

# Brake Rod Replacement (Rexon)



|               |                 |
|---------------|-----------------|
| Difficulty    | Difficult       |
| Steps         | 14              |
| Time Required | 20 - 30 minutes |

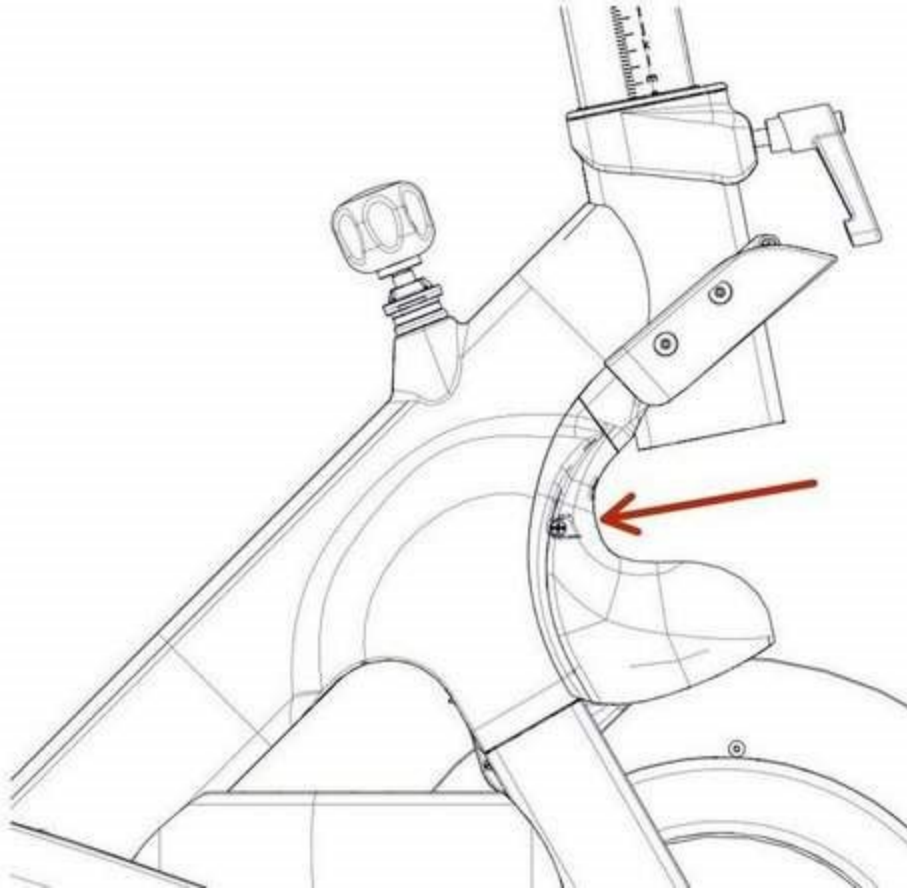
## Introduction

The video below shows an example of a bent brake rod that caused a sticky knob. If this is seen on a bike being refurbished, the part needs to be replaced.

## Tools

- Phillips head screwdriver
- 14 mm Combination Wrench
- 4 mm Allen Wrench
- 5 mm Allen Wrench
- Adjustable Wrench

## Step 1 - Remove the Front Protection Guard



- Remove according to replacement SOP to view the brake assembly and confirm damage shown in the video above.





## Step 2 - Disassembly of Surrounding Components



- Remove the front belt guard according to this SOP. Use care to remove the plastic rivet.



- Remove the outer belt guard and belt according to the replacement SOP.



- Remove the cadence sensor and safely tie off on the side according to SOP.
- Remove the flywheel according to SOP.

### **Step 3 - Disassembly of Brake Components**



1. Use a Phillips head screwdriver to remove the top set of screws on the black braces connecting to the brake magnet assembly.





- Remove the bushings and safely set aside. These can be reused



- If the black brace is bent, replace it

## **Step 4 - Disassembly of Brake Components (Cont.)**



- Remove the resistance sensor magnet from the horseshoe shaped bracket by removing two Phillips head screws.



- Hold magnetic brake assembly out of the way and spin the horseshoe clockwise until it comes off the brake rod.



- Remove black metal washer that rests on top of horseshoe.

## **Step 5 - Remove the Resistance Sensor**



- Turn resistance knob counter clockwise until the resistance sensor brace can be removed from the brake rod.



- Remove the resistance sensor from the brace by removing the two Phillips head screws.

## **Step 6 - Inspect the Brake Rod Assembly**



- Visually inspect the thin braces that hold the magnetic brake assembly to the "horse shoe"
- Turn the resistance knob while observing the horse show. Any movement will be a good indication that the rod is bent.





- These braces may be bent due to excessive torque exerted by the resistance knob. Deformation of these braces will cause increased friction from the horse shoe to the brake rod which causes irregularities while turning the knob.

## **Step 7 - Remove the Lock Nut**



- Hold the lock nut with the box end of a 15mm combination wrench and turn the resistance knob counter clockwise.



- Remove the Teflon washer.

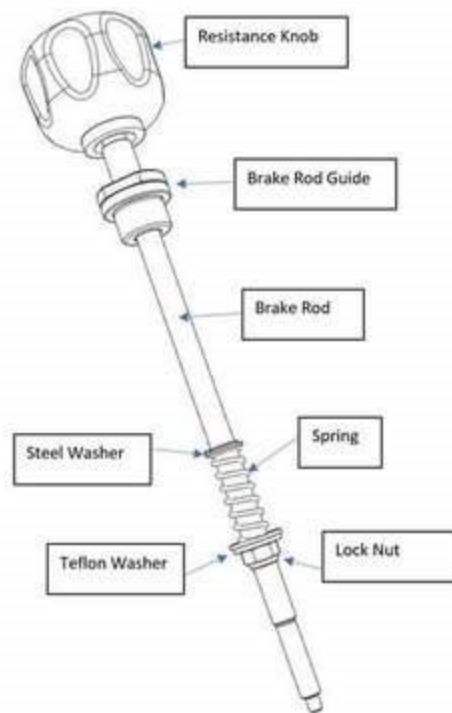
## **Step 8 - Remove the Brake Rod**



- Using an adjustable wrench, remove the brake rod guide by turning counter clockwise.



- Remove the brake rod.
- Note - pull the rod out at an angle to remove the spring from the frame. The spring must be removed before installing a new rod.



- The correct order of components on the brake rod is shown here.

## Step 9 - Install New Brake Rod



- Open the accessory bag that comes with the new brake rod.
- Place the silver washer followed by the spring on the brake rod.



- Grease all threads on new brake rod with Park Tool poly lube.
- Insert the brake rod into the bike frame and tighten the brake rod guide.

## **Step 10 - Install the Lock Nut**





- Lightly grease the Teflon washer with Park Tool poly lube and install on brake rod.



- Manually thread the lock nut onto the brake rod by spinning clockwise.



- Hold the lock nut with the box end of 15mm combination wrench and turn resistance knob clockwise until the lock nut is threaded all the way up on the brake rod.

## **Step 11- Install the Resistance Sensor**



- Install the resistance sensor onto the new resistance sensor brace using two Philips head screws.

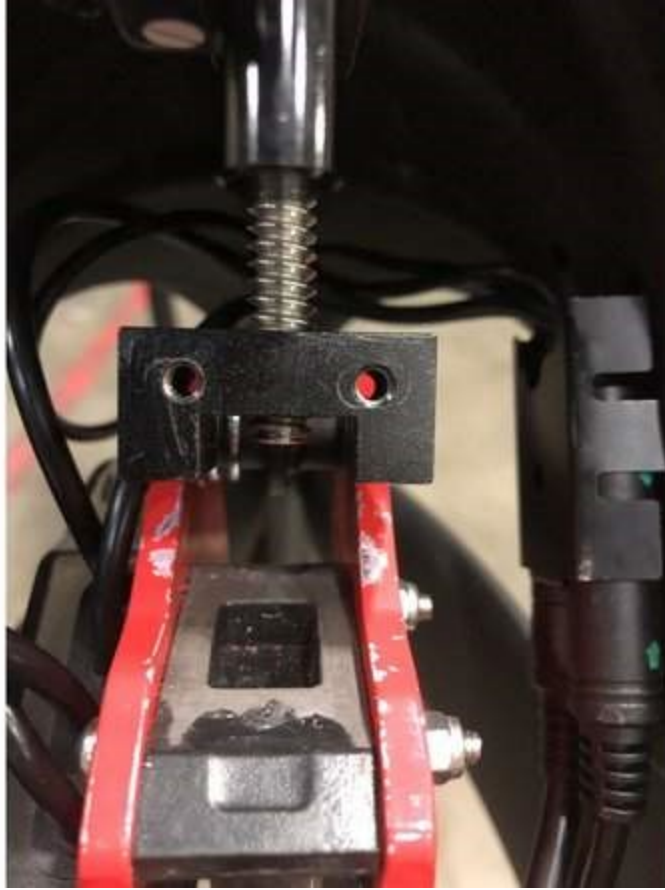


- Place the resistance sensor brace onto the brake rod and turn the brake rod clock wise until the sensor stops against the lock nut.



- Ensuring that the resistance sensor assembly is all the way up is critical to create correct spacing between the resistance sensor assembly and the horse shoe.

## **Step 12 - Install the Horse Shoe**



- Place the black washer onto brake rod.



- Install horse shoe assembly by spinning it counter clockwise onto the brake rod. Stop spinning once two threads are visible below the horse shoe assembly.





- Install the resistance sensor magnet onto the horse shoe.

### **Step 13 - Install the Horse Shoe (Cont.)**



- Attach black braces that join the horse shoe to the magnetic brake assembly.



- **Be sure to install the brass bushings between the black brace and the horse shoe.**

## **Step 14 - Calibration and Assembly**

- Before fully reassembling, calibrate the bike to check for any issues and ensure that the rod rotates smoothly.
- Install the flywheel, belt, outer belt guard, front belt guard and front protection guard to complete the replacement process.