



SmartPower upgrade kit for E-motion Roller

This upgrade kit is designed to replace the original resistance unit on model H rollers. It consists of a control module with speed sensor, a magnet attached to a servo motor and mounting arm with hardware. The original flywheel is retained and upgraded by applying a sensor ring to generate speed signals.



Fig1



Fig 2

The installation begins with disassembly of the original resistance unit and flywheel. Completely remove the bump roller by removing the screws at each end using the supplied thin wrench and hex key. To avoid stripping the hex socket, use the key to hold the bolt head while using the flat wrench to loosen the connection.(fig1)

Next remove two bolts which hold the old resistance unit to the frame and remove the assembly (fig2). The new SmartPower unit will bolt to the frame using the same holes as the old resistance unit.

Removing Flywheel

Disengage the spring tensioner from the belt to relax tension, then remove the bolt at the center of the flywheel along with the series of washers. Note the order in which the washers are assembled so they can be reinstalled in the proper order. Now roll the belt out of it's groove as the flywheel is pulled off the axle. There is a spacer or stack of washers behind the flywheel which should be left in place.

Once the flywheel is removed, apply the sensor ring to it as follows: Clean the flywheel with a mild solution such as glass cleaner. Rubbing alcohol may also be used. Carefully peel the adhesive backing from the sensor ring and place it on the flywheel at the base of the belt pulley as shown. Press it **FIRMLY** in place all the way around to ensure full contact. To reinstall the flywheel back onto the rollers, slide the flywheel back onto the shaft and roll the belt into the pulley as the flywheel is pushed into it's final position. Install the washers and screw. Re-engage the tensioner. See photo at bottom of this document for proper belt routing over the tensioner.



Flywheel and sensor ring



Installed sensor ring

The frame is now ready to receive the new unit (fig3). New SmartPower assembly (fig4)



Fig3

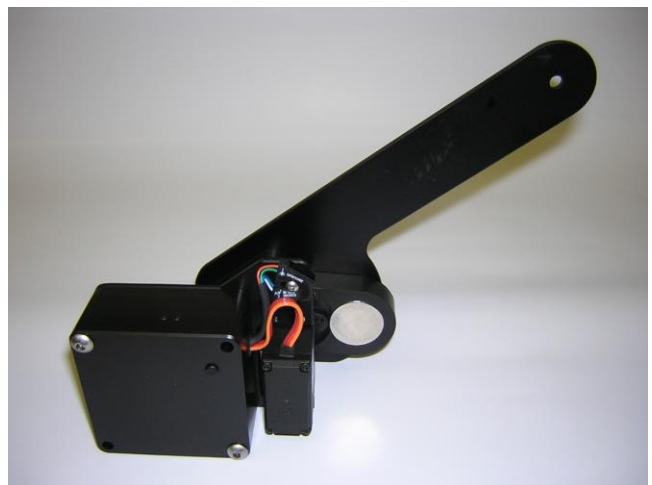


Fig 4

To install the new unit, temporarily remove the plastic cover to gain access to the mounting holes shown in red.(fig5) Install two bolts thru the plate as shown in (fig6), do not remove or loosen the bolt with the yellow mark. The assembly is then attached to the roller frame. After tightening the mounting bolts, replace the cover and secure it with the other 4 bolts

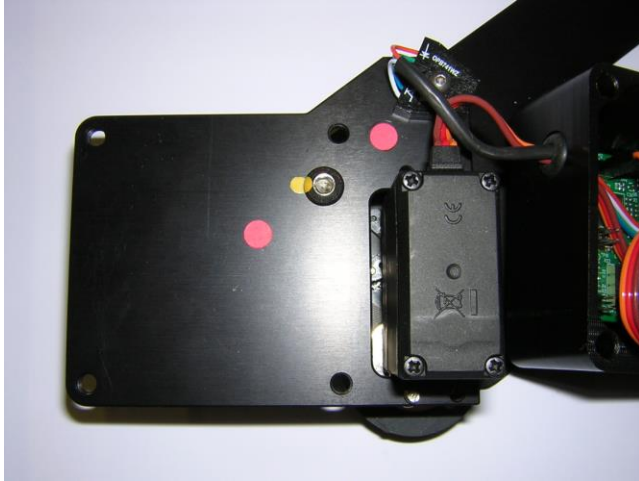


Fig5

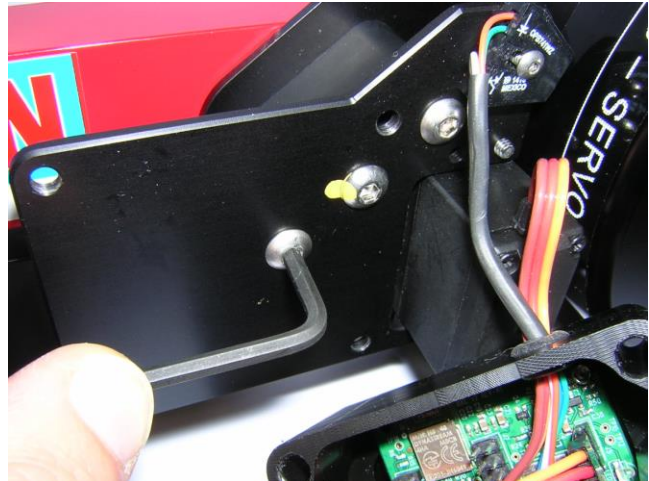
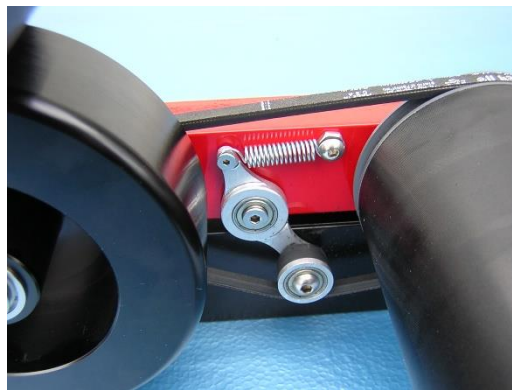


Fig6

The final step is to re-install the bump roller onto the arms and tighten using the thin wrench. The proper way to tighten (as with loosening) is to hold with the hex key and turn with the flat wrench.

Flywheel belt routing over the spring tensioner shown below:



This completes the installation of the SmartPower unit. Refer to the user guide for information on how to operate the system