New Horizons

Safety Alubar and Safety Tech System 2013/14

MAKE IT A PERFECT DAY



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Photo Cover: Vaude – R. Attenberger





Our Passion

Ski touring and freeriding - this is where we are in our element, the origin of ski bindings with walk mode by Diamir - Fritschi Swiss. Developed with passion and made with top quality workmanship, they are reliable companions on any ski tour and on any ride.

Diamir, King of the Mountains

Ski bindings with walk mode made by Fritschi Swiss are named after the southwest side of Nanga Parbat. There is hardly any other mountain in the world that radiates similar fascination as does the 8125 meter peak in the western Himalaya. The most demanding alpine peak is also known as Diamir - King of the Mountains. Diamir towers above all: spectacular, dynamic and supreme.

Fritschi Swiss

Safety and reliability are the top priority in the mountains. To meet these high standards, we rely on our technical skills and extensive experience in ski touring on a daily basis. Quality and innovation are our personal goals. The products comply with DIN ISO norms and are checked and certified by the Technical Standards Board (TÜV), which also certifies our manufacturing processes.

Fritschi AG Swiss Bindings is located in Reichenbach im Kandertal. Switzerland. A dedicated staff of 45 develops and produces high quality bindings for those taking ski tours and freeriders. The high-tech products are sold under the brand Diamir - Fritschi Swiss via our own distribution and service network.

Quality Made in Switzerland

Diamir binding systems are distinguished by perfect design and superior guality. The complete process chain from material selection to functionality is controlled continuously. We conduct a system check on each individual binding. The precision and reliability typical for Fritschi Swiss are only possible in this way. Real Swiss guality also applies to our component suppliers. A total of 166 individual parts are required to produce a pair of bindings, and almost 100 percent of these parts come from Switzerland.

Real added value through genuine innovation

The innovative top-of-the-line technology of Diamir - Fritschi Swiss continually gives new impetus to the ski touring market. The driving force for innovations is the joy in developing products oriented to needs in an attractive design and consequently to contribute to the development of this great sport.



Two binding systems – one brand

Bar/frame system or tech system bindings with walk mode? Diamir - Fritschi Swiss has the answer! SAFETY ALUBAR SYSTEM or SAFETY TECH SYSTEM. Both are high-tech works of art, ingenious yet simple, Genuine innovation with sophisticated technology offering real added value to consumers. Both systems represent a combination of exclusive functionality, quality, and safety.

Bar/frame binding systems

In bar and frame binding systems the toe and heel parts are connected by a frame or a bar. As in alpine ski bindings, the sole of the ski boot is secured between toe piece and heel piece.

The walk mode is controlled by the rotation of the binding about an axis in the toe part.

System advantages

- · Multi-functional use for a variety of conditions
- · Safety release of an alpine binding
- Safety release settings also accommodate lightweight skiers (up to DIN value 3)
- · Step-in, step-out just as easy as alpine bindings
- · Compatible with all touring and alpine ski boots according to DIN/ISO

SAFETY ALUBAR SYSTEM

Diamir bindings with the SAFETY ALUBAR SYSTEM are by far the best multi-functional lightweight bindings with walk mode and safety release.

Advantages of the SAFETY ALUBAR SYSTEM compared to conventional frame designs:

- · Highest walk mode comfort
- · Unparalleled lateral stability in uphill mode
- Lightest weight
- · Easiest to use
- · The only activating crampon

Tech binding systems

In tech bindings, the ski boot is secured by pins in the toe and heel parts and by inserts in the sole.

The walk mode is controlled by the rotation of the boot via two pins in the toe part, which engage in corresponding inserts in the sole.

System advantages

- Free heel no moving weight in uphill mode
- Light weight
- Lower standing position

SAFETY TECH SYSTEM

Pin bindings have been redefined by the SAFETY TECH SYSTEM from Diamir - Fritschi Swiss. With an incredible weight of 499 g, the system offers superior handling functionality in addition to defined release.

Advantages of the SAFETY TECH SYSTEM compared to conventional tech systems:

- · Front lateral defined safety release
- · Frontal defined safety release
- · Safety release in uphill mode
- Easiest to switch from walk mode to downhill mode
- · Easiest adjustment of walk mode levels
- · Crampons for consistent traction depth

SAFETY TECH SYSTEM

Tour



Diamir Zenith 12



For ski tour buffs with highest demands

The first ever tech binding with defined release. The top-of-the-line ski touring binding for hard use in the high mountains and in difficult conditions. Genuine innovation with state-of-the-art materials and manufacturing methods.

Technical Specifications (Subject to technical changes)

DIN 5-12

Ski width >67 mm Weight 499 g/unit without ski brake Standard: ski brake 80, Ski brake weight: 70 g/brake

The Diamir SAFETY TECH SYSTEM comprises several patented technologies enabling a defined release even when the ski is bent. Compatible with all popular ski touring boots with corresponding inserts.

SAFETY ALUBAR SYSTEM

Sizes



Diamir SAFETY ALUBAR SYSTEMS are certified by the Technical Standards Board (TÜV) and fulfill DIN ISO norms 13992 and 9462 for touring and downhill ski bindings as well as for touring ski boots according to DIN ISO 9523 and downhill ski boots according to DIN ISO 5355.



SM: Boot sole length 260-315 mm / ML: Boot sole length 285-340 mm / XL: Boot sole length 330-365 mm Eagle 12 and Freeride Pro, 330-370 mm Scout 11.

SAFETY TECH Passion for Tour

DIAM



Diamir Zenith 12

Light, comfortable and safe from peak to peak. With its defined safety release, the Diamir Zenith 12 has introduced a new era of tech binding systems: innovative technology offering an incredible combination of safety, user comfort and power transmission.

Trendsetting SAFETY TECH

Similar to modern release systems of alpine bindings, lateral release is based on automatic toe release. Active length compensation provides a defined release, even when the ski is bent.

In terms of user comfort of tech bindings, the Diamir Zenith 12 with the Easy Switch Concept is playing in a different league. Broad support and maximum system stability ensure direct power transmission. A sophisticated mechanism in the crampon also achieves the seemingly impossible with a consistent traction depth in all walk mode levels.

Diamir Zenith 12 – for ski tour buffs with highest demands

State-of-the-art binding systems capable of handling continuously increasing requirements and meeting the specific needs of each individual user are in demand. Ski tour buffs are optimally equipped with the Diamir Zenith 12 for the difficult conditions in high mountain terrain. It is a binding made for the toughest mountaineering challenges. Its superior quality standard is reflected in state-of-the-art materials and the latest processing methods. The exclusive look underscores its very special blend of power and finesse.

Advantages compared to conventional tech bindings:

- Front lateral defined safety release
- Frontal defined safety release
- Safety release in uphill mode
- Easiest to switch from walk mode to downhill mode
- Easiest adjustment of walk mode levels
- Crampon with consistent traction depth

SAFETY TECH and system features

For detailed descriptions, see pages 8–11.

Technical data and boot compatibility

See page 4.

SAFETY TECH SYSTEM – Safety Tech



Developing an exceptionally lightweight release mechanism with defined release and fitting into an extremely limited mounting space is a technical masterpiece.

For safety-conscious ski touring enthusiasts who prefer a pin binding to meet their personal needs, a defined release, even when the ski is bent, is one of the key arguments for choosing a SAFETY TECH model from Diamir.

Advantages of the **SAFETY TECH SYSTEM** compared to conventional tech systems:

- Front lateral defined safety release
- Frontal defined safety release
- Safety release in uphill mode
- Easiest switch from walk mode to downhill mode
- Easiest adjustment of walk mode levels
- Crampon with consistent traction depth

Lateral safety release

Toe unit

Similar to modern release systems of alpine bindings, the lateral release in the toe unit occurs in two phases. In a first phase, the carriage with the toe pin unit slides laterally. In a second phase, the respective toe pin unit swivels out laterally to release the boot.

After the release, the toe pin unit can easily be reset by hand to its original position.



Integrated dynamic range

Similar to the Diamir SAFETY ALUBAR SYSTEM the SAFETY TECH SYSTEM also includes a dynamic range. The boot is not released until the dynamic range of 11 mm and the preset restoring force have been exceeded. As a result, the binding will only release when absolutely necessary.

This is an important safety feature, especially in uneven terrain.

Frontal safety release

Automatic heel release unit

The frontal safety release is triggered by the lateral swiveling of the heel pin units located in the heel housing.



After exceeding a dynamic range of 4 mm and the preset restoring force, the heel pin units slide over the restraining wedges of the heel insert in the boot to release it.



Defined safety release

Active length compensation – the key to defined release

To ensure a defined release by the release mechanisms in any skiing situation, the contact pressure of the boot must remain constant at all times.

In the SAFETY TECH SYSTEM, a consistent contact pressure is ensured, even when the ski is significantly bent, by the active length compensation through the sliding back and forth of the heel unit on a guiding plate.



Conventional tech bindings are not provided with length compensation within the binding system. Instead, when the binding is mounted and adjusted to the length of the boot, a small gap is provided between the gripping edge of the boot and the heel part of the binding. This is why the boot is jammed between toe and heel parts when the ski is significantly bent and as a result, a defined release is made impossible.

SAFETY TECH SYSTEM Features

The achievements of the Diamir bindings are legendary. The designers have consistently applied the fundamental principles to the SAFETY TECH SYSTEM. As a result, all functions are exceptionally easy to use and the system additionally offers superior power transmission.

Step-in / Step-out

Easy Switch Concept

Step-in / step-out made very easy with Easy Switch Toe and Easy Switch Heel.

Step-in

To step in, set the Easy Switch Toe to the step-in position and the Easy Switch Heel to the downhill position.



Simply move the tip of the boot forward over the step-in bracket in the toe unit and engage the toe pin units. The Easy Switch Toe is automatically set to the downhill position.



Then engage the boot with the heel insert via the heel pins.



Step-out

With a ski pole, the Easy Switch Toe can be conveniently set to the step-in position (bottom). The toe pin units will open and release the boot.



Boot compatibility

Compatible with all commonly used ski touring boots with corresponding inserts.

Switch between downhill and walk mode

Easy Switch Concept

With a ski pole, the Easy Switch Toe and the Easy Switch Heel it is very easy to switch between downhill and uphill mode

Uphill mode – including release

The SAFETY TECH allows tech bindings to do what used to be reserved for bindings with jaw system: releasing in uphill mode.

In older tech bindings without release in uphill mode the toe unit is blocked while climbing to secure and laterally stabilize the tip of the boot. In addition, the system especially ensures that the pin levers will not inadvertently open as a result of lateral forces acting on the boot.

In the SAFETY TECH, on the other hand, the toe pin units secure the tip of the boot without being blocked in uphill mode and will only release if necessary.

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Additionally, the torsional forces acting on the tip of the boot are compensated by a special mechanism, providing the boot with optimum lateral stability for a secure footing.

The system can be set to the uphill mode in two easy steps.



1. With the Easy Switch Toe in uphill mode (top), the tip of the boot is additionally stabilized laterally in the toe unit.



2. With the Easy Switch Heel in uphill mode (bottom), the heel is released to allow walking.



Downhill mode

It doesn't get any easier. Lift the boot slightly above the heel pins, set the Easy Switch Heel to the downhill position (top) and engage the boot with the heel insert via the heel pins. Then set the Easy Switch Toe to the downhill position (middle).



Adaptation to the slope angle

Comfort Lever for three walk mode levels $0^{\circ}/9^{\circ}/13^{\circ}$

Adapting the walk mode to the slope angle is a breeze. The three optimally synchronized walk mode levels can be set in no time.

- The uphill mode (Easy Switch Heel in uphill mode) also corresponds to the first walk model level (0°).
- The second walk mode level (9°) is activated by simply pushing the Comfort Lever 1 forward.



• For walk mode level 3 (13°) switch the Comfort Lever 2 to the Comfort Lever 1.



The walk mode levels can be changed at any time and very easily with a ski pole.

Power transmission

Full power transmission

As a result of the broad support and maximum stability of the system, the power is transmitted very directly from the boot to the ski.

The optimally selected arrangement of the mounting screws for the torsion-resistant toe housing provides extensive support to the system.

The precision with which the stable heel housing is controlled on a torsion-resistant plate mounted directly on the ski also achieves maximum power transmission in the heel part.

Traction

TRAXION TECH – crampons with variable traction depth

Difficult to believe: crampons with consistent traction depth in the snow in all walk mode levels. TRAXION TECH achieves the seemingly impossible.

Depending on terrain, conditions and personal needs, the depth of the teeth biting into the snow can be easily and considerably increased by hand in the second and third walk mode levels.

GLIDING TECH Passion for Tour

Diamir Eagle 12

The peak is always the goal. Diamir Eagle 12 goes where no bar/frame binding has gone before: it combines maximum walking comfort and stability without the least compromise in DIN ISO certified safety, including the simplest handling.

Trendsetting GLIDING TECH

A complex mechanical gliding system allows the center of rotation of the Diamir Eagle 12 to be optimally positioned. As a result, the foot rolls off naturally to provide walking comfort at the level of pin bindings. In terms of safety release, the Diamir Eagle 12 is comparable to modern jaw binding systems. With its exclusive lightweight design and torsion-resistant bar instead of a frame, it is exceptionally easy to use and ensures excellent power transmission. The activating crampon is another technical exclusivity.

Diamir Eagle 12 – for ski tour buffs with highest demands

State-of-the-art binding systems capable of handling continuously increasing requirements and meeting the specific needs of each individual user are in demand. Ski tour buffs are optimally equipped with the Diamir Eagle 12 for the difficult conditions in high mountain terrain. It is the bar/frame binding with the highest walk mode comfort. Its superior quality standard is reflected in the meticulous workmanship of light, yet robust high-tech materials. Advantages compared to touring bindings with conventional frame design:

- Highest walk mode comfort
- Unparalleled lateral stability in uphill mode
- Light weight
- Easiest to use
- The only activating crampon

GLIDING TECH and system features

For detailed descriptions see pages 18-21.

Technical data and boot compatibility

See page 5.



COMPACTTECHPassion for Tour All Mountain

Scout

Diamir Scout 11

Among the bindings with walk mode the Diamir Scout 11 offers the broadest range of use. With its outstanding All Mountain Performance, everything – from tough alpine ski tour to powder riding or a day on the slopes – is pure unadulterated fun.

Trendsetting COMPACT TECH

The latest safety technology is integrated in the exceptionally torsion-resistant and light Compact Module. The Compact Module is also the focal point for all other functions, from walk mode comfort to ease of use and safety, the excellent downhill qualities, and not least the reason for the light weight of this bar design. The activating crampon is another sophisticated technical feature of this system.

Diamir Scout 11 – for ambitious ski touring enthusiasts and multi-talented skiers

State-of-the-art binding systems capable of handling continuously increasing requirements and meeting the specific needs of each individual user are in demand. The Diamir Scout 11 is the right binding for combined use in any terrain – for ski tours and on the slopes. It is also the lightest bar/frame binding, a compact package of high-quality materials and innovative design. Advantages compared to touring bindings with conventional frame design:

- Superior walk mode comfort
- Best all-around qualities
- Unparalleled lateral stability in uphill mode
- Lightest weight
- Easiest to use
- The only activating crampon

COMPACT TECH and system features

For detailed descriptions see pages 18–21.

Technical data and boot compatibility

See page 5.



PIC TECH Passion for Freeride All Mountain

PRO

THILE ELEMENTE

MIR

Diamir Freeride Pro

The Diamir Freeride Pro honors a promise, which is made possible with the new skis. Their power transmission is superior on wide skis, and they appeal with luxurious walking comfort at the same time. As a result, going uphill is not an obstacle in finding the perfect run.

Trendsetting PTC TECH (Power Transmission Control)

With wide and torsion-resistant front and rear plates and stabilization of the end piece, the Diamir Freeride Pro achieves direct power transmission and extraordinary lateral stability that can stand up even to highend alpine bindings.

The release systems meet the safety standard of alpine bindings. An optimal center of rotation for the uphill mode, maximum ease of use and activating crampons are other technical highlights of this lightweight bar design.

Diamir Freeride Pro – for powder freaks and freeriders

State-of-the-art binding systems capable of handling continuously increasing requirements and meeting the specific needs of each individual user are in demand. The Diamir Freeride Pro is the perfect binding to fully enjoy fresh powder on thrilling downhill runs, way off the slopes. It is the lightest freeride binding with the highest walking comfort, made of robust high-tech materials and with a striking shape and trendy graphic design to give it that special look. Advantages compared to freeride bindings with conventional frame design:

- Highest walk mode comfort
- Best lateral stability in uphill mode
- Lightest weight
- Easiest to use
- The only activating crampon

PTC TECH and system features

For detailed descriptions see pages 18–21.

Technical data and boot compatibility

See page 5.



SAFETY ALUBAR SYSTEM Core Technologies

The exclusive technical feature of the SAFETY ALUBAR SYSTEM is the exceptionally torsion-resistant connection between toe part and heel part by a patented system with a sliding bar made of a special aluminum alloy.

The Core Technologies are clever tricks at high-tech level, ingenious yet simple. Like building blocks they are integrated into the various models, giving the bindings their very specific characteristics according to the needs of any user, from ski touring enthusiasts to multi-talented skiers and freeriders.

Advantages of the **SAFETY ALUBAR SYSTEM** compared to conventional frame designs:

- Highest walk mode comfort
- Unparalleled lateral stability in uphill mode
- Lightest weight
- · Easiest to use
- The only activating crampon

Diamir Eagle 12

GLIDING TECH Complete walking comfort without any compromise to safety

Diamir Gliding Technology has revolutionized the walking comfort, making walking as natural and safe as never before. The distinct innovative technology received the ISPO Outdoor Award.

Optimally placed rotation point

The Diamir Gliding Technology makes it possible to construct the binding with an optimally placed rotation point. Because this allows the foot to roll off naturally, walking comfort is substantially enhanced. A moving base plate guarantees complete freedom of movement, even in extreme situations where the natural walking angle is exceeded. At the same time, the Diamir Gliding Technology allows integration of the latest safety features.



Diamir Scout 11

COMPACT TECH Universal Performance

The latest innovation from Diamir – Fritschi Swiss, compact technology, makes it possible to handle changing requirements optimally depending on the terrain with wide-ranging binding use. The functions of alpine touring bindings have to be perfect in different snow and weather conditions.

The core piece of Compact Technology is the extremely torque-resistant and light **Compact Module.** It integrates various Diamir technologies perfectly and ensures their reliable functioning under all conditions.

Optimum functions from outstanding walking and handling convenience to safety and downhill properties, lightweight and attractive look.



Frontal safety release
Hinge support
Inclusion of the sliding binding bar

Diamir Freeride Pro

PTC TECH Downhill performance of a high-end alpine binding

What distinguishes the new Diamir Freeride Pro is the latest Power Transmission Control (PTC) generation. It allows the power to be transmitted mercilessly onto the ski. In other words: PTC is the key to good edge grip along the entire length of the ski. This way, the Diamir Freeride Pro achieves a downhill performance that can stand comparison with any high-end alpine binding. Several elements ensure consistent and direct powertransmission: At the front, the binding features a wide and torsion-resistant PTC front plate ①, which is further reinforced by a bridge. With its stabilizing profile, the PTC special plate at the rear ② ensures an optimal power curve. In addition, a stabilizer fixes the PTC end piece ③, providing significantly higher lateral stability.



Safety Alubar System 19

SAFETY ALUBAR SYSTEM Features

The characteristic and so typical features of the SAFTEFY ALUBAR SYSTEM have left a permanent mark on the world of ski touring and continue to make a major contribution to the advancement of the sport through continuous new developments.

With its lightweight design and TÜV-tested safety features the system also stands out by its excellent walk mode comfort, exceptional ease of use of all functions and superior power transmission.

Safety



Lateral safety release Rotating toe piece

Exactly as with alpine bindings, the rotating toe piece provides a lateral release. The special, extraordinarily long dynamic range on both sides only releases ski boots after 20 millimeters. This reduces the number of unintentional releases to a minimum and triggers the release when there is continual lateral force. This mechanism is supported by a high restoring force. This feature is extremely important for safety, especially in uneven terrain.

Modern swivel antifriction plate

Safety above all: The swivel plate with smooth surface enables consistent and friction-free sliding of the boot. This is particularly important for touring and freeride boots with rubber soles.



Frontal safety release Automatic heel release

The binding only releases after a long dynamic travel of 13 mm and consequently only reacts in an emergency. The perfect fit of the automatic heel releases ensures optimum foothold for all touring and alpine ski boots normed according to DIN ISO.



Defined safety release

Active length compensation – the key to defined release Diamir release systems are designed for a defined release of the boot in any skiing situation. The active length compensation of the sliding binding bar on which the boot is secured via toe piece and heel mechanism ensures constant surface pressure, even when the skis are substantially bent.

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Comfort

Easy step-in / step-out

Stepping in and out of the binding is just as easy as it is with Alpine ski bindings.

Boot compatibility

The Diamir SAFETY ALUBAR SYSTEM is compatible with all touring ski boots with rubber soles and Alpine ski boots according to DIN ISO.



Switch between downhill and walk mode Comfort Lock

Switching between uphill and downhill mode using a ski pole is just as easy and quick as changing the walk mode levels. Similar to the jaw systems of modern safety bindings, the tip of the boot is secured by contact pressure in the toe piece and laterally stabilized, irrespective of the mode. Therefore, the system is sure to release even in uphill mode.



Adaptation to the slope angle Comfort Lever for four walk mode levels 0°/3°/9°/13°

Change between four optimally synchronized walk mode levels with maximum ease. You can change the walk mode level very simply using your ski pole. Diamir bindings provide optimum lateral stability for secure footing in every walk mode level.

Power transmission



Sliding binding bar

In the SAFETY ALUBAR SYSTEM of the Diamir bindings the boot is securely fixed onto the stable linkage of the binding bar between the toe piece and heel mechanism. The bar slides back and forth in a guide as the ski bends. This active compensation to the front and back allows the best natural flex and thus always ensures full edge grip along the entire ski.

Broad support

The broad support of the binding via the hinge support in the toe part and the heel support in the back causes a direct transmission of power.

Traction



Axion technology – Unmatched functionality and safety

With the Axion crampon, the days of risky mounting maneuvers in tough terrain are over. Because the Axion is fastened to the binding right at the start of the tour, it is ready for action at all times. In

severe snow conditions before a steep slope or an awkward traverse, it can be activated easily with the ski pole, thus offering secure support. Once it is no longer needed, it is just as easy to deactivate. There is no need for the Axion to disappear into the rucksack before the skins come off. The Axion is the only crampon which is so convenient to use and for that very reason it makes a substantial contribution to safety. The innovative metal part with teeth has been awarded the ISPO.





SAFETY ALUBAR SYSTEM – Accessoires

Essential in the mountains: the right equipment.

Axion crampon

The Axion crampon is available in two sizes 86 and 110.

×.	Diamite 12 Di	Scout 11 Di	anif the Pro
Axion Crampon 86	0	0	0
Axion Crampon 110	0	0	0
Ski brake 80			0
Ski brake 90	•	•	
Ski brake 100	0	0	
Ski brake 115	0	0	0
Safety strap	0	0	0

standard equipment
optional

The data apply to ski width in mm.

Subject to technical changes.



Ski brake

The ski brake has been developed especially for the Diamir binding systems. It is an important part of the equipment, which is geared towards the greatest possible safety.



Safety strap

The safety strap is easy to use and can be quickly fixed when required.







Schweizer Bergführerverband

Schweizer Alpen-Club SAC Club Alpin Suisse Club Alpino Svizzero Club Alpin Svizzer



Diamir is official partner of the Swiss Alpine Club SAC and the Swiss Mountain Guides Association.



Fritschi AG Swiss Bindings Hauptstrasse 9 CH-3713 Reichenbach

Phone +41 33 672 14 15 Fax +41 33 672 14 10 info@fritschi.ch www.fritschi.ch

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