



**VIST ALPINE BINDING
TECHNICAL MANUAL 2006/07**

Installation and service manual
for retailers



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Introduction

Mounting and service manual for dealers.

This technical manual is published by VIST to provide information for VIST North America authorized dealers regarding the installation, adjustment and servicing of VIST alpine ski bindings. Please call VIST North America Customer Service at 866.900.8478 if you have any questions for which you cannot find a clear answer in this manual or send an e-mail to: *northamerica@vist.it*

VIST bindings have been designed and manufactured to meet the latest technology and conform to all applicable American and international standards.

VIST bindings have been designed to provide maximum performance and convenience when used in conjunction with skis & plates. These three products are designed to work together to maximize the skier's experience on the snow as well as easier and quicker mounting in the shop. Although designed as part of an integrated system, VIST bindings, skis and boots are compatible with all products that meet current ASTM and ISO standards.

The exclusive use of original VIST materials will enable you to offer excellent service, which is easier to carry out and saves time and energy. This manual covers the most important aspects of mounting, care and maintenance of VIST bindings to enable you to offer your customers VIST products and premium assistance.

Please read this manual carefully. This manual states the only procedures that are recommended by VIST for the installation, adjustment and servicing of VIST bindings. Making technical modifications to bindings or failing to follow the procedures in this manual will void all warranties on the product and render your shop ineligible for indemnification from VIST in the event of a legal claim.

A copy of this manual should be kept in the workshop, and another copy should be filed for future reference.

1.0 Technical description of VIST binding components

1.1 X-Key Bindings

- X-Key V614
- X-Key V412
- X-Key V311

Fig. 1a / 1b - Fig. 2

- A. Toe-piece release setting adjustment screw (Z setting)
- B. Toe-piece release value adjustment indicator (Z setting)
- C. Anti-friction plate (DIR) /
- C*. New Anti-friction device (fixed plate)
- D. Heel-piece release value adjustment screw (Z setting)
- E. Elastic recovery rear screw
- F. Heel-piece release value adjustment indicator (Z setting)
- G. Ski brake fixing screw
- H. Heel-piece lever
- I. Heel pressure indicator notch
- J. Ski brake fixing notches
- K. Ski brake rods

Fig. 1a

Fig. 1b

Fig. 2

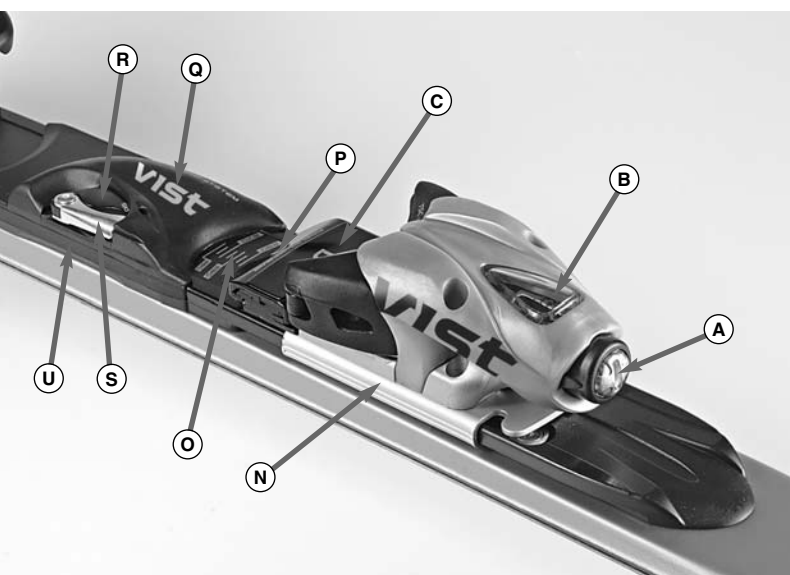


Fig. 3

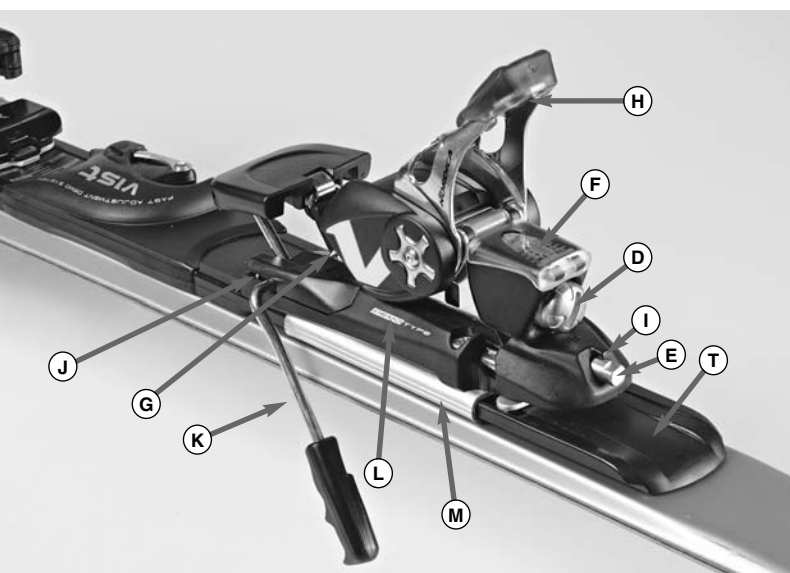


Fig. 4

1.2 X-Key Demotype bindings

- X-Key V412
Demotype Universal

- X-Key V311
Demotype Universal

Fig. 3 - Fig. 4

- A. Toe-piece release setting adjustment screw
- B. Toe-piece release setting adjustment indicator
- C. Anti-friction plate
- D. Heel-piece release setting adjustment screw
- E. Elastic recovery rear screw
- F. Heel-piece release setting adjustment indicator
- G. Ski brake fixing screw
- H. Heel-piece lever
- I. Heel pressure indicator notch
- J. Ski brake fixing notches
- K. Ski brake rods
- L. Demotype label
- M. Rear aluminium slide
- N. Front aluminium slide
- O. Size adjustment scale
- P. Size adjustment indicator
- Q. Central cover
- R. Locking lever/unlocking device
- S. Metal safety lever
- T. Base plate
- U. Mid-way reference for mounting

2.0 Accessories and checks for installation of bindings

2.1 Drilling jigs

2.1.1 Generic drilling jig for bindings X-Key V311, X-Key V412 and X-Key V614 (Fig. 5)

- A. Fixing clamps control levers
- B. Fixing clamps
- C. Size adjustment lever
- D. Holes for heel-piece
- E. Holes for toe-piece
- G. Reference line for mounting
- H. Sole length graduated scale in mm

The drilling jig was specifically made for mounting VIST Demotype bindings on the majority of skis found on the market. The jig is adjusted according to the length of the sole of the boot to be used with the bindings.

2.1.2 Drilling jig for Demoplate Univ. bindings X-Key V311, X-Key V412 (Fig. 6)

- A. Fixing clamps control levers
- B. Fixing clamps
- C. Reference line for mounting

The drilling jig was specifically made for mounting VIST Demotype bindings on the majority of skis found on the market.

2.2 Other accessories needed for mounting

The following items are required for mounting:

- Electric drill
- Electric screwdriver with adjustable torque. Use Pozidrive (PZ) No.3 type tools. Philips (PH) cross-head screwdrivers are not suitable for normal ski binding screws because their different shape could damage the screws.
- Ski clamp
- Pozidrive screwdriver (PZ) No.3
- VIST jig for bindings (MA07)
- 4.1/9 mm or 3.5/7 mm drilling bit.
- Waterproof marking pen

Attention: do not use any type of glue when mounting the bindings.

Attention: Only use original VIST screws. If some screws are missing, call the VIST Customer Service (number: 866.900.8478)

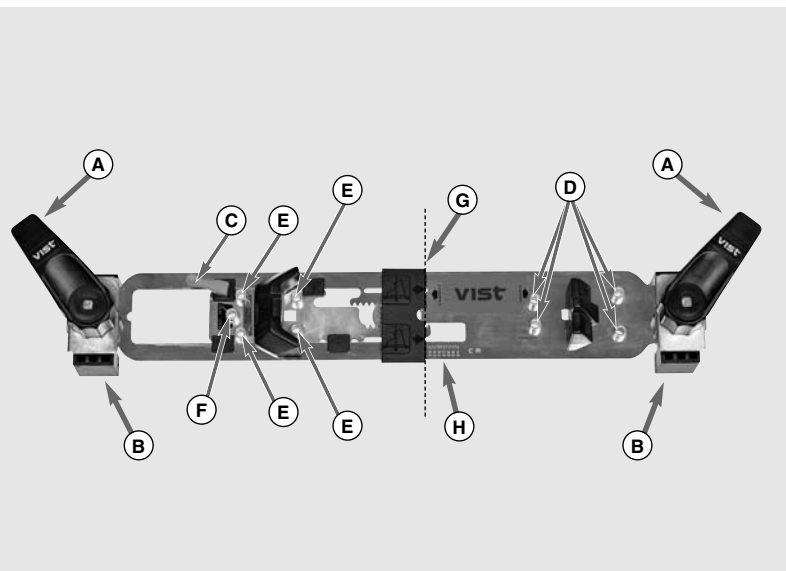


Fig. 5

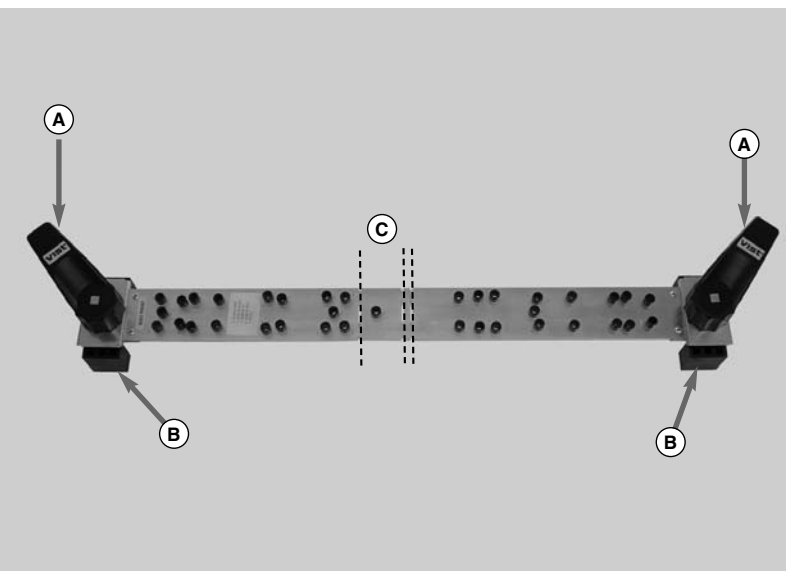


Fig. 6

2.3 Preparation and checking of all components

GUIDELINES FOR INSPECTION OF SKI BINDINGS

1. Every VIST binding complies with or exceeds the requirements of all ASTM or ISO standards for bindings at the time of design and manufacture.
2. Whenever work is carried out on VIST bindings, they should be inspected and checked. This is especially important when bindings that have already been used are to be fitted.
3. The ski/binding/boot system must be inspected and tested each time any component is adjusted, replaced or repaired.

Check the bindings as described below

1. Check that the DIN adjustment range is suitable for the user.
2. Check the interface surfaces with the boot: if there are signs of excessive wear or damage, repair or replace the component.
3. Check the anti-friction plate: it must not show signs of wear and there must be no missing parts.
4. Check that the ski brake arms are not broken or bent, that they retract fully when the boot is inserted and that the spring is strong enough to easily support the weight of the ski resting on a flat surface.
5. Check that there are no missing or damaged screws.
6. Check that the indicators and graduated scales are clearly legible.
7. All surfaces must be clean. Check that there are no signs of corrosion, rust or dirt in general. Clean the binding with a damp cloth or compressed air.

Do not use solvents to clean the bindings.
Do not use silicones or other types of lubricant.

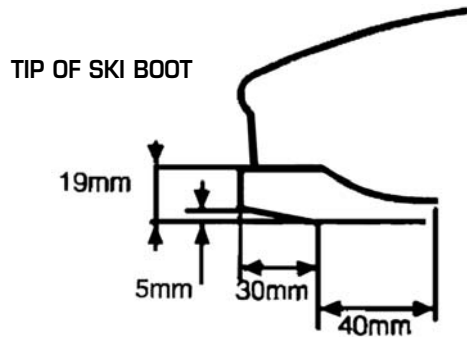


Fig. 7

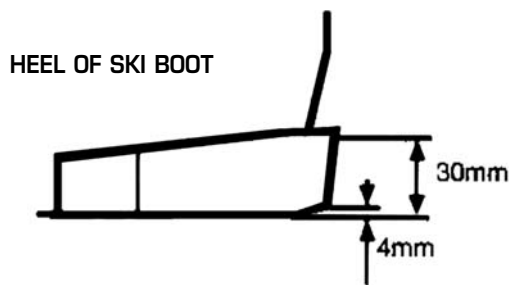


Fig. 8

GUIDELINES FOR INSPECTION OF SKIS

1. In general, all skis are designed (in accordance with ISO standards) with suitable reinforcement in the binding mounting area. Nevertheless, there may be differences in the materials used or in ski geometry: You should therefore always follow the instructions supplied by the ski manufacturer regarding the best procedure for installing bindings.
2. Always follow the ski manufacturer's instructions regarding the size of drill bit to be used. In the absence of such instructions, follow the instructions below:

Check the skis as described below

1. Check that the ski is thick enough to take the binding fixing screws. Once the binding has been fitted, the screws must not pierce or distort the base of the ski. If you suspect that the ski might be too thin, position the binding component so that the screw hangs down alongside the edge of the ski. If you think the screw might project beyond the base, use shorter screws or very carefully, shorten the existing screws. **Take great care when assembling children's skis.**
2. Check the width of the ski: if the ski is too narrow, the screws could cause splitting or distortion of the ski.

GUIDELINES FOR INSPECTION OF SKI BOOTS

1. VIST bindings must be used with boots manufactured in accordance with the following standards: **ISO 5355, DIN 7880, ASTM F944.**
These standards define the critical profiles of the boot toe and heel to ensure total compatibility with the binding.
2. When fitting and adjusting bindings, the boots that will actually be used by the skier must be used as the reference.

Check the boots as described below

1. If the boot conforms to standards, it must be stamped with the ISO or DIN mark. If no such marking is present on the boot, contact the manufacturer to obtain the correct procedure for modifying the boots

to make them conform to the standards. If the boot can be modified to make it comply with ISO standards, then it can be used with VIST bindings.

2. Check the height and width of the sole in the areas which come into contact with the binding. Make sure that the sole is perfectly flat.
3. Inspect the contact area with the anti-friction plate: the sole must not show signs of damage or excessive abrasion; it must be flat and smooth.
4. Check that there are no signs of excessive abrasion on the sole in all areas which come into contact with the binding. The sole must not be worn beyond the minimum dimensions specified in the standards. **If in doubt, it is preferable to replace the boot.**
5. Nothing which may interfere with normal functioning of the binding must be inserted between the sole/binding interface.
6. Boots with thermoplastic rubber soles and, in particular, boots designed for ski mountaineering, are not suitable because they could prevent correct functioning of the binding.
7. Check whether the boot is an adult or children's model. **Boots that according to the standards are defined as children's boots, must not be used with VIST adult bindings.**

(Please refer to figures 7 and 8 for the sole dimensions required for VIST bindings).

Note: All dimensions have a tolerance of +/- 1 mm.

3.0 Mounting the bindings

3.1 Mounting VIST X-Key bindings directly on skis or on a plate that is not predrilled

If you want to mount VIST X-Key on skis directly or on a plate that is not predrilled, you must use the specific drilling jig (*Fig. 5*).

Note: do not carry out the following procedure on skis with VIST perforated plate.



Fig. 9

3.1.1 Adapting the jig to the length of the boot:

1. Open the locking lever of the jig (*Fig. 5, C*) and pull its mobile part outwards.
2. Place the boot on the jig then press the mobile part against the end of the boot and close the locking lever.
3. Should the boot not be available, adjust the jig according to the length of the sole of the boot (*Fig. 9*), referring to the graduated scale (in mm) found on the jig (*Fig. 5, H*).

3.1.2 Drilling the ski:

1. Fit the skis in the vice and place the mid-way mark of the jig according to the instructions of the ski manufacturer. Always check that the jig adheres perfectly to the surface of the ski/plate.
2. Place the boot on the jig again, and make sure that it fits tightly (and cannot move) between the front and rear part of the jig. For the mounting position of the binding, refer to the boot's mid-way sole positioning indicator found on the ski.
3. Drilling: follow the instructions of the ski manufacturer with regards to diameter and depth of the hole. In case of doubt, you must always use the shortest and thinnest bit first (3.5/7mm), and then if necessary use a bigger bit.
4. Cleaning: after you have finished drilling, open the vice, turn the ski over and hit it on the base with the palm of your hand to make the shavings fall out. Fit the ski in the vice again, then pour some detergent on a piece of paper or a cloth and clean the surface of the ski (use only a minimum quantity of detergent in order to prevent it from going into the holes).

Attention: do not use any type of glue when mounting the bindings.

Note: the bindings manufacturer shall in no way be liable for any damage caused to the skis when the bindings are being mounted.



Fig. 10



Fig. 11



Fig. 12



Fig. 13

3.1.3 Mounting the toe-piece of X-Key bindings:

1. Fit the anti-friction plate in the housing of the toe-piece (if the toe-piece has the new Anti-friction device, it is already fixed), place them both on the plate in such a way as to make the four toe-piece screws correspond to the holes on the ski/plate.
2. Screw each of the other four screws of the toe-piece 1-2 turns using the electric screwdriver with Pozidriv (PZ) No.3 drill bit, then check if the binding is placed properly. Finish screwing on all screws and then check the tightness (**Fig. 10**) with the manual Pozidriv (PZ) No.3 screwdriver.

3.1.4 Mounting the heel-piece of X-Key:

Attention: when mounting, the heel-piece must be closed, i.e. with the lever turned upwards.

1. Place the heel-piece on the ski/plate in such a way that the screws are aligned with the hole made beforehand.
2. Screw all four screws 1 or 2 turns with the electric screwdriver and check positioning. Finish screwing on the screws and then check the tightness (**Fig. 11**) with the manual Pozidrive (PZ) No.3 screwdriver.

Attention: make sure you hold the screwdriver vertically (perpendicular to the surface of the ski) when screwing on the rear screws of the heel-piece. We recommend that you do not force the plastic housings of the screws sideways in order to prevent the plastic from breaking or deforming.

3.1.5 Mounting the ski brake:

1. Place the two metal notches on the front part of the brake (Figure 1, J) in their housing on the base of the heel-piece (**Fig. 12**).
2. Turn the brake backwards and tighten the screw with the manual Pozidriv (PZ) No.3 screwdriver (**Fig. 13**).
3. Check if the two rods (Figure 1, J) can move freely along the sides of the ski.

Note: the brake can only be mounted on skis with a maximum width of 74 mm.

For skis wider than 74 mm width ask for VIST wide ski brake (cod. VK-WBRAKE). For skis wider than 100 mm width ask for VIST XL wide ski brake.

Note: never press the brake before mounting it.

3.2 Particular mounting situations

If the boots are too large or too small in respect to the mounting jig, proceed as follows:

1. Place the boot on the ski in such a way that the mid-way sole indicator corresponds with the corresponding mark found on the ski.
2. Clearly mark (on the ski) the position of toe and heel of the boot. There are some slits on the jig (at area of toe and heel of the boot) from which you can see the surface of the ski.

Attention: as the holes in this case are drilled out of the area normally used for mounting the binding, you must measure the thickness of the ski in order to check that the tip is not too long. Ski thickness must be at least 11mm, to prevent the drill bit from perforating the ski from side to side, thus permanently damaging it.

Note: the bindings manufacturer shall in no way be liable for any damage caused to the skis when the bindings are being mounted.

3. Place the jig on the ski in such a way that the slit on it (corresponding with the toe of the boot) matches the mark made on the ski. **Only drill holes for the toe-piece.**
4. Place the jig on the ski in such a way that the slit on it (corresponding with the heel of the boot) matches the mark made on the ski. **Only drill holes for the heel-piece.**
5. Continue with the mounting as described in paragraph 3.1.

Attention: do not use any type of glue when mounting the bindings.



Fig. 14

3.3 Mounting VIST Demotype Universal bindings

VIST Demotype Universal bindings have been designed to be mounted exclusively on skis with a flat profile.

3.3.1 Drilling the ski

To ensure correct alignment of the binding, you must use the specific drilling jig for the Demotype Universal version (MA06) to drill the ski (**Fig. 6**).

1. Open the clamps (**Fig. 6, B**) turn the two levers (**Fig. 6, A**) and place the jig in the right direction (check the instructions on the labels).
2. Move the jig until the midways of the jig (**Fig. 6, C**) and the ski are aligned. Check that the jig adheres completely to the ski. Moreover, check that the clamps are firmly in contact with the sides of the ski.
3. Drilling: follow the instructions of the ski manufacture with regards to diameter and depth of the hole. In case of doubt, you must always use the shortest and thinnest bit first (3.5/7mm), and then if necessary use a bigger bit.

Attention: do not use any type of glue when mounting the bindings.

Note: the bindings manufacturer shall in no way be liable for any damage caused to the skis when the bindings are being mounted.

3.3.2 Mounting the base plate

1. Take the demo plate out of the box, unlock the adjustment device and place the aluminium slides as near as possible to each other (size indicator at 260 mm) (**Fig. 14**).
2. Place the plate in the right direction on the ski and move it until the mid-way of the ski and the plate are aligned. Then check if the housings of the screws perfectly correspond to the holes drilled on the jig beforehand.
3. Take the two steel bushings out of the nylon bag and fit them in the two housings nearest the tip of the plate, then fit the eight screws in the corresponding holes/bushings (**Fig. 14**).
4. Fasten the screws: with regards to the torque (N/m), follow the instructions of the ski manufacturer.



Fig. 15



Fig. 16



Fig. 17



Fig. 18



Fig. 19

3.3.3 Mounting the toe-piece of X-Key bindings:

1. Fit the anti-friction plate in the specific housing of the toe-piece, placing them both on the front aluminium slide in such a way as to align the screws to the holes of the plate (**Fig. 15**).
2. With the electric screwdriver equipped with Pozidrive (PZ) bit No.3, make the screws of the toe-piece turn 1-2 times each then check if the binding is positioned correctly. Finish screwing on all the screws then with the manual Pozidrive (PZ) No.3 screwdriver, check the tightness (**Fig. 16**).

Attention: maximum closing torque 4 N/m.

3.3.4 Mounting the heel-piece bindings X-Key

Attention: when mounting, the heel-piece must be closed, i.e. with the lever turned upwards.

1. Place the toe-piece on the aluminium slide in such a way that the screws are aligned with the holes.
2. With the electric screwdriver make all four screws turn 1-2 turns and check the positioning. Finish screwing on the screws then with the manual Pozidrive (PZ) No.3 screwdriver; check the tightness (**Fig. 17**).

Attention: maximum closing torque 4 N/m.

Attention: make sure you hold the screwdriver vertically (perpendicular to the surface of the ski) when screwing on the rear screws of the heel-piece. We recommend that you do not force the plastic housings of the screws sideways in order to prevent the plastic from breaking or deforming.

3.3.5 Mounting the ski brake

1. Fit the two metal notches found on the front part of the brake (**Fig. 2, J**) in the specific housing on the base of the heel-piece (**Fig. 18**).
2. Turn the brake backwards and screw on the screws with the Pozidrive (PZ) No.3 screwdriver (**Fig. 19**).
3. Check if the two rods (**Fig. 2, K**) can move freely along the sides of the ski.

Note: the brake can only be mounted on skis with maximum width of 74mm.

For skis wider than 74 mm width ask for VIST wide ski brake (cod. VK-WBRAKE). For skis wider than 100 mm width ask for VIST XL wide ski brake.

Note: Never press the brake before mounting it.

4.0 Adjusting the binding

General instructions:

The applicable standards for adjustments to ski bindings are the international standards, and therefore for legal purposes (product responsibility) any adjustments must be carried out in strict conformity with the international standards. In case of doubt always contact the organisations responsible for conformity of standards. All the adjustments that are not in conformity with the aforementioned standards are the responsibility of the persons (dealers or consumers) who have carried out such adjustments. Avoid carrying out adjustments that are not in conformity, in particular avoid:

- Adjusting settings that are higher than visual indicator setting Z-10 (red zone).
- Use with ski boots that have soles in thermo-plastic, such as alpine touring ski boots.

Important warnings: Adjustment and maintenance of the bindings must be carried out by a specialised dealer according to the instructions included in the manufacturer's technical manual. The adjustment of the release functions should always be checked by specialised personnel with special certified equipment. Adjustment and control of correct functioning of the bindings must be carried out again every time the bindings are removed and mounted on the same skis or mounted on skis other than those on which they were previously mounted (even if their setting was correct) insofar as during the detachment-mounting operations the balance of the ski-binding-boot function system could change and thus the release setting may be modified.

Attention: The boot and binding constitute a function unit therefore never replace or modify the individual components without re-adjusting and controlling the release setting.



Fig. 20



Fig. 21



Fig. 22



Fig. 23

4.1 Adjusting the toe-piece height of X-Key bindings

A special spring housed in the toe-piece of X-Key bindings ensures automatic toe-piece height adjustment when the boot is fitted into the binding. **Never carry out manual adjustments.**

Attention: Check that the sole is not excessively scratched in all the parts in contact with the binding. The sole must not be worn out to the extent that goes over the minimum requirements established by the standards. **If in doubt, replace the boots.**

- Boots that according to regulations are defined as children's boots must not be used with VIST adult bindings.

4.2 Micrometric toe-heel size and pressure adjustment for X-Key bindings

1. Fit the boot in the binding then close the binding.
2. Turn the screw on the rear of the toe-heel (**Fig. 2, E**) until the screw head is aligned with the reference notch on the base of the toe-heel (**Fig. 2, I**). (**Fig. 20**).
3. Open and then close the binding to check if the adjustment is precise. If the head of the screw does not match perfectly with the reference notch, repeat point 2.

4.3 Toe-heel size and pressure adjustment for Demotype bindings

The Demotype range of bindings are equipped with a **new quick size-adjustment system**. By simply moving the central lever (**Fig. 21, 22**) this system adjusts the size of the binding based on the length of the sole. The boot remains locked on the correct mid-way of the ski, always and for all sizes. The Demotype binding can accommodate all types of soles with a length ranging from 260 mm to 365 mm.

4.3.1 The quickest and easiest way to adjust the size is as follows:

1. Unlock the system (**Fig. 21**) with the metal safety lever and turning the central lever to SET (red: the binding is not ready for skiing).
2. Place the boot between the toe-piece and heel-piece (with heel-piece open, **Figure 23**).
3. With both hands push the toe-piece and heel-piece as near as possible until both elements come into contact with the boot.
4. Lock the system, (**Fig. 22**) turning the central lever to SKI (green: the binding is ready for skiing).
5. Slightly move the toe-piece and heel-piece

versus each other; a click will let you know that the system is fully locked. Check that the red graph on the lever has fully disappeared under the metal safety lever (**Fig. 22**).

6. Close the binding with the fitted boot.
7. Check the position of the rear screw of the elastic recovery device: the correct adjustment is reached when the head of the screw corresponds (approx. 2 mm with the notch on the base of the toe-heel, **Fig. 24** for X-Key Demotype).

Attention: never change the position of the rear elastic recovery screw for any reason whatsoever as it would compromise the setting of the size adjustment indicator, and consequently, the release loads.

4.3.2 An alternative adjustment procedure can be carried out as follows:

1. See point 1 of previous chapter.
2. Read the length of the sole of the boot found on the base of the heel area (in mm).
3. With both hands move the toe-piece and heel-piece until the size indicator (**Fig. 3, P**) (connected to the toe-piece) reaches the position on the graduated scale (**Fig. 3, O**) nearest to the length required (Ex. Sole length 312= indicator on 310, sole length 314= indicator on 315).
4. See point 4 of previous chapter.
5. See point 5 of previous chapter.
6. See point 6 of previous chapter.
7. See point 7 of previous chapter.

Attention: never change the position of the rear elastic recovery screw for any reason whatsoever as it would compromise the setting of the size adjustment indicator.



Fig. 24

5.0 SPEEDLOCK® system mounting instructions

5.1 Speedlock TT

These instructions tell you how to mount and remove VIST SPEEDLOCK™ bindings on your SPEEDLOCK™ TT plate. Initial installation of the plate on your skis and initial installation and adjustment of your bindings to fit your boots and to meet your release/retention requirements should be performed by your Authorized VIST Dealer. Once your system has been set up and adjusted by an Authorized VIST Dealer, you can move your bindings forward or back on your skis or move them to other skis with a SPEEDLOCK™ TT plate by following these instructions.

Warning: This system is for use only with VIST bindings specifically produced for the Speedlock TT System. Be sure to read the instruction booklet for your bindings. Do not remove or tamper with the coupling pins or make any other changes not described in these instructions. Any other use could create increased risks of injury and will void the binding's warranty. If you have any questions, see your Authorized VIST Dealer.

5.1.1 Plates/bindings components (Fig. 25):

- A. Security device
- B. Opening/closing lever
- C. Anti-Friction Device (AFD) – sliding plate
- D. Reference for the indication of the ski boot length
- E. Toe piece base
- F. Heel piece base
- G. Toe piece coupling pin
- H. Heel piece coupling pin
- I. Ski brake rods.

5.1.2 Bindings mounting instructions

1. *Opening of the blocking system*
To mount the binding on the SPEEDLOCK TT plate push the security system (Fig. 26a, 26b) laterally and keep it in this position. At the same time, push the opening/closing lever (Fig. 26a, 26b) upwards and forwards (to mount the toe piece) and upwards and backwards (to mount the heel piece); the lever must stay up until mounting is complete.
2. *Toe / Heel piece placing*
Make sure that no snow and/or ice, dirt or similar are placed between plate and

SpeedLock TT

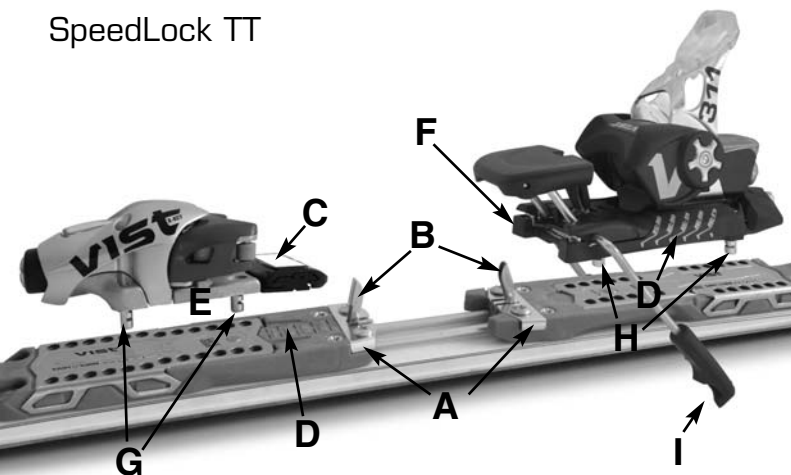


Fig. 25

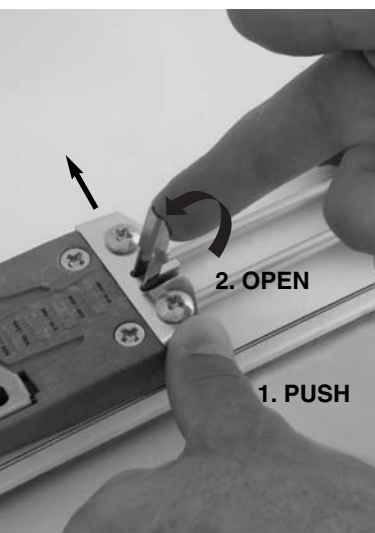


Fig. 26a

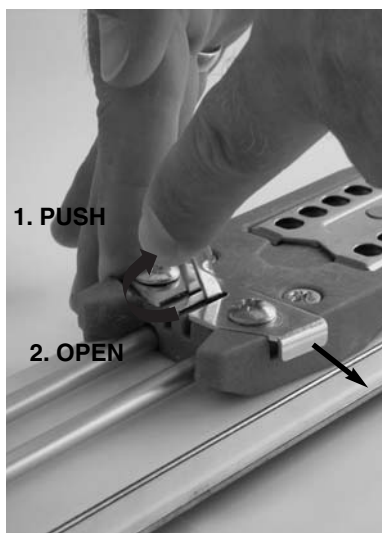


Fig. 26b



Fig. 27



Fig. 28

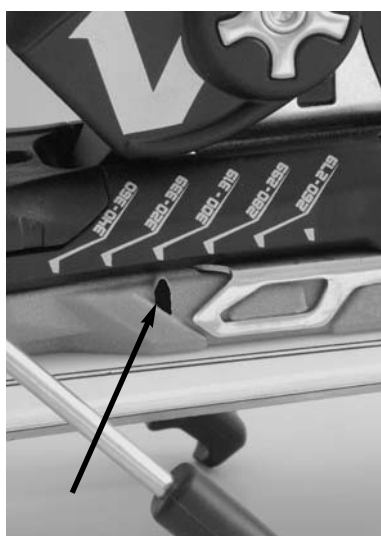


Fig. 29



Fig. 30a



Fig. 30b



Fig. 31

bindings to allow the fixation of bindings. Place the toe piece, with AFD set (Fig. 27), on the plate according to the ski boot length. The ski boot length is indicated on the side of any standard ski boot sole (Fig. 28). The boot length is indicated in mm. To find the correct position, refer, for the different boot lengths, to the indications printed on the upper part of the plate for the toe piece (Fig. 28), and on the lateral part of the heel piece base for the heel piece (Fig. 29). Introduce the coupling pins that stick out from the toe and heel piece in the oval holes of the plate (Fig. 30a, 30b).

3. Toe / heel piece fixing

Toe Piece:

Once you have found the correct position, push firmly the toe piece against the plate (Fig. 7) and push the opening/closing lever downwards.

Warning: The opening/closing lever must be pushed down before skiing to put the security system back into "blocking position" and to avoid unintentional or accidental opening (Fig. 31).

Heel piece:

Repeat the same operation to fix the heel piece. Push firmly the heel piece against the plate (Fig. 32) and push the opening/closing lever downward.

Warning: The opening/closing lever must be pushed down before skiing to put the security system back into "blocking position" and to avoid unintentional or accidental opening (Fig. 32).

4. Manual and visual control

Shake manually and check visually in order to make sure that the binding is firmly fixed to the plate without any play (Fig. 33). In case of doubts, repeat the operation according to the description.

5. Ski brake mounting

Mount the ski brake by introducing the metal tabs into the notches at the front of the heel piece base (Fig. 34). Then, screw only the central screw to fix the ski brake with the Pozidriv (PZ) n. 3 screwdriver (Fig. 35).

6. Binding adjustment

For the binding adjustment, refer to the included instructions of the VIST bindings! Initial installation and adjustment of your bindings should be performed by your Authorized VIST Dealer. The adjustment and performance of your ski-boot-binding system should be checked by your Authorized VIST Dealer at least once each season.

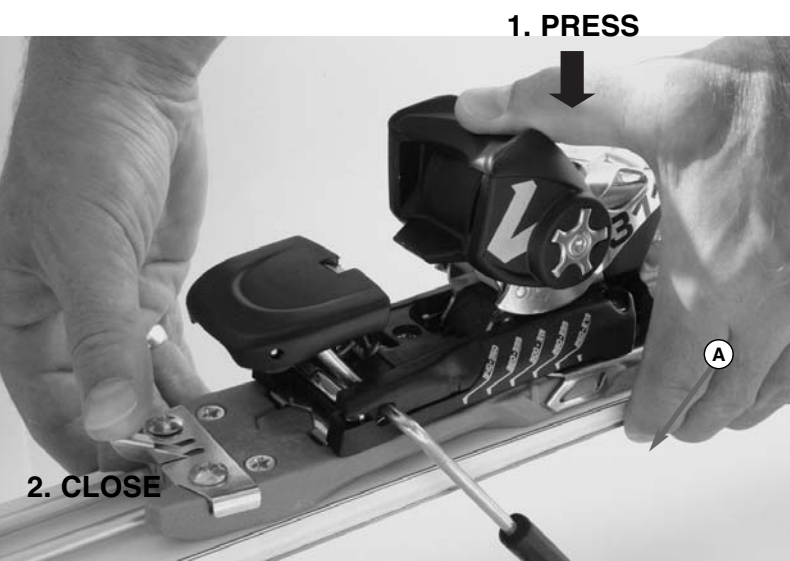


Fig. 32

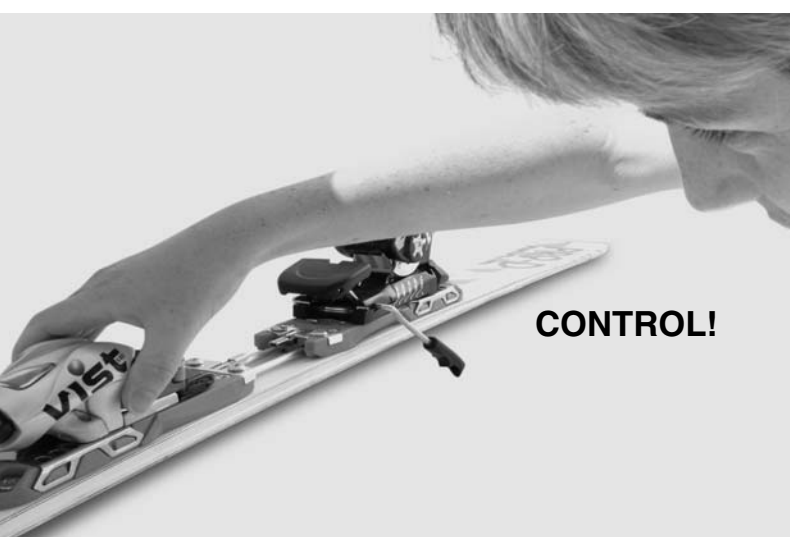


Fig. 33



Fig. 34



Fig. 35

7. Transferring bindings between skis

Once your VIST Speedlock bindings have been mounted and adjusted by your Authorized VIST Dealer, you can take advantage of the VIST Speedlock system by moving your bindings from one pair of skis to another with the Speedlock Plate. Simply follow the instructions above, taking care to keep the same positions for your coupling pins. As with any bindings, however, use of boots other than those with which the system was originally set up requires testing and verification by your ski shop.

Warning: Your ski-boot-binding system is designed to release the boot from the ski when certain forces on the system reach preset values, but the binding **WILL NOT RELEASE OR RETAIN** at all times where release or retention may prevent injury, and that it **CANNOT** prevent all injuries to any part of the user's body. Lower release/retention settings increase the binding's ability to release but also increase the risk of injury due to inadvertent release, and higher release/retention settings will increase retention but also increase the risk of injury due to non-release. Injuries caused by unwanted release or retention, and from falls, snow, terrain and weather conditions, collisions with people, man-made and natural obstacles, and from other causes are inherent risks of the sport which are assumed by all participants and spectators.

5.2 Speedlock PRO (PRO LIGHT) / RACE

These instructions tell you how to mount and remove VIST SPEEDLOCK™ bindings on your SPEEDLOCK™ PRO/RACE plate. Initial installation of the plate on your skis and initial installation and adjustment of your bindings to fit your boots and to meet your release/retention requirements should be performed by your Authorized VIST Dealer. Once your system has been set up and adjusted by an Authorized VIST Dealer, you can move your bindings forward or back on your skis or move them to other skis with a SPEEDLOCK™ PRO/RACE plate by following these instructions.

Warning: This system is for use only with VIST bindings specifically produced for the SPEEDLOCK™ PRO/RACE System. Be sure to read the instruction booklet for your bindings.

SpeedLock PRO/RACE

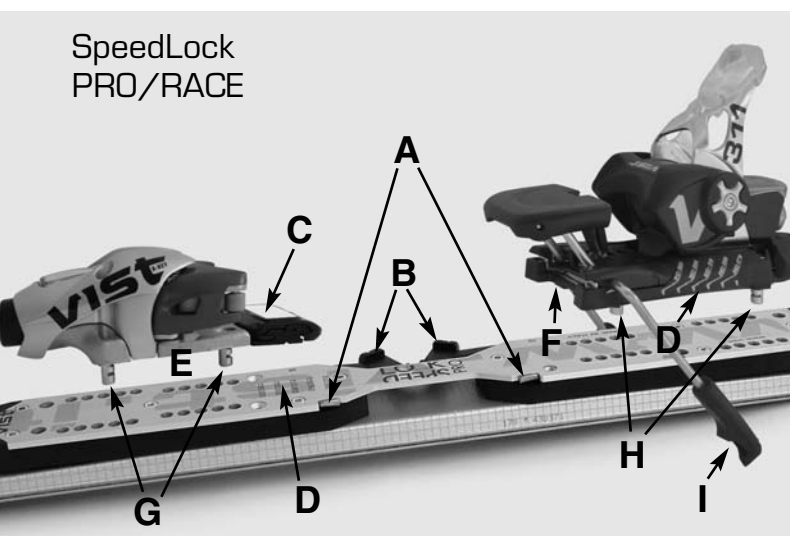


Fig. 36

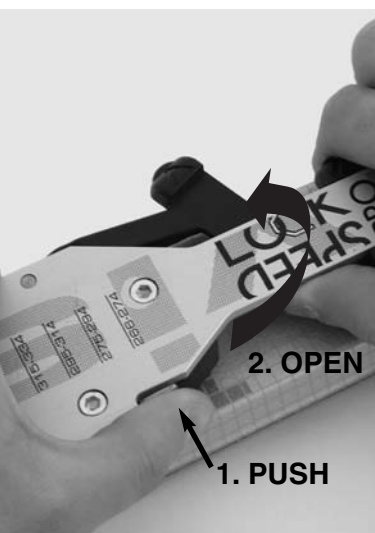


Fig. 37a

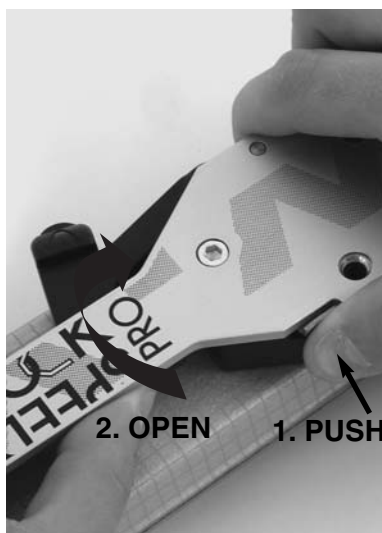


Fig. 37b



Fig. 38

Do not remove or tamper with the coupling pins or make any other changes not described in these instructions. Any other use could create increased risks of injury and will void the binding's warranty. If you have any questions, see your Authorized VIST Dealer.

5.2.1 Plates/bindings components (Fig. 36):

- A. Security device;
- B. Opening/closing lever;
- C. Anti Friction Device (AFD) – sliding plate;
- D. Reference for the indication of the ski boot length;
- E. Toe piece base;
- F. Heel piece base;
- G. Toe piece coupling pin;
- H. Heel piece coupling pin;
- I. Ski brake rods.

5.2.2 Bindings mounting instructions

1. Opening of the blocking system

Toe piece: to mount the toe piece on the SPEEDLOCK™ PRO/RACE plate, first push the steel lever (Fig. 36-A) of the security system inside the plate and keep it pushed while turning with the other hand the opening/closing lever (Fig. 36-B) of the system outside-forward (Fig. 37a).

Heel piece: to mount the heel piece on the SPEEDLOCK™ PRO/RACE plate, first push the steel lever (Fig. 36-A) of the security system inside the plate, and keep it pushed while turning with the other hand the opening/closing lever (Fig. 36-B) of the system outside-back (Fig. 37b).

Once opened the levers, don't force the system pushing them up-down.

2. Toe/Heel piece placing

Make sure that no snow and/or ice, dirt or similar are placed between plate and bindings to allow the fixation of bindings.

Place the toe piece, with AFD set (Fig. 38), and the heel piece on the plate. To find the right position, refer, for the different boot lengths, to the indications printed on the upper part of the plate for the toe piece (Fig. 39), and on the lateral part of the heel piece base connected with the point "mounting position" for the heel piece (Fig. 40). The length of the boot is indicated in mm on the boot (Fig. 39). Introduce the coupling pins that stick out from the toe and heel piece in the holes of the plate (Fig. 41a, 41b).



Fig. 39



Fig. 40



Fig. 41a



Fig. 41b

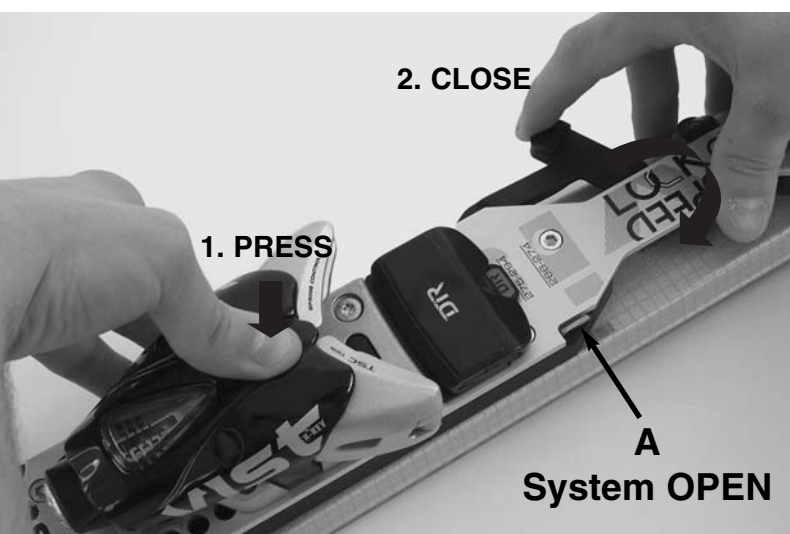


Fig. 42a

3. Toe/Heel piece fixing

Once found the right position, push firmly the toe piece against the plate and set back the opening/closing lever turning it inside-back (Fig. 42a) and blocking the security system (Fig. 42b). Repeat the same operation to fix the heel piece. Push firmly the heel piece against the plate and set back the opening/closing lever turning it inside-forward (Fig. 43a) and blocking the security system (Fig. 43b).

Warning: the opening/close lever must be set in the plate before skiing to put the security system back into the appropriate seat ("blocking position") to avoid unintentional or accidental opening. Never force or tamper the levers for the opening/closing operations.

4. Manual and visual control

Shake manually and check visually in order to make sure that the binding is firmly fixed on the plate without any play (Fig. 44).

Check that the security system is blocked. In case of doubts, repeat the operation according to the description.

Warning: make sure that the security system is blocked or the performance and safety of your bindings will be seriously compromised.

5. Ski brake mounting

Mount the ski brake by introducing the metal tabs into the notches at the front of the heel piece base (Fig. 45). Then, screw only the central screw to fix the ski brake with the Pozidriv (PZ) n.3 screwdriver (Fig. 46).

6. Binding adjustment

For the binding adjustment, refer to the included instructions of the VIST bindings! Initial installation and adjustment of your bindings should be performed by your Authorized VIST Dealer. The adjustment and performance of your ski-boot-binding system should be checked by your Authorized VIST Dealer at least once each season.

7. Transferring bindings between skis

Once your VIST SPEEDLOCK™ bindings have been mounted and adjusted by your Authorized VIST Dealer, you can take advantage of the VIST SPEEDLOCK™ system by moving your bindings from one pair of skis to another with the SPEEDLOCK™ PRO/RACE Plate. Simply follow the instructions above, taking care to keep the same positions for your coupling pins. As with any bindings, however, use of boots other than those with which the system was



Fig. 42b



Fig. 43b

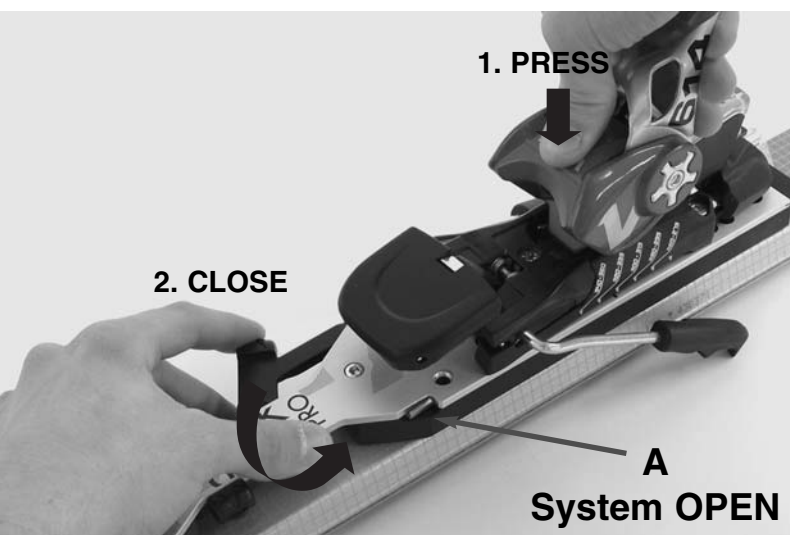


Fig. 43a

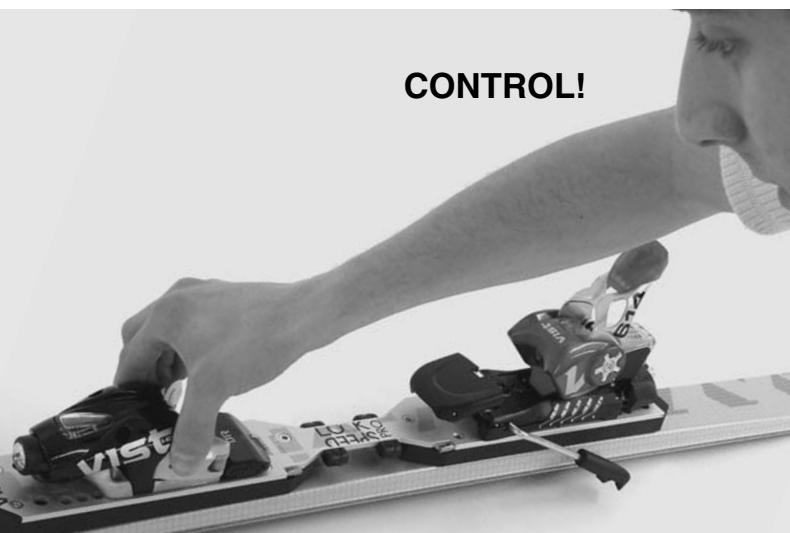


Fig. 44



Fig. 45



Fig. 46

originally set up requires testing and verification by your ski shop.

Warning: Your ski-boot-binding system is designed to release the boot from the ski when certain forces on the system reach preset values, but the binding **WILL NOT RELEASE OR RETAIN** at all times where release or retention may prevent injury, and that it **CANNOT** prevent all injuries to any part of the user's body. Lower release/retention settings increase the binding's ability to release, but also increase the risk of injury due to inadvertent release, and higher release/retention settings will increase retention but also increase the risk of injury due to non-release. Injuries caused by unwanted release or retention, and from falls, snow, terrain and weather conditions, collisions with people, man-made and natural obstacles, and from other causes are inherent risks of the sport which are assumed by all participants and spectators.

VIST Adjustment Chart

			a-n		o-s		t-x		y-z		Sole code										
			Rental		A-B		C-G		H-L		M-Q		R-Z								
Skier weight		Skier height		Skier code		Boot length								Toe piece Nm		Heel piece Nm					
Kg / lbs		cm / Ft "in"				<=250		251-270		271-290		291-310		311-330		>=331		5		18	
10-13 kg 22-29 lbs				A		0,75		0,75										8		29	
14-17 kg 30-38 lbs				B		1,00		1,00		0,75								11		40	
18-21 kg 39-47 lbs				C		1,50		1,25		1,00								14		52	
22-25 kg 48-56 lbs				D		1,75		1,50		1,50		1,25						17		64	
26-30 kg 57-66 lbs				E		2,25		2,00		1,75		1,50		1,50				20		75	
31-35 kg 67-78 lbs				F		2,75		2,50		2,25		2,00		1,75		1,75		23		87	
36-41 kg 79-91 lbs				G		3,50		3,00		2,75		2,50		2,25		2,00		27		102	
42-48 kg 92-107 lbs		<=148 cm <=4'10"		H				3,50		3,00		3,00		2,75		2,50		31		120	
49-57 kg 108-125 lbs		149-157 cm 4'11"-5'1"		I				4,50		4,00		3,50		3,50		3,00		37		141	
58-66 kg 126-147 lbs		158-166 cm 5'2"-5'5"		J				5,50		5,00		4,50		4,00		3,50		43		165	
67-78 kg 148-174 lbs		167-178 cm 5'6"-5'10"		K				6,50		6,00		5,50		5,00		4,50		50		194	
79-94 kg 175-209 lbs		179-194 cm 5'11"-6'4"		L				7,50		7,00		6,50		6,00		5,50		58		229	
>= 95 kg >= 210 lbs		>=195 cm >=6'5"		M				8,50		8,00		7,00		6,50		67		271			
				N				10,00		9,50		8,50		8,00		78		320			
				O				11,50		11,00		10,00		9,50		91		380			
																105		452			
																118		540			
Type of skier																					
Class		I		II		III															
Speed		slow/medium		Not classifiable in column I or column III		high															
Terrain		easy/medium				sloping															
Risk taking		low				high															

6.0 Defining and adjusting the release settings

Carry out the following instructions in order to define the Visual Indicator / (Z scale) adjustment settings, and then adjust the bindings.

6.1 Identifying the adjustment setting with the VIST Adjustment Chart

The release settings for VIST bindings defined with the following procedure are in conformity with international standards such as ISO 8061 and 11088 and ASTM F939. These standards were developed based on the needs reported by industry representatives of the sector, groups of actual users, experts and researchers. These standards are considered to supply the best binding adjustment solution, enabling safe release in case of accidents, and to provide maximum retention in normal skiing conditions. If you follow this procedure you will lower to the minimum any risk of accidents due to wrong adjustments of DIN settings. However, skiing entails many risks that cannot be directly correlated to the retention and release features of the binding, and even bindings that are adjusted precisely may not release in every load situation or guarantee retention all types of manoeuvres.

USING THE CHART

The following information concerning the skier must be known in order to determine the most appropriate adjustment settings: **weight, height, type of skier, age, length of the sole of the boot used**. These values are used in the table (tab. 1) in the manner described as follows.

1. Find the skier's weight in the first column on the left and the height in the column next to it. If the skier's weight and height are not on the same line choose the Initial Skier Code (from A to O). In the case of a height and weight that are in 2 different rows select the skier code that is closer to the top of the chart.

Example: A skier weighing 50 Kg, 168 cm in height, of Type I, 22 years of age, who uses a boot with a sole 295 mm long. The Skier Code of this person is I and the correct visual indicator setting / Z setting is 3.5.

2. Then measure length of the sole of the boot. In the column corresponding to the boot sole length chosen you can see the visual indicator / Z setting for adjusting the binding on the line corresponding to the letter (Initial Skier Code) identified before.

3. This table is based on Skier type 1. For Skier type 2, identify the setting in the column one row below the initial skier code. For Skier type 3, the column two rows below the initial skier code.

Attention: It is the skier's responsibility to find his/her positioning in the "Type of Skier" chart. The information in the chart must only be used to help the skier to determine his/her correct position and to make him/her aware of the possible correlated risks concerning a wrong choice.

4. For skiers over 50 years of age, identify the setting in the column one row up.
5. In this way you identify the final visual indicator settings / Z settings, and in the column to the right the twisting moment that releases the binding.

Example: A skier weighing 75 Kg, 175 cm in height, of Type II, 55 years of age, who uses a boot with a sole 305 mm long. The Skier Code of this person is K and the correct visual indicator setting / Z setting is 5.5.

It is the responsibility of the skier to determine their own skier type, with out influence from the technician. Skier type is different from skier ability and must not be confused. The skier type must be indicated on repair or rental form.

Skier's classification based on ISO 11088 standards.

Skier type 1:

- Skis slowly and chooses gentle terrain or average slopes.
- Skis at slower speeds without taking risks.
- Chooses lower than average binding release settings. This may increase the risk of inadvertent binding release in order to increase the binding's ability to release in a fall.
- Type 1 settings are applicable to entry level skiers, or skiers that are uncertain of their classification.



Fig. 47



Fig. 48

Skier type 2:

- Skiers with average capability at a variety of speeds.
- Prefers variable terrain situations.
- Also chooses difficult terrain but skis at average speed.
- Chooses standard binding release settings.
- Type 2 skiers are those who do not meet the criteria of a type 1 or type 3 skier.

Skier type 3:

- Skiers with high technical-athletic capability.
- Skis aggressively and at higher speeds.
- Prefers average to steeper terrain.
- Chooses release settings that are higher than the standard setting. This may reduce the bindings ability to release in a fall in order to increase the bindings retention and to avoid inadvertent binding release.

Note: bindings adjusted on settings that are higher than Z-10 (red zone) are not in conformity. Skiers use the bindings at their own risk in the case of settings that are higher than Z-10.

6.2 Adjusting the release settings

Toe-piece

Turn the screw (Figure 1, A for X-Key) on the front part of the toe-piece until the visual indicator / Z setting (Figure 1, B for X-Key) reaches the setting required **(Fig. 47)**.

Heel-piece

Turn the screw (Figure 2, D for X-Key) just under the lever rod of the heel-piece until the visual indicator / Z setting (Figure 2, F) reaches the setting required **(Fig. 48)**.

7.0 Checking procedure: possible problems and solutions

After having mounted and adjusted the bindings carry out the tests according to the procedures listed below. All the bindings that have already been used must be cleaned and dried before being checked. Never lubricate the anti-friction plate.

7.1 Testing the lateral elasticity (return to center) of toe-piece

Fit the ski in the vice and check the elasticity of the binding with the boot fitted on. Hit the boot on both sides of the forefoot area with a rubber hammer.

Use the strength required to put the boot off center. After this operation the boot should return to its original position with a difference that must not be over 2mm.

If the test fails, check:

- If return to original position is incomplete or too slow:
 - Check the heel-piece pressure: it could be excessive.
 - **In the case of a Demotype binding**, check the size adjustment, it could be adjusted to a size that is too small (never tamper with elastic recovery screw for any reason whatsoever).
 - Check that boot is centred on the heel-piece.
 - Check that the boot is in conformity with the required standards and that it is not excessively scratched.
 - Check that the anti-friction plate is in good condition.
 - If necessary, clean the sole of the boot and the anti-friction plate.
- If there is some space between the clamp of the toe-piece and boot (the boot is not fixed well):
 - Check the heel-piece pressure: it could be insufficient.
 - **In the case of a Demotype binding**, check the size adjustment, it could be adjusted to a size that is too large (never tamper with elastic recovery screw for any reason whatsoever).
 - Check that there is no lubricant or grease on the boot or on the clamp.
- Check that no mounting screws are missing or broken (also check the screws under the toe-piece that are not visible after the mounting).

7.2 Testing the vertical elasticity of heel-piece

Simultaneously push the heel-piece lever downwards and the boot forwards (pressing down on the cuff of the boot). The heel of the boot should slightly lift up (approx. 5 mm). Simultaneously let go of the boot and the heel-piece lever. The boot should return quickly to the ski and the lever should return to its original position. Moreover, check if the brake fully closes.

If the test fails, check:

- If the heel-piece does not close or is difficult to close:
 - Check if there is dirt or snow under the heel of the boot.
 - Check length adjustment (size) and heel-piece pressure.
 - **In the case of a Demotype binding**, check the size adjustment, it could be adjusted to a wrong size (never act on the elastic recovery screw for any reason whatsoever).
 - Check that there are no signs of excessive wear on the heel.
 - Check that the boot is fixed correctly in the binding.
- Check that no mounting screws are missing or broken.

7.3 Mechanical testing of registered release settings

These tests must be carried out only by specialized personnel always using machines specifically dedicated for the adjustment of ski bindings and provided with the required certifications. We recommend carrying out the adjustments according to the instructions for use of every individual machine.

For several reasons the settings identified with the control instruments may be different to the registered visual indicator/ Z setting. There are many reasons for this:

- The boots are worn out on one side only or the sole is distorted, thus provoking friction differences.

- There are technical tolerances inside the springs of the bindings.
- There are differences due to mechanical friction in the bindings, due to dirt or improper lubrication.

In any case, VIST bindings are adjusted after production, and for this reason when they are new the differences are minimal. Therefore, the registered settings generally correspond to the effective twisting moment that releases the binding.

The maximum tolerances allowed by ISO standards are +/- 10% (but in fact these lower when the visual indicator / Z setting of the binding lowers).

7.3.1 If the tolerances of the release settings of the bindings are over +/- 10% proceed as follows:

- **Check the ski boots:**

- See chapter 2.3 at "Guidelines for checking the boots" section

- **Check the bindings:**

- Clean the bindings and if necessary, lubricate with grease for bindings.
- Repeat the release operation several times and check if it improves.
- Check the sliding plate of the toe-piece. The plates must not be damaged or scratched because this could compromise lateral release. Replace any damaged or missing plates.

- **Turn the forward pressure adjustment screws and change the pre-set visual indicator / Z setting:**

You can obtain an improvement by changing the visual indicator / Z setting of the indicator, and still remain within a range of +2 o -2 marks on the graduated scale.

7.3.2 If it is still not possible to go within the +/- 10% maximum tolerance allowed, proceed as follows:

If the cause is identified, replace the components causing the problem, and then repeat the complete check. Should the cause not be identifiable, contact the VIST North America Customer Service (number: 866.900.8478 or e-mail: *northamerica@vist.it*)

Attention: In these cases, for safety reasons do not consign the equipment to the customer unless he expressly requests it in writing and signs the request.

Attention: Modern testing instruments print out a test report in two copies. One copy is kept by the dealer (who must keep it for a period of five years, depending on the period prescribed by the law). The other copy must be consigned to the customer together with the equipment, as it confirms that the bindings were adjusted correctly. If the product is new, consign the test report, and repair form together with the guarantee. If the equipment has already been used, consign it together with the repair form.

8.0 Rental and Demo Testing

Rental Visual and Mechanical Inspections

The Mechanical inspections discussed in this section are required of US dealers and strongly recommended for dealers in Canada, both in the interest of consumer protection and as a part of a sound risk management program. Complete maintenance records must for all of the bindings and boots in a shops inventory for both pre-season and in-season inspections. Only pass / fail results should be recorded in the testing log. If bindings are switched from one pair skis to another, this should be noted in the records. To conform to the indemnification policies of VIST North America these record must be kept on file for a minimum of Five years or what ever is required by the statute of limitations in the state of your residence.

8.1 Pre-Season Binding Inspections

The purpose of the pre-season binding inspections is to ensure that all components of the binding are functioning properly. Start by pre-selecting several random samples from your rental boot inventory. These samples must be clean and in good condition with out excessive sole wear. Select the sample boot sole lengths according to the pre-season inspection table below.

Pre-Season Inspection Table

*example

<i>Sample Boot Sole Length</i>	<i>Visual Indicator</i>	<i>Twist Value Toe</i>	<i>Forward Lean</i>
		37	145
		43	165
271 - 290 mm	6	50	194
		58	229
		63	243

 **Inspection range**

 **In use range**

8.1.1

Make all appropriate binding-to-boot adjustments and verify their accuracy. It is recommended that each binding component is set according to Pre-Season Inspection Table.

8.1.2

With bindings that have been used should be cleaned and lubricated before performing the following inspections and tests:

- Test the toe for lateral elastic travel and return to center.
- Test the heel for vertical elastic travel and return.
- Verification that release values are within the specified range.

Note: Any binding component that tests outside the "Inspection Range" should be inspected and re-tested. If the new testing results are still outside the "Inspection Range" but are within the "In-Use Range" a *correction factor must be applied to bring the mechanical test results within the "Inspection Range".

8.1.3

For any component that tests outside of the "In-Use Range refer to the Troubleshooting section.

* A correction factor is determined by adjusting the binding component's visual indicator scale at half-setting intervals until the binding component's test results are within the "Inspection Range". This correction factor expressed in a +/- value on the ski next to the affected binding component toe/heel and recording in the ski/binding maintenance records.

8.2 In-Season inspections

The purpose of the In-Season inspection is perform inspections on random samples of rental and demo inventory during the season to ensure that the equipment is functioning properly. The sampling program must give every unit of inventory an equal chance of being selected in order to be considered as a valid test. The purpose of this random sampling test

is to detect, correct and prevent deficiencies. These deficiencies fall into the following categories:

8.2.1 Class 1 Deviations

These are deviations in torque test result that are outside the "Inspection Range" but are within the "In-Use Range". These are minor deviations that require no corrective action unless these deviations exceed an acceptable number of the sample tested. Please refer to the "Sample Size" chart for the acceptable limits of class 1 deviations for a given sample size. Minor deviations in excess of the acceptable limits will cause the sample to fail and as a result of this the entire appropriate inventory must be inspected. Class 1 torque deviations should be corrected using a correction factor as explained in the previous section 1.1. Other additional class one deviations such as:

- Failed test for elastic travel
- Improper ski brake operation
- Poor boot to binding contact
- Incorrect forward pressure

should all be corrected as they are discovered. These deviations do not warrant an inspection of the entire inventory unless these deviations exceed the acceptable # for a specific sample size, thus causing the sample to fail. By quickly identifying Class 1 Deviations this random sampling method can prevent more serious defects from occurring.

Sample Sizes

<i>Inventory Size (Pairs)</i>	<i>Sample Size (Units)</i>	<i>Maximum Class 1 Deviations (Units)</i>
100	16	3
200	20	4
300	30	6
400	40	8
500	50	10
600	60	12
700	70	14
800	80	16
900	80	16
1000	80	16
2000	80	16

8.2.2 Class 2 Deviations

Class 2 Deviations are minor deviations that prompt inspection the entire inventory and require corrective action. Class 2 deviations are torque testing results that fall outside the "In-Use range but not more than 3 horizontal rows up or down from reference torque value. Whenever a Class 2 deviation is detected the source of the defect must be identified and all of the affected inventory must be inspected for the defect. The defect must be corrected according to the troubleshooting procedures or the affected component(s) must be removed from the inventory. Detection of a class 2 defect will cause the sample to fail.

8.2.3 Class 3 Deviations

Class 3 Deviations are major defects that prompt immediate corrective action and a review of all procedures. Class 3 deviations are torque test results that are greater than 3 horizontal rows above or below the reference torque value. In-season testing, sampling, and inspection usually make the occurrence of a Class 3 Deviation unlikely. If a Class 3 Deviation is detected all defected components must be corrected or removed from service. Detection of a Class 3 Defective will cause the sample to fail.

8.2.4 Sample and Testing Frequency

The random sampling is conducted throughout entire season, the frequency is as follows:

- The first sample test is conducted after the first 7 days of operation.
 - If the sample test passes then the next sample test is conducted after the next 7 days of operation.
 - If the two consecutive samples pass, then the sample testing is conducted every 14 days.
 - If a sample fails at any time, daily sample testing shall be conducted until two consecutive sample tests pass.
 - Then sample testing will continue normally i.e., after 7, after 14 days stc.
-

9.0 Warranty and limitation of liability

8.2.5 Sample criteria

An equal number of units (single ski/binding) must come from units that are classified as ready to rent, and are units that are classified as returned in "returned condition"

- Ready to rent units may be tested at any visual indicator setting and boot.
- Returned condition units must be tested as returned with the visual indicator setting and boot that they were returned with.

8.2.6 Sample size

Sample size is defined as 5% of the inventory or not less than 16 units or more than 80 units.

8.2.7 Procedures and Recording

Samples are inspected according to procedures used for pre-season binding inspections; however the twist test only needs to be done in one direction (clockwise or counterclockwise). Pass/Fail records of all inspections should be recorded for the individual Ski/Binding.

Attention: the instructions attached to the bindings must always be consigned to the customer.

Should the product have sustained technical modifications, or should the mounting, service and repair procedures contained in this manual not have been properly carried out, the manufacturer reserves the right to offer no form of guarantee whatsoever.

The VIST guarantee covers the initial purchaser against faulty materials, construction and functioning, for a period prescribed by law starting from the purchase date (for this reason the purchaser must keep the purchase receipt).

For any complaints, contact only VIST authorised dealers.

The guarantee is applicable only if the binding is mounted and adjusted by qualified personnel and only if it has not been subjected to improper use. VIST reserves the right to decide if a product should be repaired or be replaced with a product of the same value or if the purchaser must be reimbursed.

Limit of responsibility:

The guarantee does not cover damages that derive from improper use, wrong mounting or non compliance with the instructions for mounting and use, wrong adjustments, inappropriate maintenance, accidents, or incorrect use or normal wear. The guarantee does not cover normal wear of components subject to abrasion such as sliding plates, screen graphics, and glued components. VIST shall not be responsible for any type of indirect damages or for third party.

9.1 Dealing with Skiers with release or Retention Concerns

The VIST 2006-2007 Release Adjustment Chart is the only chart recommended for use with VIST bindings. If the skier expresses special concerns or reports a release or retention problem with the recommended settings, re-inspect the equipment to make sure all components function correctly and are calibrated appropriately. If equipment factors have been ruled out but the problem persists, the skier should reevaluate their skier type classification. Provide these skiers with the information stated in section 5.4 entitled

Information For Skiers Requesting Discretionary Settings.

Skiers who have experienced retention problems may choose to increase their Skier Type classification and accept a narrower margin of release in order to gain a wider margin of retention.

Skiers who feel the binding should release more often when they fall may choose to decrease their classification and accept a narrower margin of retention in order to gain a wider margin of release.

If the release/retention problem is only evident in one binding component (toe or heel) only that component may need to be reclassified. To document the skier's classification selections, separate the skier's twist (toe piece) classification from their forward lean (heel piece) selection with a slash (Toe/Heel).

Example: [I/II] means that Type I has been selected for the toe piece and Type II for the heel. Use this same method to record Skier Code and Initial Indicator Value.

Example: [G/H] means that Skier Code G has been used for the toe piece and Skier Code H for the heel piece. [5/6] means that Initial Indicator Value 5 has been used for the toe piece and Initial Indicator Value 6 has been used for the heel piece.

If a skier selects discretionary settings lower than those derived from Skier Type I, record this selection with a (-) symbol to the left of Type I on the workshop form (-1 Setting).

If a skier selects discretionary settings higher than those derived from Skier Type III, record this selection with a (+) symbol to the right of Type III on the workshop form (+3 Setting).

Skiers who request these settings outside those resulting from Skier Types I, II and III should be warned that their decision may increase risks of injury due to non-release or inadvertent release. Always note clearly on the workshop ticket that the setting was made at the skier's specific request and that the skier was given these warnings.

Some skiers may insist upon settings outside of the -I or III+ range. These choices, **and the skiers' stated reasons for making these choices**, must also be clearly noted on the workshop ticket. Be sure to obtain an additional signed and dated warning and release like that in section 11.2, which must be attached to the completed workshop ticket.

9.2 Retail Inspection Procedures and Trouble Shooting

After the toe and heel piece have been set to the correct visual indicator setting using the procedures described above, perform the following tests. All used bindings should be cleaned with a damp cloth and lukewarm water before performing any inspections. Do not lubricate the AFD or toe and heel cups.

Function Test -Toe (Lateral Elasticity)

With the ski held securely, hit the boot near the toe with your hand or a rubber mallet hard enough to displace the toe of the boot slightly but not far enough to trigger a release. If you have triggered a release, start over. The boot should snap back to within 2 millimeters of its original position after being hit from either side.

If the system passes, mark "Pass" in the correct boxes on the Workshop Form and proceed to function test the heel.

If the system fails, perform the following trouble shooting procedure:

- For a slow or incomplete return to center:
 1. Check the forward pressure – it may be too high.
 2. Check that boot is centered in the heel cup.
 3. Check for non-standard boot, or excessive wear.
 4. Check that the AFD is in good condition.
 5. Check for dirty boot sole or AFD and clean as necessary.
- If the boot slides in toe cup:
 1. Check the forward pressure – it may be too low.
 2. Check for lubricant on boot or toe cups.
- Check for missing, stripped or loose mounting screws, including the screw under the toepiece which cannot be seen after final assembly.

Function Test-Heel (Vertical Elasticity)

Depress the heel lever of the binding while pulling forward lightly on the upper cuff of the boot. The heel of the boot should move slightly upward (about 5mm) through the vertical retention range of the heel. Release both hands simultaneously. The boot should return quickly to the ski, and the heel lever should return quickly to its fullest upright position.

If the system passes, mark "Pass" in the correct boxes on the Workshop Form and proceed to the Verification of Release Values.

If the system fails, perform the following trouble shooting procedure:

- Heel will not close, or closes with difficulty:
 1. Check for snow or dirt under heel.
 2. Check length adjustment and forward pressure.
 3. Check for excessive wear at heel.
 4. Be sure that the boot enters the binding correctly.
- Check for missing, stripped or loose mounting screws.

Mechanical Verification of Release Values

Once the system has passed the function tests, it must be mechanically tested with a calibrated testing device to be sure that it is releasing within an acceptable range of torque values. Two separate torque ranges are used to evaluate binding test results; each has a different purpose.

- The **Inspection Range** is the acceptable difference ($\pm 15\%$) between the reference torque value and the test result for bindings in the shop, before the equipment is released to the customer. The inspection range is derived by moving up and down one row from the selected reference torque value on the Adjustment Chart.
- The **In-Use Range** is the acceptable difference ($\pm 30\%$) between the reference torque value and the test result for bindings for in-use purposes, after the system has been released to the customer, as may be found when performing a post-accident test. The in-use range is derived by moving up and down two rows from the selected reference torque value on the Adjustment Chart.

All bindings that are to be dispatched to retail customers should be mechanically tested to the "Inspection Range".

If the system tests within the "Inspection Torque Range", the procedure is complete. Mark "Pass" in the correct box of the Workshop Form, completes the documentation and skier instruction requirements, and dispatches the equipment to the customer.

If the measured release value falls outside the "Inspection Torque Range" but inside the "In Use Torque Range", re-adjust and re-test the system so that it tests within the "Inspection Torque Range". If the system passes, the procedure is now complete. Mark "Pass" in the correct box of the Workshop Form.

If the measured release value tests outside the "In Use Torque Range", activate trouble shooting procedures and re-test with a "Reference Boot" if necessary. A Reference Boot should be a clean new or nearly new boot which is known to the shop to comply with all standards for materials, wear and heel, toe and sole dimensions.

Procedure for Verification that Release Values are Within Specified Range

All mechanical testing must be performed with an accurate mechanical torque measuring device. Follow the device manufacturer's prescribed procedures. Be sure your testing device is periodically maintained and calibrated as required by the manufacturer. Keep all calibration records.

There is no need to record any of the measured torque values. It is only necessary to record that the system either passed or failed each inspection and what the final indicator settings are.

Toe Twist Test

Exercise the toe by releasing it once in each direction. **Using a Torque Measuring Device**, measure and record the release value (in Nm) three times in both clockwise and counter-clockwise directions. The measured release value should be considered the middle quantitative value of the three measured releases. If the first two measured releases are the same, a third test is not necessary.

The system passes this inspection if it falls within the Twist "Inspection Torque Range".

If System Passes

1. Proceed to test the heel.

Troubleshoot - If System Fails

- If the measured release values at the toe are not both within the "Inspection Torque Range" but are not outside of the "In Use Torque Range".

1. Re-inspect the boot.
2. Check all binding/boot interfaces. They should be clean, dry and in good condition.
3. Re-adjust to within the "Inspection Torque Range". Use up to, but not more than, +2 or -2 indicator settings. Adjust until the measured release values fall within the "Inspection Torque Range".

If System Passes

1. Proceed to test the heel.

Troubleshoot - If System Fails

- If system falls outside of the "In Use Torque Range" after adjustment:
 1. Re-inspect the boot.
 2. Check all binding/boot interfaces.
 3. Re-check all adjustments and re-test system.
If system fails a second time, perform a clean versus lubricated test. This is a test to determine if a boot is compatible with the binding as a system. After reconfirming that the boot and binding are clean and dry when tested previously, lubricate the boot everywhere it makes contact with the binding using soapy water or a similar lubricant and perform a twist test in one direction. If there is a difference of more than 20% between the results of the **clean versus lubricated tests**, the boot should not be used with that binding.
 4. Alternatively, perform a test of the system using a "Reference Boot". If the system passes this inspection but still fails inspection with the skier's boot, the skier's boot should not be used with that binding.
 5. Remember that improper testing techniques are a common cause of unusual test results. It is always useful to have a second qualified test technician perform these troubleshooting tests before declaring any components incompatible or otherwise rejecting their use.

If System Passes

1. Proceed to test the heel.

Heel Test (Forward Lean)

- Exercise the heel by releasing it three times before testing.
- Use a torque-measuring device to measure and heel release value three times. The measured release value should be considered the middle quantitative value of the three measured releases. If the first two measured releases are the same, a third test is not necessary.
- Verify that the release value falls within the specified Forward Lean "Inspection Torque Range".
- The system passes this inspection if it falls within the forward Lean "Inspection Torque Range".

If System Passes

1. Mark "Pass" in the correct box on the Workshop Form.
2. After successfully completing each of these inspections, note that the system passed each inspection on the workshop form and record the final visual indicator settings in the appropriate spaces on the workshop form.

Troubleshoot - If System Fails

If the system continues to fail with the corrected indicator values and a reference boot, the binding should not be used in this ski/binding/boot system.

Procedure for Failed Component

If the measured release value of any component falls outside the "Inspection Torque Range" even after Reference Boot testing and re-adjustment, or if the system fails a clean vs. lubricated test, then that component should no longer be used. It is important to note, however, that unexpected test results often are caused by improper testing techniques rather than by actual equipment problems. Have another employee retest the system before taking further action.

9.3 Rental Inspection Procedures and trouble Shooting

VIST bindings are not presently being sold for rental applications. All bindings which are used for rental should be tested and maintained in accordance with ASTM Standard F 1064.

9.4 Special Circumstances

Mounting Other Bindings on VIST plates

Other manufacturers' bindings can be mounted on VIST plates only if you have the specific drilling mounting template for the bindings as well as the mounting instructions for the bindings. Check beforehand if the mounting template can be applied on the VIST plates without any problems. Mount the bindings according to the binding manufacturer's instructions. Non-VIST bindings can only be mounted on Vist plates that are not pre-drilled.

10.0 Service shop practices

10.1 Servicing and warranty

Repairs and Maintenance

VIST bindings need very little in the way of regular maintenance, but they should be kept clean and free of dirt, rust and other contaminants. To clean, wipe all exposed surfaces with a moist or dry cloth or use compressed air. Do not apply lubricants such as silicone to the toe and heel cups.

VIST bindings should be cleaned and inspected by Authorized VIST North America Dealer at least once a season or whenever visible dirt or other contamination is present.

Ski Brake Removal

The ski brake can be easily replaced or removed for ski maintenance by removing the screws. (See figure: 13 on page 11)

Replacing Faulty Screws

Screws can be loose, stripped or (rarely) broken.

For these operations insert the ski in the vice.

The operation described below can only be carried out for screws inserted in the skis. In the case of loose screws, check that they don't turn idly. Remove the loose screw and put two drops of glue in the hole, then fit the screw again and tighten it

REMEMBER: Do not use glue on VIST plates.

If the screw turns idly you must place a wedge in the hole. Drill the hole with a specific 7.5 mm bit, put a few drops of glue in the hole, then fit the wedge into the hole and hit it with a rubber mallet until it goes in completely. If it cannot go in completely, level the surface with a file.

Note: When an insert or helicoil is inserted the binding will hold very firmly.

REPLACING A BROKEN SCREW

For this operation you need to completely remove the binding from the ski, and it is indispensable to use the jig. After having removed the binding, position the jig exactly over the faulty hole and drill it with a specific 6 mm bit. If the screw is still lodged in the hole after you have drilled it remove it with a small screwdriver. Drill the hole again with 7.5 mm bit and fit the insert or helicoil as described above.

For any repairs other than those noted in this Section 10, forward the complete binding to the VIST North America Service Center Vail Colorado.

VIST Limited Warranty

VIST is pleased to offer a limited warranty on VIST bindings. If you have any questions about the VIST Limited Warranty or procedures for making claims, please contact the VIST North America Service Center at 866.900.8478 / e-mail: *northamerica@vist.it*.

1. Vist warrants that its ski bindings, purchased from an authorized dealer by a retail customer, will be free from defects in materials and workmanship for a period of two (2) years from the date of purchase by the original retail customer. This warranty is solely for the benefit of the original retail purchaser and may not be assigned.
2. The VIST Service Center will determine if a product is covered under this Limited Warranty. If covered, Vist will, at VIST's sole option, repair or replace non-conforming products.
3. If VIST determines that the ski binding is covered under the Limited Warranty and the ski binding falls under the two year policy for retail customers, VIST will issue a credit to the dealer for the product in question at the dealer's maximum discount or send a replacement at VIST's option.

4. Dealers must call for a Return Authorization Number before returning any product covered under the Limited Warranty. All authorized returns must be sent to VIST North America's warehouse (see Paragraph 7 below for greater detail).
5. Repair or replacement for ski bindings under the Limited Warranty is not available for ordinary wear and tear or for damage caused by abuse, unauthorized modification, accident, lack of maintenance or lack of reasonable care.
6. For retail customer warranty claims, a proof of purchase from a VIST North America authorized dealer is required. If the date of purchase cannot be established, VIST will make a determination based on the last production year of the particular model.
7. VIST will ship, at Vist's expense, replacement products to the dealer using the same shipping method used by the dealer to send the products to VIST. For example, boots sent to VIST by the dealer via next day service will be returned by next day service, boots sent by second day service will be returned by second day service, etc.
8. All returns must be made through VIST North America Authorized Dealers. VIST does not accept returns directly from consumers.

THE FOREGOING LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF QUALITY AND PERFORMANCE, WRITTEN, ORAL OR IMPLIED, AND ALL OTHER WARRANTIES, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY DISCLAIMED. IN NO EVENT SHALL VIST BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE. Some states do not allow limitations on how long an implied warranty lasts and/or the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to particular retail customers. Vist's obligations under any warranty shall be limited, to the greatest extent allowed by law, as provided in this Vist Limited Warranty. This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Warranty Return Procedure

1. Please call 866.900.8478 or e-mail *northamerica@vist.it* for a Return Authorization (RA) Number. Please follow the directions for Dealer Services.
 2. Have your Vist Account Number ready.
 3. Your Account # is:
 4. Write the RA# on the outside of the box in which the product will be shipped. Please include inside the box a brief description of the problem with the RA#. Please include a copy of the appropriate proof of purchase. Products returned without an RA# on the outside of the box will be refused.
 5. Send product to be returned to:
*VIST North America
23698 HWY 24, SUITE B1
81645 MINTURN - COLORADO USA*
 6. Our policy is to repair the product if possible. If not repairable, and determined to be under warranty, we will replace the product. If we do not have a replacement, we will issue credit to your account.
 7. Estimated time for repair work is two (2) to three (3) business days from the date the product is received, but VIST often can turn around repairs in 24 hours. Turnaround time may vary depending upon seasonal and other demands.
-

10.2 Record keeping

VIST Authorized Dealers are required to keep accurate and complete records of all work performed on any VIST binding. Workshop records must be kept on file for five years or the statute of limitations of the state in which the work was performed, whichever period is longer. **Strict compliance with these record keeping requirements is a condition precedent to any consideration for indemnification in the event of a legal claim.**

Dealers may use their own forms or those of other manufacturers, but any form must include the following required information. Omission of any one of the following items may result in denial of liability indemnification in the event of a claim. For a full discussion of indemnity requirements, see Section 12 below.

- 1. Date of transaction**
- 2. Skier name and address**
- 3. Skier weight, height, age and type**
- 4. Ski brand, model, serial number and length**
- 5. Boot brand, model, and sole length in millimeters**
- 6. Binding model**
- 7. Skier code**
- 8. System inspection results: The results of all appropriate system inspections should be recorded as "Pass" or "Fail".** If a given inspection is not required, the technician should record "N/A" for "Not Applicable" on the form.
- 9. Visual indicator settings for each toe and heel.**
- 10. A warning and release and assumption of risk agreement substantially similar to the one recommended by VIST.** The agreement must be signed by the skier and contain the essential language in the VIST Release Agreement (see section 11.1), including a warning about the risks of skiing and the limited ability of equipment to protect skiers from those risks, an agreement to assume the risk, and language that to the fullest extent allowed by law, the skier releases the shop and "all manufacturers and distributors of this equipment, and their owners, agents and employees..." from liability for injuries or death arising from use of the equipment. Consult with your shop's legal counsel to ensure that the release agreement conforms to the legal requirements of your state. If you have questions about whether your workshop ticket complies with VIST's indemnity requirements, please send it to VIST with a written request for approval well before the ski season begins.
- 11. VIST Certified Technician's signature** attesting that all functional inspections and instructional procedures has been completed. It is not required that the technician who performs the work or instructs the skier be a VIST Certified Technician, but the signature on the workshop form must be that of a VIST Certified Technician who has inspected the work performed. Technicians must use their full signature.
- 12. Skier's signature** or that of the skier's parents, legal guardian or agent **and the date** on which the equipment was received by the skier.
- 13. Notes on the condition of the boot sole.** If the boot sole is out of standard or otherwise unsuitable for use.
- 14. Notes on non-recommended release value adjustment.** If the skier has requested a release setting other than the one recommended by VIST, this must be noted on the workshop form. In such cases, an additional signed and dated warning and release like that in section 11.2 must be attached to the completed workshop form.
- 15. Notes on remounting or adjustment of old or non-standard equipment.** If the skier has requested remounting or adjustment of equipment that does not meet current standards or VIST bindings that are not on the current VIST indemnification list, the technician may choose to work on that equipment, but the shop will not be protected by VIST indemnification. In such cases, VIST recommends that the shop complete a workshop form, note the equipment situation on the form, and have the skier sign a warning and release like that in Section 11.3, which should be attached to the completed workshop form.

16. Refusal to serve statement: A statement should be included whenever the technician identifies a ski/binding/boot system component, which is out of standard or otherwise unsuitable for continued use. Such a statement should also be included whenever the customer refuses to have work performed, which the shop has advised, will help reduce the risk of injury.

In addition to the required information, the shop may find it useful to include on the form the skier's home phone number, local accommodations or other information, which would help the shop contact the skier in the case of a problem. Additional information may be included at the dealer's discretion.

The Skier's Signature on the workshop ticket is one of the requirements for indemnification by VIST in the event of a legal claim. The signature represents the skier's acknowledgement that he or she:

- Has read, understood and agreed to the release/assumption of risk contract on the workshop ticket.
- Has been instructed in the proper use of the equipment.
- Has received VIST's in-box instructions (new bindings only).
- Has verified that the visual indicator settings on the bindings correspond to the visual indicator settings recorded on the workshop ticket.
- Understands that there are risks in the sport of skiing, that the ski/binding/boot system cannot release or retain to protect the skier from all such risks, and is, **therefore, no guarantee of his or her safety.**

The person who signs the form should be the intended user of the equipment. **In the case of a minor skier, the signature of the skier's parent or legal guardian is also required.** Whenever possible, the minor skier should also sign the form.

If the person picking up the equipment is not the skier or the skier's parent or guardian, the person must sign as the skier's agent. The agent must be instructed to provide all warnings, instructions, releases and other documents and information to the skier. The agent's signature represents the agent's agreement that he or she will do so.

Important Note: The VIST Certified Technician's signature signifies that the ski/binding/boot system has been inspected in accordance with VIST's required procedures. The VIST Certified Technician who signs the form is also attesting that the skier has been properly instructed. The VIST Certified Technician may sign the form after inspecting the equipment but before the skier receives the recommended instruction and warning as long as it is part of the shop's policy and practice always to provide such information to the skier when the equipment is delivered. The skier's signature on the form is the shop's assurance that such instructions were provided and understood.

REMEMBER: Without a properly completed workshop form, liability indemnification from VIST will be denied.

10.3 Skier instructions

Providing proper information to the skier is an essential element of each sale and service transaction.

The following information should be given directly to the intended user if at all possible. If the skier is a minor, the instructions should be given in the presence of the parent/legal guardian and the minor skier. If the person picking up the equipment is not the intended user, treat this person exactly as if he or she is the skier and obtain this person's signature on the workshop form as the skier's agent. Instruct the agent to pass along your instructions, the workshop ticket and the in-box instructions (new bindings) to the skier.

Function of Ski Bindings

Ski bindings are an integral component of the ski/binding/boot system, which is intended to maintain a firm connection between the ski boot and ski during most controlled skiing maneuvers and to release the boot from the ski when certain loads reach preset values. Skiing involves many risks which are not related to binding release and retention characteristics, however, and even a properly adjusted binding cannot release under all injury-producing loads or retain the boot during all skiing maneuvers.

Entry/Exit/Re-Entry

Demonstrate the proper entry, exit and re-entry procedures with the customer's system.

To step in

- Make sure that the boot and binding are clean and free from accumulated snow or ice.
- Center the boot toe in the toe cups and step straight down.

To step out

- Press down on the opening lever with the ski pole tip, boot sole or ski tail.

To re-enter the system

- If the heel is closed, open the heel by pressing down on the opening lever, and then step in.

System Explanation

Show where the release adjustment screws are and ask the skier to verify that the settings on the bindings correspond with the numbers recorded on the workshop form. Advise the skier that they should not change these settings without the advice of a VIST dealer and that whenever any component of the ski/binding/boot system is replaced, repaired or adjusted, the entire system must be readjusted and tested using the VIST authorized procedures.

If asked about how the release/retention settings were selected or whether a higher or lower setting would be more appropriate, explain to the skier that the release/retention settings in the VIST manual comply with applicable American and international standards which were developed by a consensus of industry representatives, consumer groups, government agencies and independent scientists. They are believed to represent the best available compromise between the release and retention needs of skiers. **Higher settings will increase the risk of a non-release, whereas lower settings will increase the risk of an inadvertent release.**

Point out left and right ski indicators.

If any system components are worn out, are out of standard or otherwise unsuitable for continued use, the skier must be clearly informed of the problem and warned that continued use might significantly increase his or her risk of injury.

Advise that if any problem develops with any part of the ski/binding/boot system it should be brought immediately to a VIST North America Authorized Dealer for inspection and service.

In-Box Instructions

When new bindings are delivered to the skier, the skier should receive the in-box instruction and warranty pamphlet.

The In-box Instructions should only be used as a guide in explaining the proper use and maintenance of the binding to the skier. Always refer to the current Vist Technical Manual for proper shop procedures for mounting, adjusting and servicing ski/binding/boot systems.

Maintenance

Advise the skier that the bindings should be kept clean and free of dirt, rust, salt or other contaminants. Use protective covers when transporting the skis on a car rack. Store skis and boots inside at room temperature, away from direct heat or sunlight.

The complete ski/binding/boot system should be brought to a VIST North America Authorized Dealer for re-inspection at least once each year; more often if the equipment is frequently used.

Skier's Signature

Ask the skier to please read and then sign the release agreement in the workshop ticket or rental agreement. The skier must read, understand and agree to the conditions specified in the release agreement. **Be sure to point out that the skier is signing a release and assumption of risk agreement which limits both Vist's and the shop's liability and that included in the release is the warning that the binding will not release or retain under all circumstances, nor is it possible to predict every situation in which it will release or retain and is, therefore, no guarantee of his or her safety.**

The skier must then sign the workshop form indicating that he or she:

- Has read, understood and agreed to the release/assumption of risk contract on the workshop ticket.
- Has been instructed in the proper use of the equipment.
- Has received VIST's in-box instructions (new bindings only).
- **Has verified that the visual indicator settings on the bindings correspond to the visual indicator settings recorded on the workshop ticket.**
- Understands that there are risks in the sport of skiing, that the ski/binding/boot system cannot release or retain to protect the skier from all such risks, and is, **therefore, no guarantee of his or her safety.**

The person who signs the form should be the intended user of the equipment. In the case of a minor skier, the signature of the skier's parent or legal guardian is also required. Whenever possible, the minor skier should also sign the form.

If the person picking up the equipment is not the skier or the skier's parent or guardian, the person must sign as the skier's agent. The agent must be instructed to provide all warnings, instructions, releases and other documents and information to the skier. The agent's signature represents the agent's agreement that he or she will do so.

REMEMBER: Proper skier instruction and warning provides your customers with a valuable service and helps reduce your shop's risk of legal liability claims.

10.4 Accidents and injuries

Injuries are a part of the sport of skiing, and occasionally a customer will report an injury while using equipment from your shop. If this occurs, you should be sympathetic and polite. Do not create a confrontation, apologize, or admit to any wrongdoing or equipment problems. Do not volunteer information. If a customer, family member or representative asks for details, the Authorized Dealer should simply state that he or she has been instructed not to discuss accidents or legal situations without first seeking professional advice.

When an accident is reported, obtain as much information as you can about the skier, the equipment and the accident. A list of information and documents that should be gathered for all accidents is in the discussion of legal claims in Section 12.3. Try to gather at least the following information:

- Name, address and phone number of the skier
- Date of the accident
- Resort where the accident occurred
- Details of how the accident occurred
- Details about the equipment and its condition
- Names, addresses and phone numbers of any witnesses

A post-accident inspection report like that in Section 11.5 must be filled out for all reported accidents, whether or not the skier has made a legal claim.

If the skier owns the equipment and you do not have access to it, fill out as much of the post-accident inspection report as you can.

If the equipment is demo or rental equipment owned by the shop, inspect and test the equipment “as is”. If all testing as called for in the post-accident inspection report turns out normal, the equipment may be returned to service. If the inspection reveals any damage or unusual conditions, note them on the report, set aside the equipment and discuss the situation with your insurance carrier or legal counsel before taking further action.

11.0 Sample Forms

If you have questions about whether your shop forms meet VIST's requirements for indemnity, please contact VIST North America if you have questions about the laws of your state or province regarding these forms, consult your legal counsel.

11.1 Warning and liability release

Use Instructions: The following terms are for all retail workshop tickets and rental agreements. Use forms 11.2 or 11.3 in addition to this agreement in appropriate circumstances.

WARNING, LIABILITY RELEASE, INDEMNITY AND ASSUMPTION OF RISK AGREEMENT PLEASE READ CAREFULLY BEFORE SIGNING

1. I understand and agree that skiing is a **HAZARDOUS** sport which presents risks of injury or death and I freely and voluntarily **ASSUME ALL RISKS** that may result from my use of this equipment. I understand and agree that some risks may be reduced, but not entirely eliminated, by taking lessons, by following "YOUR RESPONSIBILITY CODE" which is posted at most wintersport areas and by using care and common sense.
2. I understand that the ski-boot-binding system is designed to release the boot from the ski when certain forces on the system reach preset values, but that the binding **WILL NOT RELEASE OR RETAIN** at all times where release or retention may prevent injury, and that it **CANNOT PREVENT ALL INJURIES** to any part of the user's body. I understand and agree that lower release/retention settings will increase releasability but also increase the risk of injury due to inadvertent release, that higher settings will increase retention but also increase the risk of injury due to non-release, and that injuries due to unwanted release or retention are inherent risks of skiing which I freely assume.
3. I have received instructions in the use of this equipment and have received satisfactory answers to any questions I may have regarding the use and function of this equipment. If I feel the equipment is not functioning properly, I will stop using it and have it inspected, repaired or readjusted by a ski binding technician. I understand and agree that this ski-boot-binding system should be inspected at least annually by a qualified ski shop even if appears to be functioning properly.
4. To the fullest extent allowed by law, I hereby agree to **RELEASE, INDEMNIFY AND HOLD HARMLESS** the ski shop and all manufacturers and distributors of this equipment, and their owners, agents and employees, from any and all liability for damage, injury or death to myself or to any other person or property which may result while using this equipment, and that **I WAIVE ANY RIGHT TO PRESENT ANY LEGAL CLAIM OR SUIT** against these persons, whether based upon negligence, breach of warranty, strict products liability or any other legal theories.
5. **I ACCEPT THIS EQUIPMENT AS IS AND WITHOUT ANY WARRANTIES** beyond those stated in this agreement and in the manufacturer's written limited warranty, if any.
6. This document is a legally binding contract which supersedes any other agreements or representations by or between the parties. It is intended to provide a comprehensive release of liability which may be pled as a complete bar and defense against any claim, demand or cause of action asserted by or on behalf of me, my estate or next of kin, but it is not intended to assert any claims or defenses which are prohibited by law. If any part of this contract is deemed unenforceable, the remainder shall be given full force and effect. The specific rights of the parties may vary from state to state.
7. If this equipment is to be used by someone other than me, I certify that I am acting as agent for the user and that I will provide this form and all pertinent warnings and information to the user.

I HAVE READ, UNDERSTOOD, AND AGREED TO THE TERMS OF THIS WARNING, LIABILITY RELEASE, INDEMNITY AND ASSUMPTION OF RISK AGREEMENT.

Signature

(customer, parent, guardian or agent)

Date

11.2 Warning and Release For Non-Recommended Release/retention Settings

Use Instructions: The following warning, assumption of risk and release agreement should be used whenever a skier requests release/retention settings other than those recommended by VIST in this manual. This form should be used in addition to the usual rental or retail workshop ticket.

Shop Name: _____

Skier Name: _____ Age: _____

Home Address: _____

City: _____ State: _____ Zip: _____ Phone: (____) _____

Recommended release setting: _____ Skier's requested release setting: _____

Skier's reason for request: _____

I hereby acknowledge that I have been advised by the shop that the release/retention setting which I have requested for my bindings is NOT RECOMMENDED by this shop, by the manufacturer of the bindings, or by any safety or standards organization.

I have been advised by this shop, and I agree, that MY USE OF NON-RECOMMENDED SETTINGS IS LIKELY TO INCREASE THE RISK OF MY BEING INJURED. I understand and agree that lower settings on my bindings will increase the risk of injury due to inadvertent release, and that higher settings on my bindings will increase the risk of injury due to non-release of the ski-boot-binding system. I AGREE TO ASSUME ALL RISKS of injury or death that may result from this course of action.

As a condition of having the shop set the bindings as I have requested, I also agree to DEFEND, INDEMNIFY AND HOLD HARMLESS, as well as to RELEASE FROM ANY LIABILITY, this shop, as well as all manufacturers and distributors of this ski equipment, and all of their agents and employees, for any injuries, damages or legal obligations that may arise from any person's use of this equipment.

This agreement is legally binding upon me and upon my heirs and assigns, and shall be enforced to the fullest extent allowed by law. It is not intended to assert any claims or defenses which are prohibited by law, however, and if any part of this agreement is deemed unenforceable, all other parts shall be given full force and effect. Some states limit the use or legal effect of liability releases, and the specific rights of the parties may vary from state to state.

If this equipment is used by someone other than me, I certify that I am acting on my behalf and as agent for the user and that I will provide this form and all warnings and information to the user.

I HAVE READ, UNDERSTOOD, AND AGREED TO THE TERMS OF THIS WARNING, LIABILITY RELEASE, INDEMNITY AND ASSUMPTION OF RISK AGREEMENT.

Signature (Customer, Parent, Guardian or Agent) Date

Shop Manager's Signature Date

Note: Always perform a thorough visual inspection after making all appropriate adjustments and before doing any of the inspections described in Section 8.1.

11.3 Warning and Release For Servicing Old equipment

Use Instructions: The following warning, assumption of risk and release agreement should be used whenever a customer declines the shop's advice to replace old or non-indemnified equipment or equipment which for some other reason does not comply with VIST recommendations or industry standards. This form should be used in addition to the usual rental or retail workshop ticket. Use of this form will not result in indemnification from VIST for claims arising from the use of non-indemnified systems, but it will provide a valuable service to the customer as well as some degree of legal protection to the shop.

Shop Name: _____

Skier Name: _____ Age: _____

Home Address: _____

City: _____ State: _____ Zip: _____ Phone: (____) _____

Bindings make and model: _____

Skis make, length and model: _____

Boot make, size and model: _____

Describe non-standard condition or other problem with equipment: _____

I have requested this shop to service, mount or adjust ski equipment that is old, obsolete or which otherwise fails to meet current industry standards or manufacturer recommendations. THIS SHOP HAS WARNED ME NOT TO USE THIS EQUIPMENT AS IT MAY INCREASE MY RISK OF INJURY OR DEATH WHILE SKIING, BUT I HAVE DECLINED TO FOLLOW THIS SHOP'S RECOMMENDATIONS.

I understand and agree that MY USE OF THIS EQUIPMENT MAY INCREASE THE RISK OF MY BEING INJURED as a result of an inadvertent release or a non-release of the ski/binding/boot system or from some other cause. This shop has recommended that this equipment be replaced with a current model, which incorporates improvements as to safety, performance and reliability, and I have declined to follow that advice. I AGREE TO ASSUME ALL RISKS of injury or death that may result from this course of action.

As an express condition of having the shop service this equipment, I also agree to DEFEND, INDEMNIFY AND HOLD HARMLESS, as well as to RELEASE FROM ANY LIABILITY, this shop, as well as all manufacturers and distributors of this ski equipment, and all of their agents and employees, for any injuries, damages or legal obligations that may arise from any person's use of this equipment.

This agreement is legally binding upon me and upon my heirs and assigns, and shall be enforced to the fullest extent allowed by law. It is not intended to assert any claims or defenses which are prohibited by law, however, and if any part of this agreement is deemed unenforceable, all other parts shall be given full force and effect. Some states limit the use or legal effect of liability releases, and the specific rights of the parties may vary from state to state.

If this equipment is used by someone other than me, I certify that I am acting on my behalf and as agent for the user and that I will provide this form and all warnings and information to the user.

I HAVE READ, UNDERSTOOD, AND AGREED TO THE TERMS OF THIS WARNING, LIABILITY RELEASE, INDEMNITY AND ASSUMPTION OF RISK AGREEMENT.

Signature (Customer, Parent, Guardian or Agent) Date

Shop Manager's Signature Date

11.4 Information For Skiers requesting discretionary Settings

Use Instructions: Provide this information to all skiers who express release or retention concerns or who request settings other than those called for in the VIST Binding Adjustment Chart. Make copies of this page to provide to these skiers and have them sign or initial a copy that is attached to the workshop form.

1. Your normal release/retention settings comply with ASTM standards. Although these guidelines may be inappropriate for some types of competitive skiing or competition training, they are believed to provide an effective compromise between the release and retention needs of most recreational skiers.
2. Adhering to these guidelines may help to reduce the risk of injuries resulting from improper release/retention setting selection. However, skiing involves inherent risks. Injury can result from simply falling down, impact with an object, or from many other actions. Many injuries are unrelated to the function of the release system. Furthermore, even a properly adjusted binding cannot protect the skier in all situations.
3. Difficulties with release or retention may be unrelated to release/retention settings and can result from your skiing style, the incompatibility of your boots and bindings, or wear, damage, or contamination of a component of the release system. Be sure to describe your circumstances to the shop technician and to authorize recommended inspections and repairs before proceeding.
4. If you have been dissatisfied with the release/retention settings that result from your normal skier classification, you may wish to consider changing your skier classification, designating skier type classifications that are different for twist and forward lean, or request discretionary release/retention settings that are higher or lower than the normal range.

Lower settings correspond to an increase in the risk of inadvertent binding release in order to gain increased releasability in a fall.

Higher settings correspond to a decrease in releasability in a fall in order to gain a decreased risk of inadvertent binding release.

5. Although the shop technician may help you to record your choice on the appropriate form, the final decision on your release/retention settings is yours.

11.5 Post Accident Ski Inspection report

POST-ACCIDENT SKI EQUIPMENT INSPECTION REPORT

Instructions: Complete all sections. Do not leave blanks. Enter "unknown" or "n/a" where appropriate.

Shop Name

Skier Information

NAME				ACCIDENT DATE
HEIGHT	WEIGHT	AGE	SEX (circle one) M F	SKIER TYPE (circle one) I II III

REPORTED INJURY

RIGHT OR LEFT (circle one)	R L	SKI AREA
----------------------------	--------	----------

Equipment Information

BINDING MAKE	BINDING MODEL	
TOE VISUAL INDICATOR (DIN) SETTING SCALE To		HEEL VISUAL INDICATOR (DIN) SETTING SCALE to
SKI MAKE	SKI MODEL	SKI LENGTH
SKI SERIAL NO.	SKI RENTAL I.D. No. (if applicable)	
BOOT MAKE	BOOT MODEL	SIZE
BOOT SOLE LENGTH in mm	BOOT RENTAL I.D. No. (if applicable)	

DESCRIBE ANY VISIBLE DAMAGE, MISSING PARTS, UNUSUAL CONDITIONS OR "NO" RESPONSES GIVEN BELOW

Equipment Inspection Tests (perform as-is, without making any readjustments)

RIGHT Ski/Binding/Boot				LEFT Ski/Binding/Boot			
NA	YES	NO	(check one)	NA	YES	NO	(check one)
	☐	☐	Boot sole within standards		☐	☐	Boot sole within standards
	☐	☐	All boot parts intact and fully functional		☐	☐	All boot parts intact and fully functional
	☐	☐	AFD OK and intact		☐	☐	AFD OK and intact
	☐	☐	Forward pressure correct		☐	☐	Forward pressure correct
☐	☐	☐	Toe height correct	☐	☐	☐	Toe height correct
	☐	☐	Brake intact and fully functional		☐	☐	Brake intact and fully functional
	☐	☐	Ski intact and fully functional		☐	☐	Ski intact and fully functional
	☐	☐	System passes visual inspections		☐	☐	System passes visual inspection

VISUAL INDICATOR SETTINGS Toe: Heel:		VISUAL INDICATOR SETTINGS Toe: Heel:	
CLOCKWISE TWIST MEASURED RELEASE VALUES		CLOCKWISE TWIST MEASURED RELEASE VALUES	
COUNTER-CLOCKWISE TWIST MEASURED RELEASE VALUES		COUNTER-CLOCKWISE TWIST MEASURED RELEASE VALUES	
FORWARD LEAN MEASURED RELEASE VALUES		FORWARD LEAN MEASURED RELEASE VALUES	

Personnel/Testing Device

INSPECTION TECHNICIAN	DATE		
REPORT REVIEWED BY	DATE	TESTING DEVICE BRAND	MODEL

12.0 VIST authorized dealer information

12.1 Indemnification

VIST Authorized Dealer Agreement

The indemnification provisions of the the VIST Authorized Dealer Agreement are designed to help the Authorized Dealer provide professional, competent service to its customers and to help protect the interests of the Authorized Dealer and VIST against legal claims. The following sections discuss VIST's requirements for indemnification under the Vist Authorized Dealer Agreement as they relate to VIST bindings.

General Conditions of Indemnification

Strict compliance with all requirements of the VIST Authorized Dealer Agreement is a condition precedent for any indemnification or related benefit from VIST. Please read the Agreement carefully. If you do not comply strictly with all of VIST's requirements, you will not receive any defense or indemnification from VIST. The following are some of the primary conditions precedent which must be satisfied before a dealer may obtain any indemnification or related benefit with regard to VIST bindings:

1. Be a VIST Authorized Dealer and comply at all times with the applicable VIST Authorized Dealer Agreement. To be a VIST Authorized Dealer, you must have a current VIST Authorized Dealer Agreement who has been signed by both the Dealer and an officer of VIST.
2. Employ a VIST Certified Technician at each outlet at which VIST bindings are sold, serviced or rented; VIST conducts certification seminars each season for the purpose of certifying ski shop technicians in the proper application of the procedures described in this manual.
3. Follow all procedures in this VIST Alpine Binding Technical Manual and all of VIST's instructions regarding sales, service, warranties, rebates, product upgrades, recalls, document retention and related matters. Provide all written materials and information provided by VIST for use with the bindings, including labels, warnings, instructions, recalls, product upgrades and safety information.
4. Maintain proper and complete records of all VIST bindings sold, selected, installed, adjusted, rented or serviced by the Authorized Dealer, including workshop records on all work performed on VIST products, as called for by the VIST Alpine Binding Technical Manual and any technical updates from VIST.
5. Provide VIST with notice of any claim or suit within ten (10) days of receipt and cooperate with VIST, its insurers, attorneys and their agents in connection with the management, investigation, litigation and settlement of any such claims or suits, which shall be conducted at the sole discretion of VIST. Time is of the essence under this Agreement, and it shall be presumed that late notice of a claim has caused actual prejudice to VIST.

Important Note: The indemnification provisions of the VIST Authorized Dealer Agreement provide the sole remedy of any dealer (and dealer's agents and employees) against VIST and all related entities in the event of a claim or suit against the Authorized Dealer, its owners, agents or employees. The VIST Authorized Dealer Agreement supersedes any other agreement or obligation regarding insurance, defense, contribution or indemnification (including those which may be stated or referenced in Authorized Dealer's purchase orders or other documents which pre-date or post-date this agreement), as well as any contribution, defense or indemnity obligations that are imposed by law or equity.

Limits and Exclusions Regarding Indemnification

The VIST Indemnification Program does not constitute insurance and is not an offer to provide insurance.

Each Authorized Dealer should maintain its own liability insurance with limits and coverages that the Authorized Dealer believes to be necessary or appropriate. No certificates of insurance will be provided.

- a. VIST shall not be obligated to defend or indemnify Authorized Dealer as to any claims relating to products which were used for a purpose other than one normally foreseeable and intended by VIST. VIST alpine ski bindings are intended solely for use on alpine skis to be used in the sport of snow skiing.
- b. VIST shall not be obligated to defend or indemnify Authorized Dealer as to any warranties or representations made by Authorized Dealer beyond those that are expressed in writing by VIST.
- c. VIST shall not be obligated to defend or indemnify Authorized Dealer as to any claims of a penal character, including punitive and exemplary damages.
- d. VIST shall not be obligated to defend or indemnify Authorized Dealer as to any claims arising from Authorized Dealer's own negligence or willful misconduct or from acts of Authorized Dealer that were not expressly authorized in writing by VIST.
- e. VIST shall not be obligated to defend or indemnify Authorized Dealer as to any claims relating to merchandise that was not purchased by Authorized Dealer directly from VIST or from a distributor authorized by VIST to distribute merchandise to Authorized Dealer or as to any sale, rental or service transaction that occurs after the termination of this Agreement.
- f. VIST's obligation to Authorized Dealer shall not exceed the limits of any products liability or other insurance covering such obligations as may be maintained by VIST. This Agreement does not constitute insurance and is not an offer to provide any kind of insurance to Authorized Dealer. Authorized Dealer should maintain its own insurance with limits and coverages that Authorized Dealer believes to be necessary or appropriate.

Remember that the VIST Authorized Dealer Agreement, which includes the VIST Indemnification Program, may be modified only in a writing signed by an authorized officer of VIST. VIST sales and technical representatives are not authorized to modify or interpret the Dealer Agreement or this program.

Which VIST Products are Included in the Indemnification Program?

Liability indemnification offered under the VIST Indemnification Program extends only to those VIST bindings listed below. Products which have been modified, are worn out or otherwise unsuitable for use, including any which fail the functional or mechanical testing described this manual, will not be subject to the Indemnification Program. The bindings listed below are defined by VIST as current products and will be subject to the Indemnification Program to the extent defined in this manual.

Indemnified Bindings for 2005 / 2006:

V614 X-Key
Release Setting - 6/14

V412 X-Key
Release Setting - 4/12

V311 X-Key
Release Setting - 3/11

12.2 VIST certified technicians

Authorized VIST Dealers must employ at least one VIST Certified Technician at each authorized outlet that sells, rents or services VIST bindings, in order to qualify for Indemnification of VIST's Alpine ski bindings. All other employees who mount, adjust, inspect, test or dispatch VIST bindings must have reviewed this VIST Technical Manual and received appropriate training from a VIST Certified Technician. Should an Authorized Dealer lose its only Certified Technician at any given outlet, VIST must be notified by telephone or fax within forty-eight (48) hours so that arrangements for certification of a replacement can be made. Individual certifications are valid for two (2) years, after which time the employee must be re-certified.

To become a VIST Certified Technician, an individual must meet all of the following requirements:

1. Be an employee of a VIST Authorized Dealer. Individuals who pass the VIST Certification Test shall not be considered VIST Certified Technicians unless they are employed by a VIST Authorized Dealer or are under special written contract with VIST North America.
2. Read this manual and develop a practical working knowledge of VIST bindings through hands-on experience working with VIST bindings under the supervision of a VIST Certified Technician;
3. Pass the VIST Certification Test Found in the back of this manual with a minimum of 90% correct answers.
4. Mail the completed VIST Certification Test for evaluation to:

**VIST North America
23698 HWY 24, SUITE B1
81645 MINTURN - COLORADO USA**
5. Or you can take the test on line by going to www.vist.it and selecting the US dealer's indemnification section. Once there you will be required to enter your dealer account # and a password provided VIST North America. You can take the test on line w/ immediate results and print out your certificate of completion.

Upon receipt of the completed test and documentation, VIST will evaluate the results. If the shop employee scores a minimum of 90% of the answers correctly, **with questions 1 thru 6 answered correctly**, he/she will be considered a "VIST Certified Technician." VIST will then forward a certificate verifying the technician's compliance with VIST's Certified Technician requirements. Each shop and individual VIST Certified Technician should keep copies of documents that confirm their compliance with these requirements.

12.3 How to handle a legal claim

If the Authorized Dealer receives notice of a claim or complaint alleging personal injury involving a VIST product, the Dealer should adhere to the following guidelines:

1. Gather as much information as you can about the skier and their claim. This would include the following information:
 - Name, address and phone number of the skier
 - Date of the accident
 - Resort where the accident occurred
 - Details of how the accident occurred
 - Details about the equipment and its condition
 - Names, addresses and phone numbers of any witnesses
2. Be sympathetic and polite. Do not create a confrontation, apologize, or admit to any wrong doing on the part of the shop, its personnel, the ski area, the snow conditions, or the involved equipment manufacturers. Do not volunteer information. If a customer, family member or representative asks for details, the Authorized Dealer should simply state that he or she has been instructed not to discuss accidents or legal situations without first seeking professional advice.
3. Advise the claimant that you are sending the matter to your insurance company, as well as forwarding it to VIST, who will contact the claimant and conduct an investigation.
4. Inspect the VIST product involved in the claim and complete a post-accident equipment inspection report like that in Section 11.5. Complete the inspection and report with the equipment "as is". Do not readjust or modify any part of the equipment. Do not leave any part of the report blank. If a question cannot be answered or if it does not apply, write "unknown" or "N/A" in that section.
5. If you receive a legal claim or lawsuit that involves rental or demo equipment, immediately set the equipment aside and do not allow it to be used, readjusted or taken apart. If you are simply dealing with an injury report, and no one has made a legal claim, rental or demo equipment may be returned to inventory after completing the post-accident equipment inspection report if everything checks out ok. Keep the originals of the workshop ticket, rental agreement, post-accident inspection report and other important materials in a safe place.
6. Notify VIST North America in writing of any claim or lawsuit within ten (10) days of receiving it. Notification should include a copy of the claim notice or other legal papers, a copy of the workshop ticket and/or rental agreement, a copy of the post-accident equipment inspection report and a copy of any other written materials pertaining to the claim. The notification should be sent registered mail to:

**VIST North America
23698 HWY 24, SUITE B1
81645 MINTURN - COLORADO USA**
7. Be sure to report all claims or lawsuits to your own insurance carrier or broker in addition to notifying VIST.

These procedures must be followed in order to receive liability indemnification from VIST North America.

VIST, a leader in technical innovations of alpine ski products, was founded in 1997. VIST North America is part of VIST Srl, a winter sports products company, located in Caldaro, Italy.

13.0 Glossary

Note: These are general definitions of terms commonly used in ski shops. Complete technical definitions for many of these terms are to be found in the applicable ASTM or ISO standards.

AFD

Anti-friction device. Any material or mechanical means of reducing the friction between two surfaces.

ASTM (American Society for Testing and Materials)

Non-profit American organization which issues voluntary consensus standards for various products and processes.

DIN (Deutsches Institute für Normung)

German standards and testing organization. Many ski equipment standards are referred to as "DIN" standards.

Elastic Travel

The effective range in which the binding allows the boot to absorb shock before release occurs. The energy a binding spring can absorb must be less than the present force in the spring.

Forward Pressure

Force applied by a spring in the heel against the boot to keep the boot in place between the toe and heel piece.

Inspection Range

The acceptable difference ($\pm 15\%$) between the reference torque value and the measured release value for bindings in the shop, after the system has been adjusted and before the equipment is used or released to the customer. The inspection range is derived by moving up and down one row from the selected reference torque value on the Adjustment Chart.

In-Use Range

The acceptable difference ($\pm 30\%$) between the reference torque value and the measured release value for bindings after the system has been released to the customer, as may be found when performing a post-accident test. The in-use range is derived by moving up and down two rows from the selected reference torque value on the Adjustment Chart.

ISO (International Standards Organization)

Standards organization made up of delegates from member countries around the world.

Mechanical Test Device

Device which gives the technician the ability to measure release value in twist for the toe piece and in forward lean for the heel piece of a ski/binding/boot system. Current testing procedures require devices that can accurately measure torque.

NM (Newton-meter)

A metric measurement of torque, which is used to measure release/retention, values for ski/binding/boot systems. Ten NM equal one dNm (deca-Newton-meter).

Reference Torque

The nominal release value for a ski/binding/boot system derived from the adjustment chart or from one of the standards. The reference torque is the midpoint of a range of release values that may be appropriate for any given skier.

Release Setting (visual indicator setting)

An adjustment made on the numerical scale at both the toe and heel on the binding made specifically for each individual skier according to skiing style and needs.

Release Value

The actual torque required releasing the boot from the ski under specified conditions. The release value is determined by the release setting, the length of the boot sole and the condition of the equipment.

Retention Range

The effective elastic travel range of the binding where energy is absorbed, but release does not occur.

Skier Code

A column designated by the letters A-O on the Adjustment Chart, based on the information about the skier. Each skier has a specific skier code.

Vist Certified Technician **Certification Test**

INSTRUCTIONS - In order to become qualified as a VIST Certified Technician, you must read and understand all parts of the 2006-2007 VIST Alpine Binding Technical Manual, and meet the following criteria:

- Answer 90% of the questions on this test correctly (18 questions must be answered correctly).
- Additionally, questions 1 thru 6 must be answered correctly.
- Fill in all information sections on the accompanying answer sheet completely, including your:
 - Dealer Account #
 - Dealer Address
 - Your Full Name
 - Your Social Security Number
 - Your Signature
- Mail in the answer sheet to:

VIST North America
23698 HWY 24, SUITE B1
81645 MINTURN - COLORADO USA

Or you can take the test on line by going to ***www.vist.it*** and selecting the US dealer's indemnification section. Once there you will be required to enter your dealer account # and a password provided by VIST North America. You can take the test on line w/ immediate results and print out your certificate of completion.

Mark all answers on attached answer sheet – circle the corresponding letter to indicate your answer.

1. Select the correct visual indicator setting for a skier weighing 110 lbs., who is 5'2" tall, is a Type I skier, is 14 years old and has a 285mm boot sole length?
 - A. 2
 - B. 3
 - C. 3.5
 - D. 4
2. Select the correct visual indicator setting for a skier weighing 200 lbs., who is 5'8" tall, is a Type III skier, is 51 years old and has a 328mm boot sole length?
 - A. 6
 - B. 5.5
 - C. 5
 - D. 7
3. The skier's weight is 176 lbs., height 5'9", Type II skier who is 22 years old and has a 315 mm boot sole length. What is their correct initial visual indicator setting?
 - A. 6.5
 - B. 6
 - C. 7
 - D. 7.5
4. The skier's weight is 125 lbs., height 5'8", Type III skier who is 32 years old and has a 280 mm boot sole length. What is their correct initial visual indicator setting?
 - A. 5
 - B. 6
 - C. 7

5. What is the correct "Skier Code" for the skier in question #19?
 - A. I
 - B. K
 - C. J
 - D. L

6. Select the correct initial visual indicator setting for a skier weighing 158 lbs., who is 5'10" tall, is a Type II skier, is 32 years old and has a 308mm boot sole length?
 - A. 5
 - B. 6
 - C. 6.5
 - D. 7

7. In order to select the correct visual indicator setting from the adjustment chart, what information is required?
 - A. Weight, age, sex, boot sole length and height
 - B. Weight, height, skier type, boot sole length and age
 - C. DIN number, sex, boot sole size, address and weight

8. All boots used with the Vist binding:
 - A. Must meet ISO 5355 - DIN 7880 - ASTM F944 standard.
 - B. Should not have cutouts in the heel area that catch the treadle or impair the brake function.
 - C. Should not have irregularity of the contact zones with the binding.
 - D. All of the above

9. When selecting the initial visual indicator release setting for skiers age 50 and over:
 - A. No special correction is required.
 - B. Move down one Skier Code on the adjustment chart.
 - C. Classify all skiers age 50 or over as Type II skiers.
 - D. Move up one Skier Code on the adjustment chart.

10. The final determination of the Skier Type should be left up to:
 - A. The salesperson.
 - B. The person that gives skier instruction and warning to customers when they pick up their equipment.
 - C. The skier.
 - D. The technician.

11. When determining the visual indicator setting and the skier's weight and height are on different rows, the technician should:
 - A. Choose the initial skier code (from A to O) toward the bottom of the chart.
 - B. Ask the skier to choose.
 - C. None of the above

12. When skiers pick-up their new equipment, the shop technician should always:
 - A. Provide instruction on the use of the VIST Bindings.
 - B. Warn the skier about the "inherent risks" of skiing.
 - C. Have the skier read and sign the workshop ticket.
 - D. A, B & C
 - E. B & C

13. The new VIST X-Key bindings:
- A. Incorporates DIR, an AFD that dynamically adapts itself to all boot sole lengths.
 - B. Provides constant release through its Twin Spring Control (TSC).
 - C. Has a 3 pivot axis Joint which insures minimum friction in all conditions.
 - D. All of the above
14. When working on new or used bindings, the technician must always perform visual inspections of all components and mechanically test the system.
- A. True
 - B. False
 - C. Never
 - D. All of the above
15. A Type II skier is one who:
- A. Prefers skiing at higher speeds and on steeper, more challenging terrain.
 - B. Prefers skiing at a variety of speeds on varied terrain, including most difficult trails.
 - C. Prefers skiing on moderate slopes at slower speeds.
 - D. Prefers having their boots bolted directly to their skis.
16. Mechanical System Testing of a ski/boot/binding system is required:
- A. Whenever a very worn boot is used.
 - B. Whenever the bindings are used.
 - C. Whenever the bindings are new.
 - D. For new as well as for used equipment, or whenever maintenance or other operations may have affected the release values of the system.
17. Workshop forms for all VIST bindings, either mounted or adjusted, should be kept on hand for:
- A. The duration of the warranty period.
 - B. 10 years.
 - C. 7 years.
 - D. 5 years or the statute of limitations for your state, whichever is longer.
18. When the skier codes for a particular skier's weight and height are NOT the same:
- A. Use the code corresponding to their height.
 - B. Use the code corresponding to their weight.
 - C. Use the code that is closer to the top of the chart.
19. When system testing, if the skier's code is L, what is the inspection tolerance range in twist?
- A. 58-78 NM
 - B. 43-58 NM
 - C. 50-67 NM
20. The new SPEEDLOCK® system:
- A. Allows you to fix the bindings on the plate without any tool.
 - B. Allows you to move the bindings forward or back on your skis or move them to other skis.
 - C. Is developed with APT (Advanced Pin Technology) instead of traditional screws.
 - D. All of the above.

Vist Certified Test Answer Sheet

Full Name: _____

Social Security Number: _____

Dealer Account #: _____

Shop Name: _____

Shop Address: _____

Shop Phone: _____

VIST Sales Representative: _____

E-Mail Address: _____

Please CIRCLE the corresponding letter to indicate your answers to ALL questions clearly.

- | | |
|--------------|-------------|
| 1. A B C | 11. A B C D |
| 2. A B C D | 12. A B C D |
| 3. A B C D | 13. A B C D |
| 4. A B C D | 14. A B C |
| 5. A B C | 15. A B C D |
| 6. A B C D | 16. A B C |
| 7. A B C D | 17. A B C |
| 8. A B C D E | 18. A B C D |
| 9. A B C D | 19. A B C D |
| 10. A B C D | 20. A B C D |

When you are finished with this test, mail the completed answer sheet to:

VIST NORTH AMERICA
23698 HWY 24, SUITE B1
81645 MINTURN - Colorado USA

VIST Binding Adjustment Chart

			a-n	o-s	t-x	y-z	Sole code				
			Rental	A-B	C-G	H-L	M-Q	R-Z			
Skier weight	Skier height	Skier code	Length of the boot						Toe Nm	Heel Nm	
kg/lbs	cm/Ft “In”		≤ 250	251-270	271-290	291-310	311-330	≥ 331	5	18	
10-13 kg 22-29 lbs		A	0.75	0.75						8	29
14-17 kg 30-38 lbs		B	1.00	1.00	0.75					11	40
18-21 kg 39-47 lbs		C	1.50	1.25	1.00					14	52
22-25 kg 48-56 lbs		D	1.75	1.50	1.50	1.25				17	64
26-30 kg 57-66 lbs		E	2.25	2.00	1.75	1.50	1.50		20	75	
31-35 kg 67-78 lbs		F	2.75	2.50	2.25	2.00	1.75	1.75	23	87	
36-41 kg 79-91 lbs		G	3.50	3.00	2.75	2.50	2.25	2.00	27	102	
42-48 kg 92-107 lbs	≤ 148 cm ≤ 4'10"	H		3.50	3.00	3.00	2.75	2.50	31	120	
49-57 kg 108-125 lbs	149-157 cm 4'11"-5'1"	I		4.50	4.00	3.50	3.50	3.00	37	141	
58-66 kg 126-147 lbs	158-166 cm 5'2"-5'5"	J		5.50	5.00	4.50	4.00	3.50	43	165	
67-78 kg 148-174 lbs	167-178 cm 5'6"-5'10"	K		6.50	6.00	5.50	5.00	4.50	50	194	
79-94 kg 175-209 lbs	179-194 cm 5'11"-6'4"	L		7.50	7.00	6.50	6.00	5.50	58	229	
≥ 95 kg ≥ 210 lbs	≥ 195 cm ≥ 6'5"	M			8.50	8.00	7.00	6.50	67	271	
		N			10.00	9.50	8.50	8.00	78	320	
		O		11.50	11.00	10.00	9.50	91	380		
									105	452	
Type of skier									118	540	
Class	I	II	III								
Speed	Slow/ medium	Not clas- sifiable in column I nor in column III	High								
Terrain	Easy/ medium		Sloping								
Risk taking	Low		High								

NOTES



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