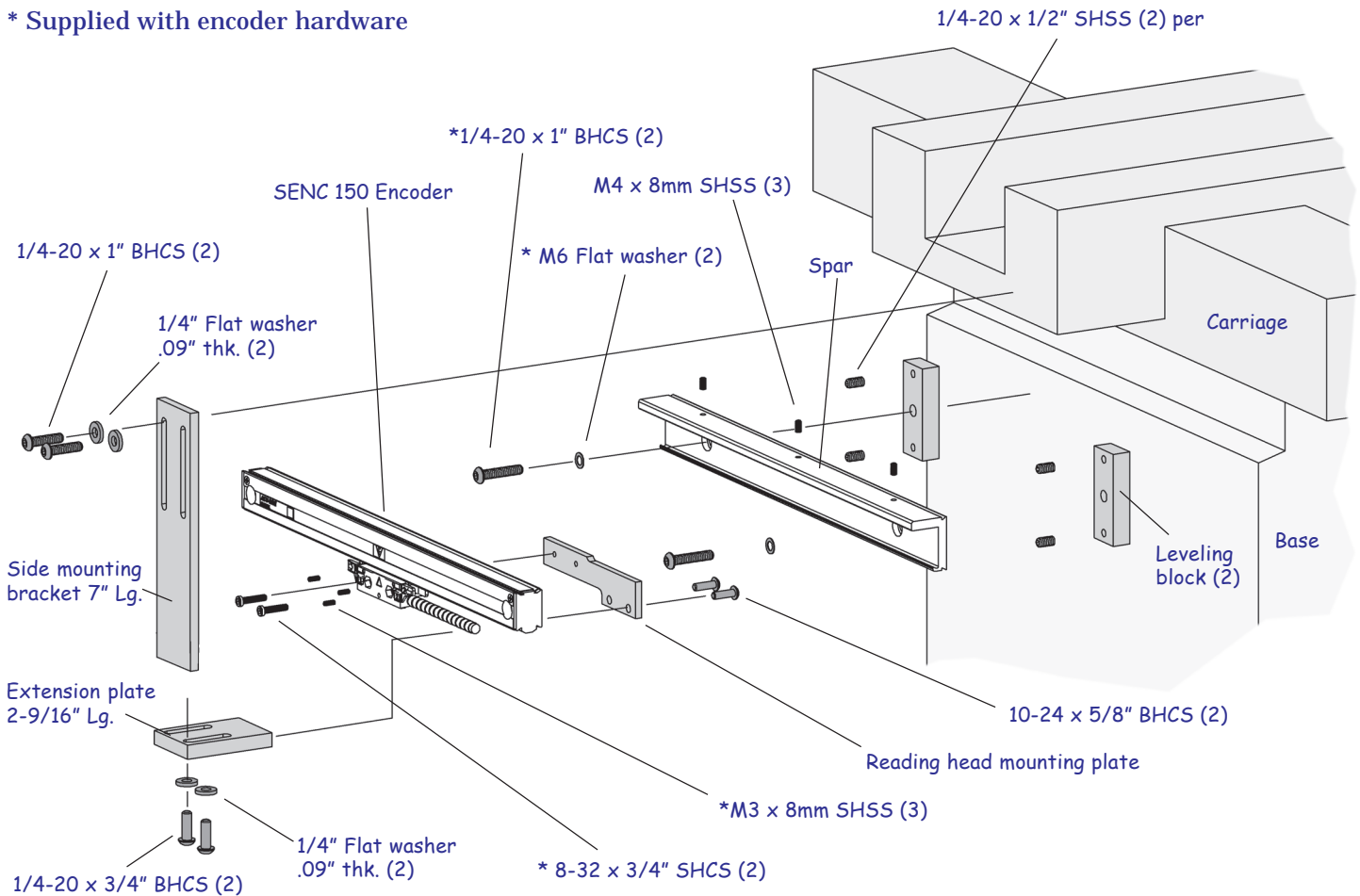


Cross Feed Installation ...

* 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.
- Insure that the correct length encoder is being used for the total 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 ...

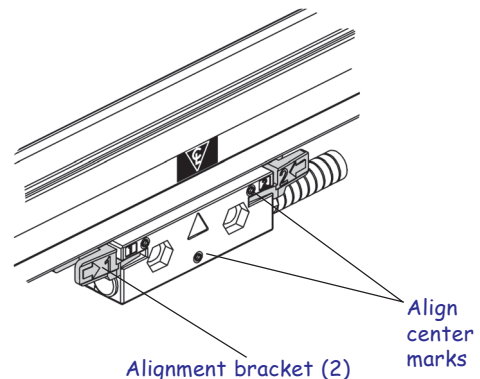
Machine

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

Encoder

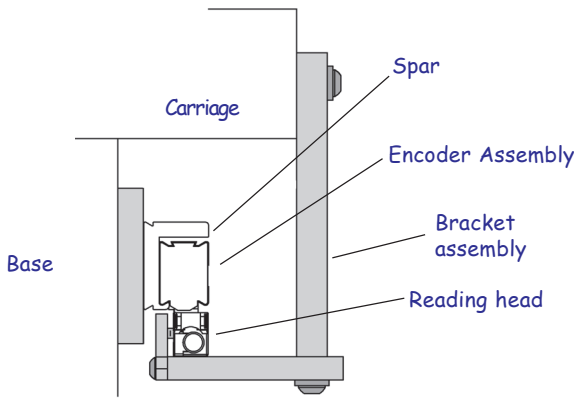
- ✓ Unpack encoder in a safe, convenient location.
- ✓ Do not remove the reading head alignment brackets until instructed.

Center reading head ...



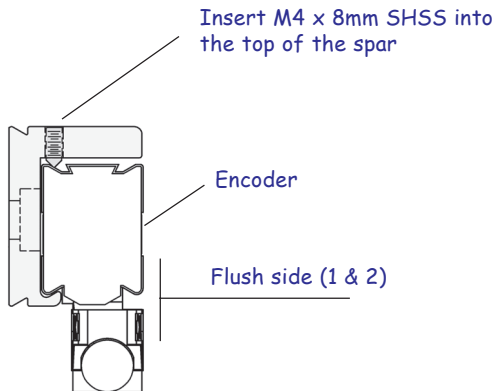
- Slide the reading head and brackets along the scale case until the center marks on the scale case and reading head are aligned.

Encoder orientation ...



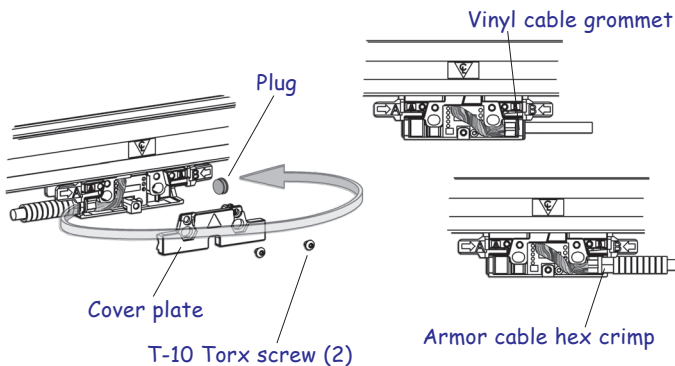
- These instructions will guide you through installing the encoder as shown in this view.

Encoder/Spar assembly ...



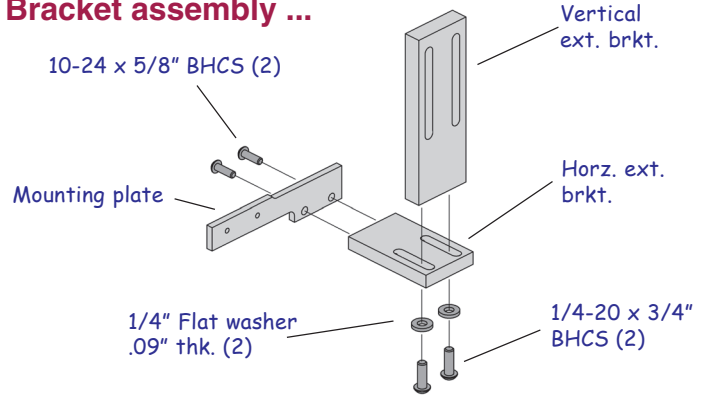
- Insert the encoder into the spar as shown, and center from end to end. Tighten the center set screw only.

Cable exit ...

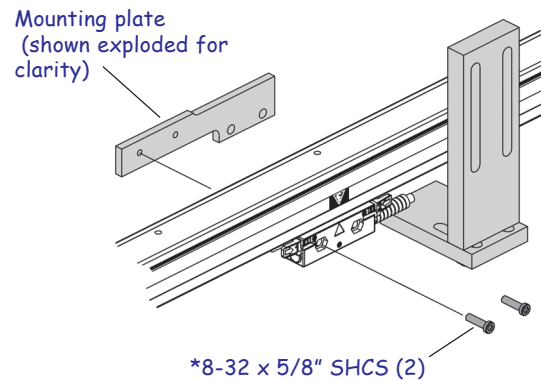


- Determine the cable exit direction before installing the encoder.
- To change the cable exit direction; remove the cover plate and rotate the cable 180°.

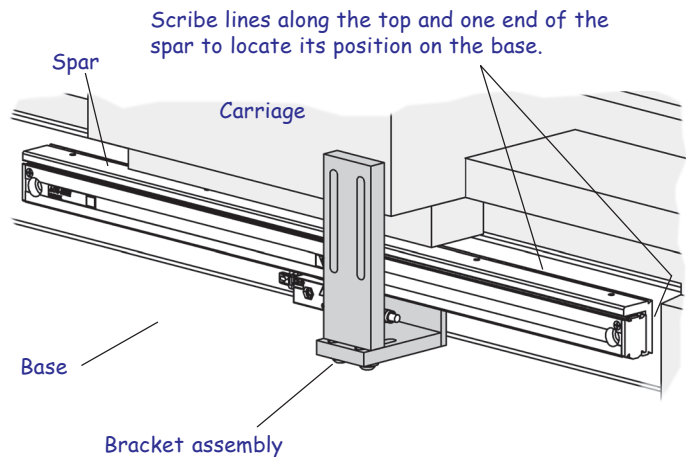
Bracket assembly ...



- Assemble the brackets, fully extending the horizontal extension plate.

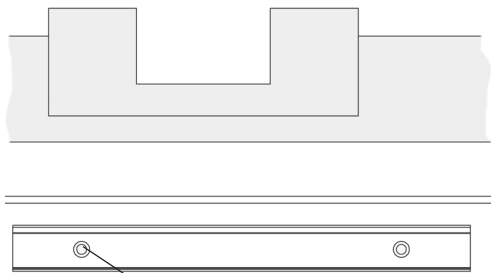


- Temporarily attach the bracket assembly to the reading head.



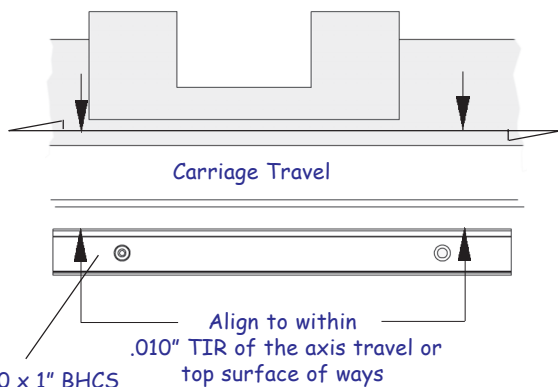
- With the carriage at its center of travel, position the spar on the base, and the bracket assembly to the carriage.
- Locate the assembly so that a suitable mounting position is provided for both the encoder w/spar to the base, and the bracket assembly to the carriage.
- With the spar parallel to the top of the base, scribe spar location reference lines on the base. Remove the assembly.

Spar installation ...



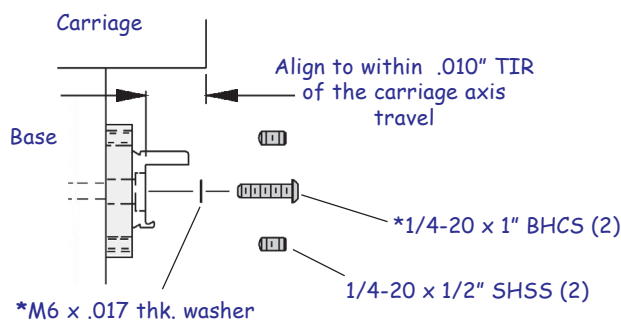
Mark one end hole location

- Remove the bracket assembly from the reading head, and the encoder from the spar.
- Position the spar to the scribed lines and mark one end mounting hole location to the base.
- Drill and tap location for a 1/4-20 x 1/2" deep.

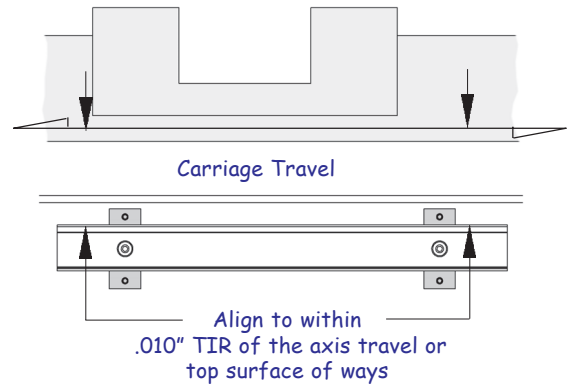


*1/4-20 x 1" BHCS

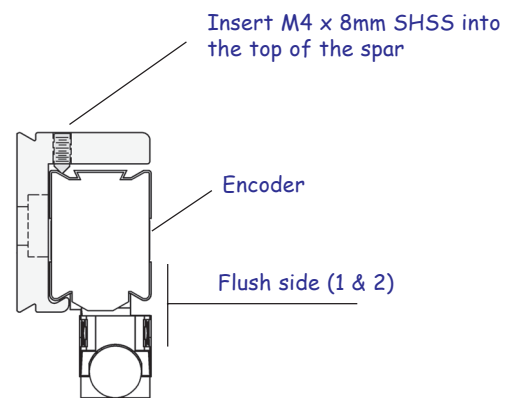
- Temporarily fasten the spar to the base at one end.
- Align the top of the spar to the carriage travel.
- Transfer punch the second mounting hole.
- Remove the spar, drill and tap location for a 1/4-20 x 1/2" deep.



- Attach the spar to the base.
- Align the front surface of the spar.
- Adjust leveling screws for front surface alignment as required.

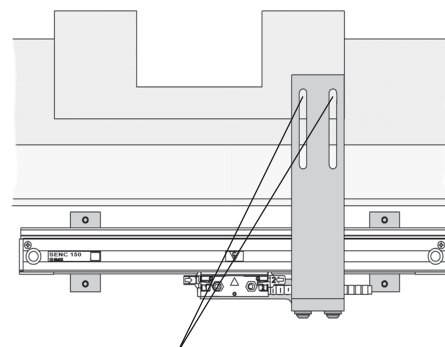


- Align the top surface of the spar and secure in place.



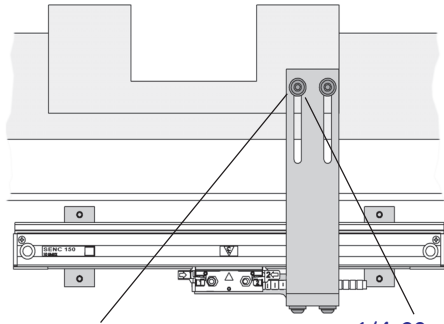
- Insert the encoder into the spar as shown, and center from end to end. Tighten the center set screw only.

Reading head installation ...



Transfer punch mounting slot locations to the end of the carriage

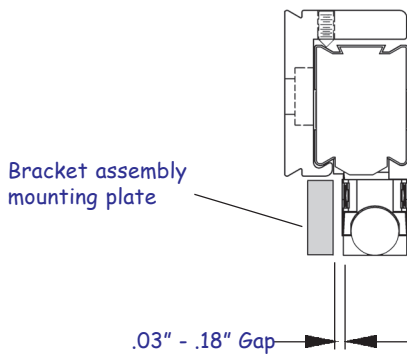
- With the axis at the center of travel, attach the bracket assembly to the reading head.
- Position the assembly to the carriage, and transfer punch the two mounting slot locations.
- Remove the assembly from the reading head, drill and tap the locations for 1/4-20 x 1/2" deep.



1/4" Flat washer x .09" thk. (2)

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

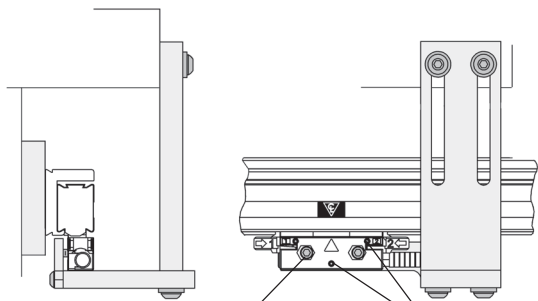
- Loosely attach the bracket assembly to the carriage.



Bracket assembly mounting plate

.03" - .18" Gap

- Adjust the mounting plate clearance so that a gap of .03" - .18" exist.
- Align the reading head mounting holes with the mounting plate tapped holes.
- Secure the bracket assembly in place.

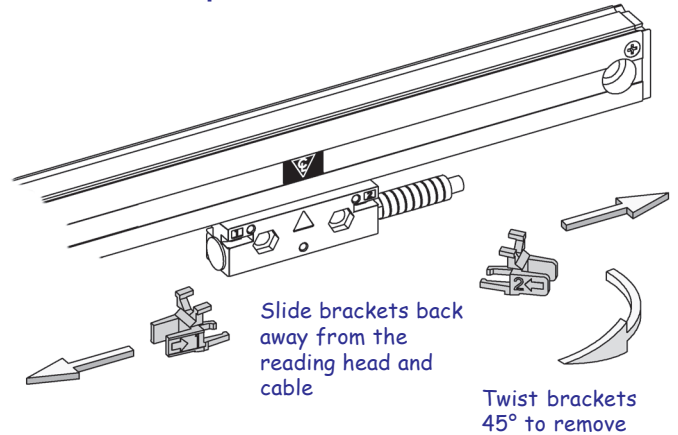


* 8-32 x 5/8" SHCS (2)

*Leveling set screw (3)

- Insert the two *8-32 x 5/8" SHCS. Insure the bracket assembly 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.

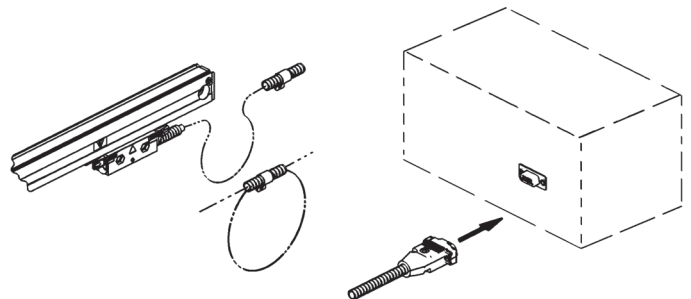
Encoder button up ...



Slide brackets back away from the reading head and cable

Twist brackets 45° to remove

- 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 down feed axis installation complete (if used), 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".