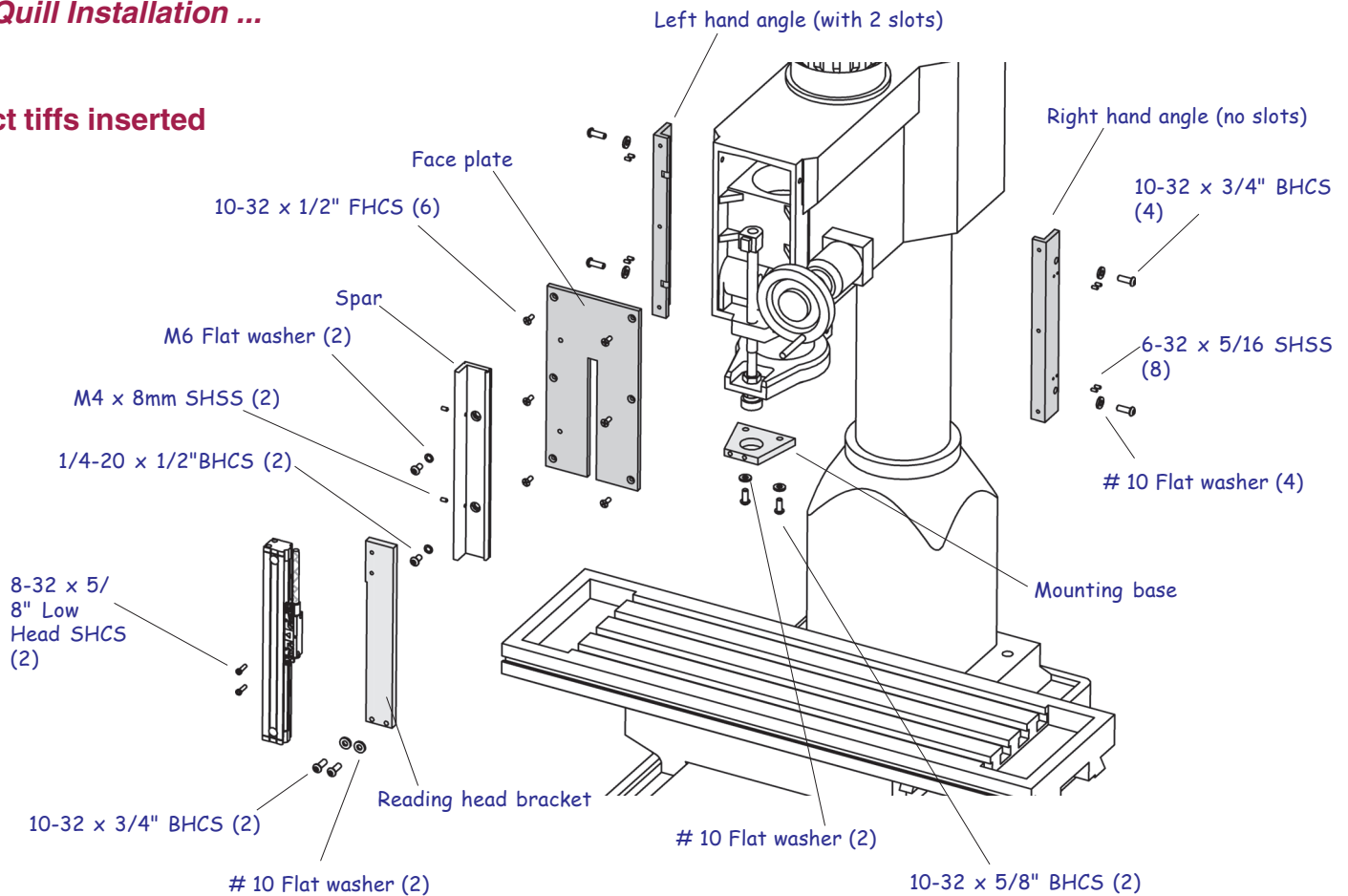


Quill Installation ...

Make sure the correct tiffs inserted



Mounting Information...

These instructions are for mounting the ENC 125 T/E encoder to the Quill of the Mill / Drill.

Before proceeding:

- Please read the instructions completely.
- Insure that the correct length encoder is being used for the total axis travel.
- Keep the reading head centered during installation.
- Clean the mounting surfaces.
- Save the alignment brackets with the Encoder Reference Manual after installation is completed.

First Steps ...

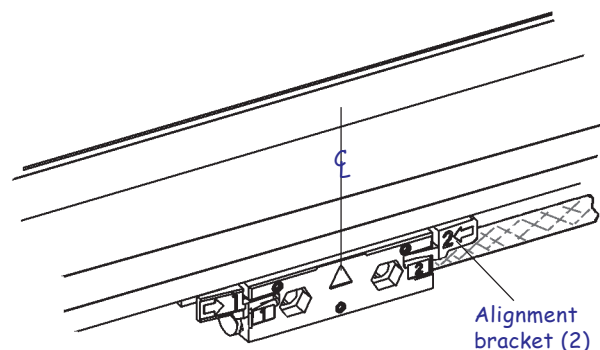
Machine

- ✓ Move the quill to its center of travel.
- ✓ Mark the axis so that it can be re-centered easily.

Encoder

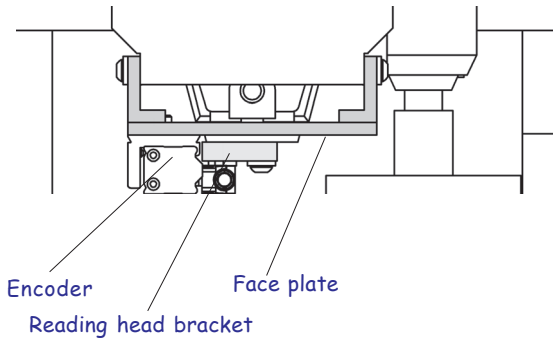
- ✓ Unpack encoder in a safe, convenient location.
- ✓ Do not remove the reading head alignment brackets until instructed.

Center reading head ...



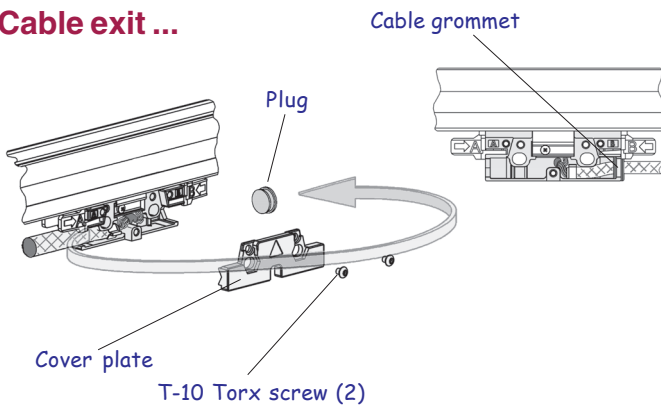
- Mark the center location on the scale case. Slide the reading head and brackets along the scale case until the center marks on the scale case and reading head are aligned.

Encoder orientation ...



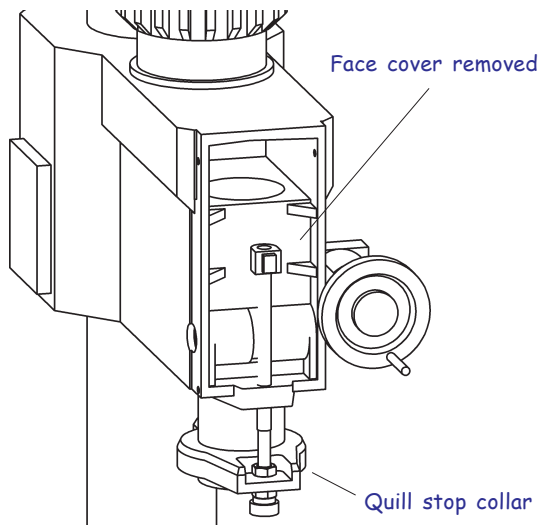
- These instructions will guide you through installing the encoder as shown in this view.

Cable exit ...

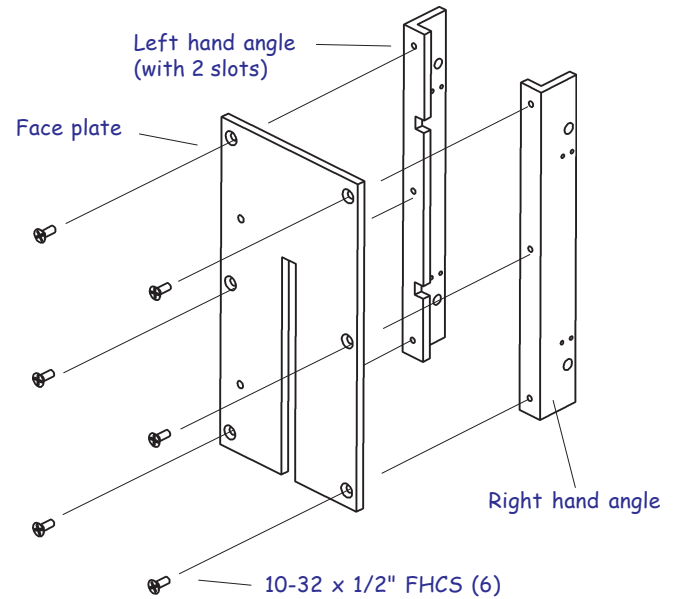


- Determine the cable exit direction before installing the encoder.
- To change the cable exit direction; remove the cover plate and rotate the cable 180°.

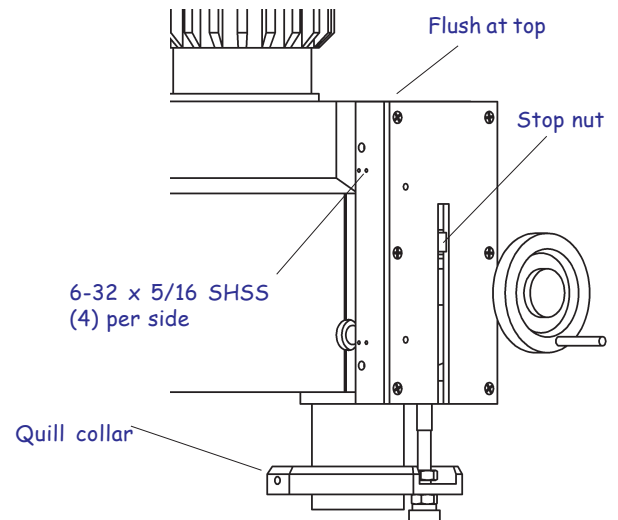
Remove front cover ...



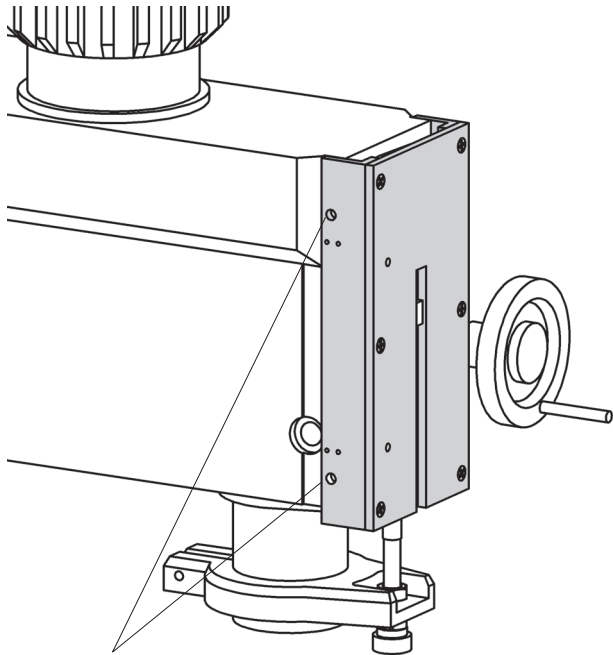
- Remove the stop locator arrow and plastic cover from the quill face.
- Tighten the collar in place.



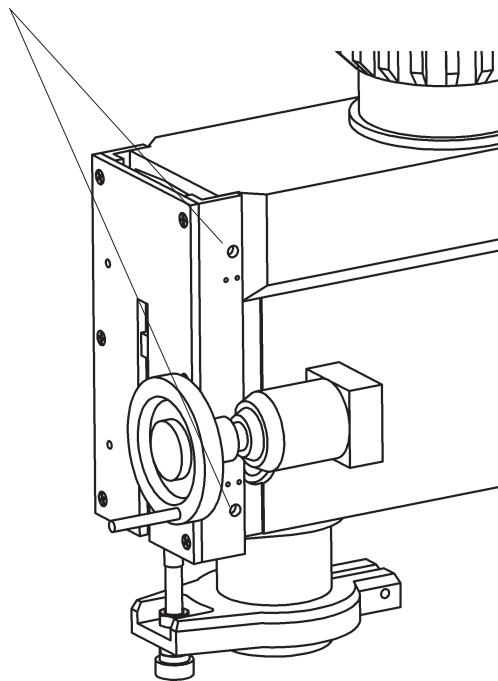
- Assemble the face plate to the angle brackets, fully securing assembly together.



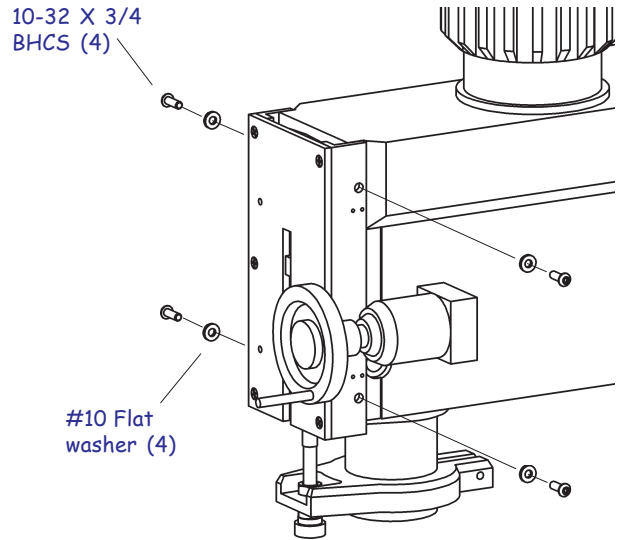
- Position the assembly so that it is flush with the top of the head casting and fully inserted into the casting relief surface. Ensure that the stop nut is positioned correctly in the face plate slot.
- Insert the 6-32 SHSS, 4 in each angle. Tighten the 6-32 set screws to hold the cover assembly to the casting.
- Using an indicator attached to the quill collar, align the front face and left side of the assembly to within .010" to the quill travel. Use the set screws to assist with this alignment.



Transfer punch (4) mounting hole locations



- Transfer punch the two mounting hole locations on each angle to the head casting.
- Do not remove the assembly. Drill and tap the locations for a 10-32 x 1/2" deep max.

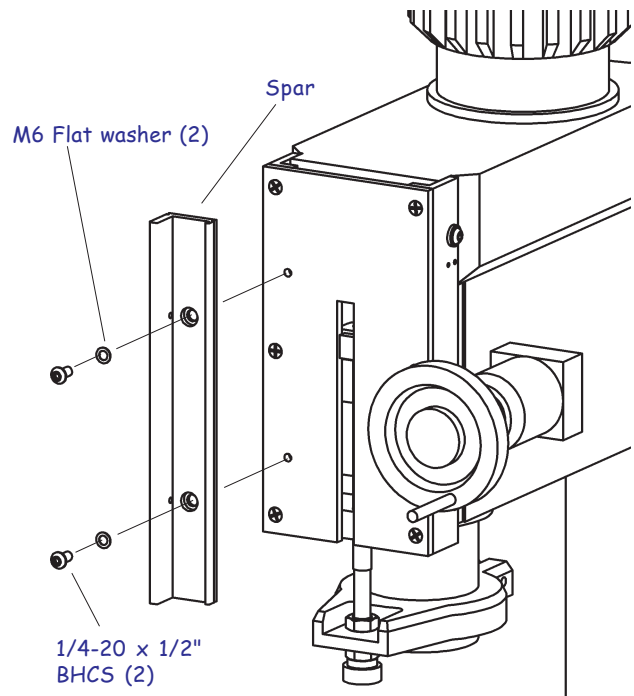


10-32 X 3/4
BHCS (4)

#10 Flat
washer (4)

- Secure the face plate assembly to the head casting with the 10-32 BHCS, using the 6-32 set screws to firm up the assembly. Ensure that the alignment is maintained.

Attach spar



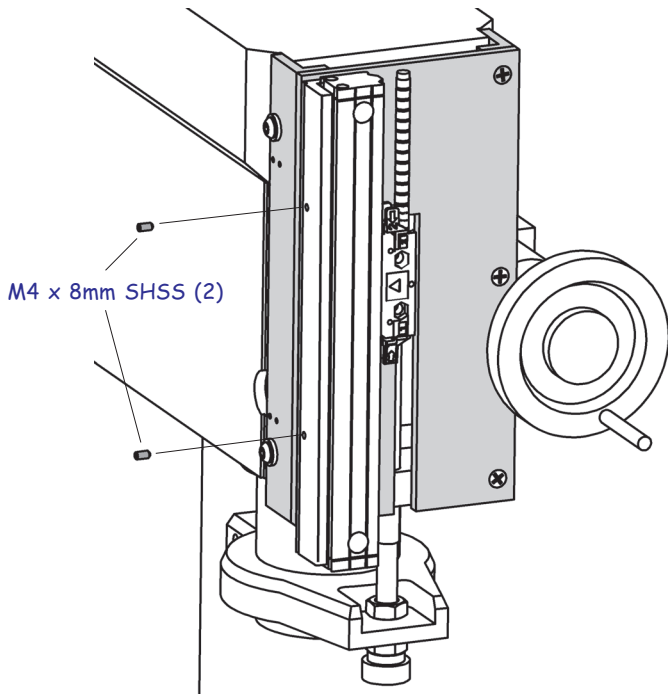
M6 Flat washer (2)

Spar

1/4-20 x 1/2"
BHCS (2)

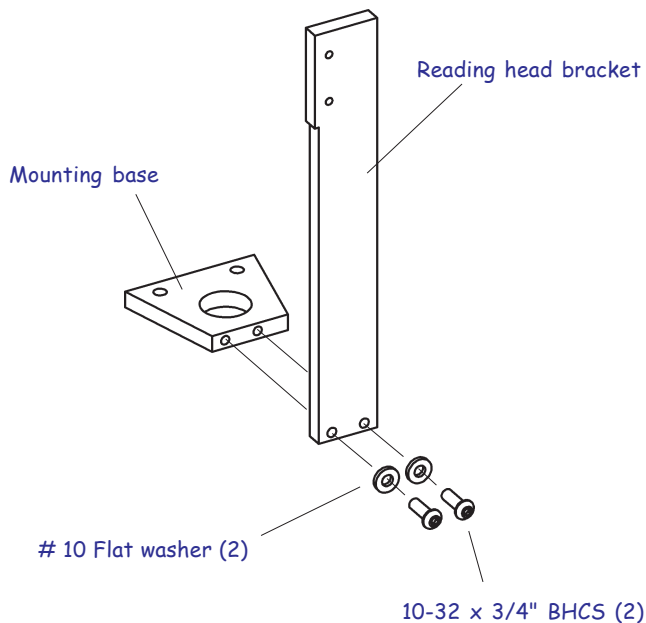
- Attach the spar to the face plate.
- Ensure the face of the spar is aligned to within .010" of the quill travel.
- Align the left vertical surface of the spar to within .010" and secure the spar in place.

Install encoder ...

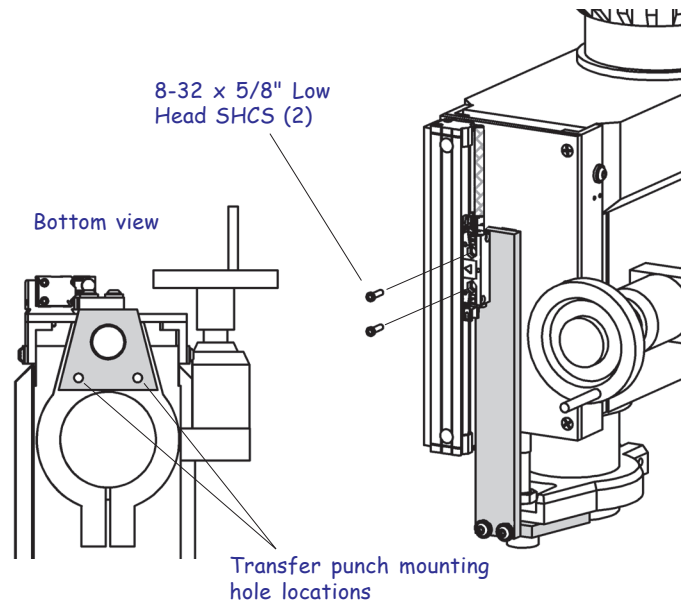


- Attach the encoder assembly to the spar.
- Center the encoder from end to end in the spar.
- Secure the encoder in place by tightening the M4 set screws in the spar.

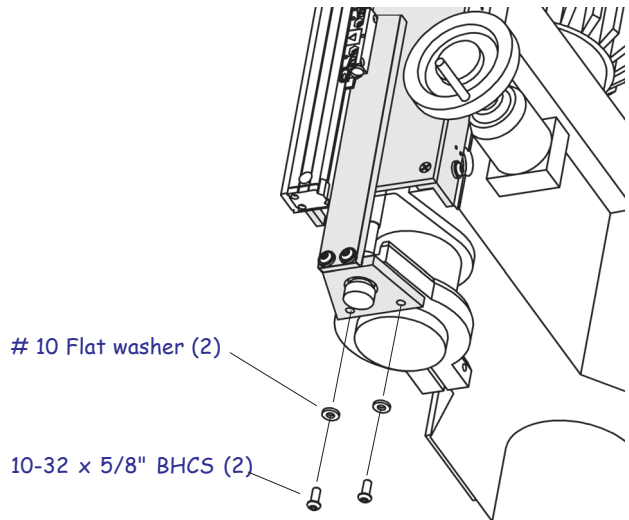
Reading head bracket installation ...



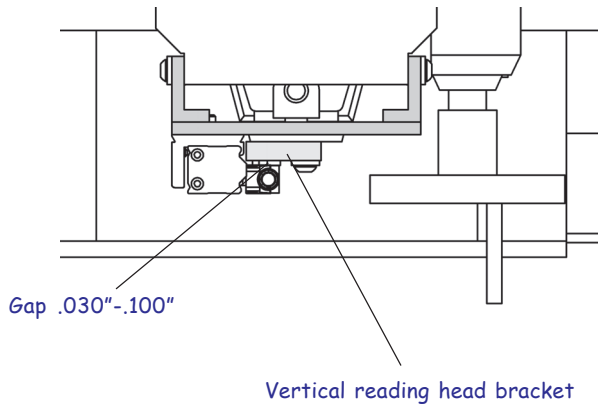
- Move the quill to its center of travel, and lock in place.
- Assemble the reading head bracket to the mounting base.



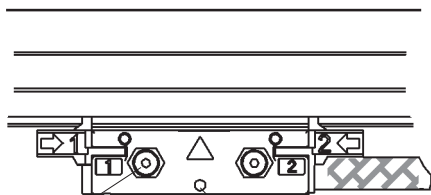
- Attach the bracket assembly to the reading head.
- Position the mounting base to the underside of the quill collar.
- Transfer punch base hole locations to the under side of the quill collar.
- Remove the bracket assembly from the encoder.



- Drill and tap the locations for a 10-32 x 1/2" deep max.
- Attach the assembly to the collar.
- Adjust the bracket assembly so that a gap of .03" - .10" exist between the bracket and the reading head.
- Align the reading head bracket mounting holes with the encoder reading head.
- Secure the bracket assembly in place.



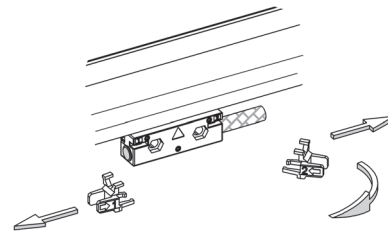
- Position the vertical bracket so that a gap of .030" - .100" exist between the reading head and the bracket.
- Secure the vertical bracket to the quill bracket.



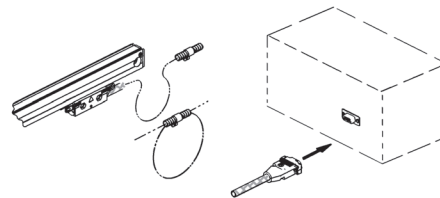
8-32 x 5/8" SHCS (2) * Leveling set screws (3)

- Insert the two 8-32 x 5/8" SHCS. Insure the bracket is adjusted to provide proper screw head clearance. **Do Not Tighten Screws** at this time.
- Set each leveling set screw by placing a .001" - .003" feeler gage between the set screw and the bracket.
- Adjust each set screw until a slight drag is felt on the feeler gage.
- **Evenly tighten** the two 8-32 SHCS.

Encoder button up ...



- Use allen wrench from set screw adjustment to slide alignment brackets away from the reading head.
- Remove alignment brackets and save.
- Move the axis through its full travel. Confirm that the assembly does not interfere with the machine movement.



- With the longitudinal axis installation complete, route the cables providing sufficient slack loops for machine movement to the readout.
- Secure cables by fastening with clips or ties.
- Attach the linear encoder connectors to the readout.
- Complete the installation by following the steps in "Checking Your Installation" section in the encoder "Reference Manual".