

**Please read all information before installing or using the equipment.**

General: We do not recommend going down very steep or very long hills on roller skis, even with speed reducing devices. The ATRA and MARS speed controlling devices referred to in this document are for use on 900 and 800 series models.

**Installing ATRA:** The only tool required is a medium size regular screw driver. See Figure 1 for parts.

**1-** Remove the V2 Fender Housing labels. **2-** Take the Bearing Assembly and insert it into the Fender Housing as shown in Figure 2. Align the hole in the Bearing Assembly with the center hole in the Fender Housing and holding the knurled portion of the stainless-steel pin insert it through the **center** hole, through the hole in the Bearing Assembly and into the hole in the opposite fender wall. **Make sure the pin is aligned with the hole in the opposite wall before pushing the knurled portion of the pin flush with the Fender Housing.** Use the flat portion of the screw driver to push the pin. **3-** Next insert the spring. Push the Bearing up towards the top of the Fender Housing then insert the spring into the cavity of the Bearing Assembly as shown in Fig.3. Using a screwdriver, depress the spring and insert it over the protruding hub in the fender housing as shown in Fig.4. **4-** Take the cam and the other stainless pin and pull down the bearing from the top of the housing. Align the cam with the hole in the fender housing. Make sure the serrations on the cam are facing up and insert the pin into the housing hole. Align the cam assembly. Push the pin in so only the knurled portion is protruding. After making sure the pin is lined up with the second hole in the fender housing, press flush with the housing as outlined in 3 above. **5-** With the pins pressed flush it is now time to install the Pin Shield. The Pin Shield prevents the pins from vibrating out. Make sure both legs of the Pin Shield are bent slightly inward as shown in Figure 6. With the hole in the top of the Pin Shield towards the inside of the ski, as shown in Figure 6, tip the Pin Shield as shown in the same figure and push the tab over the outside of the Fender Housing, then push the other end of the Pin Shield down until the tab **snaps** over the plastic housing. PIN SHIELD NO LONGER AVAILABLE. COVER AREA WITH DUCT TAPE.

The ATRA has a neutral position and four different resistance positions. The fourth resistance position should not be used until the wheels are slightly worn. Practice on gentle down hills until you have a feel for the speed reduction. Do not store the skis with the ATRA engaged as the pressure will deform and ruin the wheel.

**Instructions for Installing MARS:** Tools Required. 5 mm Allen wrench, 10 mm socket wrench, a drill with a 7.5 mm or 19 / 64" drill bit and a pair of small pliers. **1-** Remove the wheel from the Fender Housing using a 5 mm Allen wrench and a 10 mm socket wrench. Next remove the plastic thread stop, knob and top washer from the Pin Shield and pull the Pin Shield off the eye bolt so that you can place the Pin Shield over the Fender Housing as shown in Figure 8. Push the Pin Shield over the Fender Housing so that the tabs are flush with the top of the fender. The Pin Shield should also be Flush with the flanges of the Fender Housing as shown in Figure 8. Using a 7.5 mm or 19 / 64" drill bit, drill a hole through the top of the fender using the hole in the Pin Shield as a guide. Remove the Pin Shield. If there are any burrs or debris from the drilling, clean up the hole and surrounding area using sandpaper, file or other de-burring tool. Make sure that the molded protrusion, which is used to hold the spring for ATRA, in the top of the fender housing is fully removed by the drill. If not, remove any remaining portion. **2-** If the fender housing has V2 labels remove them. Take the bearing assembly with the two washers and spring positioned over the eye bolt as shown in Figure 9 and push the threaded portion up through the drilled hole in the Fender Housing. (Make sure the bearing is facing forward, away from the ski.) Align the hole in the Bearing Assembly with the center hole in the fender housing and holding the knurled portion of the stainless-steel pin insert the pin through the housing hole then through the hole in the Bearing Assembly and into the hole in the opposite fender wall. Make sure the pin is lined up with the hole in the opposite wall before pushing the knurled portion of the pin flush with the plastic Fender Housing. Use the flat portion of the screw driver to push the pin. **3-** Make sure both legs of the Pin Shield are bent slightly inward, see Figure 6. With the hole in the Pin Shield towards the inside of the ski, place the Pin Shield over the fender housing so that the threaded eye bolt goes through the hole in the Pin Shield. Tip the pin shield as shown in Figure 6 and push the tab over the outside of the Fender Housing as shown, then push the end of the Pin Shield with the other tab down until it **snaps** over the plastic housing. **4-** Place the plastic washer over the threaded eye bolt so it rests on top of the Pin Shield as shown in Figure 9 then take the Knob and thread it to the eye bolt. Turn the Knob clockwise until the thread of the eye bolt is about 3 / 16" or 5 mm above the top of the Knob. Holding the round plastic thread stop with the **pliers** thread the plastic unit over the bolt until the top of the plastic is exactly flush with the top of the threaded rod. (See Figure 9B) Rotate the knob counter clockwise until the knob touches the plastic thread stop. Next reinstall the wheel.

**MARS** was designed to precisely control rolling resistance for training. However, when used in conjunction with ATRA you can get more braking power on down hills than with only the ATRA unit. If you have ATRA mounted on the front wheels and MARS on the rear wheels we suggest the following on long hills. Stop and tighten the knob on MARS, but do not over tighten, then engage ATRA. With practice you will know how much to tighten MARS and in what position you need to engage ATRA for different hills. NOTE: When skating the MARS or ATRA can only be minimally engaged because as you lift the ski off the ground the wheel will "skid" for a short period before it reaches normal rolling speed. This will cause the wheel to wear rapidly and get flat spots resulting in an uneven wheel. High resistance should only be used when classic skiing, with MARS or ATRA mounted on the front wheel, or when double poling.

**MAINTENANCE:** The cam on the lever of the ATR and ATRA can wear out prematurely if the cam is repeatedly engaged with sand and dirt on the cam face. Clean the serrated surface of the cam with a "Q" tip or cloth then lubricate the surface with Vaseline, grease or silicon. The "eye" loop of the eye bolt should also be lubricated where it enters the bearing retainer, see Figure 9. Check your equipment regularly for worn or damaged parts. Replace all worn or damaged parts and make sure all nuts and bolts are securely fastened.

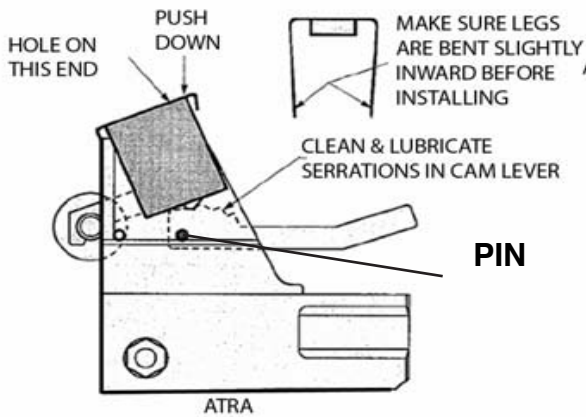


FIG. 6 INSTALLING THE PIN SHIELD

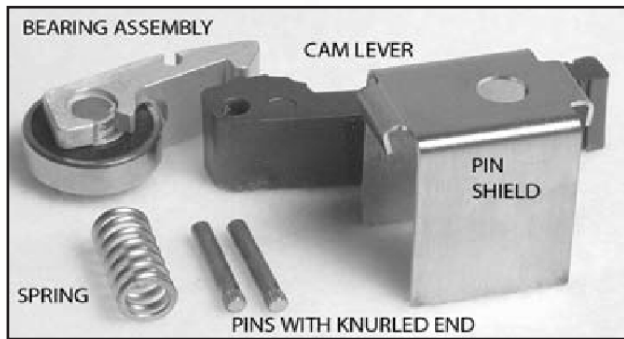
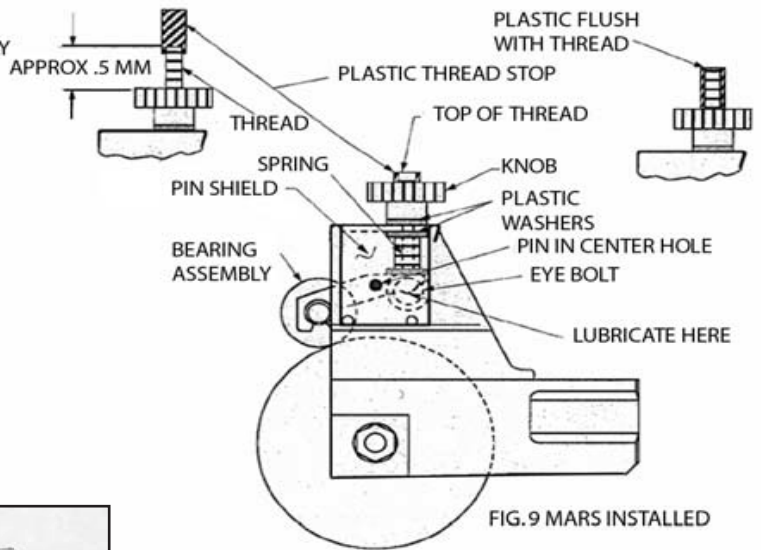


Figure 1: ATRA PARTS  
PIN SHIELD NO LONGER AVAILABLE

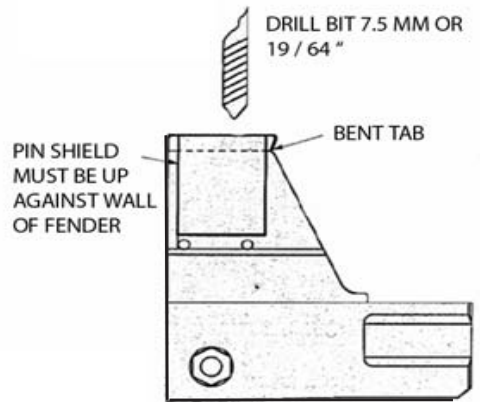


FIG. 8 USE PIN SHIELD AS GUIDE FOR DRILLING THE HOLE IN THE FENDER HOUSING

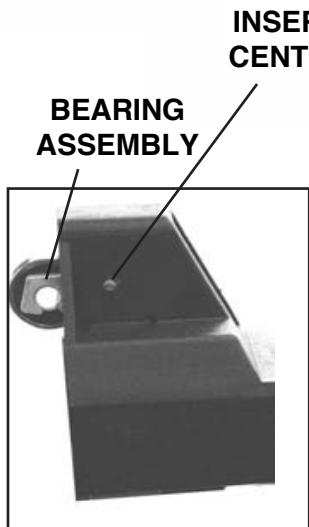


Figure 2

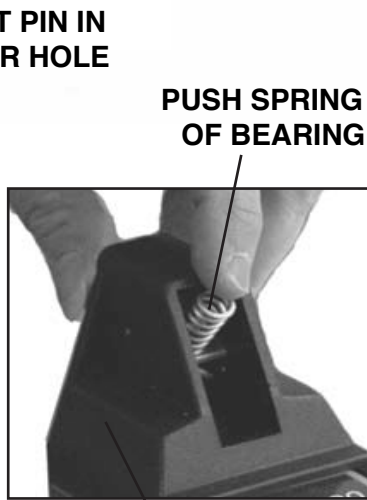


Figure 3

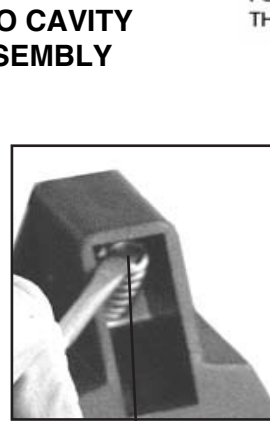


Figure 4

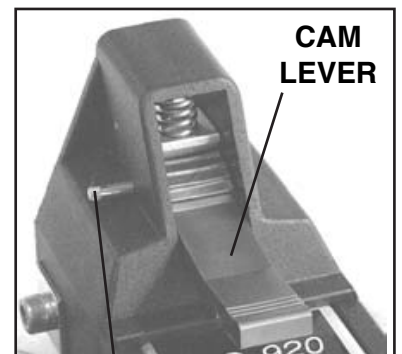


Figure 5

PIN

INSERT CAM LEVER AND INSTALL PIN

DEPRESS SPRING AND PUSH ONTO MOLDED PROTRUSION IN FENDER