



# ULTRA<sup>®</sup> IMT<sup>™</sup> Multi Tool Systems

## 8-Station and 3-Station

### Spring Replacement and Adjustment Instructions

Use for changing springs or adjusting spring pressure to reduce sheet marking.

#### Suggested Tools:

- Bench with vise
- 8mm hex wrench
- 8mm hex bit for torque wrench
- Torque wrench
- Oil can with DTE26 or SAE 30W or similar Grease – AW2

**TIP:** Thoroughly clean all components after disassembly and oil all components before reassembly.

**TIP:** Spring life varies greatly based on material type, thickness, and die clearance used. If stripping problems occur, or if a spring is bent or broken, change out the springs. Always change all springs at once.

#### Remove the Striker Body:

- Rotate the Striker Body to the release position and then lift off the punch carrier. (Photo 1) (T-handle can be used to assist removal. There could be some suction.)

Remove any punches, punch drivers and strippers. Set aside.

#### Re-install the Striker Body:

- Rotate skid plate to align divot with divot in punch carrier.
- Rotate the Striker Body to the release position and then slide down into punch carrier. (Photo 1)
- Rotate to zero mark.

#### Loosen Draw Bolt:

- Mount 8mm hex wrench vertically in the vise leaving 1.50" or 38mm of the wrench visible. (Photo 2)
- Turn the guide body assembly upside down and lower it so the hex socket seats with the hex wrench mounted in the vise. (Photo 3)
- Use an 8mm hex wrench or torque wrench to loosen the draw bolt until completely unthreaded. *Caution: Striker body must be installed during torqueing to prevent damage to center shaft.* (Photo 3)
- With one hand supporting under the punch carrier, lift assembly off of hex wrench and place on bench stripper side down. (Photo 4)

#### Disassembly:

- Remove the Striker Body.
- Rotate the Striker Body to the release position and then lift off the Punch Carrier.
- Lift the punch carrier off of the guide body. The center shaft and skid plate will come off with the punch carrier. (Photo 5)
- Remove all visible springs if changing out all springs.
- Thoroughly clean all components.



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



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### Spring Replacement and Adjustment Instructions

#### For Sheet Marking Reduction in Thin Material or Aluminum

- For the 8 Station, Mate recommends removing the 16 smaller coil springs max for reduced downward force. (Be aware this could cause stripping issues depending on the application.)
- For the 3 Station, Mate recommends removing the 9 small coil springs max for reduced downward force. (Be aware this could cause stripping issues depending on the application.)
- Urethane stripper pads may work better than stripping force reduction. (the opening to fit the die opening must be manually cut out)

#### Install New Stripping Springs

- Wipe a small amount of DTE26, SAE 30W or similar oil around coil springs.
- Install each coil spring into a corresponding spring pocket. (Photo 6a and 6b)

#### Reassemble:

- Lubricate all sliding surfaces with DTE26, SAE30W or similar oil.
- Hold the punch carrier above the guide body .
- Rotate the punch carrier until the external keyway on outside diameter of the punch carrier is aligned with the internal key of the guide body.
- Lower the punch carrier over the guide body while ensuring that the springs seat properly in the spring pockets. (Photo 7)
- Install center shaft and skid plate.
- Re-install Striker Body into Punch Carrier. *Caution: The Striker Body must be installed for torqueing bolt to prevent damage to the Center Shaft.*
- Carefully lift the multi tool off the bench, flip it upside down and mount the hex socket in the center shaft onto the hex wrench in the vise.
- Generously oil.
- Use 8mm hex bit and torque wrench. Tighten draw bolt to 58-60 ft-lb, 696-720 in-lb, or 79-81 Nm. (Photo 8)
- Lift assembly off hex wrench and stand upright on the work surface.

#### To Replace or Adjust Ball Plunger In Striker Body:

- Remove set screw from opposite side of plunger.
- Loosen set screw that locks plunger in place by turning out 3 turns.
- Use largest flat blade screwdriver that will fit through the hole the set screw was removed from to adjust plunger in, out, or to remove.
- Once plunger is set in new position, tighten set screw that locks it into place.
- Test feel of new setting. Adjust further if needed. Once set where needed, reinstall set screw. Make sure both set screws are securely tightened.



Photo 6a



Photo 6b



Photo 7



Photo 8



Photo 9