

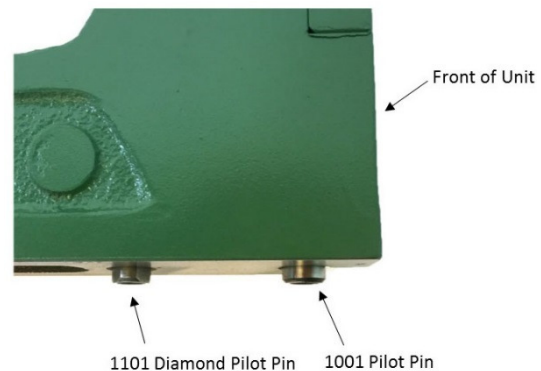
A-3 ½ Unit (For Shaped Holes)

Assembly and Punch and Die Replacement

Lower Arm Assembly

Pilot Pin Removal: To remove the pilot pin, thread the ¼-20 x ½ set screw into the holder to back the pilot pin out of its hole.

Pilot Pin Installation: Use a brass or aluminum hammer to install the pilot pin assembly (P/N 1001) into the hole on the bottom of the holder under the die. Ensure the pilot pin is perpendicular to the bottom and extends 3/32" from the bottom surface. Thread the 1/4-20 x 1/2 set screw (P/N 91332), supplied with pilot pin), until it touches the bottom of the hole, being careful not to push the pilot pin back out.



Using the same process as above, install the diamond pilot pin (P/N 1101) into the second hole making sure a point of the diamond shape faces the front of the unit.

Die Removal: To remove the die, use a hex key wrench to remove the stripper bolt (P/N 91420) in the upper arm and lift the guide to allow clearance for die removal. Then loosen the die set screw (P/N 91353 5/16-18 x 1/2) in the front corner of the holder and, if necessary, push the die up out of the holder from the slug chute.

Die Installation: First, to install dowel pin (P/N 1088-2) in the back of the die seat, back out the ¼-20 x 3/8 set screw (P/N 91331) located on the side of the bottom arm. Then insert the dowel pin through the clearance hole at the front of the unit and into the hole in the back of the die seat being sure it extends into the die seat at least 0.050" and no more than 0.075"; finally retighten the set screw. Then, being sure the die seat is free of debris, insert the shaped die (P/N 2525) with the cutting edge on the top, making sure to align the shape in the die in the intended orientation. Align the keyway in the die with the dowel pin and insert the die into the die seat, being sure the die is fully seated at the bottom of the die seat. Tighten the die set screw at the front corner of the unit (P/N 91353) to secure the die in place.

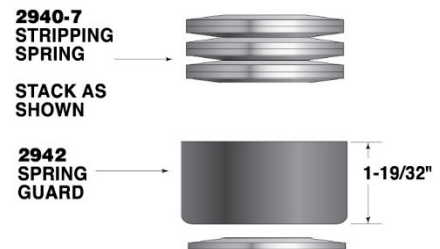
Upper Arm Assembly

Punch, Guide and Spring Assembly: First assemble the guide key (P/N 2878) on the top of the upper arm, in the slot to the front of the guide bore with ¼-20 x ¾ B.H.S.C.S. screw (P/N 91130).

Next, check punch and die alignment. Externally lubricate punch body (P/N 2515) with a thin even coat of lubricant (e.g. P/N 8007 Molykote® type G-N metal assembly paste). Insert punch (threads facing up) into the bottom punch driver (P/N 2984). Externally lubricate the 2.000" diameter portion of the punch driver and insert the punch driver and punch into the shaped guide (P/N 2935). Loosely thread the S.H.C.S. (P/N 91072) only a few threads, by hand, into the punch. Now using the punch screw as a handle, drop this punch and guide assembly through the guide bore of the holder, gradually lowering the punch into the die making sure the punch shape will fit in the die by orienting it in the same intended orientation as the die. Visually look to see that the die clearance is even all the way around. If the die clearance is uneven, contact UniPunch.

Pull this assembly back out once die clearance is visually verified and remove the punch screw leaving the punch and driver in the guide.

Stack 6 of the 7 disc style stripping springs (P/N 2940) with the disc spring curvature opposing each other as shown in the picture on the right. Place the stack of springs into the spring guard (P/N 2942). Take the remaining disc spring and assemble under the spring guard in the pocket so the disc spring will be cupping the top of the guide. Insert the top punch head driver down thru the springs and screw into the bottom punch driver until tight. Insert punch screw thru top punch driver. Insert this top assembly into the top of the guide and screw into punch. Make sure to align the pin hole on punch with key slot on guide.



Insert (2) lifter springs (P/N 2846) into the pockets on top of upper arm. Externally lubricate outside diameter of guide body. Molykote® type GN metal assembly paste or die grease is recommended.

Assemble the punch & guide assembly into guide bore on the holder making sure to align the key slot on the guide with the guide key on the top arm of holder. Insert stripper bolt (P/N 91420) into upper arm of holder. Align the cut-out pocket on the spring guard with the stripper bolt and tighten bolt.

