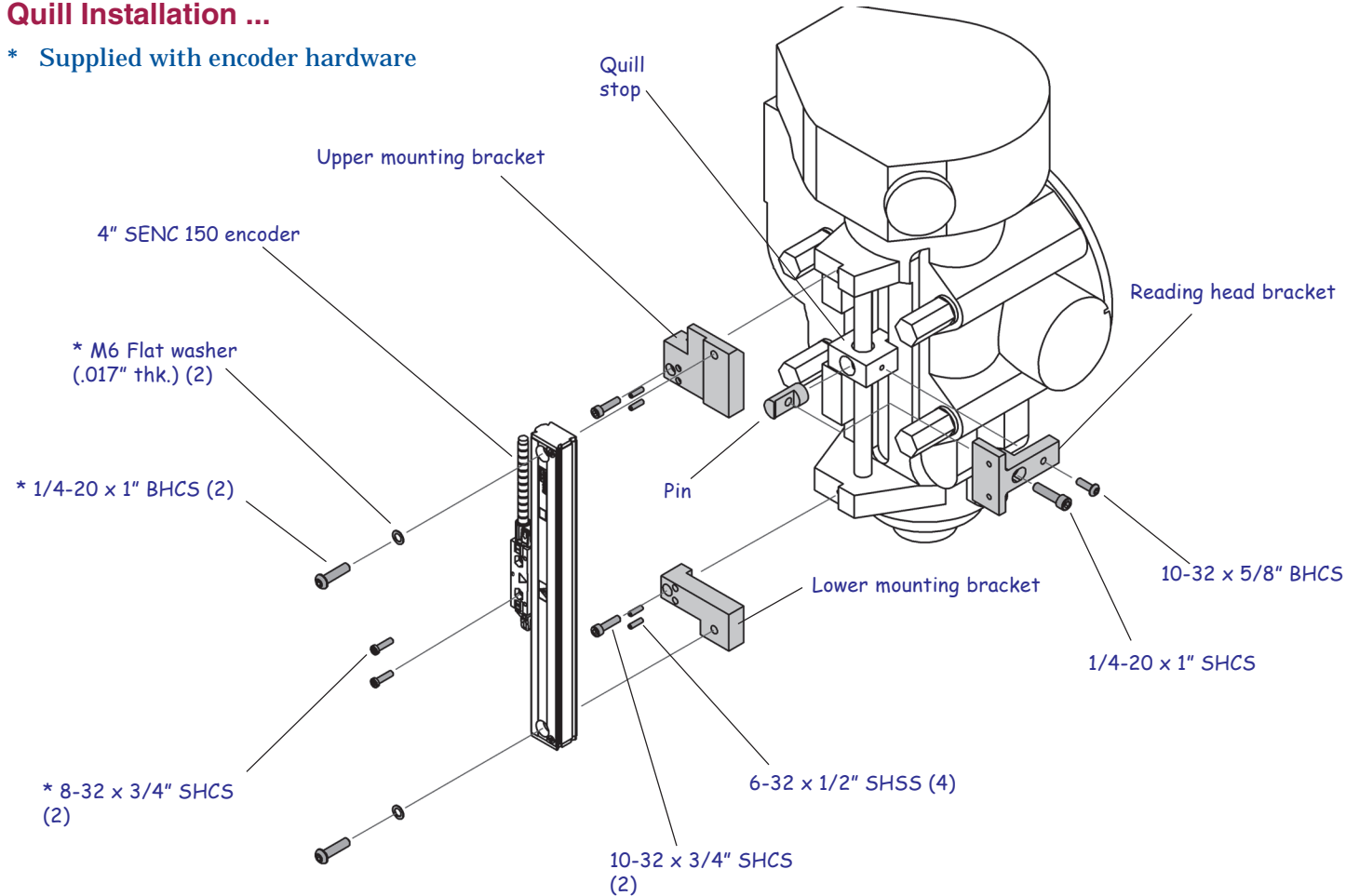


## Quill Installation ...

\* Supplied with encoder hardware



## Mounting Information...

These are application instructions for mounting the quill "Z" axis SENC 150 encoder.

### 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 ...

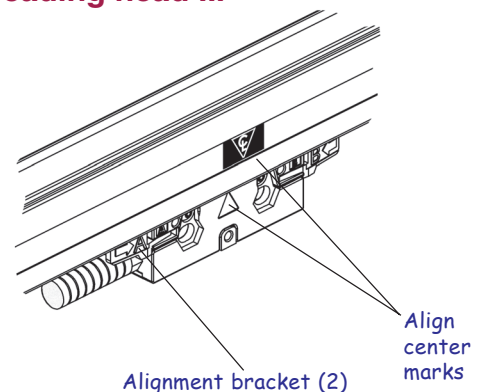
### Machine

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

## Encoder

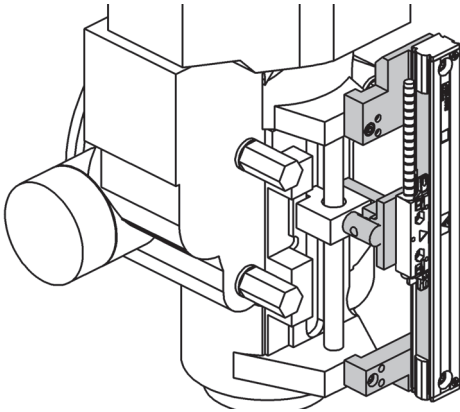
- ✓ Unpack encoder in a safe, convenient location.
- ✓ Do not remove the reading head alignment brackets until instructed.

## Center reading head ...



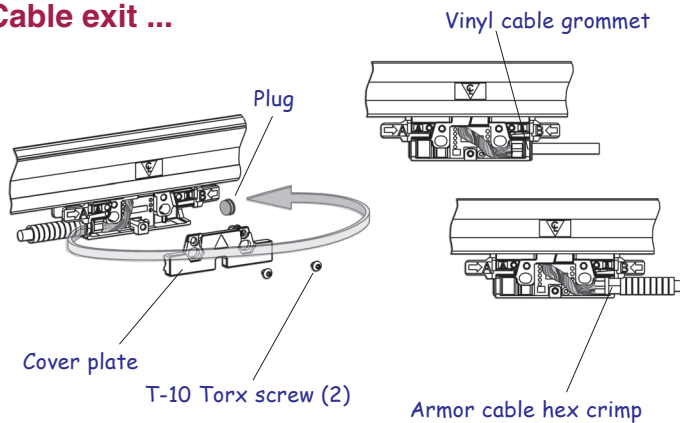
- Slide the reading head and brackets along the scale case until the center marks on the scale case and reading head are aligned.

## Encoder orientation ...



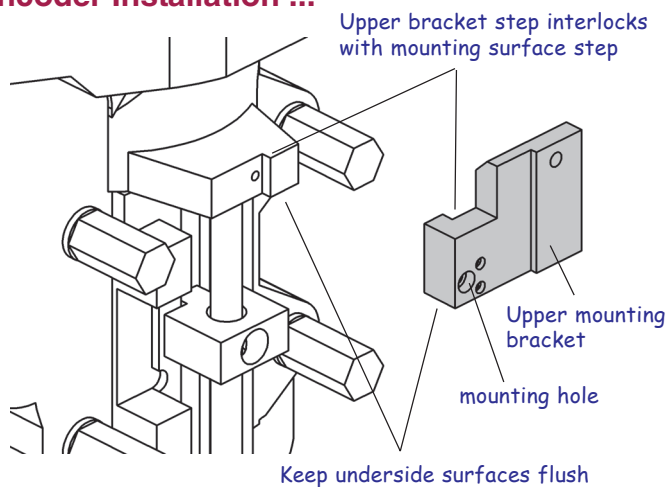
- These instructions will guide you through installing the encoder as shown in this view.

## Cable exit ...

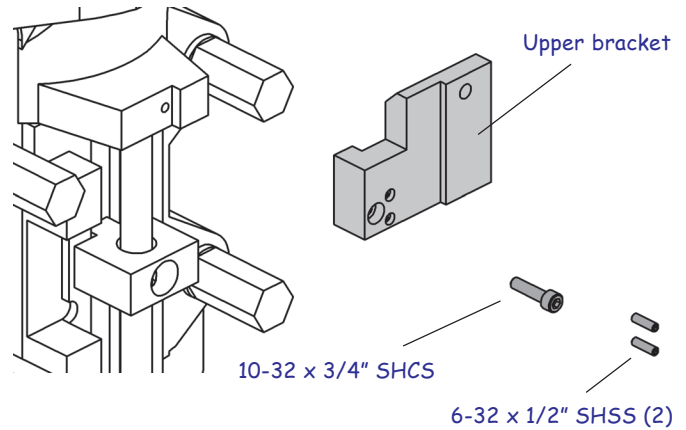


- Determine the cable exit direction before installing the encoder.
- To change the cable exit direction; remove the cover plate and rotate the cable 180°.

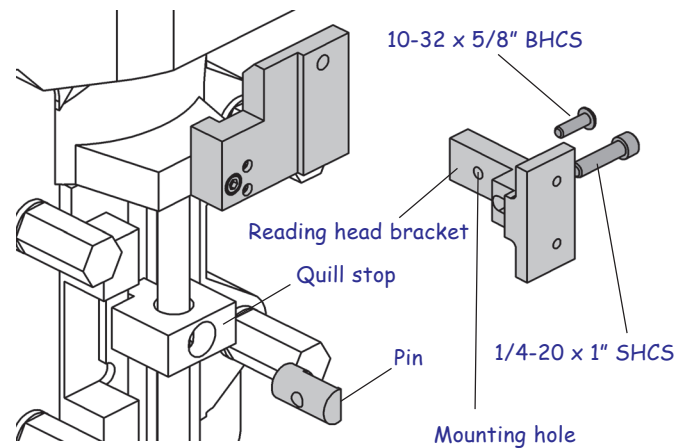
## Encoder Installation ...



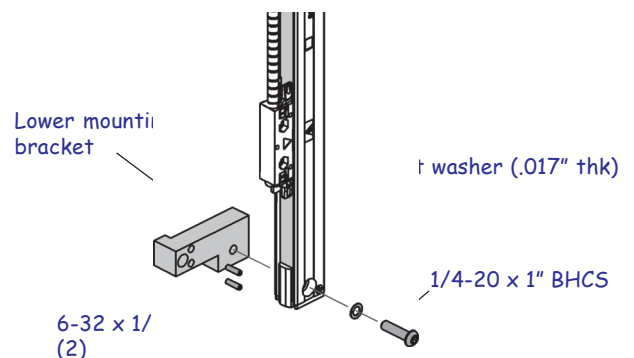
- Locate upper bracket to the upper mounting position.
- Transfer punch mounting hole location.
- Drill and tap hole location for a 10-32 x 3/8" deep.



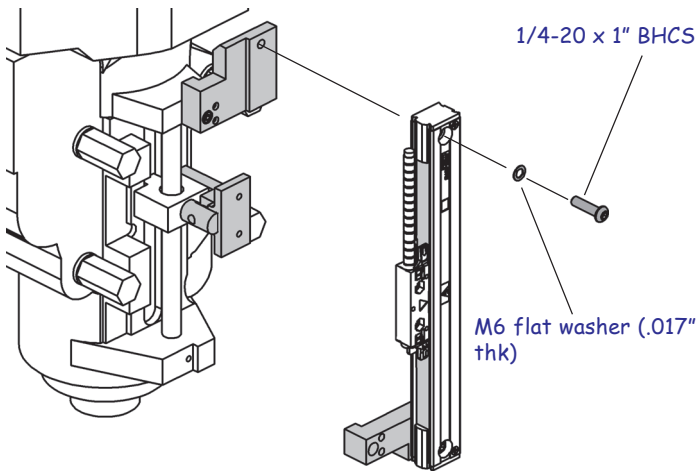
- Attach the bracket and secure in place.
- Insert the set screws, but do not tighten.



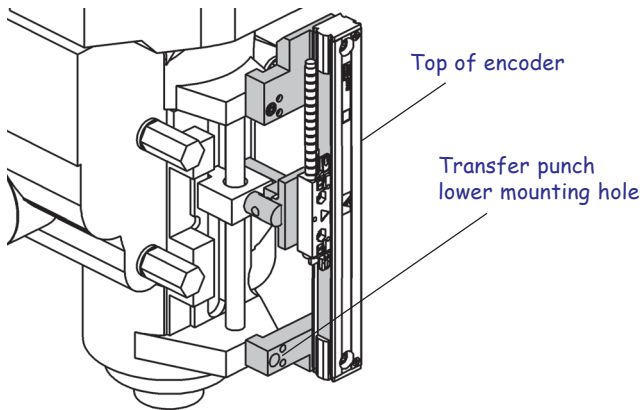
- Position the reading head bracket against the stop so that the corners interlock tightly.
- Insert the pin into the stop and attach the bracket securely.
- Drill and tap the stop for a 10-32 using the mounting hole as a guide.
- Lock the bracket in place by inserting the 10-32 BHCS and tighten.



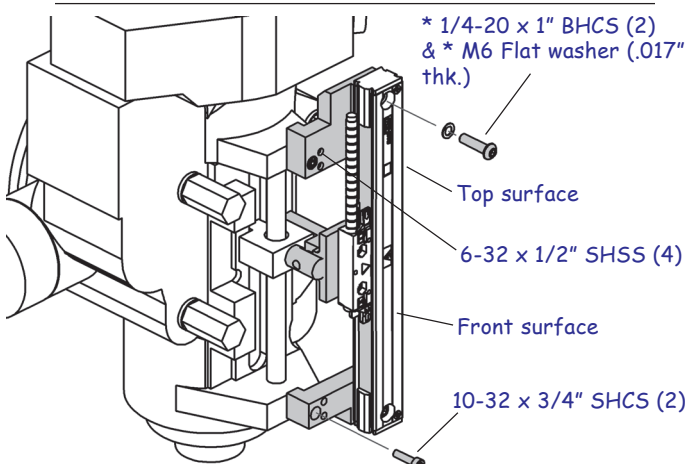
- Attach the lower mounting bracket to the encoder and insert the two set screws flush to the back side of the bracket.



- Attach the encoder assembly to the upper bracket.



- Align the top of the encoder to within .010" to the quill travel.
- Locate lower bracket mounting hole and remove assembly.
- Drill and tap location for a 10-32 x 3/8" deep.

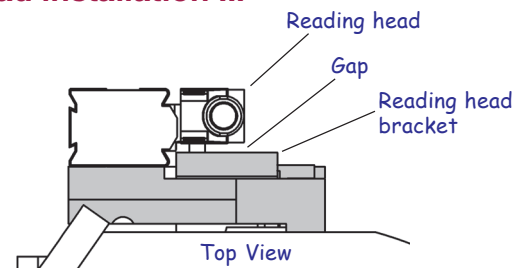


Shim one bracket only as needed for encoder face alignment, placing shim between bracket and casting.

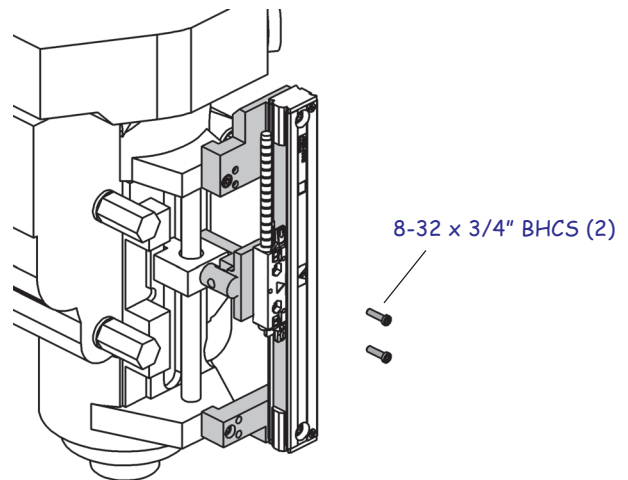
- Attach the assembly.
- Align the scale case front surface to within .010" TIR of the axis travel.

- Secure assembly in place maintaining both alignments. Snug up the 4 set screws.

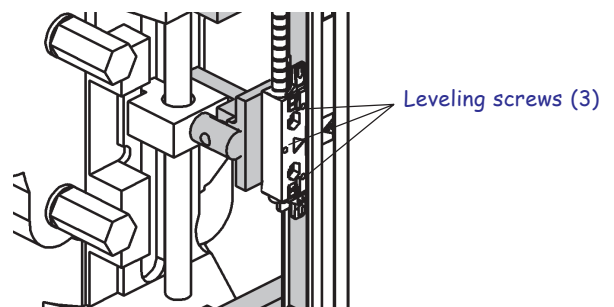
## Reading head installation ...



- A gap of .03" - .18" will exist between the reading head and the mounting bracket.

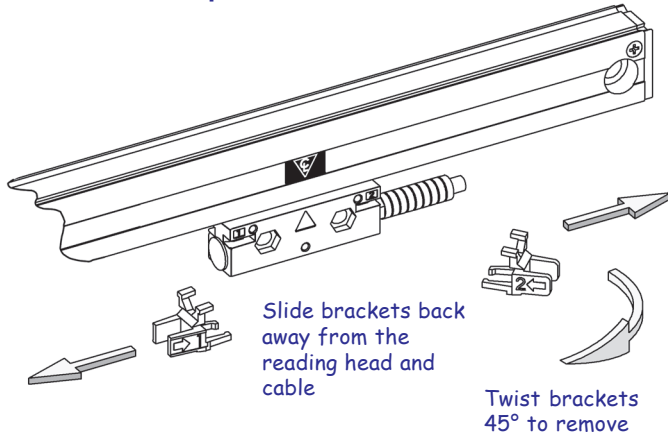


- Align the bracket with the reading head mounting holes, and lock quill in place.
- Attach the reading head to the bracket. Do not tighten.

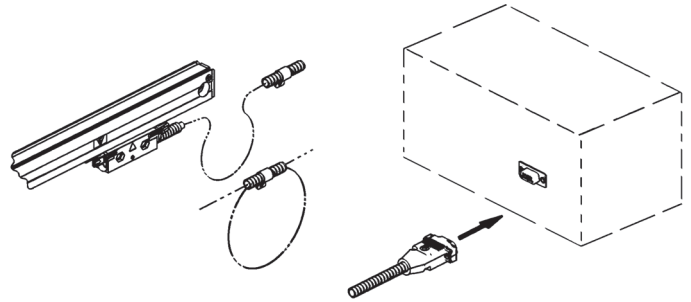


- Set each leveling set screw by placing a .001"-.003" feeler gage between the set screw and the bracket.
- Adjust each set screw until a slight drag is felt on the feeler gage.
- **Evenly tighten** the two 8-32 x 5/8" SHCS.

## 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 other axis installation(s) 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".