alignment Pin and install the appropriate Toolhead with Dies and the Powder Assembly.
16. Cycle a case through the system loading a complete cartridge and verify that all the reloading parameters are correct.



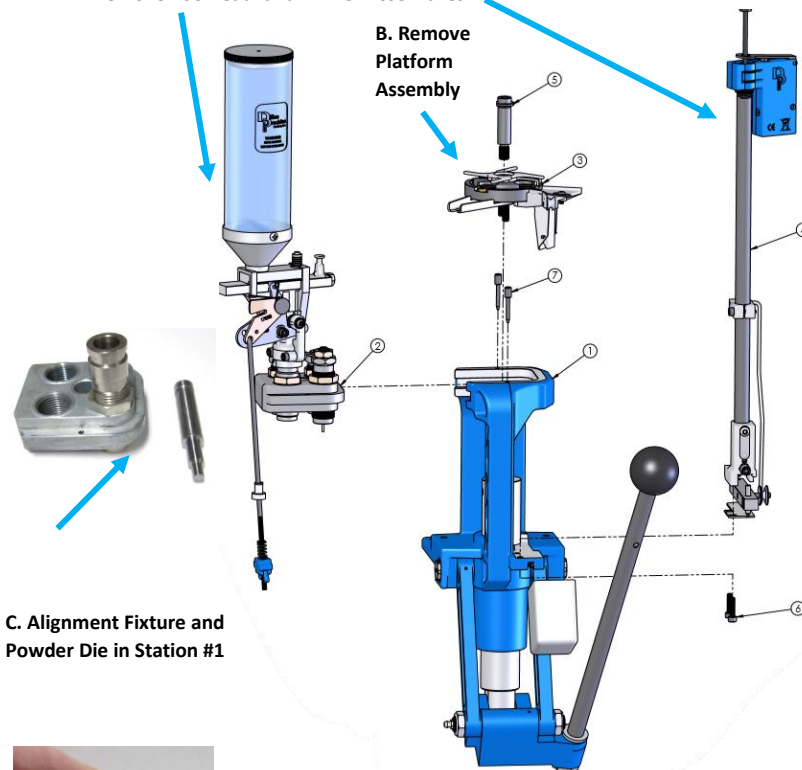
550/750—Small Alignment Diameter

650 --Large Alignment Diameter



A. Remove Toolhead and Primer Assemblies

B. Remove Platform Assembly

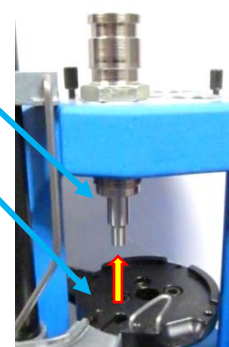


C. Alignment Fixture and Powder Die in Station #1

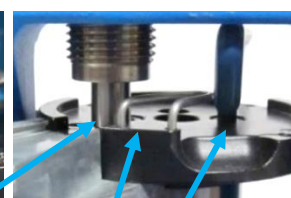


D. Place Alignment Fixture in Powder Die

E. Raise Platform guiding Alignment Fixture into Priming Hole in the Platform



F. Alignment Tool fits freely in Platform Priming Hole



G. Tighten Two Socket Head Screws with an Allen Wrench



H. Primer Cup must fit freely in Platform and Shellplate

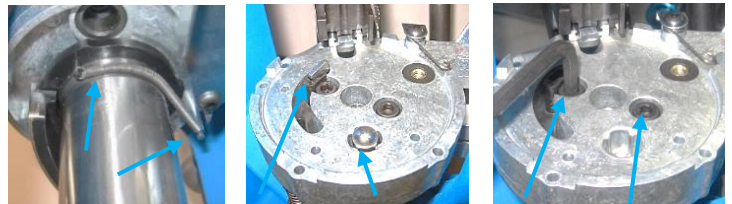
The XL650/750 Alignment Procedure:

1. Remove the 650 or 750 Primer Assembly.
2. Remove the Toolhead.
3. Remove the Shellplate as described in Fig. A.
4. Disconnect and remove the Indexer Return Spring as described in Fig. B.
5. Remove the Index Pawl and Spring and Index Ball and Spring and store in a safe place—Fig. B.
6. Remove the Platform using a 3/16" Allen wrench to remove the two 1/4-28 Socket Head Screws as described in Fig. B.
7. Clean the mating surfaces of the bottom of the Platform and the Mainshaft.
8. *For the XL650 only, remove the Primer Seating Assembly from the bottom of the Platform with a 9/16" wrench.*
9. Remove/Replace the Ring Indexer, lightly oiling the inside diameter. Replace it on the Mainshaft.---*For the 650 grease the index ring to index block surfaces.* Fig. C
10. Place the Platform on the Mainshaft and loosely install the two Platform Socket Head 1/4-28 Screws using a 3/16" Allen wrench.
11. Obtain an empty 650/750 Toolhead and thread a Powder Die into Station 2-- Fig. D.
The small locating diameter (.264") is used to align the Primer Seater Hole in the Platform on the 750 and the larger diameter (.389") is used for the 650.
12. Install the Toolhead with the Alignment Fixture into the 650 or 750 Frame and secure it with the Toolhead Pins. Thread the Powder die down to ~ 1/4" above the Shellplate.
13. Slowly lower the Operating Handle (raise the Platform) while using your left hand to gently guide the Platform over the Small Diameter (.264") of the Alignment Fixture for the 750 and the Large Diameter (.389") for 650 with no drag. Fig. D
14. Lower the Platform just enough to lightly tighten the two 1/4-28 Platform Socket Head screws. Raise the Platform and verify there is no drag on the Alignment Tool.
15. Lower the Platform and securely tighten the two 1/4-28 Socket Head Screws to 10-12 ft-lbs. Verify there is no drag of the Alignment Pin and the Platform by moving the Operating Handle up and down. If the Alignment Tool binds or drags on the Platform, repeat Step 13-15.
16. Reinstall the Indexer Spring and Ball and Index Pall and Spring.
17. Reinstall the Indexer Return Spring under the Platform—Fig. C.
18. *Reinstall the Primer Seating Assembly under the 650 Platform and reinstall the Primer Feed Assembly of the 750.*
19. Reinstall the Shellplate.
20. Tighten the Shellplate Bolt and then back it out no more than 1/4 of a turn and secure it with the Brass Tipped Set Screw in the side of the Mainshaft using a 1/8" Allen wrench. Check the Shellplate for free rotation and too much clearance. Adjust as required.
21. Reinstall the Ejector Wire.
22. For the 750, reinstall the Primer Assembly leaving the two Socket Head Knurled Thumbscrews slightly loose, install the Primer Slide Return Spring and the Primer Slide Operating Rod with the Operating Handle down.
23. Gently raise the Handle and push the Handle full aft to the Primer seat position while gently moving the Primer Slide side-to-side allowing the Primer Cup to center itself in the Priming Hole in the Platform. Tighten the two Primer System Socket Head Knurled Thumb Mounting screws. Do not overtighten. Verify that there is no drag on the Primer Cup as it inters the Priming Hole in the Platform.
24. Reinstall the Toolhead with Dies.
25. Cycle a case through the system loading a complete cartridge and verify that all the reloading parameters are correct.

- A. Remove the Ejector Wire. Loosen the Shellplate Bolt Locking Brass Tipped Set Screw on the left side of the Main Shaft. Remove the Shellplate Bolt and Shellplate.



- B. Remove the Indexer Return Spring, Index Ball and Spring and the Index Pawl and its Spring. Note the direction the Pawl faces. Remove the two Platform Mounting Screws and carefully remove the Platform from the Main Shaft.

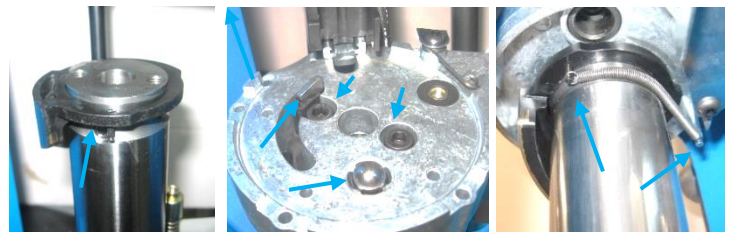


Carefully remove Indexer Return Spring

Remove the Index Pawl and Spring and Index Ball and Spring

Remove Platform Mounting Screws and the Platform

- C. Remove clean or replace the Index Ring. Clean the Shaft top. Lightly oil the inside diameter of the Plastic Index Ring. Reinstall the Index Ball and Spring and the Index Pawl ("Tomahawk") with its Spring. Lightly tighten the 1/4-28 Platform mount screws. Reinstall the Index Ring Return Spring.



Lightly oil the inside diameter and install the Indexer

Reinstall the Platform Mounting Screws, Indexer Ball and Spring and the Index Pall and Spring

Reinstall the Indexer Return Spring

- D. Install an XL750 Toolhead with a Powder Die in Station 2 threaded down to just above the Shellplate. Gently place the Alignment fixture in the Powder Die and raise the Platform moving the Platform side-to-side so that the small diameter of the Alignment Fixture fits easily into the Priming Hole in the Platform or the Large Diameter for the 650.



Install Alignment Tool

Alignment Fixture Small Diameter (.264") for 750 Platform just entering Primer Hole

Primer Cup must fit in Hole in 750 Platform and Shellplate without dragging

Large Alignment Diameter (.389") for 650 Platform