

Woody's® TWIST™ Screw Installation Instructions

Attention, before installing tire Twist™ screws in your tires, read and understand the information below and the important safety information included. Always follow the vehicle or tire manufacturer's instructions regarding tire screw installation. Follow your local regulations concerning driving tires with screws/studs on paved roads and trails.

Because of the limitless number of applications and variables, it is not practical to include technical application information for each user and application. Successful installation and optimum performance of Woody's tire screws depends on the individual user's preferences, and on the specific application. If you have any questions, contact Woody's before installing the tire screws.



IMPORTANT INFORMATION about Tire Air Pressure - Before installing Woody's Twist™ tire screws, confirm the psi is at the recommended pressure. Check in your vehicles owner's manual or the tire manufacturer's recommendation.

TWIST™ Grip-It™, Attack™, and Boss™ Installation Instructions

Tools Needed:

- Track Marker
- Power Drill
- Woody's Twist™ Screw Installation Tool
 - Grip-It™ use WST-TOOL-4
 - Attack™ use WST-TOOL-6
 - Boss™ use WST-TOOL-8

1. Before installing the screws, mark a pattern on the tire using Woody's Track Marker. (Figure 1)
 - a. Alternate the screw position to create as many scratch lines as possible. Do not install in a straight line.
2. Slide the installation tool into the power drill chuck. (Figure 2)
3. Insert the hex of the tire screw into the installation tool until the screw bottoms out in the tool. (Figure 3)
4. Hold the screw in the tool until it is pressed against the tire.
5. Position the end of the screw firmly against the tire where you have a screw position marked. (Figure 4)
6. Firmly apply pressure **straight down** while **slowly rotating the screw** with the power drill into the lug until the shoulder of the tool is solidly resting on the tire (Figure 5). Do not continue to tighten screw once the tool shoulder is contacting the tire. The hex with the carbide insert should be approximately 1/16" above the lug.
7. Remove tool from the screw.
8. Continue until all marked screw positions are filled.

Inspect the screws prior to use. Any screws that exceed 1/8" above the lug should be retightened using the applicable installation tool and drill. Place the installation tool over the hex and follow step 6 above.

The tire screws could add a noticeable amount of weight to each tire, depending on the amount installed. ALWAYS test drive the vehicle for several miles at low speeds to determine how the screws are affecting the handling.

TWIST™ Gripper™ Installation Instructions

Tools Needed:

- Track Marker
- Power Drill
- Standard 1/2" Socket Driver

1. Before installing the Gripper mark a pattern on the tire using Woody's Track Marker. (Figure 1)
 - a. Alternate the screw position to create as many scratch lines as possible. Do not install in a straight line.
2. Insert the Gripper hex screw into the 1/2" socket until the Gripper bottoms out in the socket. (Figure 6)
3. Hold the screw in the tool until it is pressed against the tire.
4. Position the end of the screw firmly against the tire where you have a screw position marked. (Figure 7)
5. Firmly apply pressure **straight down** while **slowly rotating the Gripper** with the power drill into the lug until the head of the Gripper contacts the lug (Figure 8). Do not continue to tighten once the Gripper head is contacting the tire.
6. Remove socket from the Gripper.
7. Continue until all marked screw positions are filled.

Foot wear TWIST™ Screw Installation Instructions

Tools Needed:

- Grip-It™ Screws
- Track Marker
- Power Drill
- Woody's Twist™ Screw Installation Tool - Grip-It™ use WST-TOOL-4

1. Always check boot sole depth before installing Woody's Grip-It™ screw.
2. Before installing the screws, mark a pattern on the sole using Woody's Track Marker. (Figure 9)
3. Place a screw, hex first, into the tip of the installation tool.
4. Position the end of the screw firmly against a thick knob of the boot sole. (Figure 10)
5. Firmly apply pressure **straight down** while **slowly rotating the screw** into the sole until the tool is flush with the rubber.
6. Remove the tool from the screw.
7. Repeat procedure for all screws.

Twist™ Screws may come out if they are not adequately sunk into the rubber. For optimum traction, install screws in varied pattern (not in a straight line) on the sole so the screws can make better contact with the terrain. Grip-It™ screws can also be removed by backing them out with the same tool.

CAUTION: Over-tightening may cause studs to penetrate entirely through boot soles; verify sole thickness before installing screws.

Woody's Grip-It™ Screw installed in any foot wear should only be used outdoors. Screws may damage or mar floors, truck beds and other surfaces. Traversing smooth concrete and other hard surfaces with screws in your footwear may cause slipping.



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6



Figure 7



Figure 8



Figure 9



Figure 10

Confirm you have the correct screw length for your tire by always checking the lug height before installing Twist™ Screws. The best way to measure the lug height is to put a straight edge across the two shortest consecutive lugs and measure the distance to the tire surface. Follow these recommendations for the correct length screw to install in your tire.

Woody's Screw Technology™ - Measurement Chart

Part #	Overall Length	Installed Depth	Lug Height Range
WST-0413 - Grip-It™	0.512" [13.0mm]	0.443" [11mm] - 0.472" [12mm]	0.472" [12.0mm] +
WST-0615 - Attack™	0.591" [15.0mm]	0.472" [12mm] - 0.551" [14mm]	0.551" [14.0mm] +
WST-0618 - Attack™	0.709" [18.0mm]	0.591" [15mm] - 0.669" [17mm]	0.669" [17.0mm] +
WST-0625 - Attack™	0.984" [25.0mm]	0.866" [22mm] - 0.945" [24mm]	0.945" [24.0mm] +
WST-0830 - Boss™	1.181" [30.0mm]	1.063" [27mm] - 1.142" [29mm]	1.142" [29.0mm] +
GRIP-1250 - Gripper™	1.500" [38.1mm]	1.250" [31.8mm]	1.250" [31.8mm] +
GRIP-1500 - Gripper™	1.700" [43.2mm]	1.500" [38.1mm]	1.500" [38.1mm] +

The Twist™ screw installation pattern depends on the user's needs and the specific tire rubber tread/lug pattern. Individual screws can be removed at any time and may be re-used later, or a tire with screws can be removed with the screws left in place. General guidelines below:

Woody's Screw Technology™ - Qty Recommendation Chart

ATV / UTV	Lite Duty	Medium Duty	Heavy Duty
	25 Per Tire	50 Per Tire	75 Per Tire
	1 - 100 Pack	2 - 100 Packs	3 - 100 Packs
Footwear	8 - 10 Per Foot		
	1 - 25 Pack		

Removing the TWIST™ Tire Screw

Tools Needed:

- Power Drill
- Woody's Twist™ Screw Installation Tool
 - Grip-It™ use WST-TOOL-4
 - Attack™ use WST-TOOL-6
 - Boss™ use WST-TOOL-8
- Gripper™ use Standard 1/2" Socket Driver

1. Attach the installation tool or 1/2" socket onto the power drill.
2. Place the installation tool or 1/2" socket over the screw to be removed.
3. Apply firm pressure down on the head of the screw with the installation tool or 1/2" socket.
4. Set the drill to reverse, and slowly remove the screw.

Limited Warranty Twist™ Tire Screws

International Engineering & Manufacturing, Inc. warrants each product manufactured or supplied 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.

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 Warranty for tire screws is void unless the tire screws are installed with Woody's installation tools following the directions in the installation instructions. This Warranty does not cover carbide pin breakage or pin loss from tire screw wear, tire screw replacement labor or shipping.

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 or sold 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 the Warranty within one (1) year after delivery to original use, such claim shall constitute a waiver by consumer of all claims with respect to goods and equipment.

No express, implied, or statutory warranty other than that herein set forth is made or authorized to be made by the Company. All returned warranties will not be accepted without a return authorization number. Twist™, Attack™, Boss™, Gripper™ and Grip-It™ are trademarks and/or trade names of International Engineering and Manufacturing, Inc.

Twist™ Screw WARNINGS

You must read the instructions provided before installing Twist™ tire screws in your vehicle tires. Always follow the vehicle or tire manufacturer's instructions regarding tire screws. Consult your owner's manual.

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 Vehicle or Tire and Personal Property - includes but is not limited to damage to any part of the vehicle, damage to the tire and other structural and mechanical components of the vehicle that can occur. Damage could also occur to nearby objects and structures such as vehicles and buildings.

Keep in mind that after the installation of Woody's tire screws the performance of the vehicle as it relates to acceleration, deceleration and steering will be dramatically affected. It is extremely important to follow the installation instructions and to operate the vehicle in a very careful and alert manner.

Personal injury or vehicle and property damage could also occur if the vehicle, equipped with Woody's tire screws, engages with stones, rocks, pieces of wood, clumps of ice, or other items that could become projectiles. Also, if a tire screw becomes snagged, a tire screw itself could become a projectile.

Woody's recommends that vehicles equipped with Woody's tire screws not be operated on hard surfaces such as asphalt and concrete. If it is unavoidable to cross or drive on such surfaces, cross or drive only at a steady slow pace just above the speed necessary to engage the drive mechanism. Follow your local regulations concerning driving tires with screws/studs on paved roads and trails.

Woody's Grip-It™ Screw installed in any foot wear should only be used outdoors. Screws may damage or mar floors, truck beds and other surfaces. Traversing smooth concrete and other hard surfaces with screws in your footwear may cause slipping.

Also, it is extremely important to read all literature associated with Woody's tire screws and follow carefully the directions relating to tire screw patterns and the number of tire screws, in order to reduce the risk of personal injury or vehicle and property damage. It is also extremely important to properly maintain the vehicle and the tire and to replace the tire at the first sign of a break, a crack, a cut, a hole, or the presence of dry rot. Do not install or replace Woody's tire screws in tires that show any of these conditions.

Woody's recommends no more than 1/16" protrusion beyond the outer edge of the lug surface. If greater protrusion is present, damage to the tire and other structural and mechanical components of the vehicle can occur.



Woody's Screw Technology™ - Spec Chart

	Total Length	Carbide Pin	Hex Size	Thread Diameter	Thread Length	Additional Specifications	Usage (may vary depending on lug height of tire)
Grip-It™ GRIP-IT	13mm / 0.512"	2.2mm / 0.087"	4mm / 0.157"	3.5mm / 0.137"	-	Carbide Insert, Zinc Coated, Flat Tip	Shoes, boots, waders, ATV, UTV, motorcycle, mini loader, bicycle
Attack™-15 Attack	15mm / 0.591"	3.1mm / 0.122"	6mm / 0.236"	5mm / 0.197"	-	Brazed Carbide Insert, Zinc Coated, Domed Tip, Coarse, Serrated Threads	ATV, UTV, motorcycle, forklift, mini-loader, tractor
Attack™ -18 Attack	18mm / 0.709"	3.1mm / 0.122"	6mm / 0.236"	5mm / 0.197"	-	Brazed Carbide Insert, Zinc Coated, Domed Tip, Coarse, Serrated Threads	ATV, UTV, motorcycle, forklift, mini-loader, tractor
Attack™ - 25 Attack	25mm / 0.984"	3.1mm / 0.122"	6mm / 0.236"	5mm / 0.197"	-	Brazed Carbide Insert, Zinc Coated, Domed Tip, Coarse, Serrated Threads	ATV, UTV, motorcycle, forklift, mini-loader, tractor
Boss™ BOSS	30mm / 1.181"	3.55mm / 0.140"	8mm / 0.315"	6mm / 0.236"	-	Brazed Carbide Insert, Zinc Coated, Pointed Tip	Loader, forklift, tractor
Gripper™ - 1250 GRIPPER	38.1mm / 1.500"	6.5mm / 0.255" diameter carbide disc 0.060" tall	12.7mm / ½"	7.6mm / 0.300"	31.8mm / 1.25"	Brazed Carbide Insert, Zinc Coated, Flat Tip	Groomer, mining, logging, agriculture
Gripper™ - 1500 GRIPPER	43.2mm / 1.700"	6.5mm / 0.255" diameter carbide disc 0.060" tall	12.7mm / ½"	7.6mm / 0.300"	38.1mm / 1.50"	Brazed Carbide Insert, Zinc Coated, Flat Tip	Groomer, mining, logging, agriculture