

UNIPUNCH

HOLES IN PARTS. **FAST.**

UniPunch Products, Inc.
715/263-3900 | Fax 715/263-3897
311 5th Street NW | Clear Lake, WI 54005
www.unipunch.com

AJ-1 1/4 Unit (For Round Holes)

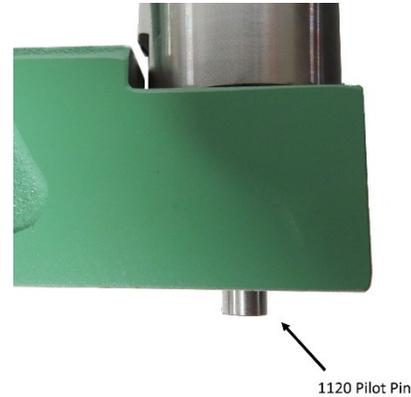
Assembly and Punch and Die Replacement

Lower Arm Assembly

Pilot Pin Removal: To remove the pilot pin, use a hex key wrench to unscrew the pilot pin.

Pilot Pin Installation: Use a hex key wrench to screw the pilot pin and lock washer (P/N 1120) into the bottom of the holder up into the die adapter or pedestal die. Ensure the pilot pin is perpendicular to the bottom surface.

Pedestal Die Removal: To remove the pedestal die (P/N 2121), use a hex key wrench to loosen and remove the 1120 pilot pin and lock washer. Then loosen the guide retainer (P/N 1018) on the upper arm and lift the guide up enough for the pedestal die to clear and be removed.



Die and Die Adapter Removal: To remove the round die (P/N 2120) 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 round die adapter (P/N 14172), use a hex key wrench to unscrew the pilot pin and lock washer (P/N 1120) from the bottom of the lower arm.

Die and Die Adapter Installation: First make sure the bottom die seat and the die are free of debris. Insert the round die adapter into the adapter bore on the lower arm of the unit. 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 die adapter. Ensure the pilot pin is perpendicular to the bottom surface. Then insert the die button (P/N 2120) with the cutting edge on the top, being sure the die is fully seated at the bottom of the die seat, and tighten the die set screw on the front corner of the adapter to secure the die in place.

Pedestal Die Installation: First make sure the bottom die seat and the die are free of debris. Insert the pedestal die (P/N 2121) into the die bore on the lower arm of the unit. Insert the pilot pin and lock washer (P/N 1120) up through the bottom 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.

Upper Arm Assembly

Guide Installation: Guide installation is a two-step process. First apply a thin coat of lubricant (*e.g.* P/N 8007 Molykote® type G-N metal assembly paste) to the outside of the guide body (P/N 2130). Slide the conical lifter spring (P/N 2170) on to the guide with the narrow end of spring against the collar, and insert the guide into the holder guide bore.

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.

Helpful hint: For additional feed clearance, assemble the guide retainer with the small diameter down.

Punch Installation: First assemble a punch head (P/N 2171) onto a punch (P/N 2111) being sure the counter bore in the flange of the punch head faces the retaining ring, creating a punch and head assembly (P/N 2110). When assembled correctly, the top of the punch head is flush with the top of the punch.

Then be sure the punch and head assembly will fit in the die by 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 2140) and into the guide. Rotate the punch so the flat on the punch is parallel to the hole in the collar of the guide and push the retainer pin (P/N 2180) through the hole until it clips on to the guide collar.

To Convert a Round Unit to a Shaped Unit

To convert a round unit to a shaped unit, purchase the (P/N 7122) shaped hole conversion kit and follow the shaped unit instructions.