

Troubleshooting the Club Control Encoder

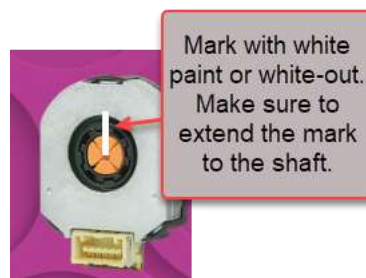
Support Document

If the Club Position is steadily decreasing after every impact with the club, this indicates a problem with the encoder feedback in the club control. The nominal value when the club is at the home position is 512; the club position should never be less than 500. If the encoder slips on the shaft that drives when the club impacts back (much faster speed), then it will accumulate “extra” counts when it returns. In other words, it subtracts more counts on the return than it added when it was knocked back.

First, it's best to do a simple check: look for loose wires in the control enclosure at the encoder connector. If there are any loose wires, the encoder will miss pulses and will lose position.

Next, we need to confirm whether or not the encoder is slipping doing a simple mechanical check.

The first step is to remove the club rotary actuator. Mounted to the back of the rotary actuator is an encoder that will look similar to what is pictured below. We need to mark the encoder using white-out or a white paint marker. Make sure to mark with a straight line entirely across the black surfaces, extending all the way and including the shaft. The slippage occurs on the interior, towards the shaft. If the mark doesn't cover the entire black surface, you may not capture the problem.



Re-assemble and run 100 shots, or until the machine stops because the Club Position has dropped too low. If the club position reads 475 counts or less, you have experienced the problem and we can now check.

Once again, remove the rotary actuator. Take a picture of the white mark and send to ADC.

If the white mark is no longer aligned, then the encoder is slipping on the shaft. This usually means that the encoder assembly is loose or not straight on the mounting shaft. See this assembly video for mounting instructions:

<https://youtu.be/JurNVkVQ7bc>

If the white mark is still aligned, then the problem is electrical. Possibilities include:

- A damaged cable connecting the encoder to the control panel/encoder card.
- Loose connection at the encoder card.
- If your machine contains a signal conditioner for the encoder, check the unit for loose connections.



- A defective encoder.

You will most-likely need to contact ADC to help resolve this issue.