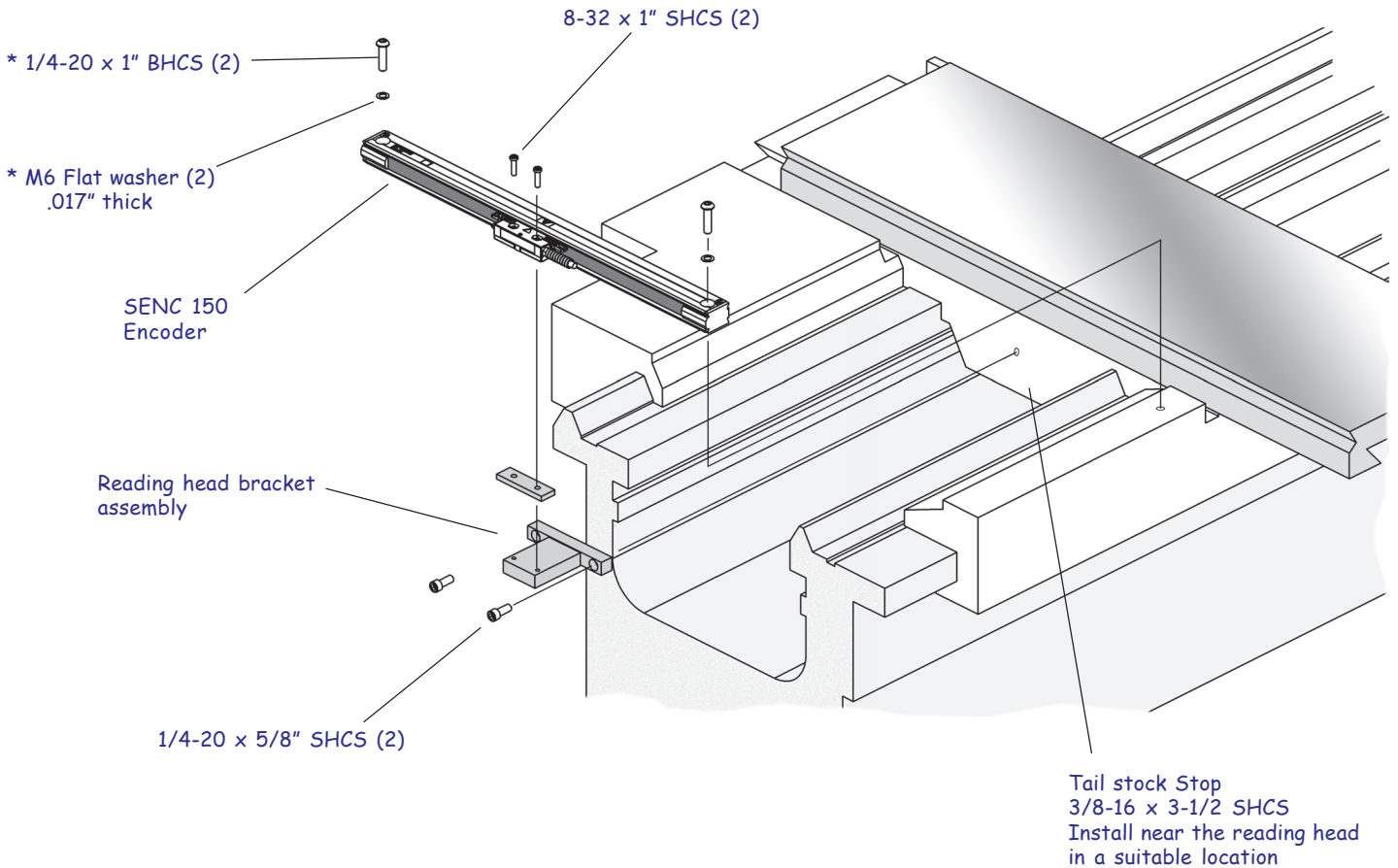


## Longitudinal Installation ...

\* Supplied with encoder hardware



## Mounting Information...

These are application instructions for mounting the Cross feed "X" axis SENC 150 encoder.

### Before proceeding:

- Please read the instructions completely.
- Mount Z axis prior to installing the cross feed.
- 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 ...

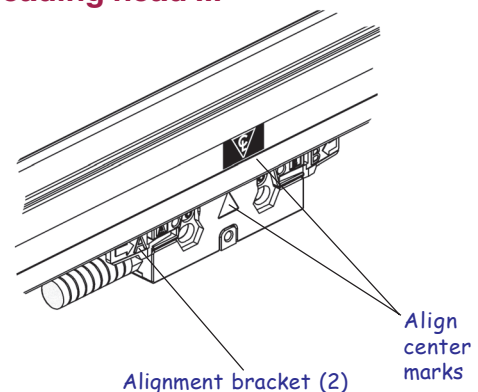
### Machine

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

### Encoder

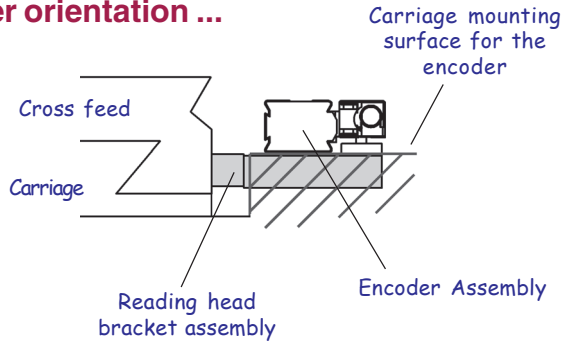
- ✓ Unpack encoder in a safe, convenient location.
- ✓ Do not remove the reading head alignment brackets until instructed.

## Center reading head ...



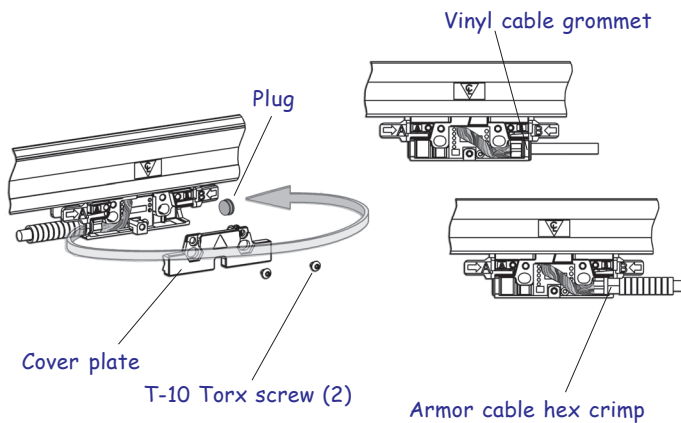
- Slide the reading head and brackets along the scale case until the center marks on the scale case and reading head are aligned.

### Encoder orientation ...



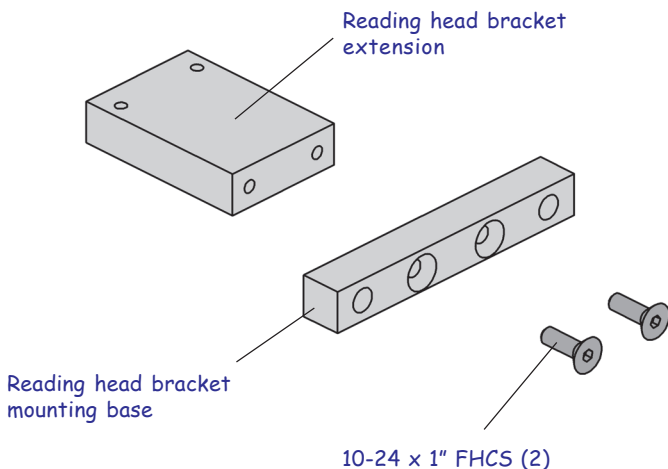
- These instructions will guide you through installing the encoder as shown in this view.

### Cable exit ...



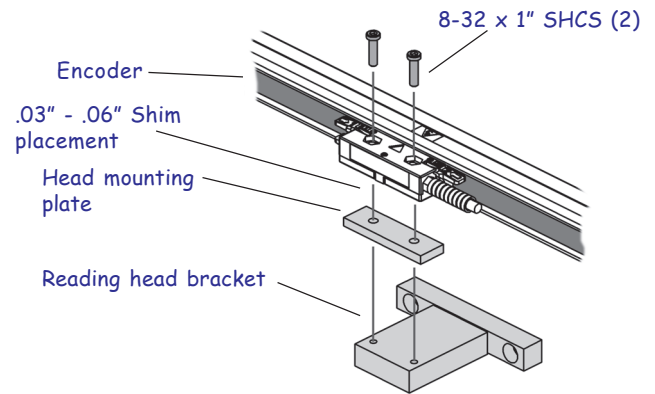
- Determine the cable exit direction before installing the encoder.
- To change the cable exit direction; remove the cover plate and rotate the cable 180°.

### Bracket assembly ...

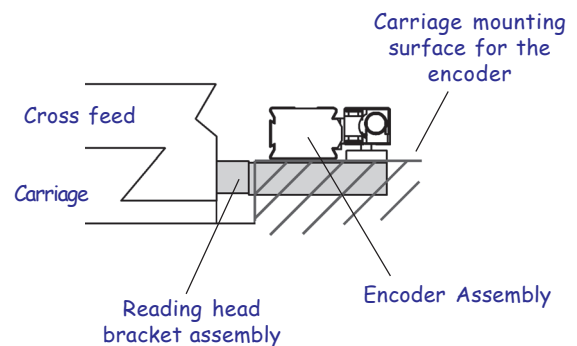


- Assemble the brackets together.

### Bracket installation ...

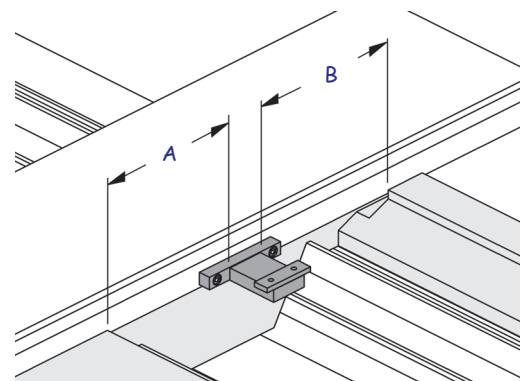


- Place a .03" - .06" shim between the mounting plate and the reading head.
- Temporarily attach the bracket assembly with the mounting plate to the encoder reading head.

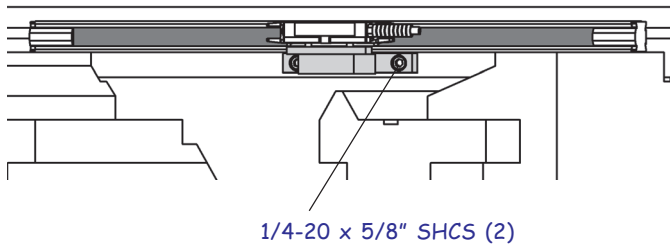


- With the cross feed at it's center of travel, place the reading head bracket against the cross feed and the encoder on top of the carriage.
- Transfer punch the reading head bracket mounting holes to the cross feed.
- Remove the assembly, drill and tap hole locations for a 1/4-20 x 1/2" deep.

A & B must be equal to 1/2 the cross feed travel at minimum

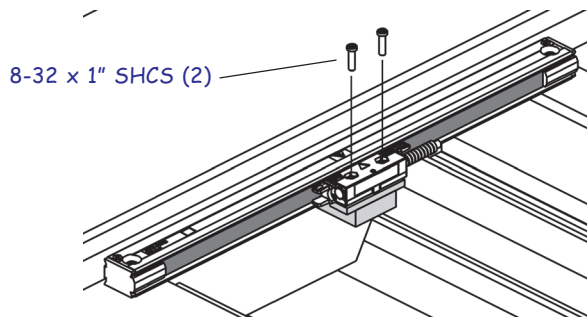


- Remove the reading head bracket from the encoder.

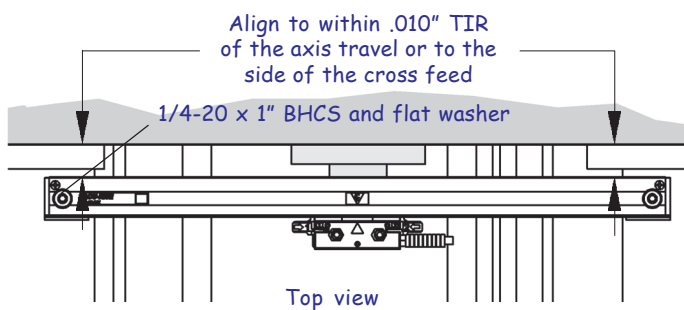


- Attach the reading head bracket to the cross feed and secure in place.
- The bracket must have clearance for the full travel of the cross feed. Modify bracket, or install travel hard stops if travel is limited due to the bracket.

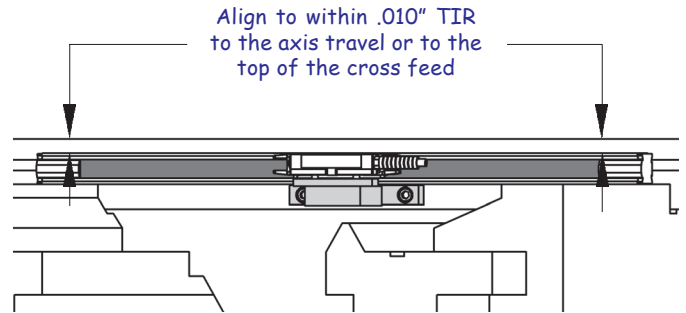
### Encoder installation ...



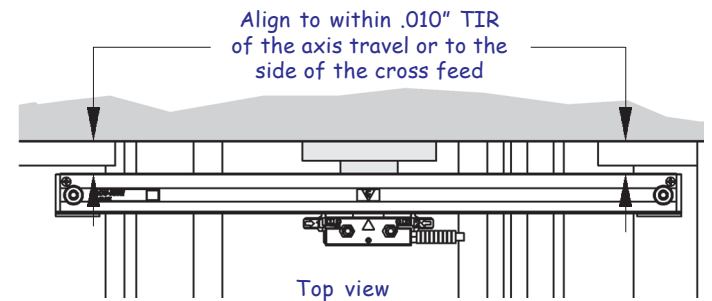
- Position the encoder on the carriage and attach the reading head to the bracket. Do not tighten these screws at this time.
- Position the scale case parallel with the cross feed and transfer punch one scale case end mounting hole location to the carriage.
- Remove the encoder from the carriage, drill and tap the hole location for a 1/4-20 x 1/2" deep.



- Attach the encoder to the carriage, and align the top of the encoder to within .010" TIR.
- Transfer punch the other end mounting hole location to the carriage.
- Remove the encoder from the carriage, drill and tap the hole location for a 1/4-20 x 1/2" deep.

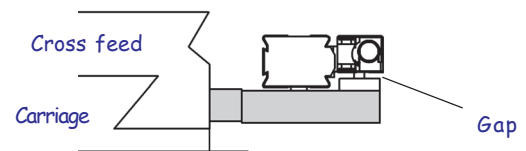
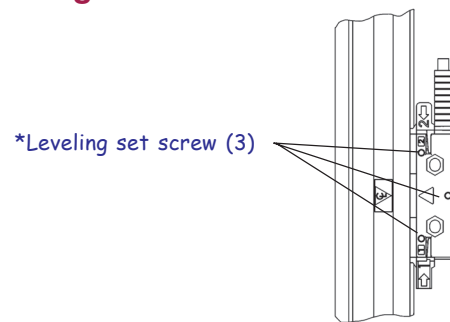


- Attach the encoder to the carriage, and align the front surface to within .010" TIR. If necessary, shim between end caps and carriage surface.



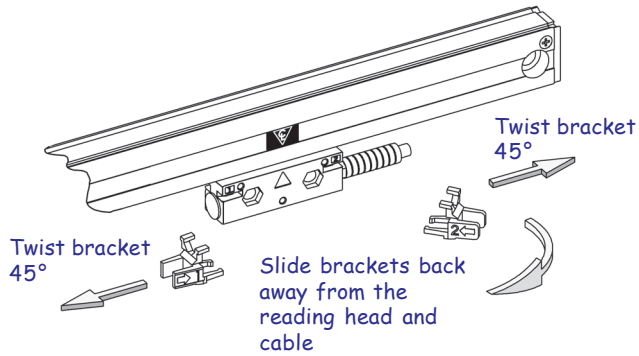
- Align the top of the encoder to within .010" TIR. and secure in place.

### Reading head installation ...

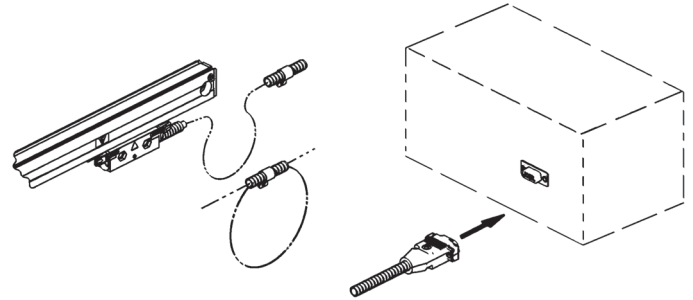


- A gap will exist between the reading head and the bracket.
- Insert the two 8-32 x 1" SHCS. **Do Not Tighten Screws** at this time.
- Set each leveling set screw by placing a .001" - .003" feeler gage between the set screw and the bracket.
- Adjust each set screw until a slight drag is felt on the 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 for possible future use.
- Move the axis through its full travel. Confirm that the assembly does not interfere with the machine movement.



- With both axis installations 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".