

SAJ-1 Unit (For Shaped Holes)

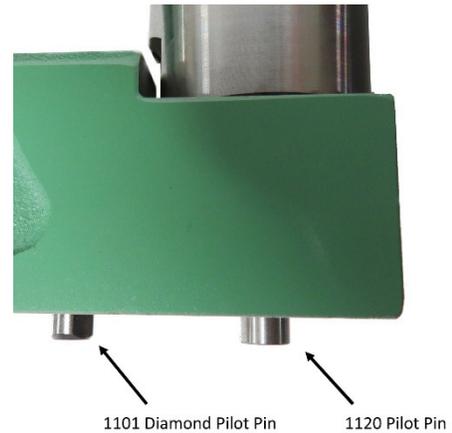
Assembly and Punch and Die Replacement

Lower Arm Assembly

Pilot Pin Removal: To remove pilot pin and lock washer (P/N 1120), use a hex key wrench to unscrew the pilot pin. To remove pilot pin (P/N 1101), 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 hex key wrench to screw the pilot pin and lock washer (P/N 1120) into the lower arm of the holder up into the die adapter or pedestal die. Ensure the pilot pin is perpendicular to the bottom surface of the holder.

Use a brass or aluminum hammer to install the pilot pin assembly (P/N 1101) into the hole on the lower arm of the holder behind 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.



Pedestal Die Removal: To remove the shaped pedestal die (P/N 2126), first loosen the guide retainer (P/N 1018) on the upper arm of the unit to allow the guide to lift up. Use a hex key wrench to loosen and remove the 1120 pilot pin and lock washer from the lower arm of the unit and lift the pedestal die up and out of the unit.

Die and Die Adapter Removal: To remove the shaped die (P/N 2125) from the die adapter, loosen the guide retainer (P/N 1018) on the top of the unit and lift the guide up. Loosen the set screw (P/N 91310 10-32 x .19 LG.) from the front corner of the die adapter and lift the die out of the adapter. To remove the die adapter (P/N14074), use a hex key wrench to unscrew the pilot pin and lock washer (P/N 1120) from the lower arm of the unit and lift the die adapter out of the unit.

Pedestal Die Installation: First, to install the key (P/N 1019) in the back of the die seat on the lower arm, back out the 10-32 x 3/16 set screw (P/N 91310) located on the side of the lower arm. Then insert the key, with the flats on the key perpendicular with the flat on the lower arm, 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, assemble the shaped pedestal die (P/N 2126) making sure to align the shape in the die in the intended orientation. Then insert the pilot pin and lock washer (P/N 1120) up through the lower arm of the holder and screw into the bottom of the pedestal die. Ensure the pilot pin is perpendicular to the bottom surface of the lower arm.

Die and Die Adapter Installation: First, to install the key (P/N 1019) in the back of the die seat on the lower arm, back out the 10-32 x 3/16 set screw (P/N 91310) located on the side of the lower arm. Then insert the key, with the flats on the key perpendicular with the flat on the lower arm, 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, assemble the shaped die adapter (P/N 14074) and align the slot on back of the die adapter with the dowel key on the back of the die seat. Inserting the pilot pin and lock washer (P/N 1120) up through the lower arm of the holder and screw into the bottom of the die adapter. Ensure the pilot pin is perpendicular to the bottom surface of the lower arm.

Insert the shaped die (P/N 2125) into the die adapter 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 key in the adapter 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 adapter (P/N 91310 10-32 x 3/16) to secure the die in place.

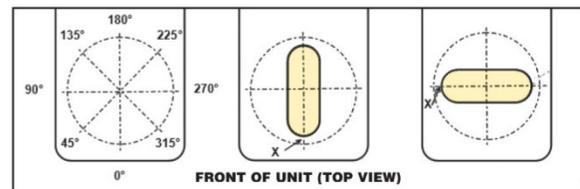
Upper Arm Assembly

Guide Installation: First install the ¼ x 1 dowel pin (P/N 1088-3). Start by backing out the 10-32 x 3/16 set screw (P/N 91310) located on the side of the upper arm. Then insert the dowel pin through the clearance hole at the front of the upper arm and into the hole in the back of the guide bore being sure it extends into the guide bore at least 0.100" and no more than 0.125"; finally retighten the set screw. Apply a thin coat of lubricant (e.g. P/N 8007 Molykote® type G-N metal assembly paste) to the outside of

the shaped guide body (P/N 2035). Put the lifter spring (P/N 2070) on to the guide with the narrow end of the spring against the collar and insert the assembly into the guide bore while being sure to align the external key slot on the shaped guide with the dowel pin in the guide bore of the unit. While pushing down on the guide, align the flat on the guide retainer (P/N 1018) with the flat on the guide. Insert the guide retainer in the guide retainer bore in the upper arm with the small diameter up and use the button head screw (P/N 91130) to secure the guide retainer under the lifter spring. (For additional feed clearance, assemble the guide retainer with the small diameter down.)



Punch Installation: First be sure the punch and head assembly (P/N 2016) will fit in the die by inserting it in the same intended orientation as the die and dropping it through the guide (without the stripping spring) and into the die. Visually look to see that the die clearance is even all the way around. If the die clearance is uneven, contact UniPunch.



Extract the punch and apply a thin coat of lubricant (e.g. P/N 8007 Molykote® type G-N metal assembly paste) to the punch body. Put the punch and head assembly through a stripping spring (P/N 2045) and into the guide in the same shape orientation as the die. Push the retainer pin (P/N 2180) through the hole that is parallel to the flat on the punch until it clips on to the guide collar.