

How to Choose Alpine Ski Bindings

If you value your knees, you should value your bindings. Their technology detects when to keep you in your skis and when to pop you out. All bindings are made and thoroughly tested to safety standards, so any new pair you buy should serve you well when you crash.



Today's popular integrated ski/binding systems eliminate the decision-making process for some. But if you're shopping for non-integrated systems, here are some tips to help you make a smart choice.

The Basics of Ski Binding

Just as boots help control your skis, bindings are elemental to control and safety. They absorb shock, filter out vibration and reduce fatigue. Skis, boots and bindings work in unison, and a good pair of bindings can even help you ski better.

- **Components:** Bindings consist of a toe and heel piece. In a crash, the toe piece releases sideways and sometimes upwards, while the heel piece releases upward or multidirectionally.
- **Ski brakes:** Brakes are prongs attached to the bindings, under the boots. When boots are in the bindings, the prongs line up with the sides of the skis, out of the way. When the binding is released in a fall, the prongs flip down and catch the snow to help stop the ski from running away. Brakes also lock ski bases together for easier carrying. If you're buying a wide ski, make sure your brakes are wide enough to fit across the waist of the ski.
- **Anti-friction devices (AFDs):** These are metal or Teflon® pads mounted on the ski under the forefeet. The AFD allows the boots to slide easily out of the bindings when the toe pieces release.
- **Width:** As skis swell at the waistline, bindings are fattening up as well. Fortunately, most bindings you buy today will fit your skinny skis from yesteryear, though the brakes might stick out a bit.

Your Skier Profile

The bindings you buy should match your Skier Profile (described in our [Alpine Skis article](#)). Here's how this translates to bindings:

- **Beginner and intermediate:** You are a cautious to moderate skier (Type 1 or 2). You don't need the highest release setting or the most lightweight or impact-resistant materials. You can save money, but still stay safe, by going with a lower-end to mid-range model. The exception: If you're a heavy person, you'll need a higher release setting and may need to purchase up to the next level of bindings.
- **Advanced:** You are an aggressive skier (Type 3). You plan to push it, so you probably require a higher release setting. Lightweight, bomber bindings made with performance metals such as titanium enhance your skiing at high speeds and on steep terrain.
- **Juniors:** Kids' bindings have lower release settings than adult bindings. While made to

accommodate kid-specific boots, some bindings are designed to work on adult sizes as well.

Comparing Bindings

Understanding Release Settings (DIN)

A binding's ability to release at the right moment is as important as its ability to hold you the rest of the time. Release settings are often referred to as DIN (short for Deutsche Industrie Norm), a set of German standards that has long been used by the ski industry. More recently, some manufacturers are using the ASTM (American Society for Testing and Standards) equivalents instead of the DIN standard scale.

Release settings (whether DIN or ASTM) are based on your height, weight, age, skier type and boot sole length. The lower the number, the less force a binding needs to release. All bindings offer a range of release settings (usually 3 to 10 for intermediate models and up to 14 or 16 for advanced models).

Skier type is one of the key distinctions. Release settings should be based on how aggressively one skis, rather than simply his or her competency. For example, a technically proficient skier may have Type 3 skills, but chooses to ski more cautiously (Type 1 or 2). This skier would want a lower release setting. Conversely, less-skilled skiers (Type 1 or 2) may be skiing more aggressively and need a higher release setting so the vibrations and jarring of a fast run don't prematurely release the bindings and cause a crash.

IMPORTANT: Be honest when choosing your skier type. Release settings should be calculated and adjusted only by a certified technician.

Adjustment Range

This spec gives an indication of what size boots will fit into the bindings. Bindings with a large adjustment range will fit a wide range of boot sizes. This is most often a factor on kids' bindings.

Many bindings come with built-in or optional lifters. Lifters increase groomer and high-speed performance by stiffening the ski under the boot and adding leverage for better edge angle and response. Lifter materials may also help dampen ski vibration on the snow and absorb shock on landings. They help boost the energy transfer from the foot to the ski's edge. Marker, which has about half of the bindings business in the US, says their research shows that a lift of 11 to 12mm is optimal for 95% of the skiing population. Too much lift, however, lessens the returns making the ski heavier and less versatile.

Not everyone wants or needs lifters. Some powder skiers prefer little or no lift, so their skis are less "turny" and more stable when going straight at speed. Similarly, terrain park skiers require little or no lift for jumping, landing or skiing backwards.

Durability

Bindings are typically made of a combination of metal and plastic. Today's plastic is impact-resistant and tough enough for most skiers. But if you ski aggressively on your edges, you may want to go with a tougher binding with more metal parts.

Technology and Price

In general, the more expensive the bindings, the more performance features they offer. Bindings such as Marker's 12.0 Twin Cam Piston Control Turbo have high-tech features that may be worth the expense for advanced skiers. The Twin Cam features a hydraulic oil piston which dissipates

vibration and dampens the ski at speed. Other high-end bindings may use titanium and/or carbon and offer advanced shock-absorption technology. Beginner and intermediate bindings are still high quality, but without the added technology and higher prices.

Mounting and Setting

Mounting

The position where the binding is mounted on the ski affects performance. Most ski manufacturers recommend a mounting position, and a qualified ski shop such as REI will mount them as suggested. The farther back the binding is mounted, the stiffer and less "turny" the ski feels. Because women's center of gravity is farther back than men's, their bindings are often mounted slightly forward of center. This allows for less fatigue and better control when skiing. Park and pipers also tend to prefer a forward mount.

Shop technicians either attach bindings to a premounted track integrated into the ski by the manufacturer, or they drill holes in your skis to screw in the bindings. Each time a set of holes is drilled, the ski is weakened slightly. Different manufacturers use different drill hole patterns, so buying the same brand of bindings to remount on an old pair of skis can help avoid extra holes.

Setting

After purchase, your bindings should have their release settings set and tested by a certified technician. As noted earlier, this setting is based on your height, weight, age, skier type and ski-boot-sole length. The technician will have you fill out a form to answer these questions. Have this done at the beginning of each season or every 20 days of skiing. Important: We cannot guarantee release in all conditions and circumstances.

Use and Care of Bindings

Tips on Use

- Stand on a level patch of snow. If you're on a slope, stand sideways to the fall line and put your downhill ski on first for balance.
- Use your ski pole to tap excess snow off of your boot soles.
- Align the boot toe with the toe piece and the boot heel with the heel piece and step down into the binding until it clicks in.
- To get out, push your ski pole down on the indentation on top of the heel piece until it springs open and lift your foot up and out.

Tips on Maintenance

- Have your skis tuned and bindings inspected by a ski technician before each ski season. Bindings can't be tuned and are maintenance free. They can only be adjusted for release settings and inspected/tested.
- Keep the AFD (anti-friction device) clean and replace it immediately if it gets damaged.
- Do not attempt to wash out your bindings at the end of the season, as this can remove the factory lube. Only a certified technician should work on bindings.
- Store your skis in a warm, dry place in the off-season.