Prosthetics Research • Design • Manufacturing • Consulting

AT-Ski-TD
All Terrain Ski Terminal Device
Instructions & Information, 1996 and later models

Installation

The AT-Ski-TD is equipped with a 1/2 inch diameter, threaded mounting stud. This will adapt to any USA-standard, prosthetic friction wrist or disconnect style wrist. The cable receiver accepts either 9/32 inch (Hosmer) or 3/16 inch (TRS) diameter cable balls. A cable is not required to operate the unit. Some skiers may prefer to use the device "passively" without a cable and simply pendulum the pole forward using humeral arm motion. The cable can provide for much quicker pole plants however and most skiers use the cable attachment feature.

Additional Installation Information

TRS recommeneds that the AT-SKI-TD be installed so that wrist rotation is also available. This can be achieved with either an adjustable friction wrist or a disconnect wrist modified with a rubber "o" ring or washer. The rubber ring or washer should be placed on the threaded stud and sandwiched between the screw-on disconnect adapter and the back of the AT-Ski-TD. Wrist rotation should not be sloppy. Adjust the friction of the wrist rotation such that under torque the AT-Ski-TD will rotate off to one side or the other. The skier will need to decide how much friction is desirable in this regard. The rotation or pivoting of the At-Ski-TD is desirable and provides an extra margin of safety to the skier during a fall.

Pole Sizing

The AT-Ski-TD package includes three "nested" brass sleeves for sizing your ski pole. The ski pole handle or grip should be cut apart and removed so that only the pole tube is exposed. The end of the pole slips up into the lower cylindrical receiver of the AT-Ski-TD. The brass tubes can be glued (with epoxy) onto the pole to size it up in diameter, so that a "slip" fit is established with the AT-Ski-TD. The pole should not have a sloppy or loose fit. Additionally the pole probably requires some length adjustment. Determine how much pole needs to be removed to place the AT-Ski-TD at the same height as the anatomical hand. After the length is correct, install the brass tubes, if they are needed. Be sure to modify the pole and not the At-Ski-TD, because you may wish to have several poles (downhill, cross-country etc.), which all fit the AT-Ski-TD. Additional brass sleeves are available from your prosthetist or TRS to meet this need.

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Once properly sized your pole will slide into the AT-Ski-Td easily. It should be held in place with velcro. Apply the strip of "hook" velcro on the appropriate section of the pole so that the loop velcro sheath spans over and down onto the pole holding it into the device. The velcro closure is designed to allow you to easily and quickly remove the pole from the AT-Ski-TD for boarding chair lifts etc. Additionally, the velcro closure will allow the pole to "tear free" from the device, should it get snagged while skiing.

Shock/Flex Module

Two of these modules are included. TRS factory installs one depending upon the age and experience of the intended user. The "softer" module is installed for youngsters, and persons with less skiing experience, while the "stiffer" module is installed for adults and skiers with more skiing experience. The shock/flex module is designed to absorb shock and flexion forces during skiing or when a skier falls. The shock/flex module will allow the pole to deflect, easing the impact of a fall on the prosthesis and skier. Should you wish to change the module; the unit unscrews. When reinstalling the alternate module be sure that the bungee cord attachment on the lower cylindrical section remains facing forward. The black, plastic, conical washer can be "sanded" thinner if the module doesn't align correctly the first time. Reducing the thickness of the washer will allow the module to tighten down in a different position, altering the alignment of the bungee cord attachment.

Shock Cord

Adjust the shock cord (bungee cord) to suit your particular needs. The tension should be great enough to keep the pole retracted while skiing. Over-tightening the cord will force the skier to work harder extending the pole for a pole plant. Note the shock cord will "break in" and get a bit more flexible with use. Use pliers to remove the brass crimp on the cord if you wish to readjust the tension. The brass crimp is actually a "nock", identical to those used on a bow string to position an arrow. An extra crimp (nock) is included in the accessory pack. Bungee cord is available at most hardware stores. You may wish to experiment with different varieties if you are not satisfied with the stock cord TRS provides.

Remember ! Always ski with safety in mind and have fun!