

These instructions are for drum and/or belt replacement of the original E-motion rollers.

You will need the tools which were supplied with the E-motion Rollers.

A 5/8 combination wrench and a 1/8 hex key

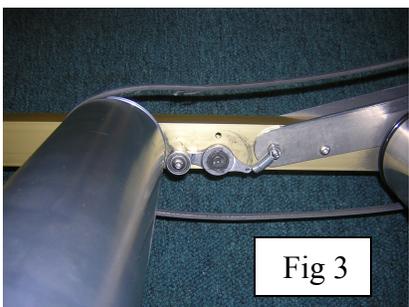
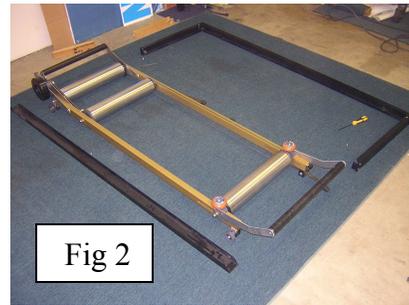
If you intend to re-use any of the drums upon re-assembly, you should mark them as FRONT, CENTER and REAR and also mark the flywheel end of each drum.

The front drum should be adjusted to the shortest position in the slots, to reduce the tension on the long drum belt and ease the job a bit.



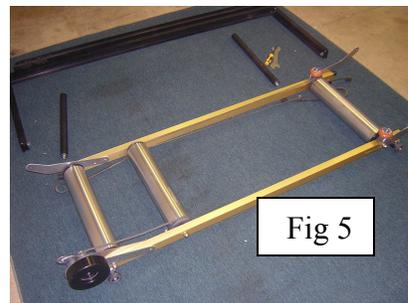
Start by disconnecting the elastomer spring cords underneath the frame. They are simply un-hooked from their threaded posts; no tool is needed for removal or installation.(fig1) Unhook both ends of each cord.

Remove the flywheel-side of the lower (black) frame. There are four bolts to remove; two at each end. Next, remove lower frame completely by sliding it sideways from under the wheeled (gold) frame assembly.(fig2)



Next, release the flywheel belt tensioner by de-railing the belt out from under the tensioner idler bearing. The belt should then be loose.(fig3) You should also de-rail the long drum belt so that it falls down onto the axle spacer of the center drum. This will act as a temporary hanger for the belt.

Unbolt and remove both the front and rear bumper rolls.(fig4) You may need to use a thin wrench (supplied with new drums) to hold the axles from turning while the bolts are loosened.



The remaining assembly is held together only by the drums themselves.(fig5) The front drum nuts should be removed next. Also remove the front bump roll support arms, which are held on by the front drum nuts.(fig7) Ideally, you would then remove the drum nuts from the CENTER and REAR drums on the flywheel side (fig6), and then remove the frame rail. In reality, some of the

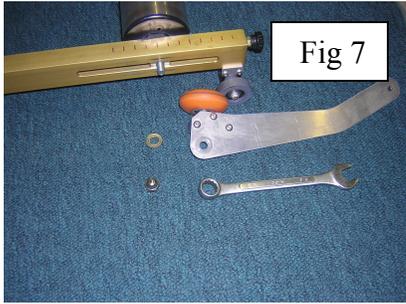


Fig 7



FIG 6

nuts may not come loose when turned because the entire axle may rotate instead.

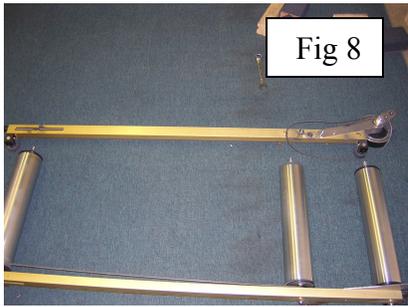


Fig 8

For the two rear drums, you can attempt to remove the nuts from the flywheel side, but if they do not cooperate, using a wrench on both ends of the drum, remove whichever nuts you can to separate the frame rails. If you are only replacing belts, this will be all the disassembly required to remove and replace both belts, (fig8) in which case you then reverse the disassembly steps for re-assembly. If replacing only one drum, remove and replace that

drum now. Any problem drum-nut can be loosened by using the 2 jam-nuts supplied. Thread them onto the opposite (exposed) end of the axle and tighten them against each other using two wrenches. Now the locked jam-nuts can be used to hold the axle from turning while the final drum-nut is loosened. If replacing all 3 drums, goal is to have all three drums removed from the frame rail, ready for re-assembly with new drums.

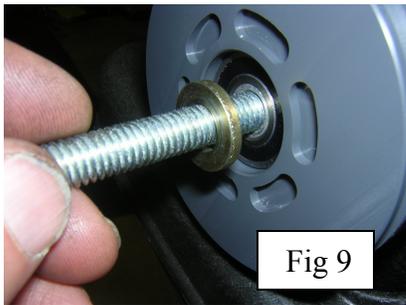


Fig 9

There is a washer on each end of the old CENTER and REAR drum axles which sits against the bearings and must be transferred to the new drums before proceeding.(fig9)

The new drums are marked FRONT, CENTER and REAR and will have indicated which end is the FLYWHEEL end. Start with the non-flywheel frame rail and insert the FRONT drum first. Make sure it's axle and stepped-spacer are rotated to properly drop into the slot in the frame. You may leave off the bump support arm for now and install the drum-nut and washer hand-tight.

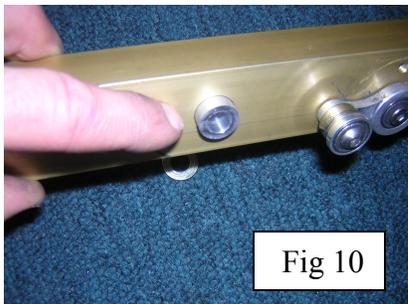


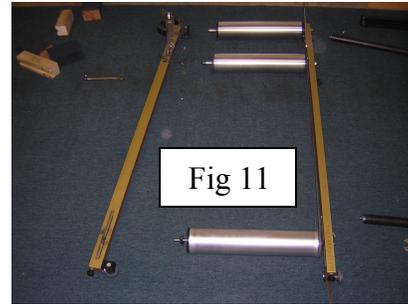
Fig 10

Check that the axle spacers for the CENTER and REAR drums are installed into the frame holes.(fig10)

Place the long drum belt over the front drum, all the way over to the frame and let it drop down between the drum and the frame. Then stretch the other end of the belt all the way to the CENTER drum hole, and hook it over the protruding axle spacer. This will act as a temporary hanger.

Insert the center drum. Make sure the bearing washer is in place before it goes in. after it goes into the frame, add the outer washer and drum-nut and hand-tighten. Insert the rear

drum in the same fashion. All three drums should now have their “flywheel ends” ready to receive the flywheel-side frame rail.(fig 11) Again, make sure the center and rear axles have their bearing washer installed before proceeding. Please refer to the parts drawings if unsure about the location of washers /spacers or any other hardware.



At this point, place the flywheel belt over the center and rear drums. Just let it sit loosely.(fig12)

Now install the flywheel side of the frame onto the three drum axles (fig13), again making sure

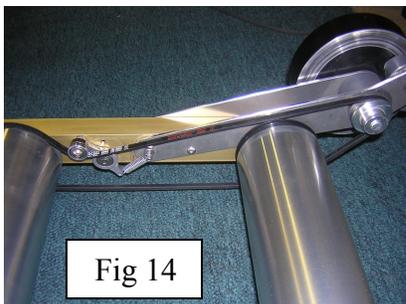


the stepped spacers on the front drum are rotated into alignment with the slots in the frame to correctly drop in.

With the frame rail installed, hand-tighten the drum-nuts/washers.

Stretch the drum belt up onto the pulley grooves on the FRONT and the CENTER drums. And check that all 3 drums turn freely and that both frame rails appear parallel and aligned.

At this point, with all four wheels resting on the floor, you should tighten the drum-nuts on the rear two drums. Then remove the front drum-nuts to re-install the front bump-roll support arms onto the front drum axles. Replace the front drum-nuts/ washers and tighten.



Next route the flywheel belt into the grooves in the CENTER and REAR drums and onto the small flywheel pulley. Once the flywheel belt is in place, pivot the belt tensioner into position over the belt. (fig14) Check for smooth operation by turning the center drum by hand. All three drums and the flywheel should rotate.

Install the front/rear bumper rolls. The longer one goes in front; short one in the rear. Tighten fully.

Slide the outer (black) frame into position around the gold frame assembly from the side opposite the flywheel, making sure the wheels fit up into the track.(fig15) Next, install the flywheel side of the black frame, including the plastic corner guards. Assemble all four bolts lightly, being careful not to cross-thread, and once they are all in, tighten them.

Attach the elastomer cords to the threaded anchor points. Attach the outer points first in the black frame. Then stretch the cords one at a time to reach the inner points on the gold frame.

Re-adjust the front drum to fit your bike. Set the mag unit to zero.

Ready to ride!

