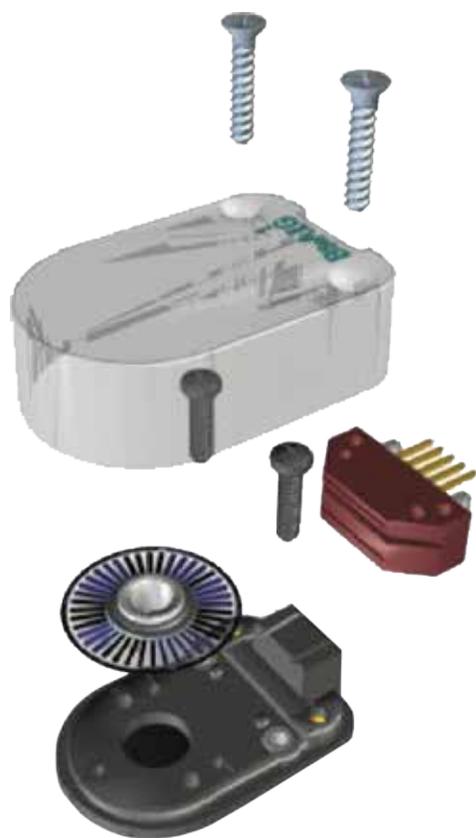


TigerStop Encoder

Installation Guide



February 2017 Mk1

Safety First!

IMPORTANT SAFETY INFORMATION. READ ALL WARNINGS BEFORE OPERATING THIS PRODUCT.



GENERAL WARNINGS

WARNING: Installation of your TigerStop Product must be done by a person trained in the safe design and installation of automation products, and in the safe operation of power equipment. Ensure that such installation meets all legally required safety requirements and guidelines, and that proper guarding and safety devices are provided on all sides of the equipment to preclude unintended access during operation. Consult with and follow the recommendations of a qualified safety engineer.

WARNING: TigerStop Products are components intended for use in conjunction with potentially dangerous machinery. The use of TigerStop Products does not make other machinery safe. TigerStop Products are not intended to substitute, in any manner, for safe operating practices in general, or for safety features present in other machines designed to make those machines as safe as possible. **TIGERSTOP PRODUCTS, IF USED OR INSTALLED IMPROPERLY, MAY CAUSE PERSONAL INJURY OR DEATH AND SHOULD ONLY BE OPERATED BY PERSONS TRAINED IN THEIR SAFE OPERATING PROCEDURES.** Illustrations of TigerStop Products in use do not show, and are not intended to show, all safety features and practices necessary for their safe operation.



INSTALLATION WARNINGS

WARNING: TigerStop Products must be installed in accordance with all local, state, and federal regulations. Only personnel properly trained in the safe design and installation of automation machinery and related power equipment should install TigerStop Products onto other equipment, to ensure a safe and proper work station. TigerStop Products should not be operated without proper training, both in the operation of TigerStop Products, and in the operation of related equipment.

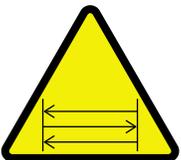
IMPORTANT CAUTION:

The motor box (compartment) contains DC voltage with potentially FATAL amperage. NEVER attempt any unauthorized actions inside the motor box.



INTERCONNECTS

WARNING: Using a TigerStop interconnect does not relieve you of the responsibility for making sure that your saw or other tool has all the necessary safety equipment in place. All installations must meet all legally required safety requirements and guidelines. Installation and training should be done following the recommendations of a qualified safety engineer.



OPERATION

DANGER: This machine can start, move and stop automatically. Keep hands and loose clothing clear of moving parts while operating. Moving parts can crush and cut. When used with a saw or other cutting equipment, bodily injury and death may result if operated without safety guards on all machines. Do not operate with guards removed. Operators must wear adequate eye and ear protection.

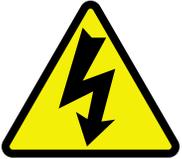


DANGER! Don't get pinched by the push feeder. Keep your hands away when in motion!

IMPORTANT SAFETY INFORMATION. READ ALL WARNINGS BEFORE OPERATING THIS PRODUCT.



Keep the work area clean and well lighted to avoid accidental injury.



Do not use TigerStop machines in a dangerous environment. Using power tools in damp or wet locations or in rain can cause shock or electrocution.



Do not operate near flammable liquids or in gaseous or explosive atmospheres!



Wear proper apparel, no loose clothes, long hair or jewelry which could get pulled into moving machinery or materials.
Wear non slip footwear, safety glasses, ear protection and a dust mask.



Use only 3- wire extension cords that have 3-prong grounding type plugs and 3-pole receptacles that accept the tools plug for 120VAC. Use only 5-wire cords and plugs when using 3 phase.



Do not open motor compartment or controller keypad. DC Voltage with potentially FATAL amperage!
Disconnect power before servicing. No user-serviceable parts inside.

DO NOT operate this or any machine under the influence of drugs or alcohol!



No one should operate this machine except for fully qualified personnel.
Read the manual!

Encoder Replacement

Remove Existing Encoder

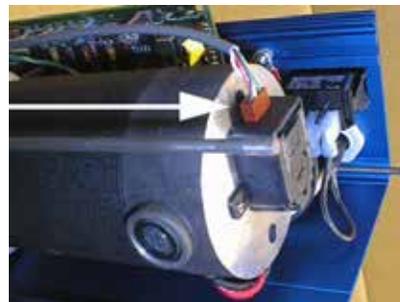
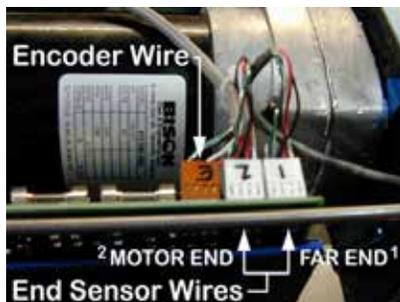
TigerStop has used two types of encoders. Check the motor specification plate on your motor to see which manufacturer you have. Electrocraft motors have a slightly different encoder than Bison motors. Each encoder will be removed in a different fashion.

Electrocraft Motor

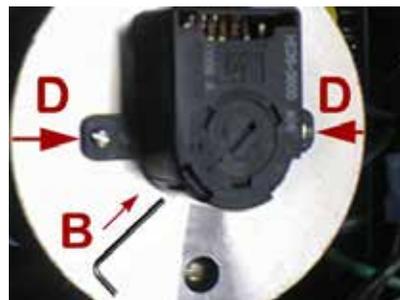
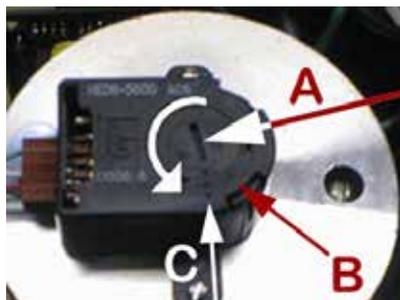
1. Power down TigerStop and unplug it from the wall.
2. Remove the acorn nuts on the back of the TigerStop motor box and remove the end plate.
3. Slide off the motor box cover.



4. Unplug the motor end sensor, far end sensor and the encoder cable from the amplifier circuit board.
5. Unplug the opposite end of the encoder cable from the encoder assembly on the back of the motor.

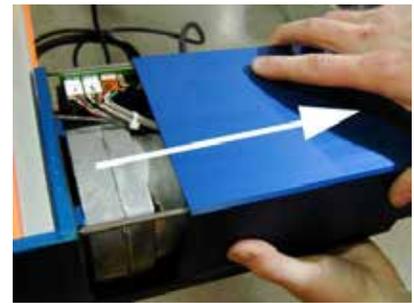


6. Insert a screw driver into the slot marked A. The slot will be pointing to the double dots marked C. Turn the screw driver so that the slot is pointing to the single dot marked B. This will open a small window on the side of the encoder assembly.
7. Slide a hex wrench through the encoder window and loosen the set screw that holds the encoder wheel to the motor shaft.
8. Remove the encoder base screws, marked D.
9. Pull the encoder assembly off of the motor.

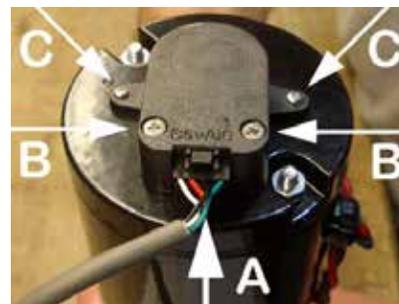
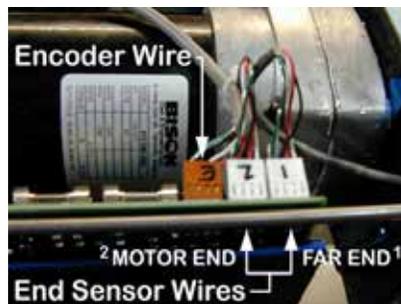


Bison Motor

1. Power down TigerStop and unplug it from the wall.
2. Remove the acorn nuts on the back of the TigerStop motor box and remove the end plate.
3. Slide off the motor box cover.



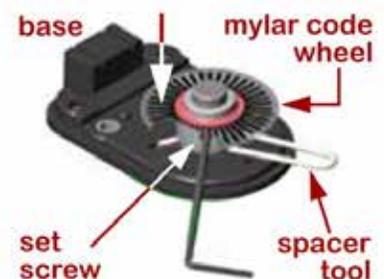
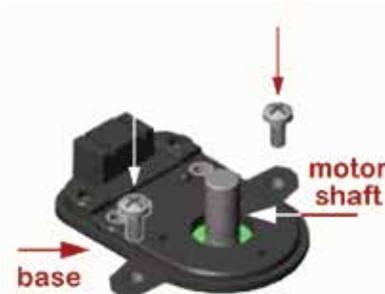
4. Unplug the motor end sensor, far end sensor and the encoder cable from the amplifier circuit board.
5. Unplug the opposite end of the encoder cable (marked A) from the back of the motor.
6. Remove the encoder case screws, marked B.
7. Remove the encoder cover and use the hex wrench to remove the encoder wheel from the motor shaft.
8. Take out the encoder base screws, marked C, and remove the encoder base from the back of the motor.



Install the New Encoder

The new encoder comes in a sealed pack that includes all the tools you will need to install it onto the back of the motor.

1. Remove the encoder assembly from the sealed pack. Handle this assembly with care!
2. Remove the cover from the assembly and take out the encoder wheel found inside. Discard the protective foam.
3. Attach the encoder base to the back of the motor.
4. Using the spacer tool as shown below, place the encoder wheel onto the motor shaft.
5. Tighten the set screw to secure it to the motor shaft.

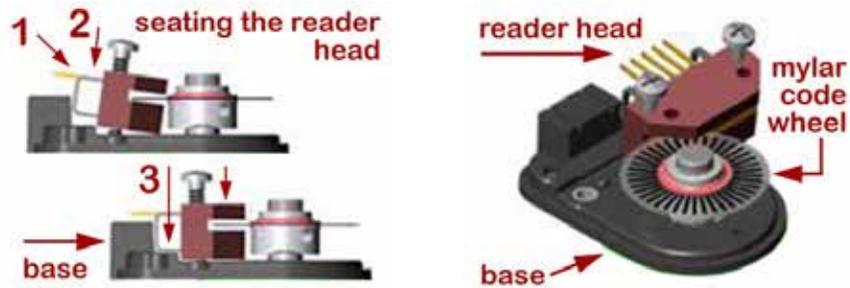


6. Seat the encoder reader head onto the encoder base. The encoder wheel will fit in between the reader head. Ensure that the encoder wheel doesn't touch the sides of the reader head.

Note: You may have to loosen and adjust the position of the encoder wheel on the motor shaft.

7. Use the supplied screws to secure the read head in position.

Note: Do NOT over tighten the read head screws.



8. Attach the encoder cover.

9. Reconnect the encoder to the amplifier circuit board using the supplied encoder cable.

10. Reconnect the end sensors and carefully close the TigerStop motor box.

11. Reattach the motor box end plate.

WARNING! NEVER power up the TigerStop with the motor box open!

12. TigerStop is now ready to be plugged back into power and turned ON.

