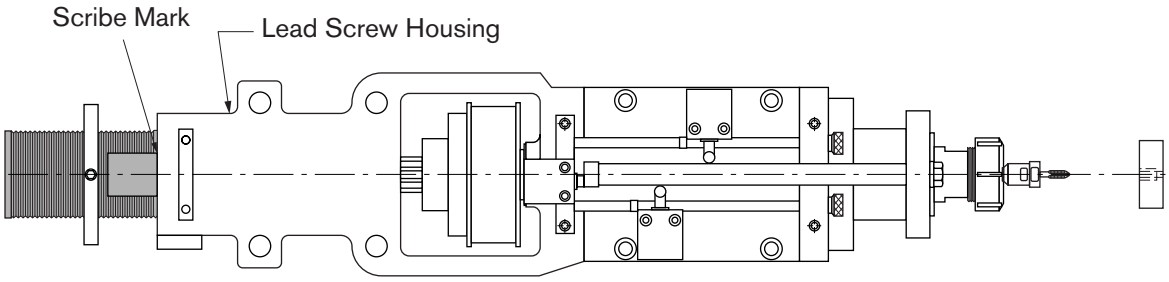
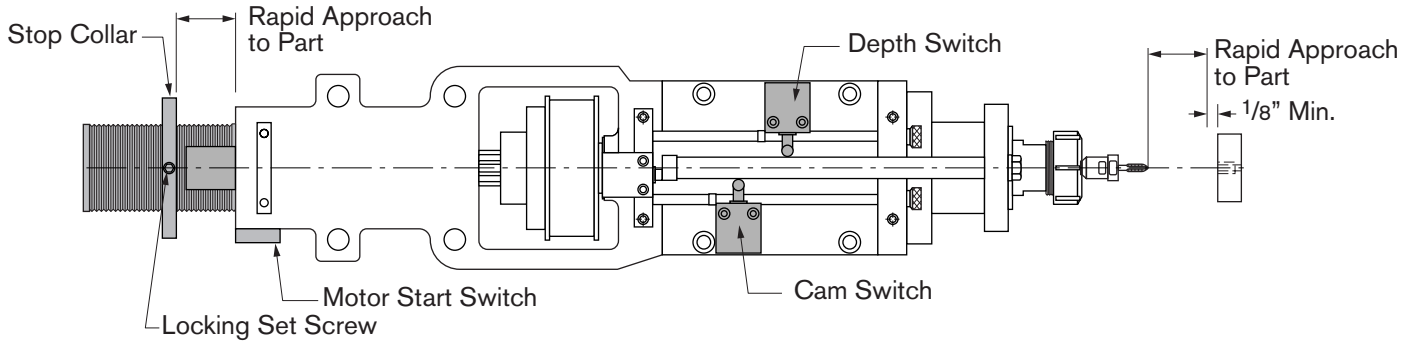
HYPNEUMAT INC.
AUTOMATIC DRILLING & TAPPING UNITS

LS-400 LEAD SCREW TAPPING UNIT SET-UP

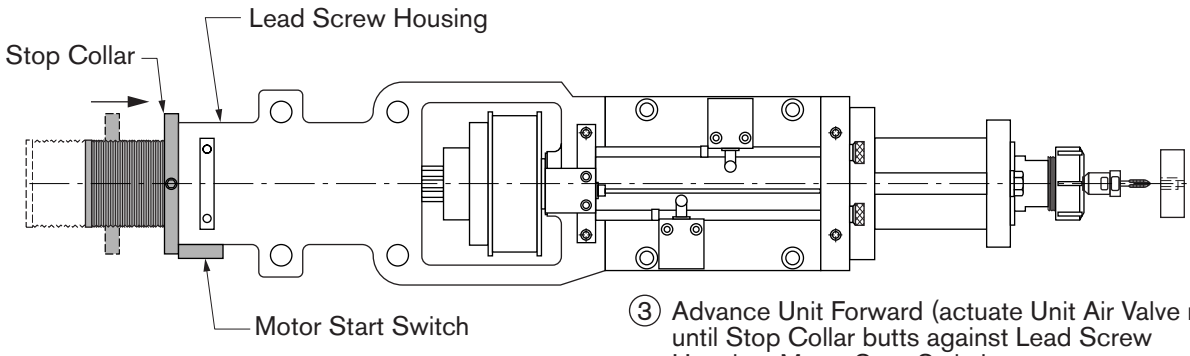
NOTES:
1. Follow instructions carefully to avoid jammed Lead Screws and Nuts. Be sure Lead Screw and Nut is properly oiled.
2. Steps 3, 4 and 5 can be accomplished with Air OFF by pushing Lead Screw Cartridge forward.
3. When using Air Brake Motors, maintain 80 psi on Air Line leading to Air Brake. Do NOT lubricate Air Line to Brake.
4. **Set unit pressure to feed port with minimum air pressure to hold Stop Collar against Lead Screw Housing during tapping operation.**
5. Provision should be made in Electrical and Pneumatic circuitry for:
   a. Complete power shut off
   b. Motor Off-On Switch
   c. Manual positioning of Valve
   d. Single Cycle operation – separate from all other operations on machine.



① **AIR ON. POWER OFF.**
Unit in Full Retract Position, Scribe Mark must be even with Back of Lead Screw Housing.
If Not, rotate pulley or spindle until Scribe Mark is in position.



② Loosen Locking Set Screw and set Stop Collar for Rapid Approach to part. Allow 1/8" Minimum distance before Tap enters part. Lock Stop Collar in place with Locking Set Screw. **Make sure Cam Switch and Depth Switch are far enough back so as not to allow them to actuate before Motor Start Switch.**



③ Advance Unit Forward (actuate Unit Air Valve manually) until Stop Collar butts against Lead Screw Housing. Motor Start Switch must actuate.

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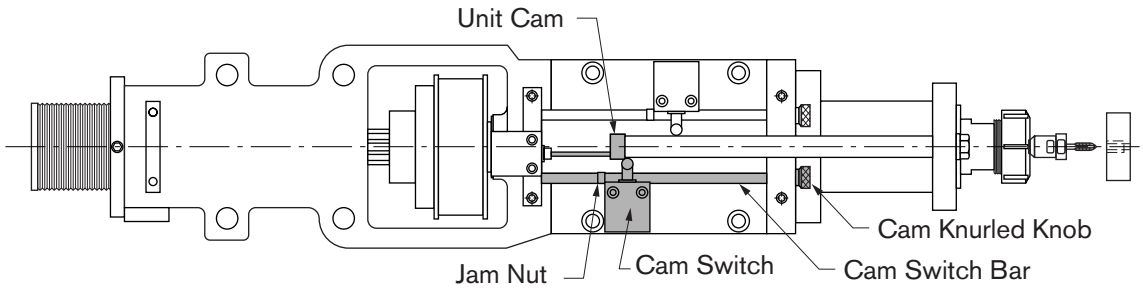
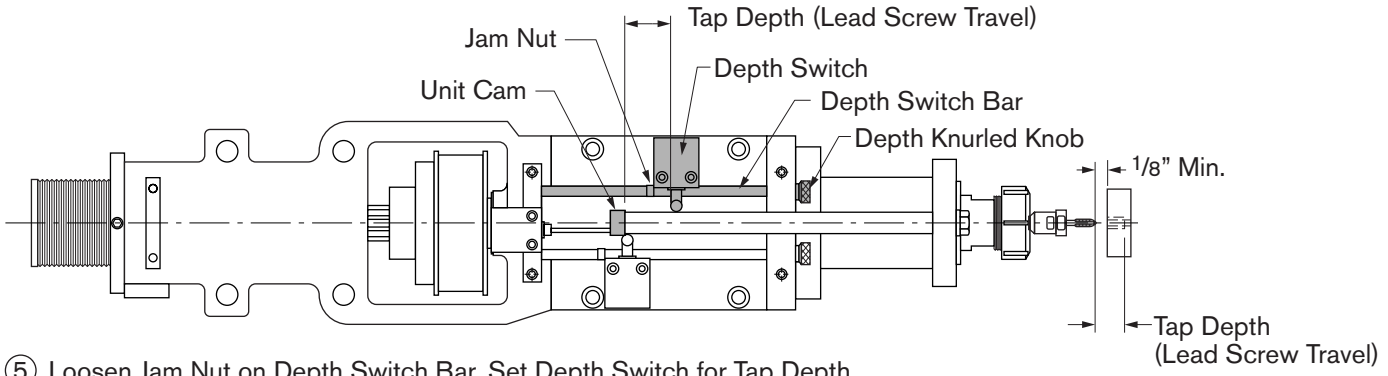
LS-400 LEAD SCREW TAPPING UNIT SET-UP (Continued)



④ Loosen Jam Nut on Cam Switch Bar and set Unit Cam to actuate Cam Switch (Listen for Click). Back off Unit Cam (CCW on Cam Knurled Knob) until Cam Switch clicks off. Back off 1/2 turn more (CCW). Tighten Jam Nut.

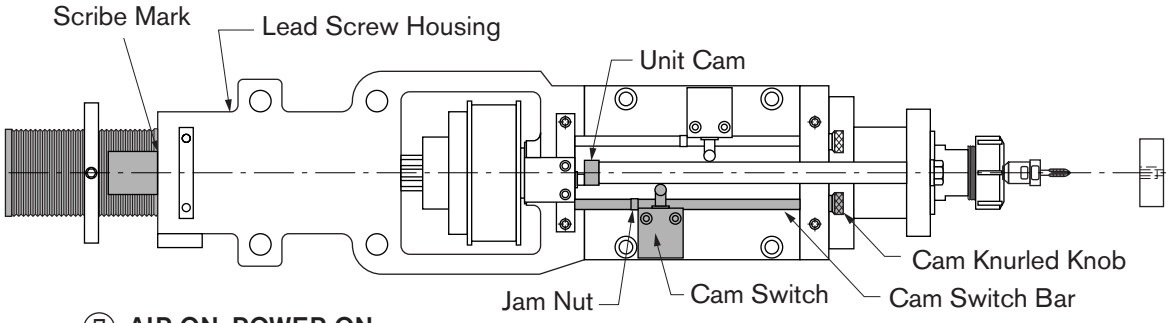


⑤ Loosen Jam Nut on Depth Switch Bar. Set Depth Switch for Tap Depth (Lead Screw Travel). Adjustment is made with Depth Knurled Knob. Total Stroke equals Rapid Approach plus Tap Depth (Lead Screw Travel). Re-actuate Unit Air Valve manually to Retract Unit.

Total Stroke equals Rapid Approach plus Tap Depth (Lead Screw Travel)

⑥ Checking Motor Rotation

1. Motor OFF-ON Selector to OFF
2. AIR ON, POWER ON
3. Feed Unit forward
4. Quickly jog the Motor Off-On Selector Switch to ON, then OFF. If Unit feeds forward, rotation is correct. If Unit begins to retract, change Three Phase Lead on Motor to correct rotation.



⑦ **AIR ON. POWER ON.**
Check Scribe Mark again. Run Lead Screw Tapping Unit through one cycle electrically.
If Scribe Mark has moved, re-adjust Unit Cam as follows:
If Scribe Mark has moved away from Lead Screw Housing, move Unit Cam toward front of unit.
If Scribe Mark has moved into Lead Screw Housing, move Unit Cam toward rear of unit.
Re-adjust until Scribe Mark returns to proper position.
Be sure to tighten Jam Nut.

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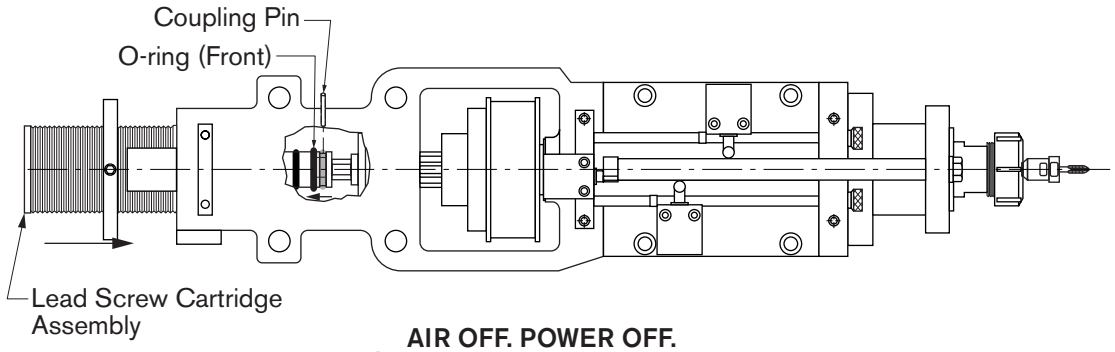
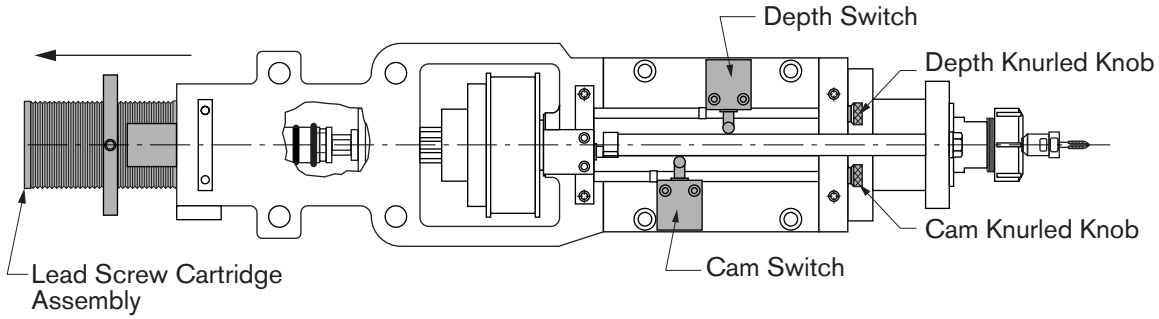
LS-400 CHANGE OVER PROCEDURE FOR LEAD SCREW ASSEMBLY

Change Over Procedure – Lead Screw Tapping to Drilling



AIR OFF. POWER OFF.

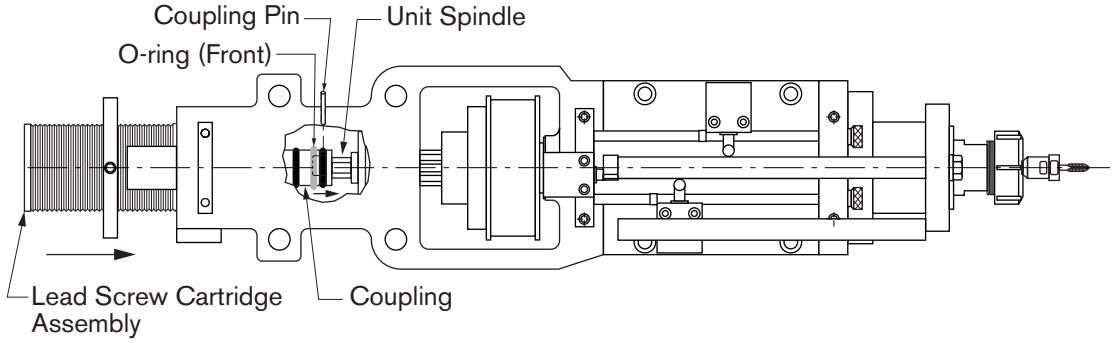
① Set the (Drill Tap) Selector Switch in Main Control Cabinet to "Drill" Position.
② Push Lead Screw Cartridge forward until O-Ring (Front) is accessible.
③ Slide O-Ring (Front) out of groove, remove Coupling Pin.



④ Pull out complete Lead Screw Cartridge Assembly.
⑤ **Set Unit Cam far enough back as to not allow Unit Cam Switch to roll off back of Unit Cam.**
⑥ Set Depth Switch for required stroke. Adjustment with Depth Knurled Knob.

AIR ON. POWER ON.

Change Over Procedure – Drilling to Lead Screw Tapping



AIR OFF. POWER OFF.

① Insert complete Lead Screw Cartridge into Lead Screw Housing.
Be sure Flat on Cartridge is UP.
② Push forward on Lead Screw Cartridge until coupling slides onto Unit Spindle.
Align hole in Coupling and hole in Spindle and insert Coupling Pin.
③ Slide O-Ring (Front) into groove over pin.
④ Set the (Drill – Tap) Selector Switch in Main Control Cabinet to "TAP" Position.
⑤ Reset according to Hypneumat Lead Screw Tapping Set-Up. (Refer to Hypneumat Bulletin 82-13-3.)