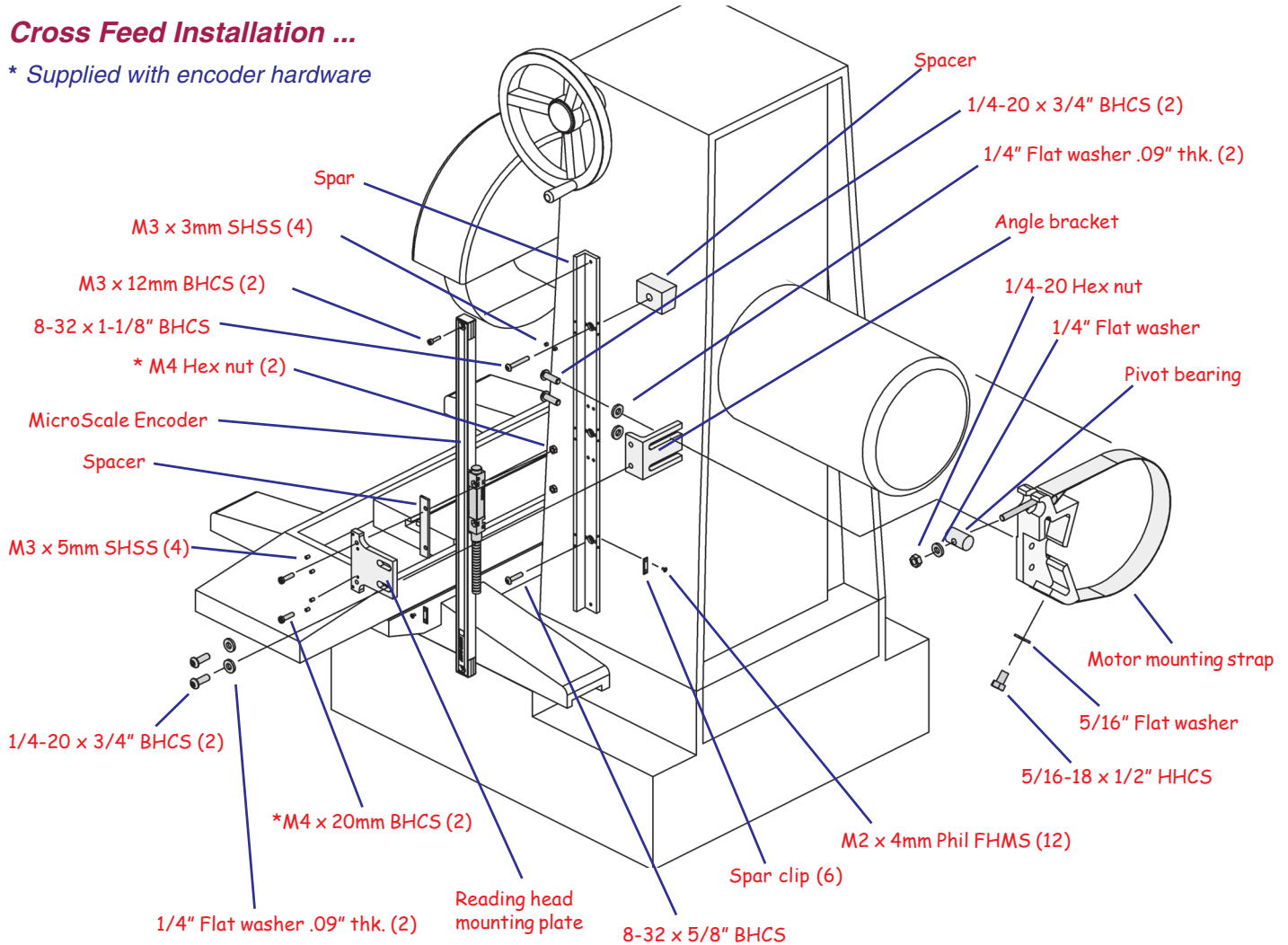


Cross Feed Installation ...

* Supplied with encoder hardware



These are instructions for installing the MicroScale encoder. Also refer to the motor mounting strap instructions (385039-10001) included.

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 the installation.
- Clean all mounting surfaces.
- Save the shipping brackets with the Encoder Reference Manual after the installation is completed.

First Steps ...

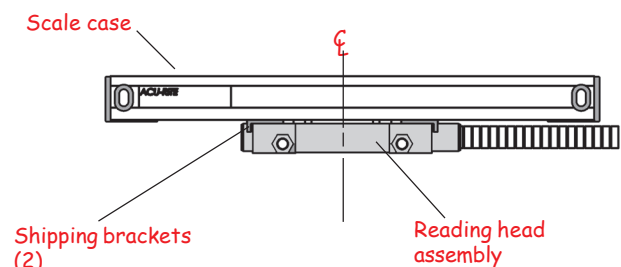
Machine

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

Encoder

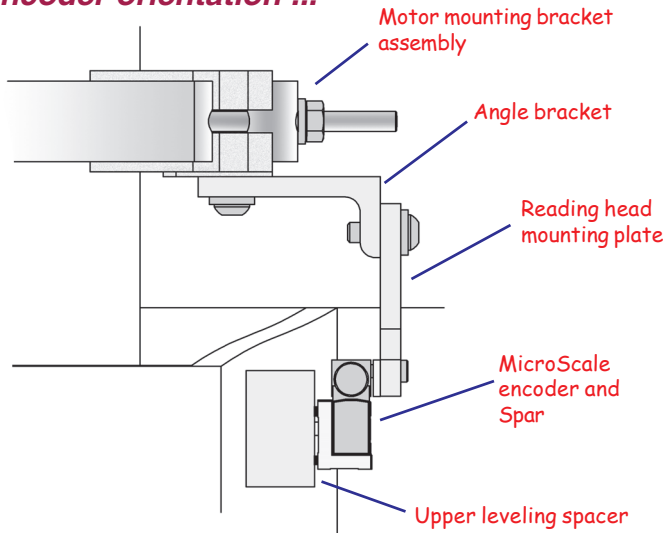
- ✓ Unpack encoder in a safe, convenient location.
- ✓ Do not remove the reading head shipping brackets until instructed.

Center reading head ...



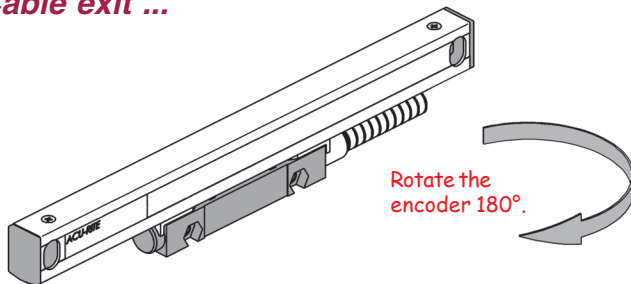
- Center the reading head on the scale case by sliding the head and shipping brackets together along the scale case.
- Insure shipping brackets stay fully engaged.

Encoder orientation ...



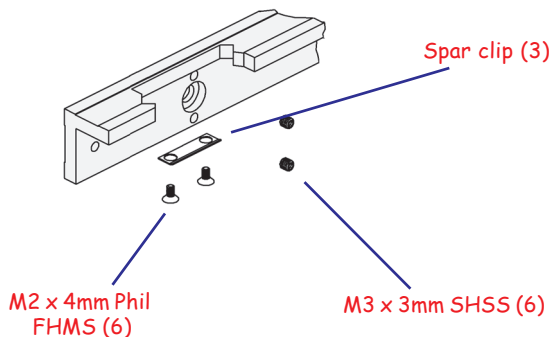
- These instructions will guide you through installing the encoder as shown, viewed from the top of the column.

Cable exit ...



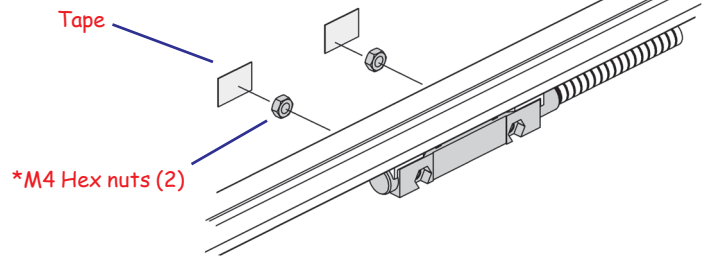
- Determine the cable exit direction before installing the encoder.
- To change the cable exit direction, rotate the encoder 180°. Encoder can be mounted from either side.

Spar clips - Lower ...



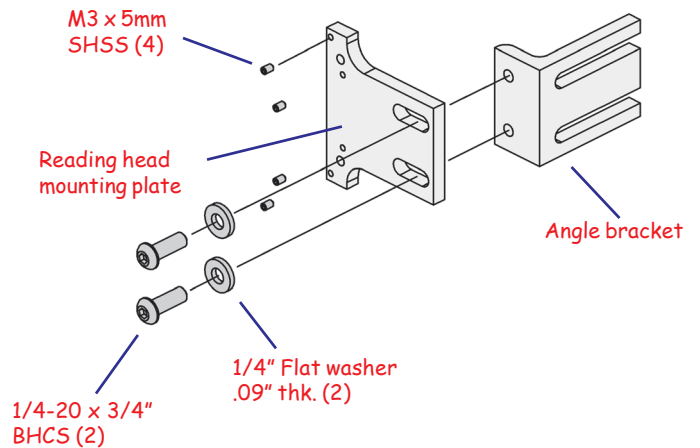
- Install two M3 x 3mm SHSS at each end mounting hole location, and set flush with the back surface of the spar.
- Attach the spar clips (3) to the lower leg of the spar only.

Attach hex nuts ...



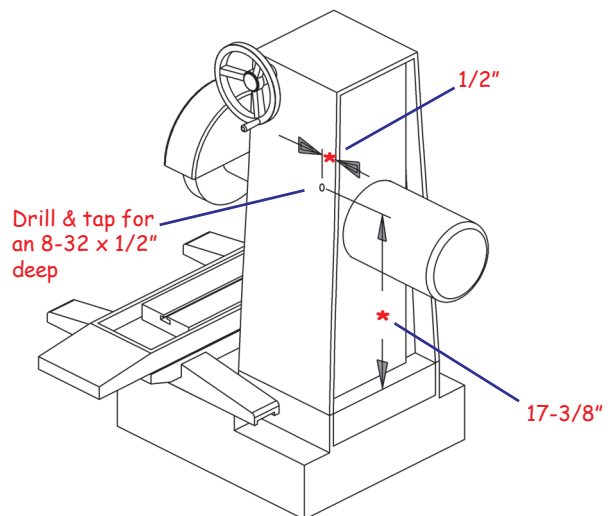
- Insert the two hex nuts into the retaining sockets in the back side of the reading head.
- Use masking tape to hold the hex nuts in place.

Bracket Assembly ...

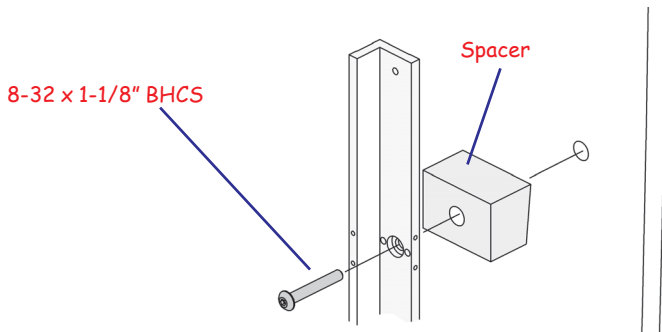


- Insert the four leveling screws into the reading head plate, and set flush to the back side.
- Assemble the brackets together.

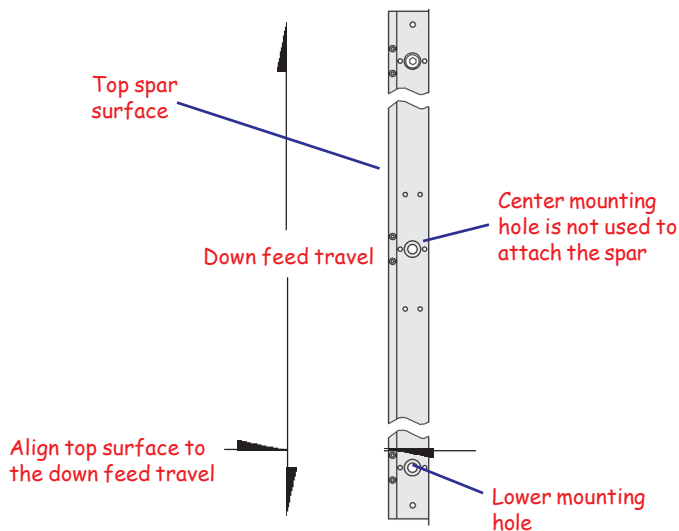
Spar installation ...



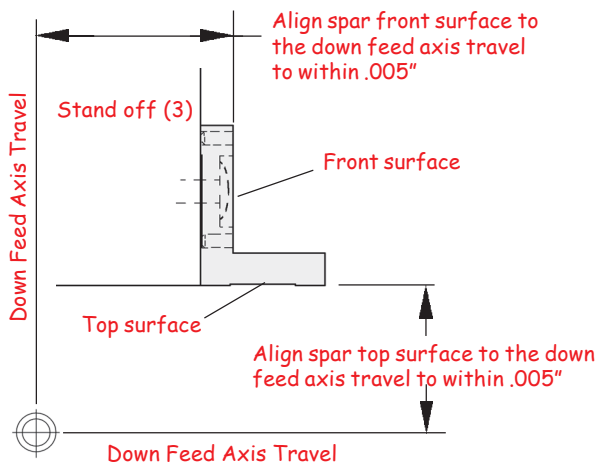
- Drill the upper mounting hole as shown.



- Temporarily fasten the spar and the spacer to the column but do not tighten.



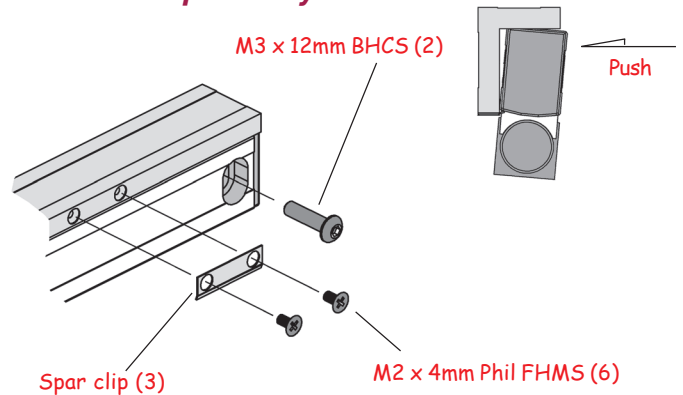
- Align the top surface of the spar to within .005" TIR of the spindle down feed travel.
- Transfer punch the lower mounting hole and remove the spar from its location.
- Drill and tap hole location for an 8-32 x 1/2" deep.



- Attach the spar to the column.

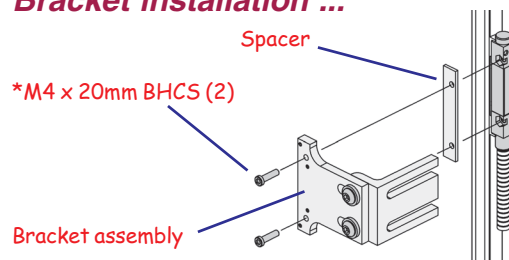
- Align the front surface of the spar to the down feed travel to within .005" TIR. Use the M3 spar set screws to aid with this alignment as required.
- Align the top surface of the spar to within .005" TIR also to the down feed travel. Secure spar in place maintaining both alignments.

Encoder / Spar Assy ...

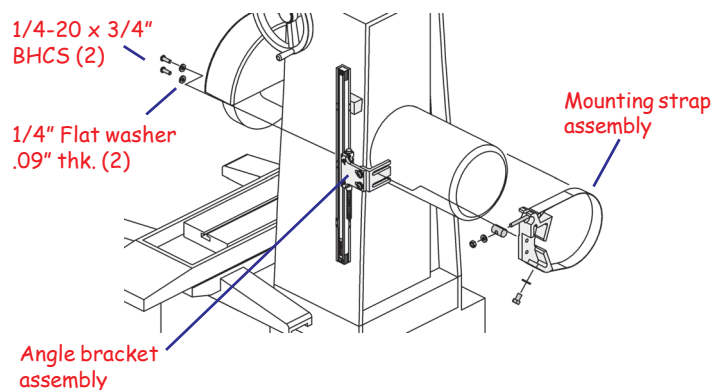


- Place the lower back edge of the scale case onto the bottom spar clips. Push on the front upper edge of the encoder to seat the scale case in the spar.
- Attach the front spar clips and secure in place.
- Attach one end of the scale case to the spar with the M3 x 12mm BHCS.

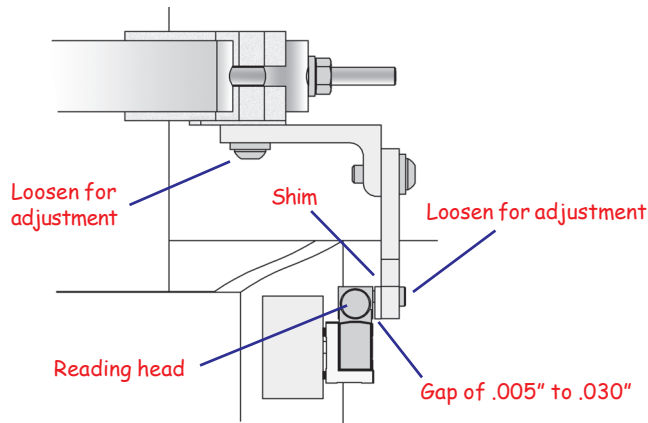
Bracket installation ...



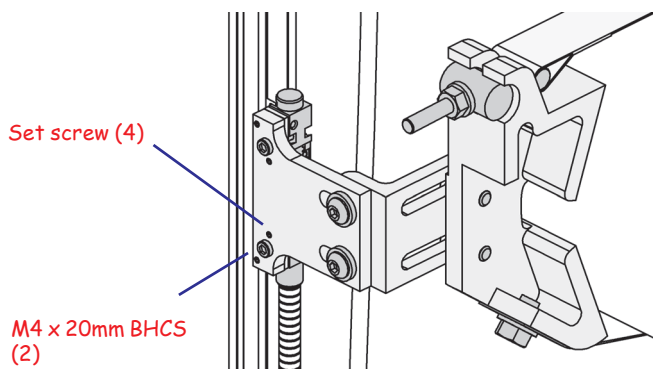
- Attach the bracket assembly and spacer to the reading head.



- Assemble the mounting strap and attach it to the motor.
- Align the bracket holes with the angle mounting slots, and secure all components in place.

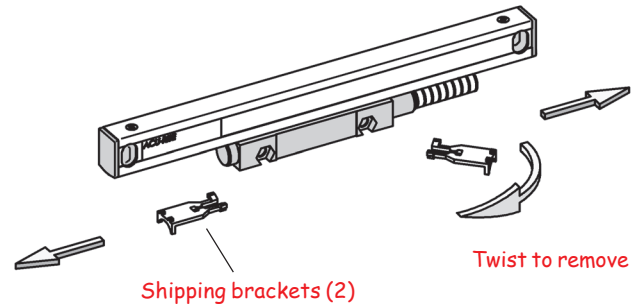


- Loosen fasteners as shown and adjust the reading head bracket assembly so that a gap of .005" to .030" exist between the assembly and the reading head with the spacer in place.
- Secure all brackets in place maintaining gap.

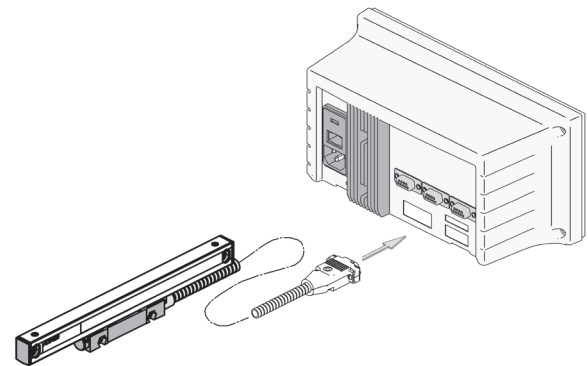


- Set each leveling set screw by placing a .0015" -.003" feeler gage between the set screw and the spacer.
- Adjust each set screw until a slight drag is felt on the feeler gage.
- **Evenly tighten** the two M4 BHCS.

Encoder button up ...



- Slide the shipping brackets away from the reading head and twist to remove from the scale case. Save brackets with the reference manual.
- Move the axis through its full travel. Confirm that the assembly does not interfere with the machine movement.



- Route the cables providing sufficient slack loops for machine movement to the readout.
- Secure cable 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".