

# Runner Installation Instructions

**ATTENTION. BEFORE INSTALLING RUNNERS IN YOUR SNOWMOBILE READ AND UNDERSTAND THE INFORMATION BELOW AND THE IMPORTANT SAFETY INFORMATION TO THE RIGHT:**

- Review the snowmobile manufacturer's instructions to install runners in your owner's manual. You may void your warranty if their recommendations are not followed.
- If the instructions for products manufactured or sold by International Engineering & Mfg., Inc. are damaged or removed, before proceeding, download the instructions from [www.WoodysTraction.com](http://www.WoodysTraction.com) or contact Woody's for faxed or mailed instructions.

Woody's manufactures a full line of quality runners for aftermarket ski's and for you specific sled model according to the ski specifications published by the original equipment manufacturers. Balancing the number of studs installed in the track with the amount of turning carbide on the runner is important for safety. The quantity of studs installed, the stud pattern, and the stud configuration as well as the terrain and your riding style factor in determining which runner is best suited for you. Woody's Product Application at [www.WoodysTraction.com](http://www.WoodysTraction.com) has runner recommendations based on our patterns and studs for every sled model. Search our Product Applications to obtain the correct series part number for your sleds runner. If you are unsure which runner configuration best suites your needs, contact Woody's tech line for assistance.

## ⚠ CARBIDE RUNNER WARNING

Verify that the front end of the runner always fits tightly into the ski opening or indentation designed to accept the front end of the runner. The front end of the runner may snag objects if not properly installed. Woody's single, Dooly™ and Slim Jim™ Dooly™ runners will always have a 90° angle in the front. Single runners and the runner components of the Dooly will have a 30° angle cut at the rear of the runner. The 90° angle is installed in the front of the ski and the 30° cut is installed at the rear of the ski. Failing to follow the installation instructions may result in personal injury and snowmobile and/or property damage.

You may be required to modify or add to the existing holes in your ski to ensure proper fit. (figure 8) Check the fit and/or the contour of the carbide runner to determine if a modification is needed; although, these modifications are rarely needed. If a modification is in question please call Woody's technical support before modifying a ski.

\*Never replace the runners on only one ski. Always use the new lock nuts provided with a new runner.

- |   |                                       |
|---|---------------------------------------|
| Tools Needed:                               | Optional Tools:                       |
| Ratchet Wrench, Torque Wrench               | Rubber Mallet, Socket Extension       |
| 5/16" threaded bolt = 1/2" Deep Well Socket | 5/16" threaded bolt = 1/2" End Wrench |
| 3/8" threaded bolt = 9/16" Deep Well Socket | 3/8" threaded bolt = 9/16" End Wrench |
| 8mm threaded bolt = 13mm Deep Well Socket   | 8mm threaded bolt = 13mm End Wrench   |

## Ski and Snowmobile Preparation

Refer to your owner's manual for ski removal instructions if removing your ski for modifications.

1. Insert the front end of the runner into the runner opening or indentation provided in the ski. (figure 1) Swing the rear end of the runner to align the runner bolts with the bolt holes in the ski. Then insert the bolts through the ski. Some pressure may be required. (figure 2)
2. Hand tighten the nuts on all bolts. (figure 3) Using a ratchet wrench, tighten nuts starting with the center bolt, keeping the degree of threading on all bolts approximately even as the runner tightens to the ski. (figures 4-6)
3. IMPORTANT - For proper installation, optimum wear and performance use a torque wrench. You must torque and maintain the nuts to 15 ft. lbs. for 5/16" bolts, 20 ft. lbs. for 3/8" bolts. (figure 7) To attempt to tighten more at this point will only strip the nut threads.
4. After the initial installation and after each use, check to make sure that the front end of the runner fits tightly in the opening or indentation in the ski designed to accept the front end of the runner. The runner should fit snug with the contour of the ski. (figure 8)
5. After each use, check the carbide runners for wear.
6. Check for any fractures or breakage of the carbide runner, breakage of the threaded bolts, breakage and/or stripping of the nuts. If any of these occur, replace your carbide runners on both skis immediately.

**Caution - Runners or studs may wear at different rates with either the control of the front or the back of the sled diminishing. This may create an imbalance between the studs and turning carbide resulting in unreliable steering control that may cause injury or property damage. Check the runners and studs after each use to determine the amount of wear.**

**LIMITED WARRANTY - INTERNATIONAL ENGINEERING & MANUFACTURING, INC.** WARRANTS each product manufactured by it to be free from defects in material and workmanship under use for the purpose for which it is intended. The Company shall not be liable for damage or delays caused by defective materials or workmanship; is limited to the repair or replacement at its factory of defective article or part thereof, which may be returned to the factory, transportation charges prepaid, within one (1) year after delivery to the original purchaser. Proof of purchase is also required. The Company shall be the sole judge of the existence of any defect in the article so returned. No claims for charges incurred in the removal, disassembly or reinstallation of such article shall be allowed. Product manufactured for consumer use on snowmobiles is designed for snow or ice only, use on any other surface voids warranty.

This Warranty shall not cover any article which has been misused or neglected or damaged by accident or any article which has been altered outside the Company's factory. The Company shall, in no event be liable for consequential damage or contingent liability arising out of any total or partial failure to function of any article manufactured by it or of any equipment on or in which it is used. Failure of a user to give notice to claim as to defect claimed under the provisions of this Warranty within 1 year after delivery to original user, such claim shall constitute a waiver by consumer of all claims with respect to goods and equipment.

The above warranty is in lieu of all other warranties, expressed or implied, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. In no event will the company be liable for consequential damages whether or not it has notice of the possibility of any such damages.

Follow the Woody's Manufacturer Warranty Returns directions to return any product from International Engineering & Mfg., Inc. Woody's, Team Woody's, Flat-Top, Top-Stock, Extender Trail III, Trail Blazer IV, Executive, Ultra Series, Dooly and Slim Jim are trademarks and/or trade names of International Engineering and Manufacturing, Inc.

## ⚠ WARNING

- NEVER STAND BEHIND or near a rotating track with/without a jack stand or back stand or kick stand.
- Do not lift rear of snowmobile track while operating.
- Track failure or debris can project with great force resulting in personal injury, dismemberment or death.



## ⚠ AVERTISSEMENT

- NE JAMAIS SE TENIR DERRIÈRE ou près d'une chenille qui tourne, avec ou sans béquille, chandelle ou support central.
- Ne pas soulever l'arrière de la chenille de la motoneige lorsque celle-ci tourne.
- Une chenille brisée ou des débris pourraient être projetés avec force et pourraient ainsi sectionner une jambe ou causer d'autres blessures sérieuses, voire la mort.

If you have Woody's studs installed in your snowmobile track, you must have this decal on the rear bumper visible to anyone near your snowmobile. If it is not there or is illegible, contact Woody's for a free replacement warning decal.



## IMPORTANT SAFETY INFORMATION

### READ BEFORE INSTALLING STUDS AND RUNNERS

Throughout these warnings, the term **Personal Injury** - includes but is not limited to bruises, contusions, lacerations, broken bones, infection, loss of sight or hearing, limb amputation, and death.

The term **Damage to Snowmobile and Personal Property** - includes but is not limited to damage to the tunnel, bulkhead, cooling system, suspension, skid frame, engine, idler wheels, and the track. Damage could also occur to nearby objects and structures such as vehicles and buildings.

Keep in mind that after the installation of Woody's traction and control products the performance of the snowmobile, as it relates to acceleration and steering, will be dramatically affected. Acceleration may cause the front of the snowmobile to lift rendering it impossible to steer until the skis firmly re-engage the terrain; also, if the directions concerning the number of studs relative to the proper size of turning carbide are not followed, installation of an excessive number of studs will cause the snowmobile to exceed the steering capabilities so that it will proceed straight when the operator intends a turn, a condition known as "understeer". On the other hand, if too few studs are used compared to the size of turning carbide, the opposite result may occur, and the rear of the snowmobile will swing toward the outside of the turn, a condition known as "oversteer". Visit [www.WoodysTraction.com](http://www.WoodysTraction.com) to familiarize yourself with Woody's traction and control products.

**It is extremely important to follow the installation instructions included with International Engineering's products and to operate the snowmobile in a very careful and alert manner.**

Personal injury or property damage as described earlier may occur if the rear of the snowmobile is lifted above the surface. This is especially dangerous if the track is engaged, but even more dangerous if the engine is accelerated. In that circumstance the track is not under load, the RPM will be higher, and centrifugal force could cause breakage of the track, dislodged flying studs and track debris with resultant personal injury and property and snowmobile damage.

Personal injury or snowmobile and property damage could also occur if the snowmobile track, equipped with Woody's traction and control products, engages with stones, rocks, pieces of wood, clumps of ice, or other items that could become projectiles. Also, if for some reason, such as too few studs being installed, a stud becomes "snagged", a stud itself could break off and become a projectile. It is, therefore, important that people and property, such as vehicles, not be positioned behind the snowmobile. **ALWAYS ATTACH THE SNOW FLAP TO THE TUNNEL WITH CORD/STRAP ON STUDED SNOWMOBILES.** (Part# MUD-STRAP)

It is also important to keep clothing and body parts away from a moving snowmobile track equipped with Woody's traction and control products. The studs could snag clothing or body parts and if that happens, personal injury or property damage could occur.

If the installer uses square washers, support plates, or backer plates, these should be installed, and kept, parallel with the lugs and the side of the track. **Failing to do this can cause the square washers, support plates, or backer plates, to dig into and weaken or damage the track and cause track failure which could result in personal injury or snowmobile and property damage.**

Woody's recommends that snowmobiles equipped with Woody's traction and control products not be operated on hard surfaces such as asphalt and concrete. If it is unavoidable to cross such surfaces, cross only at a steady slow pace just above the speed necessary to engage the drive mechanism. **If this direction is not followed, the turning carbide can catch or adhere to such surfaces causing the snowmobile to stop and remain stopped with the risk that the snowmobile and its occupant(s) could be struck or injured by other vehicles, including snowmobiles, automobiles, and trucks traveling on hard surface roadways.**

To reduce the risk of personal injury or snowmobile and property damage, it is important that the owner/operator/installer does not "mix" the manufacturer(s) of lock nuts, T-nuts, support plates, or studs, or stud length styles, or turning carbides.

Also, it is extremely important to read all literature associated with Woody's traction and control products and follow carefully the directions relating to stud patterns, the number of studs, and the number of studs related to the turning carbides in order to reduce the risk of personal injury or snowmobile and property damage. It is also extremely important to properly maintain the snowmobile and the track and to replace the track at the first sign of a break, a crack, a cut, a hole, a tear, or the presence of dry rot. **Do not install or replace Woody's traction and control products on tracks or snowmobiles that show any of these conditions.**

It is extremely important to review the recommendations and warnings of the snowmobile manufacturer. Failing to do so can result in personal injury and snowmobile and property damage.

For trail use, Woody's recommends no more than 3/8 inch stud protrusion beyond the outer edge of the lug surface. If greater protrusion is present, damage to the bulkhead, track, and other structural and mechanical components of the snowmobile can occur.

## WOODY'S CUSTOMER SERVICE AND PRODUCT RETURNS

Warranty claims - call our customer service department for a Return Authorization Number. The Return Authorization Number must be visible on the outside of the package being returned. At your expense ship the product to International Engineering & Mfg., Inc. The product must be inspected by a Woody's technician to determine if the product is defective due to material, quality or workmanship before a final warranty determination is made. Proof of purchase is required. Please include your warranty registration number. All returns to the manufacturer are for exchange only.

## CONTACT US / TECHNICAL ASSISTANCE

8:00 a.m. to 4:30 p.m. (EST), Monday through Friday. [www.WoodysTraction.com](http://www.WoodysTraction.com)'s Dealer Locator will locate Woody's Dealers in your zip/postal code. We have experienced technicians to assist you. For a prompt response email us at [woodys@wiem.com](mailto:woodys@wiem.com). Otherwise you can contact us: Phone: 989-689-4911 Fax: 989-689-4910 • Website: [www.WoodysTraction.com](http://www.WoodysTraction.com)

# IMPORTANT INSTALLATION INSTRUCTIONS

Part# INST-WDYS-RUNNER-2



## INSTRUCTIONS D'INSTALLATION IMPORTANTES

N° de pièce INST-WDYS-RUNNER-2

## WARRANTY REGISTRATION #

## N° D'ENREGISTREMENT DE LA GARANTIE

## \*WARRANTY REGISTRATION\*

### ► Confirm Your Warranty

Your prompt product registration confirms your right to the protection available under the terms and conditions of the Woody's warranty.

### ► Log onto [www.WoodysTraction.com](http://www.WoodysTraction.com)

Submit your warranty registration online. You must have the **warranty registration number**, located above, to complete the form. You will also need your name, complete address, phone number, what product was purchased, the date purchased and the place where it was purchased. You can also submit your warranty information by emailing or mailing your warranty registration number and the information listed above to International Engineering & Manufacturing, Inc., 6054 North Meridian Rd., Hope, Michigan 48628 Email-[woodys@wiem.com](mailto:woodys@wiem.com)

## \*ENREGISTREMENT DE LA GARANTIE\*

### ► Confirmation de la garantie

Enregistrez votre produit sans tarder afin que soit confirmée votre protection au titre des modalités de la garantie Woody's.

### ► Visitez le site [www.WoodysTraction.com](http://www.WoodysTraction.com).

Vous devez effectuer l'enregistrement de votre garantie en ligne. Vous devez avoir le **numéro d'enregistrement de garantie (ou warranty registration number)**, indiqué à droite, pour remplir le formulaire. Vous devrez également fournir votre nom, votre adresse complète et numéro de téléphone, le nom du produit acheté, de même que la date et le lieu de l'achat. Vous pouvez également soumettre votre numéro d'enregistrement de garantie et les données mentionnées ci-haut par la poste à : International Engineering & Manufacturing, Inc., 6054 North Meridian Rd., Hope, Michigan 48628; ou par courriel à : [woodys@wiem.com](mailto:woodys@wiem.com).