

# LR960

**Warranty Period : 1 year**

## Applicable Tire Size Capacity:

any 24-inch – 700 x 40c (ETRTO 42-622)  
(Max Tire Outer Diameter = 712mm)

### Bolt Type Left Side Coupling

Fits 120 – 145 mm standard hub width. For quick release type hub only. For fixed nut hub, replace to the optional "Longer Left Side Coupling Bolt" (SKU:400-1285-00).

### U-Leg Hole for Smaller Wheel

Use this hole for all 24", 26", and 650c wheels to keep the bike horizontal.

### Quick Release Hub Clamp

Mounts/dismounts your bike in seconds.

### Large Alloy Lock Nut

Replace from plastic to alloy. Large diameter makes easier operation.

### Tandem Magnet Type Unit

A world's first. Primary magnet is engaged for the first 7 levels then the second magnet kicks in for the next 6 levels. Gives you the widest range of resistance of any trainer.

### Micro-Adjustable Legs

By turning the dial, the legs can be adjusted +/- 10 mm to accommodate uneven surfaces for complete trainer stability.

### Roller Pressure Knob

Double-threaded system enables quick and easy operation to engage/release the roller to/from the rear tire.

### Lighter Flywheel = More Power

Our patented flywheel weighs less for greater portability but performs as well as a flywheel weighing 35% more. The key is the inside stair-step design for perfect power transmission when you need it.

### Tubular U-shape Leg

Not just for unique design, but reduces weight and provides great stability.

## Please Note

*This trainer must be used with a completely smooth (no knobs or raised tread) tire. Failure to do so will ruin the mag unit, your tire, and void any possible warranty.*

## Contact

*If you need help, please contact the **shop** first where you originally purchased this product or call the **distributors** in your country. The distributors list can be found on our web site. When you cannot get enough service, you can contact us;*

### MINOURA NORTH AMERICA (for U.S. residents ONLY)

Phone: 1-510-538-8599 (8 am - 5 pm, Mon - Fri, PST)  
Fax: 1-510-538-5899  
Email: support@minourausa.com

### MINOURA JAPAN HEADQUARTERS (for ALL customers)

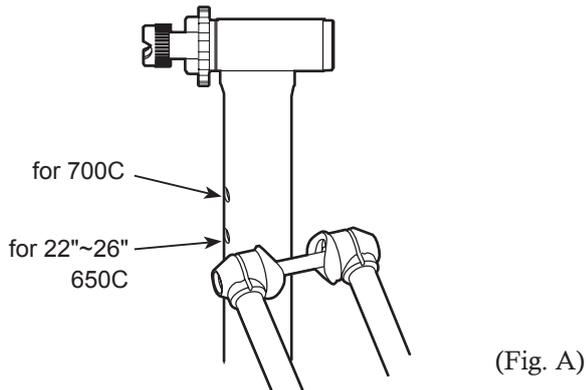
1197-1 Godo, Anpachi, Gifu 503-2305 Japan  
Phone: +81-584-27-3131  
Fax: +81-584-27-7505  
Email: minoura@minoura.jp  
Web: www.minoura.jp

Made in Japan

# How To Assemble U-Leg

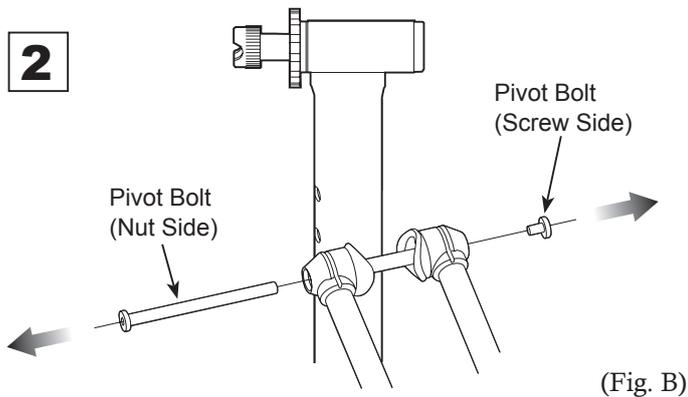
Required Tools: 2 x 5mm Hex Wrench (supplied)

1



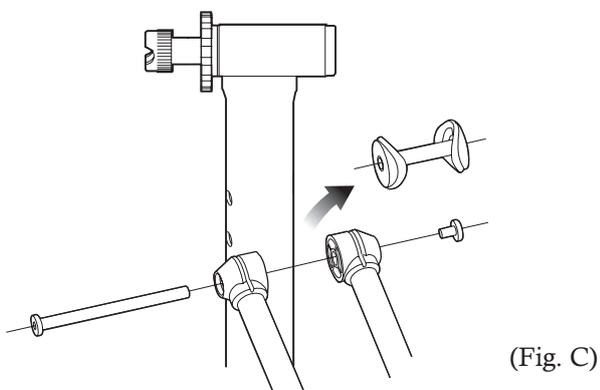
Choose the pivot hole of the U-Leg for your bike size on the main pillar.

2



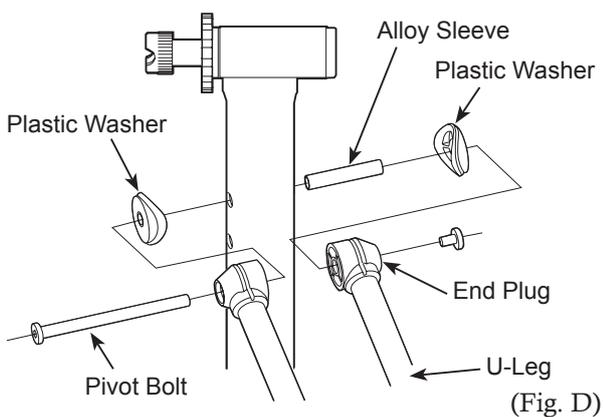
Disassemble the pivot bolt.

3



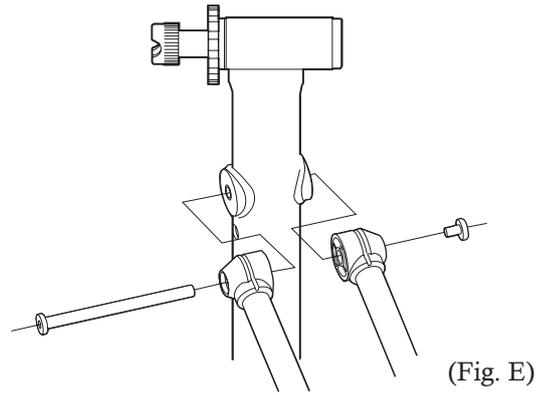
Remove the alloy sleeve and plastic washers.

4



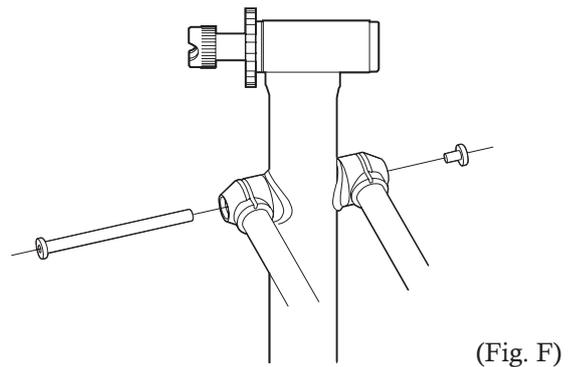
Insert the alloy sleeve into the selected hole, and put the plastic washers on both sides.

5



Attach the U-Leg to the main pillar.

6



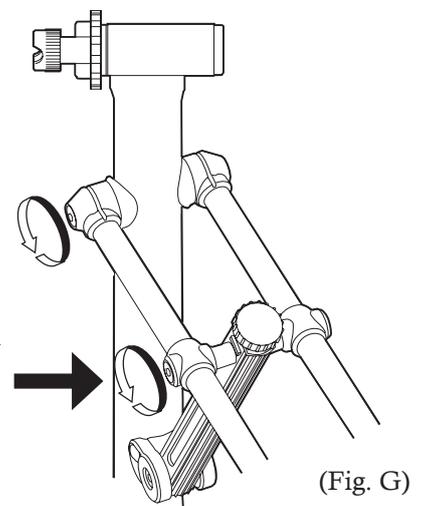
Check that the plastic end plugs on the U-Leg are fully inserted and lined up with the hole. Then insert the pivot bolt and fully tighten the screw with using the supplied M5 hex wrenches.



*Be sure you fully insert the plastic end plugs to the U-Leg before putting the pivot bolt through them. Failure to do so may cause the legs to be positioned at different heights.*

7

The center guide bolt is intentionally left loose when packaged at the factory. Tighten it slightly and check to see that each leg moves smoothly.



*You do not need to disassemble the center guide bolt. Just tighten.*

## How To Install Mag Unit & Knob Set

**Required Tools:** 1 x 5mm Hex Wrench (supplied)  
1 x 10mm Spanner (not supplied)

The Mag resistance unit and Roller Pressure Knob now need to be installed to the frame.

First, attach the Knob onto the bracket on the Step-Bar. Then place the Mag unit over the Knob, and tighten both brackets together using the pivot bolt and M6 nut. (Fig. H)



*Overtightening the pivot bolt will cause the Knob to become inoperable. Make sure you unscrew (loosen) the pivot bolt by 1/4 - 1/2 turn once you completely tightened it. The Mag unit should be lowered towards the ground by its own weight at this point. If the pivot bolt is too loose, the Mag unit may drop suddenly and come down on your hand or fingers. Make sure to adjust the torque properly to insure proper operation.*

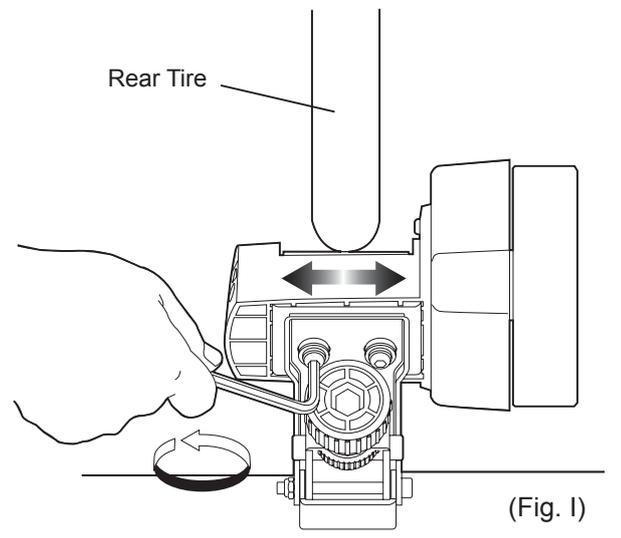
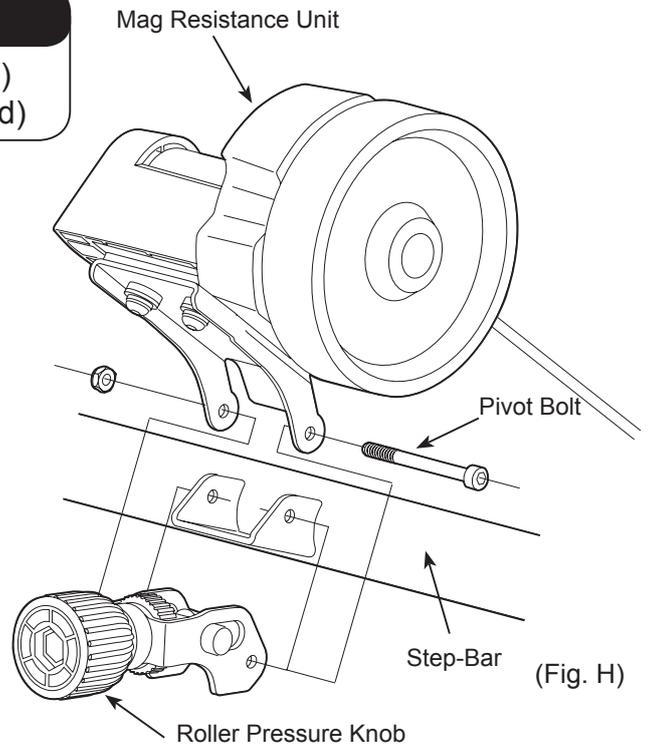
Your bicycle tire should be as close to the center of the roller as possible. (see Fig. I)

If the tire has been touching the plastic housing, damage will occur to the Mag unit and your tire.

The base bracket has two sets of thread holes for mounting the Mag unit. Choose the better holes.

Also it can be micro-adjusted and to do so, loosen the backside screws and slide the Mag unit in the direction needed to center the tire properly.

Tighten the screws when you have finished.



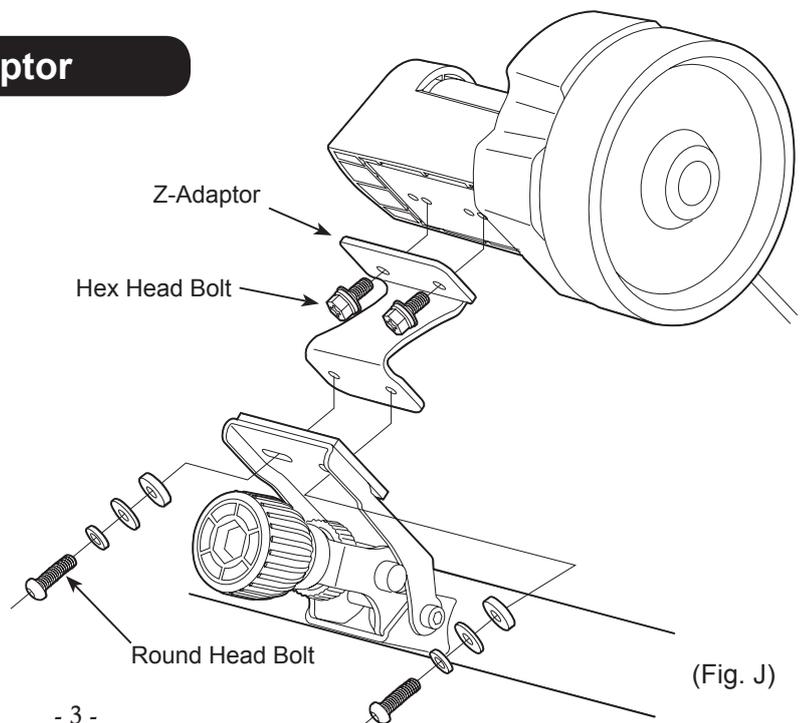
## How To Use Small Wheel Adaptor

If your tires are 26" or smaller and are less than 1.75" in width, you will need to use the supplied Z-shaped Small Wheel Adapter. Your tire size should be clearly marked on the tires sidewall.

The direction of the Z-adapter is fixed so follow the arrow printed on the top and make sure it's pointing toward the front (toward your bike).

If the drive roller cannot reach the tire, make sure the Z-adapter has been installed correctly.

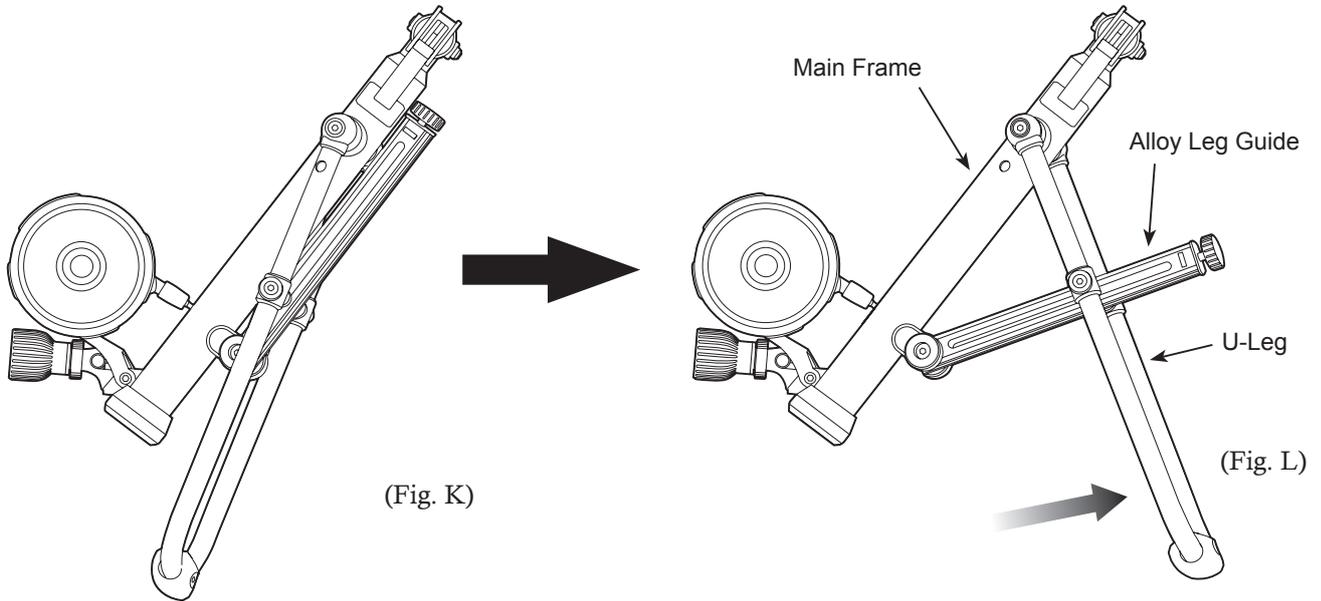
Use the original round head bolts for the Mount Base, and use the supplied hex head bolts for the Mag unit. (see Fig. J)



## Placing LR960 on Floor

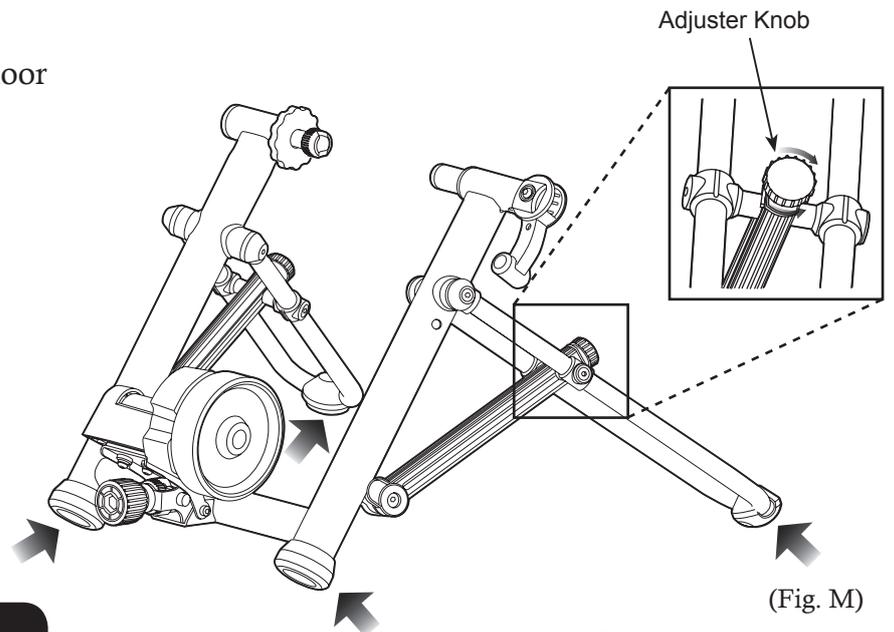
Fully open the legs and place on a flat and horizontal floor.

**!** To open the U-Leg, grab the main frame and the rubber cap on the U-Leg (see Fig. L). Do NOT pull the Alloy Leg Guide directly, otherwise it may be bent or damaged.



Check that all 4 points are touching the floor evenly. (see Fig. M)

If all 4 points are not touching the floor evenly, the frame could be deformed and cause damage to the trainer and possibly your bike.



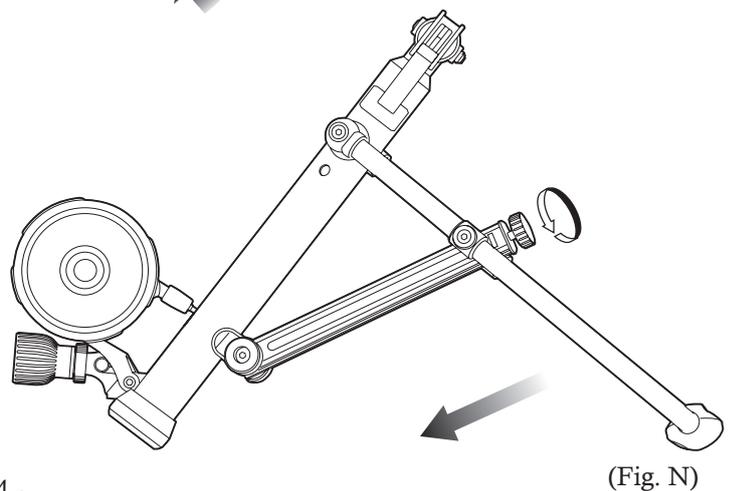
## About Leg Height Adjuster

Each U-Leg height can be adjusted individually by +/- 10 mm travel.

This adjuster allows for uneven floor or ground compensation to help insure proper stability.

When using the adjuster, be sure to check and make sure that all 4 points are touching the ground evenly.

And the trainer should be positioned as close as possible to the floor for better stability.



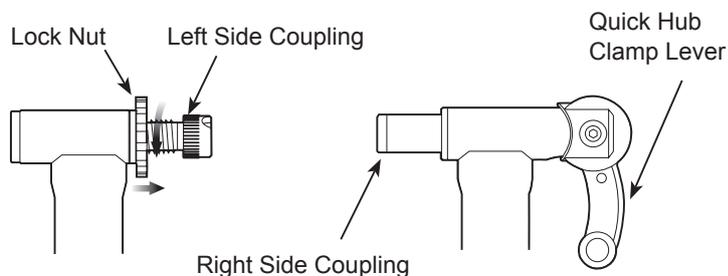
LR960's coupling position is pre-adjusted in the factory to fit the 125mm standard rear hub width. If it is too loose or too tight to your bike, or if you use different width of rear hub like a track race bike, adjust the left side coupling as precisely as possible for maximum stability. Please note there is no adjustment on the right side (lever side) coupling.

**!** *The coupling cone shape is designed to fit the supplied quick release skewer perfectly. We strongly recommend you to replace your rear wheel skewer with the supplied one. We do NOT guarantee the stability while using LR960 with your own skewer.*

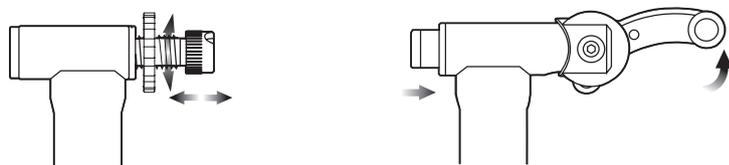
**!** *If your bike's rear hub axle is NOT a quick release skewer type, but a hub nut type, you don't need to use the supplied skewer. The standard left side coupling bolt (UF-8S) is too short to hold the hub nut type axle. You must replace it to the optional longer one "Extended Left Side Coupling Bolt for Nut Type Hub (Part#: UF-8L, SKU: 400-1285-00)" for your safety.*

*The following steps describe the micro adjustment of the left side coupling. This step is not always required and once fixed in the proper position, you should not need to adjust again. Once adjusted to fit your bike, simply operate the Quick Hub Handle Lever for a proper fit every time.*

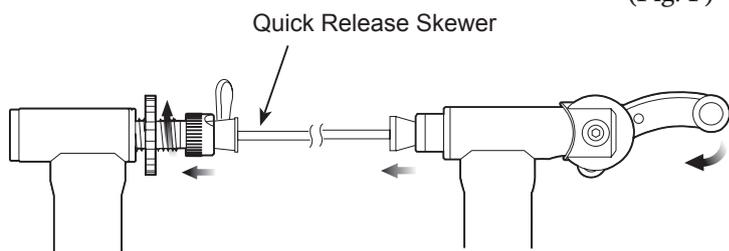
- 1** First, loosen the silver Lock Nut by turning it counter-clockwise.
- 2** The left side coupling is actually a bolt/coupling combination. Turn the coupling to adjust the position.
- 3** Raise the Quick Hub Clamp Lever up to retract the right side coupling.
- 4** Insert the left side hub end (quick release lever side) into the left side coupling cone.
- 5** In this position, place the other side of the bike into the right side (rear cog side) coupling cone. Make sure your derailleur cable goes OVER the coupling.
- 6** Now, push down (lower) the Quick Hub Clamp Lever until it fully engages the skewer or axle nut.
- 7** Make sure the Quick Clamp Hub Lever is lowered into its locked position and cannot be lowered any further. The frame may appear slightly open but this is normal. If the frame seems to be opened too widely, re-mount your bike following the instructions. Failure to do so could damage your bike and/or the trainer.
- 8** Now, grab the saddle of your bike and rock the bike back and forth to make sure your bike is securely in the trainer. Your bike should not move independently of the trainer where it is attached.
- 9** Tighten the red Lock Nut firmly to fix the left side coupling position.



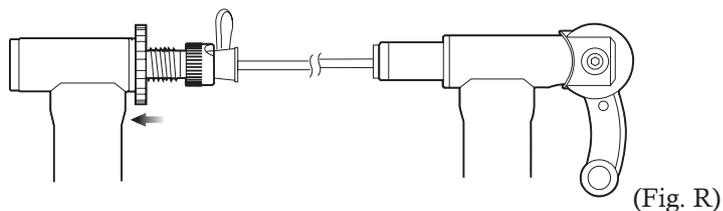
(Fig. O)



(Fig. P)



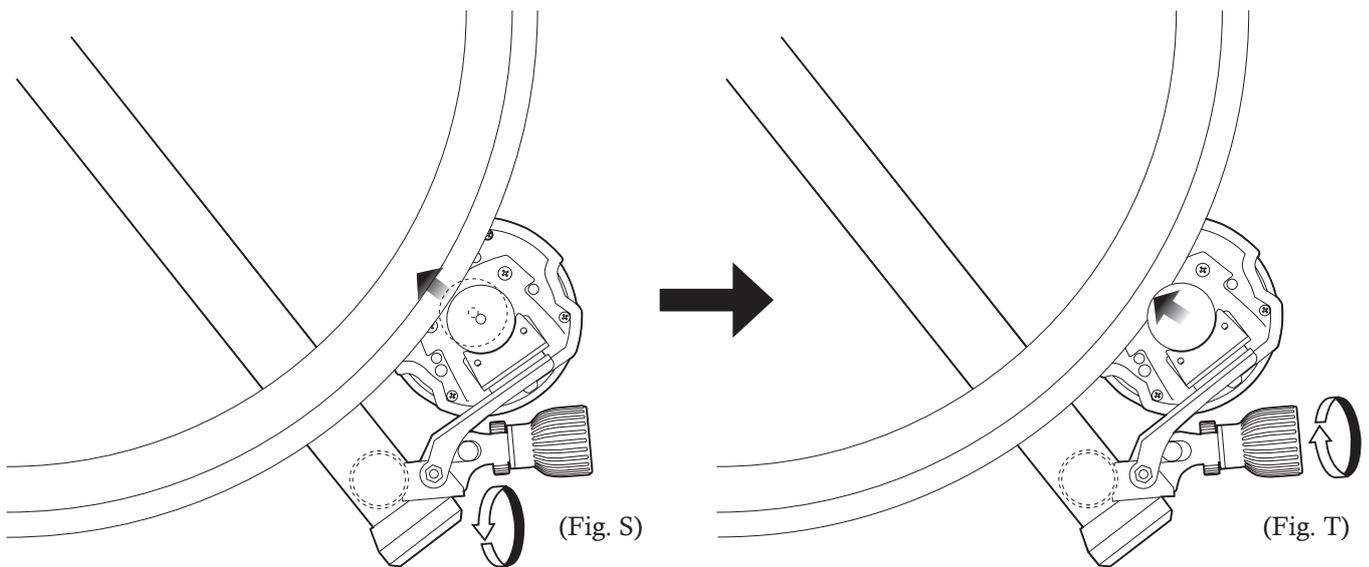
(Fig. Q)



(Fig. R)

## Roller Pressure Adjustment

- 1** Fully turn the red knob counter-clockwise. (initial position)
- 2** Turn the silver dial counter-clockwise until the drive roller touches the tire surface.
- 3** Turn the red knob clockwise to compress the tire by the roller. (required depth = 3 – 4 mm)



Turn the silver dial counter-clockwise

Turn the red knob clockwise

Tire wearing must occur on any tire drive system. To minimize the tire wear and maintain the tire life as long as possible, it's crucial that you precisely adjust the roller pressure against the tire. Too much contact with the roller may deform the tire and cause premature tire wear or burst. Too little contact will cause the tire to slip on the roller when you pedal and build up excessive heat that may cause your tire to melt. The correct pressure is the roller compresses the tire in the depth of 3 – 4 mm.

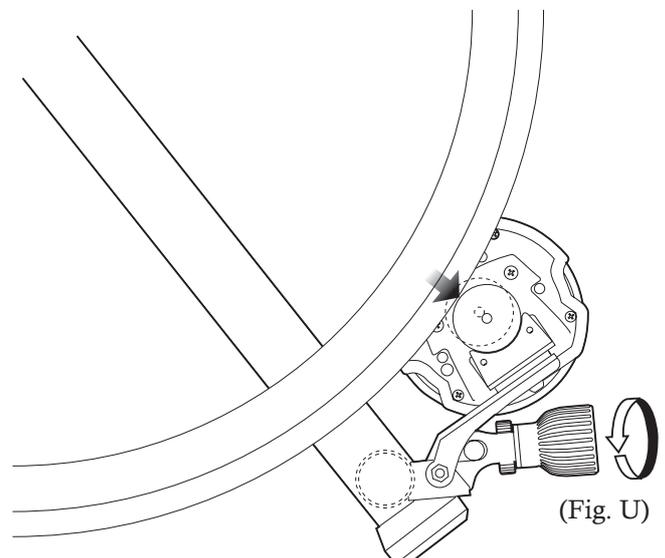
- 4** To remove the bike, loosen the red knob only. (You don't need to loose the silver dial whenever using same tire.)



*If the silver dial is too tight to turn, pull the red knob (be sure there is a spring inside to push the knob back) to make the dial free. It would be easier to keep this position by inserting your finger into the hole on the knob.*



*If the rear tire air pressure is low, squealing noise and premature tire wear should occur. Maintain the air pressure 10% higher than your daily ride on the road. And remove any dust from the tire surface.*



Loosen Red Knob Only

## How To Operate Remote Shifter

LR960 comes with a convenient remote shifter device. By installing it on your handlebar or stem, you can adjust the resistance level in 13 levels without getting off the bike. The plastic band is soft enough to fit aero-shaped carbon handlebar or round shaped stem as well as the standard round dimension handlebars.

### How to install the remote shifter

- 1) Wind the plastic band around the handlebar
- 2) Hook the tip to the gutter on the plastic shifter base (Fig. V-1)
- 3) Flip up the lever to lock (Fig. V-2)

### How to increase the resistance level

Twist the shifter dial toward "H" symbol

### How to reduce the resistance level

Twist the shifter dial toward "L" symbol



*"L" is not zero resistance. There is still some resistance at "L" level due to the roller compression to the tire.*

The remote shifter is pre-adjusted to fit the standard handlebar size; 22mm (7/8") diameter.

If it becomes loose or too tight, or you need to install the shifter onto an oversized handlebar or stem, adjust the band length by turning the plastic screw with an M4 hex wrench (see Fig. Y).

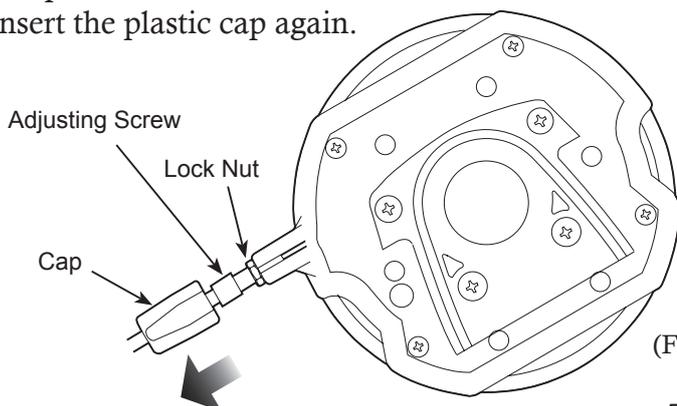


*Do not overtighten the plastic screw. It will break the plastic band. Release the hook before adjusting.*

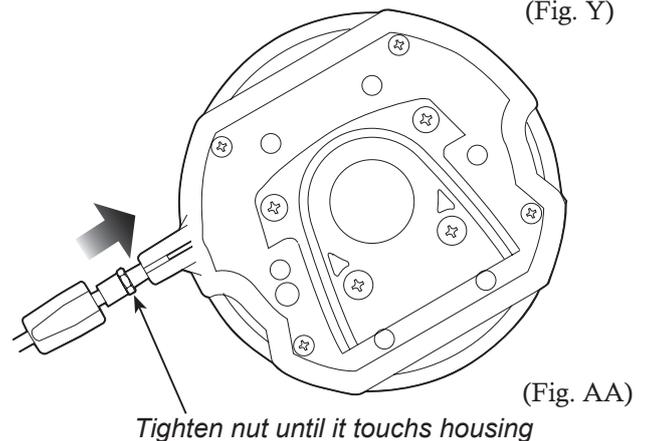
## How To Adjust Remote Cable

If you cannot shift at L or H position, it's time to adjust the cable tension.

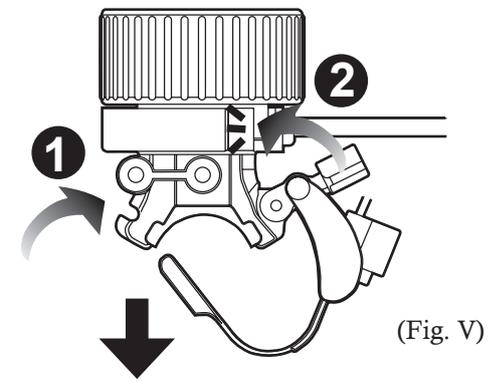
- 1) Set the remote shifter lever at "H" position and straighten the cable.
- 2) Pull off the black plastic cap on foot of the cable, then the adjusting screw will appear. (Fig. Z)
- 3) While pushing the outer cable toward the shifter, push the adjusting screw to the outer cable. (Fig. Z & AA)
- 4) Turn the lock nut until it touches the Mag unit. You shouldn't overtighten the nut, otherwise you won't be able to set the shifter at "L" position.
- 5) Insert the plastic cap again.



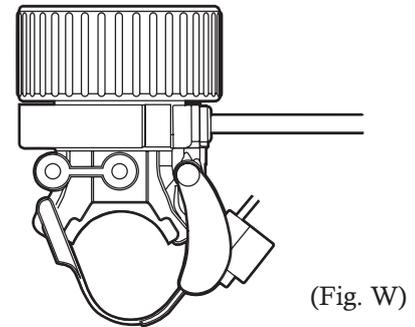
(Fig. Z)



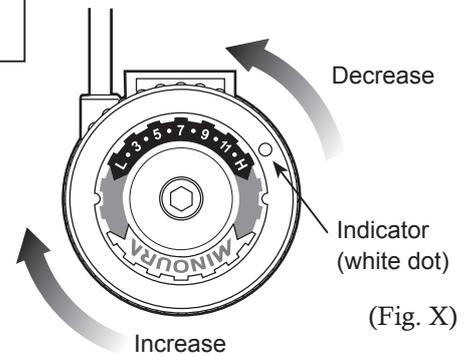
(Fig. AA)



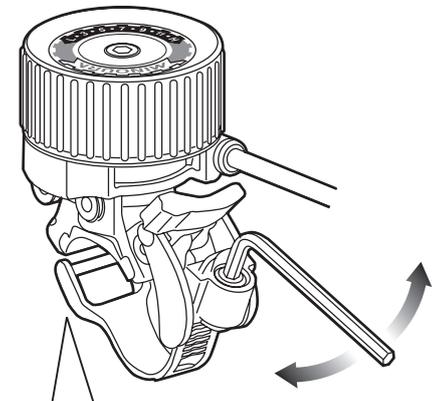
(Fig. V)



(Fig. W)

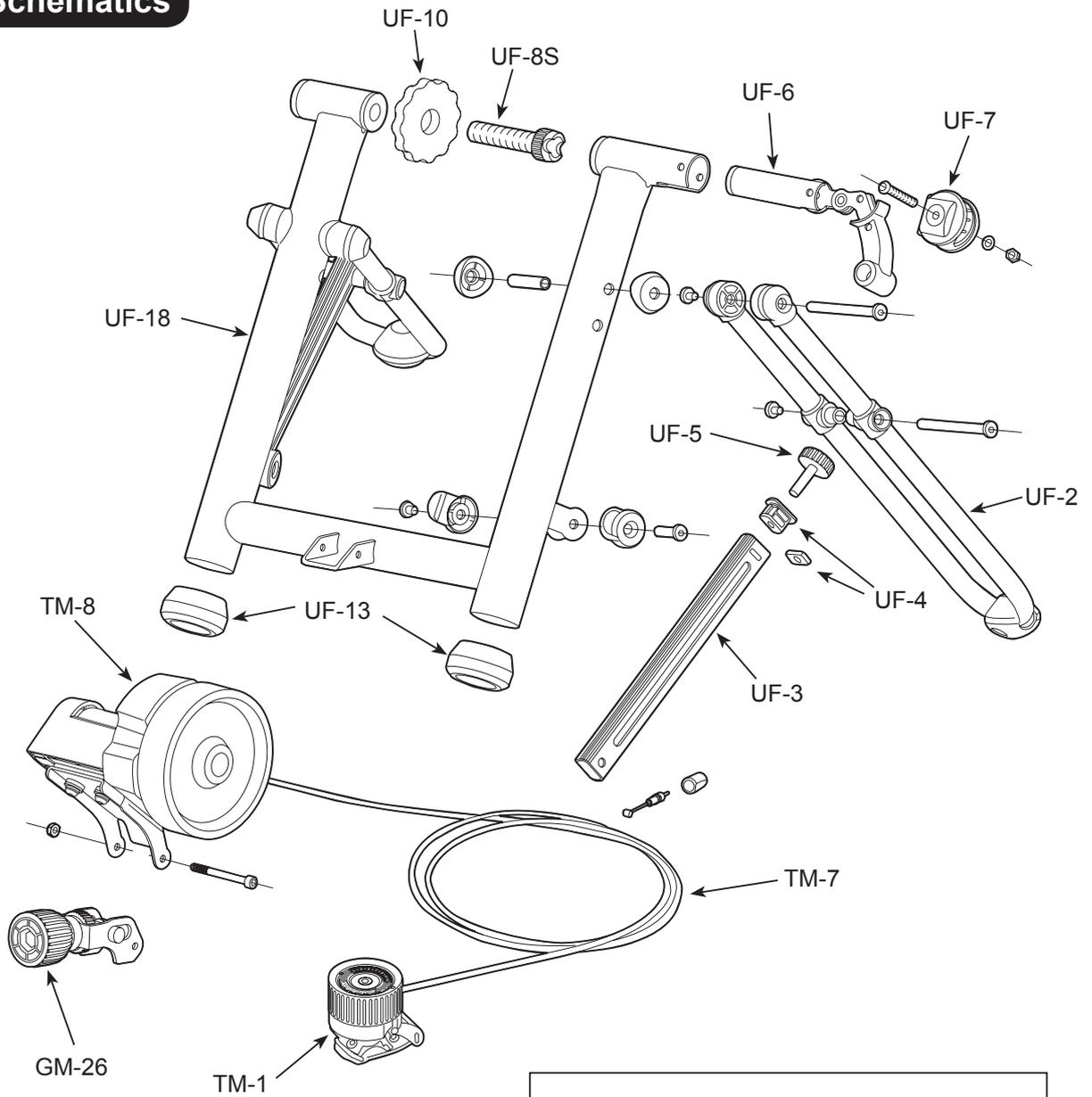


(Fig. X)



(Fig. Y)

# LR960 Schematics



## CAUTION

**Do NOT touch the alloy disc behind the flywheel during and 15 minutes after workout.**

**It's VERY HOT and may burn you.**

UF-2	:	U-Leg (Red painted)	GM-26	:	Roller Pressure Adjust Knob
UF-3	:	Alloy Leg Guide	TM-1	:	Remote Shifter (Twin)
UF-4	:	Height Adjuster Cap & Nut	TM-7	:	Remote Cable (Twin)
UF-5	:	Height Adjuster Knob	TM-8	:	Twin Mag Unit Assy.
UF-6	:	Right Side Coupling & Clamp Lever (Red)			
UF-7	:	Clamp Lever Guide			
UF-8S	:	Left Side Coupling Bolt (Short type)			
UF-10	:	Alloy Lock Nut (Silver)			
UF-13	:	Ruber Cap			
UF-18	:	LR960 Main Frame			